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**MOLYCORP MINERALS, LLC.**

**REVISED MINE AND RECLAMATION PLAN FOR  
THE MOUNTAIN PASS MINE**

**DRAFT  
SUBSEQUENT MITIGATED NEGATIVE DECLARATION**

Submitted to:  
**COUNTY OF SAN BERNARDINO**  
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MOLYCORP MINERALS, LLC  
REVISED MINING AND RECLAMATION PLAN**

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## **CHAPTER 1**

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### **INTRODUCTION AND PROJECT DESCRIPTION**

Introduction  
Agency Authority  
Project Objectives  
Background CEQA Documents  
Justification for Subsequent Negative Declaration  
Project Background  
Project Location  
Project Description



## **1.0 INTRODUCTION AND EXECUTIVE SUMMARY**

### **1.1 INTRODUCTION**

Molycorp Minerals, LLC is proposing modifications to improve the efficiency of its rare-earth mining operations located at Mountain Pass, California. These proposed modifications include the replacement of older, previously permitted equipment with newer, more efficient equipment which must meet more stringent requirements. In addition, Molycorp is proposing modifications to improve the efficiency of minerals recovery while minimizing project impacts at the Mountain Pass facility through the relocation of the crusher plant and stockpiles; the addition of a Combined Heat and Power (CHP) Plant; the installation of Salt Recovery and Recycling Facilities; the modification of existing mineral recovery facilities; the construction of an addition to the central shop, a warehouse, and truck shop; and the improvement and extension of the access road to the new warehouse and Salt Recovery And Recycling Facilities. Molycorp is proposing to continue mining operations under current production rates at its Mountain Pass Mine facility in California as has been approved for the next 30 years. To continue this operation, Molycorp will continue to exercise its vested right to conduct mining activities in various locations throughout the site, in accordance with an approved Reclamation Plan. Molycorp will also shift the approved 30-year operational time span to cover 2012 through 2042. Potential impacts from the operation of the Reclamation Plan were analyzed in the Environmental Impact Report (EIR) prepared for the project (SCH No. 1999121073), which was certified on July 8, 2004 (referred to herein as the 2004 Final EIR). This document, prepared pursuant to the California Environmental Quality Act (CEQA), Public Resources Code 21000 et seq., constitutes a Subsequent Mitigated Negative Declaration for the Revisions to the Mine and Reclamation Plan for the Mountain Pass Mine to evaluate proposed changes to the existing Molycorp, Minerals, LLC project.

The rare earth minerals mined at Mountain Pass are essential ingredients in the production of many Green Technologies, including wind turbines, hybrid automobiles and fluorescent lighting. Without these rare earth minerals these technologies cannot be realized. Mountain Pass is the largest producer of these minerals outside of China, and the only one in the United States. Since the certification of the 2004 Final EIR, the ownership of the Mountain Pass facility has changed and a new vision for the company has been adopted. In the face of decreased supplies of these critical materials from China, a reliable domestic supply of rare earths is critical to meeting the challenges the United States faces in the areas of energy efficiency and greenhouse gas reduction.

### **1.2 AGENCY AUTHORITY**

CEQA requires that the environmental impacts of proposed “projects” be evaluated and that feasible methods to reduce, avoid or eliminate any significant adverse impacts of these projects be identified and implemented. The Revisions to the Mine and Reclamation Plan for the Mountain Pass Mine constitutes a “project” as defined by CEQA. To fulfill the purpose and intent of CEQA, the County as the “lead agency” for the Molycorp project, has prepared this Subsequent Mitigated Negative Declaration to address the potential environmental impacts associated with efficiency modifications to the Mine and Reclamation Plan for the Mountain Pass Mine (CEQA Guidelines §15162).

The lead agency is the public agency that has the principal responsibility for carrying out or approving a project that may have a significant adverse effect upon the environment (Public Resources Code §21067). Since the County has the greatest responsibility for supervising or approving the Molycorp project as a whole, it was determined that the County would be the most appropriate public agency to act as lead agency for the Molycorp project as well as for the subsequent modifications to that project (CEQA Guidelines §15051(b) and §15162(b)).

### **1.3 PROJECT OBJECTIVES**

The 2004 Final EIR described the overall objectives of the Mountain Pass Mine project. These objectives have not changed and are identified below.

- To continue mining and milling operations to recover rare earth elements in accordance with vested operations maximizing use of onsite facilities, equipment, and personnel within the boundaries of Molycorp's private land at Mountain Pass.
- To continue vested milling and mineral recovery operations utilizing an approved onsite tailings impoundment that incorporates state-of-the-art technology for groundwater and environmental protection.
- To continue vested mineral recovery operations to produce a range of fully separated and highly purified rare earth products in order to provide a complete United States based production capability that extends from mining to magnets; and

In addition, the proposed modifications incorporate the following additional objective.

- To treat wastewater to recover salts to be recycled into the rare earth separation processes.
- Provide a reliable and efficient source of electricity on-site by constructing a CHP Plant
- Reduce the use of diesel fuel in stationary sources, reducing diesel particulate emissions and providing air emission benefits.

### **1.4 BACKGROUND CEQA DOCUMENTS**

The activities associated with the Molycorp Reclamation Plan were evaluated in the following CEQA documents. A chronological summary of the CEQA documents prepared for this project is presented below.

#### **Notice of Preparation and Initial Study of an EIR for the Molycorp Mountain Pass Mine Expansion (County of San Bernardino, 1999)**

The Notice of Preparation (NOP) of an EIR and Initial Study (IS) were released for a 30 day review and comment period on December 14, 1999. The NOP/IS evaluated the potential adverse impacts of the following environmental topics: aesthetics, agricultural

resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems. Potentially significant impacts were identified for aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, and utilities and service systems. The potential impacts of the Molycorp Reclamation Plan on these resources were evaluated in an EIR. Eleven comment letters were received on the NOP/IS. Responses to those comments were provided in the Draft EIR.

**Draft Environmental Impact Report for Molycorp, Inc. Mountain Pass Mine 30-Year Plan (County of San Bernardino, 2003)**

The Draft EIR was released for a 45-day public review and comment period in April 2003. The Draft EIR included a comprehensive project description, a description of the existing environmental setting, analysis of environmental topic areas (including cumulative impacts), that could be adversely affected by the proposed project, mitigation measures, project alternatives, and all other relevant topics required by CEQA. The Draft EIR also included a copy of the Initial Study, copies of the 11 comment letters received on the NOP/IS, and responses to all comment letters received on the NOP/IS. It was concluded in the Draft EIR that the Molycorp Reclamation Plan may have significant adverse impacts on aesthetics, air quality, groundwater supply, biological resources, cultural resources, geology/soils, hazards and hazardous materials, and surface water quality. Feasible mitigation measures were identified; however, significant impacts following mitigation were still predicted for aesthetics, air quality, groundwater supply, geology/soils, and surface water quality impacts even after implementation of mitigation measures. Impacts related to biological resources, cultural resources, and hazards and hazardous materials were reduced to less than significant levels with the application of mitigation measures.

**Final EIR for Molycorp Inc. Mountain Pass Mine 30-Year Plan (County of San Bernardino, 2004)**

The 2004 Final EIR was prepared that included revisions to the Draft EIR to incorporate applicable updated information and to respond to comments received on the Draft EIR. The 2004 Final EIR included responses to all comments. A total of 315 comment letters were received including 301 letters from private citizens, 11 letters from government agencies, and three from non-government organizations. The 2004 Final EIR was certified on July 8, 2004.

**Draft Mitigated Negative Declaration for the Addition of a 35-Acre Borrow Area at the Molycorp Mountain Pass Mine (County of San Bernardino, April 1, 2005)**

The Draft Mitigated Negative Declaration (MND) was prepared to tier from the Molycorp Mountain Pass Mine 30-Year Plan EIR. The MND was considered a minor modification of the planned operations. The modification was to remove alluvium or borrow material from a 35-acre area within the footprint of the planned West Overburden Stockpile. The material was to be utilized for the final covers for the West Tailings Pond (P-1) and the North

Tailings Pond (P-16) in compliance with California Regional Water Quality Control Board Lahontan Region (LRWQCB) Board Order Nos. 6-00-74 and R6V-2004-0042.

**Final Mitigated Negative Declaration for the Addition of a 35-Acre Borrow Area at the Molycorp Mountain Pass Mine (County of San Bernardino, May 16, 2005)**

The Final MND was approved as part of the Conditional Use Permit/Reclamation Plan approval. No public comments were received.

**1.5 JUSTIFICATION FOR SUBSEQUENT MITIGATED NEGATIVE DECLARATION**

The County was the lead agency responsible for preparing the 2004 Final EIR and is the public agency that has the primary responsibility for approving the currently proposed project modifications. Therefore, the County is the appropriate lead agency to evaluate the potential environmental effects of the currently proposed project modifications that are the subject of this Subsequent Mitigated Negative Declaration. Based on the information contained herein, the County has determined that a Subsequent Mitigated Negative Declaration is the appropriate document for the proposed modifications to the Molycorp facility.

CEQA Guidelines §15162(a) requires the lead agency to prepare a subsequent EIR for changes to a project occurring after adoption of an EIR, only if conditions under §15162(a) apply. However, conditions under §15162(a) do not apply for the proposed project.

CEQA Guidelines §15162(a) states that no subsequent EIR shall be prepared for project changes unless the changes will result in substantial changes that require major revisions of the previous EIR due to new significant adverse impacts, or a substantial increase in a previously identified impact. As discussed in Chapter 2 of this document, no substantial changes requiring major revisions or resulting in a substantial increase in a previously identified impact will occur as a result of the Molycorp Inc. currently proposed modifications. The environmental analysis in Chapter 2 of this document demonstrates that the proposed efficiency improvements to the Molycorp Mountain Pass facility will not cause a new significant adverse impact or a substantial increase requiring a subsequent EIR for the following reasons:

1. The 2004 Final EIR included an analysis of the impacts from the mining operations for a period of 30 years. The currently proposed modifications involve the efficiency improvements that will upgrade equipment and operations, but will not substantially change mine and mineral recovery operations at the Molycorp Mountain Pass facility. In addition, there will be a reduction in land disturbance of about 98 acres. Therefore, there will be a reduction in biological, stormwater runoff and other related impacts.
2. Diesel-fired equipment will be replaced with natural gas-fired equipment or equipment that uses electricity (e.g., boilers and dryers) resulting in a reduction in the use of diesel fuel and reduced diesel particulate emissions from the Molycorp Mountain Pass facility.
3. The potential air quality impacts associated with the new equipment will comply with Mojave Desert Air Quality Management District Best Available Control Technology requirements.

4. The installation of on-site Salt Recovery and Recycling Facilities will reduce transportation impacts.
5. Improvements in the efficiency of the milling and rare earth separations operations will increase yields from 50% historically to approximately 90%, resulting in a substantial improvement in the utilization of the rare earth mineral resources at Mountain Pass.
6. An analysis of the other environmental topics in the CEQA Guidelines indicates that the proposed project modifications will not result in any significant adverse environmental impacts after mitigation.

While in the form of a Mitigated Negative Declaration, this document meets the requirements of CEQA Guidelines Section 15163 for a Supplement to an EIR. In pertinent part §15163 states:

- "(a) The Lead or Responsible Agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:
- (1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and
  - (2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.
- (b) The supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised."

As explained above, the conditions described in §15162 do not exist. This document supplements the previous EIR with the necessary information, in the form of minor changes that make the previous EIR adequately apply to the project changes. As the analysis demonstrates, there are no new significant impacts or any substantial increases in an already significant impact due to the project modifications in any area except greenhouse gas emissions, which are reduced to below significance after mitigation. Because there are no new significant impacts identified there are no new alternatives to the project that need be examined and therefore, the previous alternatives analysis is sufficient. Additionally, because there are no new significant impacts identified, and there are no new projects in the area of this project, the cumulative impacts remain the same. Thus, the information contained in this Subsequent Mitigated Negative Declaration is sufficient to meet the requirements of CEQA Guidelines Section 15163.

## **1.6 PROJECT BACKGROUND**

The site is located within the historic Clark Mining District, which was established in 1865. Mining and the recovery of various minerals have been undertaken since that time. For the past 57 years, Molycorp and its predecessors have mined the Mountain Pass ore body and recovered bastnasite, which contains 14 individual rare earth elements.

The initial production of rare earths at the facility was in the form of bastnasite mineral concentrates used to make mischmetal for lighter flints and in some metallurgical applications. In

the 1960s, additional mineral recovery operations were added to the facility to allow for the separation and recovery of individual rare earth elements, including europium. At the time, Mountain Pass was the only commercial source of europium in the world, which was a critical element for making color televisions. Additional rare earth separations operations were added in subsequent years, which allowed the facility to produce various lanthanum, cerium, neodymium, praseodymium, samarium and gadolinium based products. Over the life of the facility, there has been a movement in the global marketplace away from mineral concentrate products and towards high purity preparations of the individual rare earth elements. The project as described herein will allow Molycorp to produce a full range of high purity, fully separated rare earth products in an energy-efficient and cost competitive manner.

## **1.7 PROJECT LOCATION**

The Mountain Pass Mine is located in San Bernardino County north of and adjacent to Interstate 15 (I-15) approximately 15 miles southwest of the California-Nevada state line and 30 miles northeast of Baker, California (see Figure 1). The site is accessed via the Bailey Road interchange on I-15. The mine is located within the southern portion of the Clark Mountain Range, approximately four miles southeast of Clark Mountain. Mine elevations range from 4,500 feet to 5,125 feet above mean sea level (msl), with most of the site within the 4,600 to 4,900-foot range.

The existing major facilities and the planned 30-year operations area are located on private land owned by Molycorp. No changes to the site boundary are proposed. Existing fresh water supply systems associated with mine operations are located off the mine site. The two well fields and associated pipelines are located on both privately held lands and on public lands administered by the Bureau of Land Management (BLM) and the National Park Services (NPS) within granted rights-of-way. No modifications to the water supply system are proposed.

## **1.8 PROJECT DESCRIPTION**

Molycorp operates a mining and mineral recovery facility known as the Mountain Pass Mine, on approximately 2,222 acres located in northeastern San Bernardino County.

Molycorp has a vested right to conduct surface mining operations pursuant to the California Surface Mining and Reclamation Act, Public Resources Code Section 2776 (“SMARA”) and the San Bernardino County Development Code Section 812.22020. Molycorp and its predecessors have mined the rare earth ore body at Mountain Pass since about 1951, prior to the enactment of SMARA and the County’s Development Code. On July 8, 2004, the County of San Bernardino Planning Commission approved a Conditional Use Permit (CUP) (#SAMR02//DN953-681N/07533SM2) for the new tailings storage area and additional onsite evaporation ponds; and a revised Reclamation Plan (Plan) (#2004M-02) for ongoing mining, stockpiling, and mineral recovery operations under its current production rates over the entire mine site. An Environmental Impact Report was prepared for the Molycorp facility which is discussed below.

### **1.8.1 Proposed Project Identified in the 2004 Final EIR**

The 2004 Final EIR evaluated the continued mining and mineral recovery operations of the Molycorp Mountain Pass Mine facility at existing production rates for a 30-year period. The

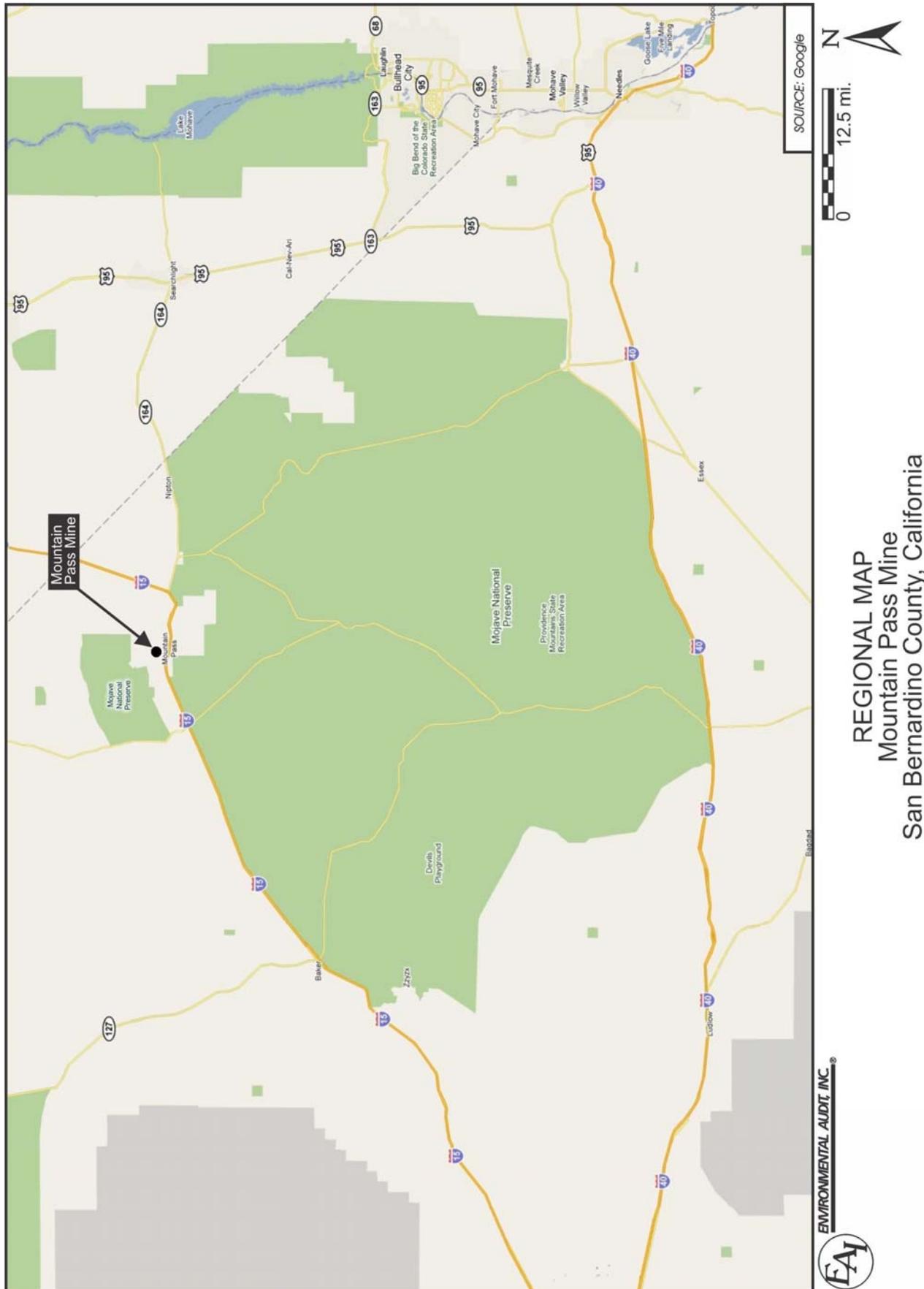


Figure 1

existing mineral recovery facilities and the operations contained in each are presented in Table 1-1. The project included disturbances from continuing mining operations on an additional 268 acres of land. Modifications included the construction and operation of a new 222-acre mine tailings storage facility (the East Tailings Storage Area or ETSA) and 173 acres of new evaporation ponds (the Northwest Evaporation Ponds or NEP).

**TABLE 1-1  
EXISTING MINERAL RECOVERY FACILITIES**

Facility	Operation
Crushing Plant	Crushing Screening Dust Collection
Flotation Plant	Milling Conditioning Flotation Leaching Filtering Drying Packaging Dust Collection
Separations Plant	Roasting Acid Leaching Drying Packaging Solvent Extraction Precipitation Thickening Filtering Off-gas Scrubbing and Dust Collection
Cerium 96 Plant	Acid Leaching Precipitation Filtering Drying Packaging Off-gas Scrubbing and Dust Collection Scrubber Neutralization Solution Preparation
Specialty Plant	Dissolution Evaporation Precipitation Solvent Extraction Filtering Drying Calcination Packaging Off-gas Scrubbing and Dust Collection

The Tailings Paste Alternative was chosen by the County, the lead agency, and implemented as the preferred project, which resulted in a redesigned and smaller tailings storage facility. The ETSA would not be developed and the Northwest Tailings Storage Area (subsequently renamed Northwest Tailing Disposal Facility) would be located between the new evaporation ponds and the existing West Overburden Stockpile and the Paste Plant would be located on the west side of the site, north of the open pit mine. The Tailings Paste Alternative resulted in lower biological and visual impacts because it posed less land disturbance (approximate reduction of 158 acres). This alternative also resulted in better water recharge and allowed greater water recycling (and less water consumption), and would have less potential for wind and water erosion and groundwater quality impacts. The site plan of the facility as approved in the 2004 Final EIR is shown in Figure 2.

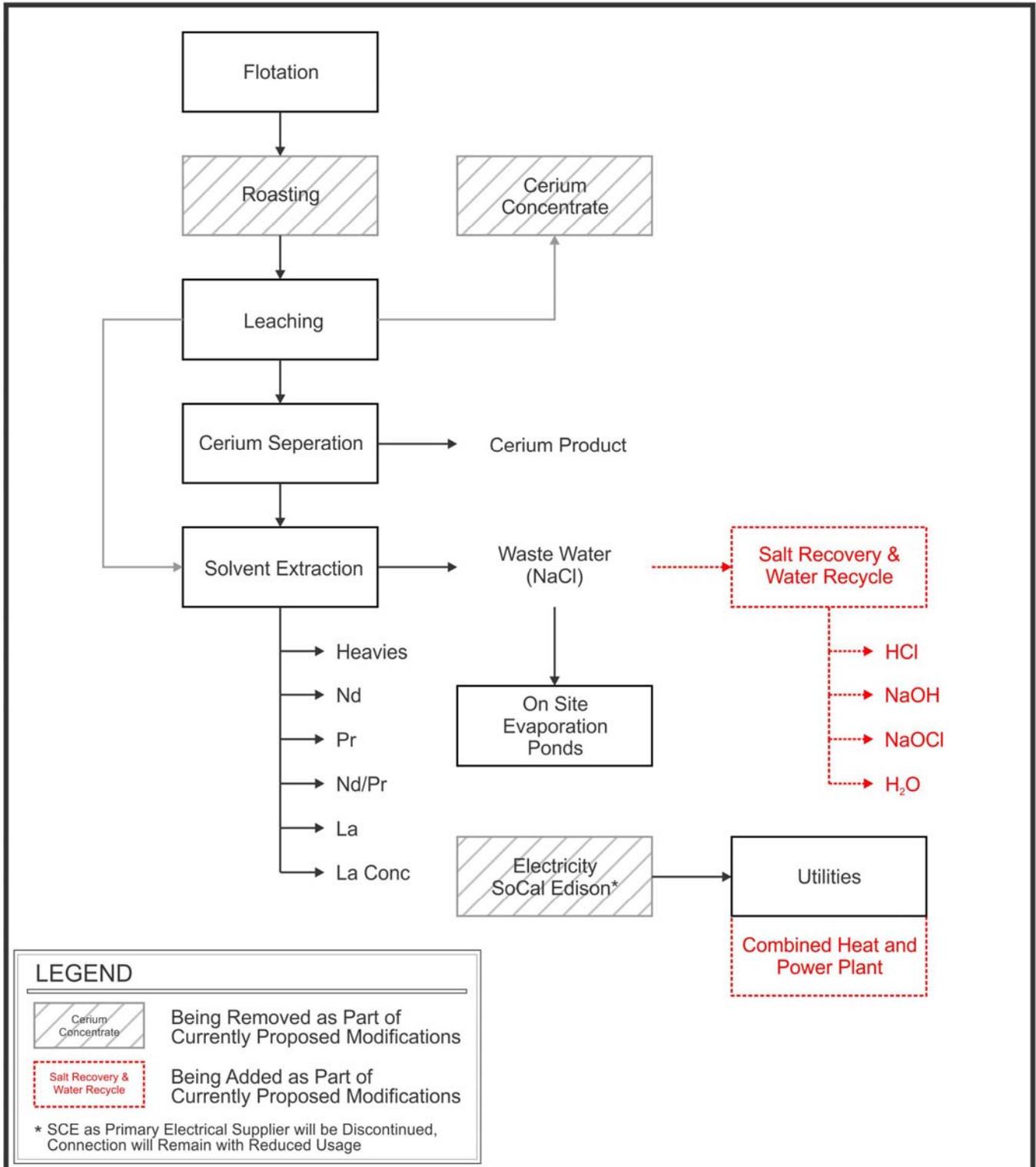
Following termination of mining (after 30 years of mining activities), Molycorp will reclaim the site in conformity with SMARA. In general, reclamation of the overburden stockpiles and of ponds and roads that are removed from service would occur concurrently with ongoing operations. Upon closure, Molycorp would implement the balance of the Reclamation Plan. When reclaimed the site would be composed of an open pit with a pit lake; two reclaimed and re-vegetated overburden stockpiles; closed, covered, and re-vegetated Northwest Evaporation Ponds, and Northwest Tailings Disposal Facility (NWTDF); and re-vegetated mineral recovery and ancillary facilities areas.

### **1.8.2 Currently Proposed Modifications**

Molycorp is proposing to continue ongoing and planned mining, stockpiling, and mineral recovery operations under its approved ore production rates at its Mountain Pass Mine facility for the next 30 years through 2042 and to proceed with the construction and operation of the approved tailings storage facility (NWTDF), as evaluated under the 2004 EIR. The currently proposed modifications include the use of more efficient equipment, replacing older equipment, and replacing plant equipment that currently operates on diesel fuel and propane with natural gas-fired equipment. A process flow diagram showing the existing facility and proposed modifications is provided in Figure 3. The currently proposed modifications to the Molycorp Mountain Pass Mine facility (changes from the 2004 Final EIR and related Reclamation Plan) include the following:

- Eliminate the construction of the planned 133-acre Northwest Evaporation Pond (NWEP) area currently authorized for the construction of additional solar evaporation ponds. (With planned design improvements, additional evaporative capacity is not needed and no additional evaporative ponds are planned to be constructed. The 133 acres will remain mostly undisturbed, however, roads and pipelines serving the 4 existing evaporation ponds will continue to be used);





MOLYCORP INC.  
Mountain Pass Process Flow Diagram

- Construct updated vested mineral recovery facilities (leach, rare earth separations and precipitation buildings, support facilities, analytical lab, tank farms, cooling towers, and ancillary facilities) within the existing central plant area and product pond area. The operations identified in Table 1-1 will continue to occur, but in new, relocated, and reconfigured facilities. This includes an approximate 36-acre facilities pad located to the east of the existing mineral recovery facilities of which approximately 18 acres are previously undisturbed and an improved access road. These activities are subject to a revision of the approved Reclamation Plan and other applicable permits;
- Decommission, remove, and remediate the existing Cerium 96 plant in the central area and remaining old mill facilities to the south of the mine pit;
- Relocate the crusher plant and stockpiles during Phase 1 instead of Phase 2 to a 13-acre area immediately north of the open pit of which approximately 6 acres are undisturbed;
- Construct and operate a natural gas-fired 49 megawatt (MW) Combined Heat and Power (CHP) Plant onsite consisting of four trains. Each train consists of a 12.25 MW gas turbine, a heat recovery steam generator with an 88 million British Thermal Units per hour (mmBTU/hr) duct burner, and a selective catalytic reduction (SCR) unit to reduce nitrogen oxide and carbon monoxide emissions using catalysts and an aqueous ammonia injection system. The CHP will provide reliable electrical service in place of that currently supplied by Southern California Edison, and will also replace a series of diesel fuel and light cycle oil-fired boilers that currently provide steam for the facility. Three 2.7 MW emergency backup generators and a cooling tower will be installed as support equipment for the CHP. The CHP with ancillary equipment is proposed to be located to the east of the existing mineral recovery facilities;
- Construct and operate Salt Recovery and Recycling Facilities to process 20,000 pounds per hour of wastewater on the planned facilities pad which will:
  - eliminate the need for additional evaporation ponds,
  - substantially reduce the requirements for transportation and disposal of waste;
  - substantially reduce the facility's reliance on outside sources of acid and base used in mineral recovery operations.

The Salt Recovery and Recycling Facilities consist of electrical transformers, electrolytic cells, hydrogen chloride reactors, scrubbers, and tanks to transform brine wastewater (salt solution) into process reagents, including sodium hydroxide, hydrochloric acid, and sodium hypochlorite (commonly known as bleach).

- Construct an improved access road for highway trucks from near the site entrance to the planned new warehouse on the east side of the existing mineral recovery plant area on approximately 20 acres of which approximately 11 acres are undisturbed areas some of which is existing unimproved roadway;
- Construct a products warehouse, tank farm, and gas meter on approximately 3 acres of the closed and filled products ponds (no new areas disturbed);

- Construct an addition to the central shop adjacent to the existing mobile shop and a new parking area (no new areas disturbed); and,
- Shift the 30-year operational time span from 2004 through 2034 to 2012 through 2042 with the ten-year reclamation period occurring from 2043 through 2053, since the mining activities as previously approved have not yet begun. The shifting of the operational time span will not alter the quantity of ore mined, the size of the mining operation, or the post-mining reclamation activities in any way from the previously approved project other than when they occur. In addition, the shift in the operational time span will not necessitate any changes to the existing CUP compliance conditions.

All of the above modifications (except reclamation) are expected to occur within the first 3 years of the Phase 1 portion of the mine operations. The above proposed revisions will not change the project boundary or any of the vested mining and milling activities. An improved paved access road for highway trucks (not off-road vehicles) is planned entirely onsite from near the site entrance to the planned new warehouse and facilities pad on the east side of the existing mineral recovery plant area. The planned relocation areas, facilities pad, and the access road are concentrated in and adjacent to the existing mineral recovery facilities in the central area and would impact approximately 35 acres of generally undisturbed to partially disturbed areas. No other impacts to any new undisturbed areas that have not been previously reviewed and approved as part of the 2004 Reclamation Plan and CUP are expected. Note that the elimination of the NWEF will eliminate impacts to approximately 133 acres, roughly four times the area that will be impacted under this revision. Following the termination of mining, Molycorp will reclaim the site in conformity with California Surface Mining Reclamation Act (SMARA) and the revised Reclamation Plan. A plot plan showing the currently proposed modifications is provided in Figure 4.

The existing and approved major facilities are located on private land owned by Molycorp (see Figure 2). A number of mitigation measures were imposed on the Molycorp Mountain Pass Facility as part of the 2004 Final EIR. These mitigation measures and the one additional measure that applies to the currently proposed modifications are summarized in Appendix A.

Existing fresh water supply systems associated with mine operations are located off the mine site. The two well fields and associated pipelines are located on both privately held lands and on public lands administered by the BLM and the NPS within granted rights-of-way. No modifications to the fresh water supply system are proposed as part of this project.

Table 1-2 summarizes the Molycorp site as previously evaluated and the currently proposed modifications to describe the CEQA analysis in this document.

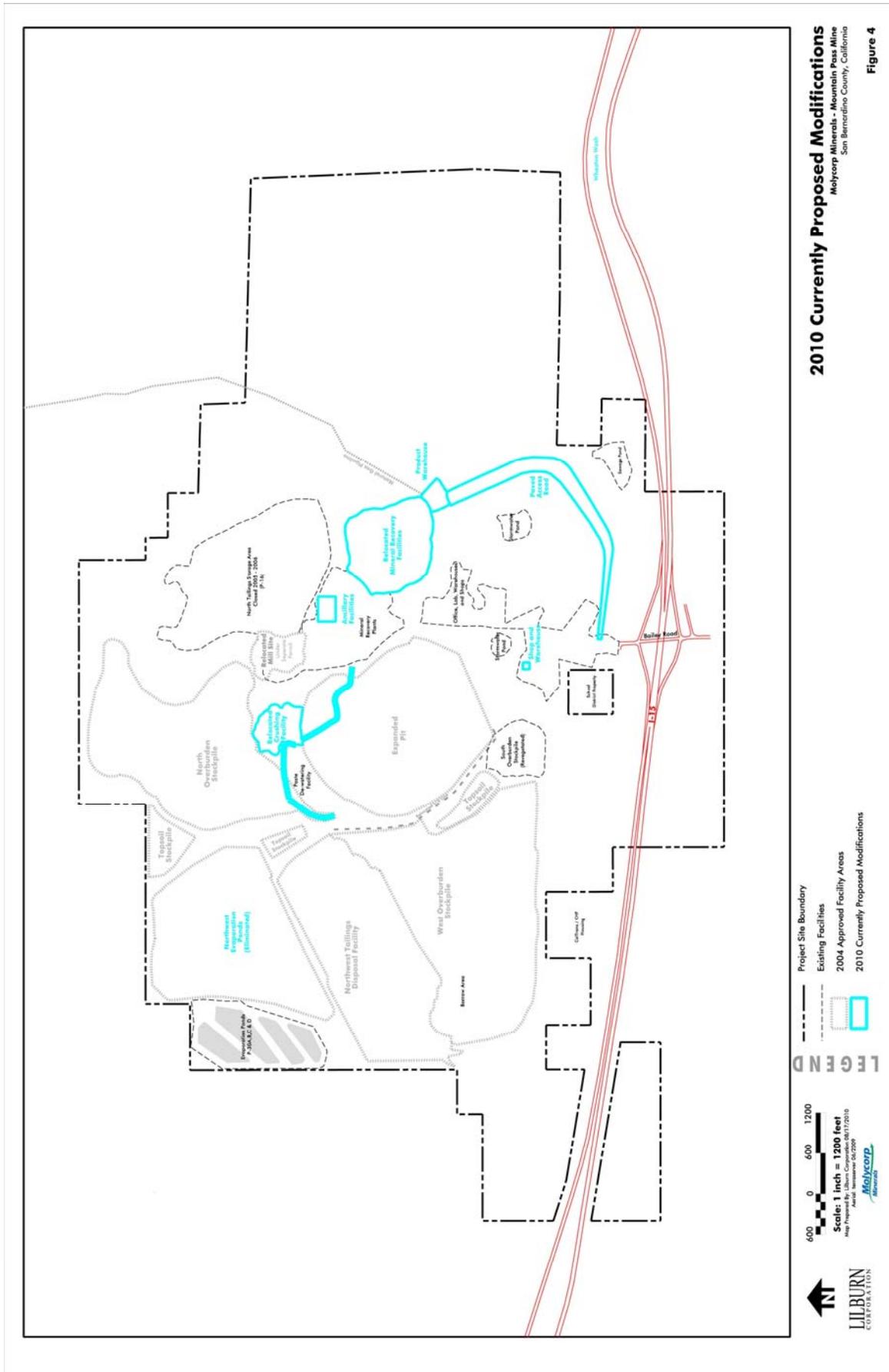
Table 1-3 provides a comparison of the expected land disturbance previously evaluated versus the currently proposed modifications. As shown in Table 1-3, the currently proposed modifications are expected to disturb about 98 acres less than that previously approved.

Vested activities as defined in the approved Reclamation Plan including the reconstruction, refurbishment, and operation of facilities associated with mining, milling and rare earth product production are not part of this CEQA document. In addition, the activities and facilities previously

**REVISED MINE AND RECLAMATION PLAN FOR THE MOUNTAIN PASS MINE**

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approved by the County, including the new NWTDF and the relocation of the milling facilities, are included as baseline activities.



**TABLE 1-2**  
**PROJECT SUMMARY**

<b>PROJECT SUMMARY</b>	
<b>FACILITIES PREVIOUSLY EVALUATED</b>	
<b>EXISTING FACILITIES</b>	
Open Pit Mine Crusher Mill/Flotation Plant (relocated in 2010) Mineral Recovery Facilities (Separations Plant, Cerium 96 Plant, Specialty Plant) Tank Farm (total 23 tanks and additional totes and drums containing water, inorganic solutions, and low vapor pressure organic solutions) West Overburden Stockpile South Overburden Stockpile North Overburden Stockpile Northwest Tailings Disposal Facility Paste Tailings Plant Northwest Evaporation Ponds Stormwater Ponds Soil Stockpiles (3 semi-permanent)	Onsite Evaporations Ponds Crushed Ore Stockpiles Product Storage Facilities (ponds – P-2, P-3, P-7A, P-7B, P-25A, P-25B, P-28) Office Building Product Warehouses Training Center Post Office Analytical Laboratory Mobile Equipment Maintenance Shop Utility Shop Freshwater System Domestic Sewage Pond Borrow Material Area (2005) Roads
<b>CLOSED/INACTIVE FACILITIES</b>	
North Tailings Storage Area (P-16) West Tailings Storage Area (P-1) Miscellaneous Ponds South Overburden Stockpiles Windblown Tailings Area	Old Ivanpah Evaporation Pond (OIEP)* New Ivanpah Evaporation Ponds (NIEP)* Wastewater Pipelines* Company and Community Landfills
<b>↑BASELINE↑</b>	
<b>↓PROJECT↓</b>	
<b>PROPOSED NEW FACILITIES</b>	
49 MW Combined Heat and Power Plant (CHP) Onsite Utility Distribution Infrastructure (natural gas, steam, electricity, water, etc. lines) Tank Farms (2) (total tanks 44 containing water, inorganic solutions and 1 low vapor pressure organic solution)	Salt Recovery and Recycling Facilities Expand Central Shop and paved parking area near site entrance
<b>PROPOSED MODIFICATIONS TO EXISTING FACILITIES</b>	
Eliminate Approved Northwest Evaporation Ponds on 133 acres (existing 4 ponds to remain) Relocate Crusher Improvements to Mineral Recovery Operations (leach, separations and precipitation buildings, support facilities, analytical lab, tank farm and ancillary facilities)	Improve Paved Road (to serve new relocated products warehouse) Close Product/Storage Ponds P-25A, P-25 B, and P-28 Relocate Minerals Recovery Operations Products Warehouse

\* Facilities no longer owned by Molycorp.

**TABLE 1-3  
COMPARISON OF LAND DISTURBANCE**

Project Component	Land Disturbance		Notes
	Existing Areas (acres)	Planned New Disturbed Area	
Relocation and Improvements to Minerals Recovery Facilities including Salt Recovery and Recycling Facilities, CHP, and Tank Farm	33	18	Included in 36-acre facilities pad to the east of the existing mineral recovery plants to be used for relocated mineral recovery plants, salt recovery and recycling facility, tank farm, and CHP.
Products Warehouse, Tank Farm	11	0	Existing product ponds P-25A, P-25B, and P-28 to be closed and filled. Approximately 2 acres incorporated into the facilities pad and 4 acres used for construction of new warehouse, tank farm, gas meter, and road. 5 acres to be reclaimed.
Expand Central Shop, and Paved Parking Area	1	0	Expansion of shop located to the west of Bailey Road and parking area east of Bailey Road north of the guard shack.
Eliminate Additional Northwest Evaporation Ponds	40	-133	4 ponds constructed on 40 acres. No additional ponds planned. Remainder of area to remain generally undisturbed except for roads and pipelines.
Relocate Crusher (Note existing acreage includes old mill, crusher, and stockpiles located south of the open pit)	34	6	Mill already relocated to about 9 acres north of existing mineral recovery plants in central area. Crusher relocated to an 11-acre area to the north of the pit and south of the North Overburden Stock Pile. Approximately 5 acres considered undisturbed.
Road Improvements	44	11	Improved roads to serve proposed facilities, warehouse, and monitoring wells. 6 acres of undisturbed acres for planned paved access road to warehouse
Totals	162	-98	Estimated Reduction in Disturbed Area under currently proposed modifications

As evaluated in the 2004 Final EIR, mining, reclamation, and wastewater management activities associated with two, 15-year operational phases are described in this Plan and will occur during a 30-year period from 2012 through 2042 and a ten-year reclamation period from 2043 through 2053. The above described modifications to the mine will occur during the Phase I operational period. No further modifications are proposed to the Phase II operational period or the 10-year reclamation period. If operations are discontinued at the end of the 30-year period, final reclamation and re-vegetation will be initiated in conformity with SMARA and as described in the existing Reclamation Plan and the 2004 Final EIR. However, future exploration and mining activities may identify additional ore reserves that may extend the operational viability of the site past the

discussed 30-year planning period. If this occurs, Molycorp's Reclamation Plan would be amended and updated, as necessary and submitted for approval by the County.

Molycorp plans to reclaim disturbances wherever conditions and current technology permit, and as required by SMARA, as administered by the County of San Bernardino. The proposed modifications will not alter the planned reclamation objectives or requirements and those activities, including site contouring and re-vegetation, will continue as described in the 2004 Final EIR.

## **CHAPTER 2**

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### **ENVIRONMENTAL CHECKLIST**

Introduction  
General Information  
Potentially Significant Impact Areas  
Determination  
Environmental Checklist and Discussion  
    Aesthetics  
    Agriculture Resources  
    Air Quality  
    Biological Resources  
    Cultural Resources  
    Geology and Soils  
    Hazards and Hazardous Materials  
    Hydrology and Water Quality  
    Land Use and Planning  
    Mineral Resources  
    Noise  
    Population and Housing  
    Public Services  
    Recreation  
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    Mandatory Findings of Significance  
References



## CHAPTER 2: ENVIRONMENTAL CHECKLIST

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### INTRODUCTION

The environmental checklist provides a standard evaluation tool to identify a project's adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

### GENERAL INFORMATION

Project Title:	Mine Reclamation Plan Modifications for the Mountain Pass Mine
Lead Agency Name:	County of San Bernardino
Lead Agency Address:	San Bernardino County, Land Use Services Dept. Planning Division, 385 N. Arrowhead Avenue, San Bernardino, CA 92415-0181
San Bernardino County Contacts:	George Kenline Matthew Slowik
Contact Phone Number:	(909) 387-4105
Project Location:	67750 Bailey Road, Mountain Pass, CA 92366
Project Sponsor's Name:	Molycorp Minerals, LLC
Project Sponsor's Address:	HC1 Box 224, Mountain Pass, CA 92366
General Plan Designation and Zoning:	Resource Conservation (RC) General Commercial (GC)
Description of Project:	Reliability and efficiency improvements to the vested rare earth mining and beneficiation operations at Mountain Pass, California.
Surrounding Land Uses and Setting:	See Section 10 for further description
Other Public Agencies Whose Approval is Required:	Mojave Desert Air Quality Management District Lahontan Regional Water Quality Control Board California Department of Public Health California Department of Fish and Game

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. As indicated by the checklist on the following pages, environmental topics marked with an "✓" may be adversely affected by the proposed project. An explanation relative to the determination of impacts can be found following the checklist for each area.

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Aesthetics               | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality                        |
| <input type="checkbox"/> Biological Resources     | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology/Soils                      |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials      | <input type="checkbox"/> Hydrology / Water Quality          |
| <input type="checkbox"/> Land Use / Planning      | <input type="checkbox"/> Mineral Resources                  | <input type="checkbox"/> Noise                              |
| <input type="checkbox"/> Population / Housing     | <input type="checkbox"/> Public Services                    | <input type="checkbox"/> Recreation                         |
| <input type="checkbox"/> Transportation / Traffic | <input type="checkbox"/> Utilities / Service Systems        | <input type="checkbox"/> Mandatory Findings of Significance |

**DETERMINATION**

On the basis of this initial evaluation:

- I find the proposed project COULD NOT have a significant effect on the environment, and that a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED SUBSEQUENT NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

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Signature:

Date:

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Printed Name:

Date:

**EVALUATION OF ENVIRONMENTAL IMPACTS:**

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, Program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
  - a) the significance criteria or threshold, if any, used to evaluate each question; and
  - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

**ENVIRONMENTAL CHECKLIST AND DISCUSSION**

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less-than-Significant Impact	No Impact
<b>I. AESTHETICS.</b>				
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**1.1 Significance Criteria**

The proposed project modification impacts on aesthetics will be considered significant if:

Landform alterations obstruct important scenic vistas or views presently open to the public.

The visual contrast between landscape alterations associated with the proposed project and the natural surrounding setting creates an aesthetically offensive site open to public view.

The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

## 1.2 Setting and Impacts

### 1. a, b, and c) Aesthetic Impacts

**Previously Approved Project:** Aesthetics were evaluated in the 2004 Final EIR, Chapter 3.2 Aesthetics (page 3-2) using the BLM Manual, Section 8400, Visual Resource Management system. Aesthetic impacts were determined to be significant prior to mitigation due to the: (1) the increase in size and height of the West Overburden Stockpile; and (2) the increase in size and height of the North Overburden Stockpile. A mitigation measure to provide vegetation screening along the north side of the Caltrans and the California Highway Patrol housing was required and other measures from the Mine and Reclamation Plan were imposed that included the use of natural contouring, re-vegetation using naturally occurring vegetation, requiring a preconstruction survey by a botanist, and continued monitoring of re-vegetated areas. Aesthetic impacts were considered to remain significant following mitigation.

**Currently Proposed Modifications:** Table 2-1 provides a comparison of the disturbed area under the 2004 EIR and the currently proposed project modifications.

The aesthetic impacts in the 2004 Final EIR were associated with the amount of landform alterations that were expected. As noted in Table 2-1, the area that would be disturbed under the currently proposed modifications is about 98 acres less than previously proposed. The currently proposed modifications include some relocated and additional industrial structures associated with the crusher, mineral recovery, CHP, and Salt Recovery and Recycling Facilities (Mineral Recovery Plants in Table 2-1), a constructed facilities pad, and a new access road; however, installation of these facilities will result in significantly less land disturbance than evaluated in the previous EIR. The planned crusher relocation area, facilities pad, and the access road are concentrated in and adjacent to the existing mineral recovery facilities in the central area of the site. As with the existing onsite buildings and facilities, new buildings and facilities will be painted with exterior colors that reflect the muted earth tones found in the surrounding landscape. The slopes of the facilities pad and the road slopes will be landscaped with native desert plants. No changes to the size, location and height of the overburden stockpiles will occur as a result of the proposed project modifications. Therefore, the aesthetic impacts associated with the currently proposed project are less than the previously approved project.

### 1 d) Light and Glare

The currently proposed project modifications will result in the additional light sources associated with the new buildings and structures in the Mineral Recovery Plant, including relocated buildings, tank farm, and CHP. Existing light sources at the current Mineral Recovery Plant and other buildings and structures being replaced would be removed once the new facilities are constructed. Any lights installed to illuminate the site will be hooded and designed so as to reflect away from adjoining properties and public thoroughfares. Any new lighting shall conform to San Bernardino County Development Code Section 87.0921. The light sources will be located in the central portion of the Molycorp site that consists of about 2,222 acres, within or adjacent to the existing mineral recovery operations. The new light sources would be located over one-half mile from the entrance to the facility and in similar locations as existing light sources. The

proposed modifications to the Molycorp facility are not expected to generate a significant increase in light or glare visible to the public (generally people traveling on Interstate 15).

**TABLE 2-1**  
**Areas of Disturbance**  
**Previously Approved Project Compared to Currently Proposed Modifications**

Project Component	Land Disturbance		Notes
	Existing Areas (acres)	Planned New Disturbed Area	
Relocation and Improvements to Minerals Recovery Facilities including Salt Recovery and Recycling Facilities, CHP, and Tank Farm	33	18	Included in 36-acre facilities pad to the east of the existing mineral recovery plants to be used for relocated mineral recovery plants, Salt Recovery and Recycling Facilities, tank farm and CHP.
Products Warehouse, Tank Farm	11	0	Existing product ponds P-25A, P-25B, and P-28 to be closed and filled. Approximately 2 acres incorporated into the facilities pad and 4 acres used for construction of new warehouse, tank farm, gas meter, and road. 5 acres to be reclaimed.
Expand Central Shop and Paved Parking Area	1	0	Expansion of shop located to the west of Bailey Road and parking area east of Bailey Road north of the guard shack.
Eliminate additional planned Northwest Evaporation Ponds	40	-133	4 ponds constructed on 40 acres. No additional ponds planned. Remainder of area to remain generally undisturbed except for roads and pipelines.
Relocate Crusher (Note existing acreage includes old mill, crusher, and stockpiles located south of the open pit)	34	6	Mill already relocated to about 9 acres north of existing mineral recovery plants in central area. Crusher to be relocated to an 11-acre area to the north of the pit and south of the North Overburden Stockpile. Approximately 5 acres considered undisturbed.
Road Improvements	44	11	Improved roads to serve proposed facilities, warehouse, and monitoring wells. 6 acres of undisturbed land for planned paved access road to products warehouse
Totals	163	-98	Estimated Reduction in Disturbed Area under currently proposed modifications

### 1.3 Mitigation Measures

No significant aesthetic impacts were identified, so no mitigation measures are required. Molycorp is required to comply with the mitigation imposed as conditions of approval for the

previously approved project. The currently proposed modifications do not change or eliminate the previously imposed mitigation, which included the use of natural contouring, vegetation screening, re-vegetation using naturally occurring vegetation, requiring a preconstruction survey by a botanist, and continued monitoring of re-vegetated areas.

#### **1.4 Conclusions**

Aesthetic impacts are expected to be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**II. AGRICULTURE and FOREST RESOURCES.**

In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.--Would the project:

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) | Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Conflict with existing zoning for, or cause rezoning of, forest land as defined in Public Resources Code section 12220(g), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) | Result in the loss of forest land or conversion of forest land to non-forest use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**CHAPTER 2: ENVIRONMENTAL CHECKLIST**

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**2.1 Significance Criteria**

Project-related impacts on agricultural resources will be considered significant if any of the following conditions are met:

The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts.

The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use.

The proposed project conflicts with existing zoning for, causes rezoning of forest land, or results in the loss of forest land.

**2.2 Environmental Setting and Impacts**

**Previously Approved Project:** Impacts to agricultural resources from the planned operations during the MolyCorp Mountain Pass Mine and Reclamation Plan were assessed in the 2004 Final EIR, Appendix A. It was determined that the project would not have any adverse impacts because no farm lands are located within the mine property. The currently proposed modifications do not impact or change the determination.

**2. a, b, c) Currently Proposed Modifications:** As with the previously approved project, all currently proposed project-related activities will occur within the existing mine property. Based on the maps prepared pursuant to the Farmland Mapping and Monitoring Program, no prime farmland, unique farmland, or farmland of state-wide importance (farmland) will be converted to non-agricultural use. Further, the currently proposed project modifications will not conflict with existing zoning for agricultural use or a Williamson Act contract.

**2. d, e)** As with the previously approved project, the Mountain Pass Mine site contains two major habitat types: Mojave Desert scrub and drainages supporting a mixture of scrub and riparian species. The predominant plant community on the mine site is a diverse, open scrub composed of Joshua Tree Woodland, with an understory of Blackbrush Scrub.

The Mountain Pass site does not contain forest land (defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). All currently proposed project-related activities will occur within the existing mine property. The currently proposed project will not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, the currently proposed project will have no impact on Agricultural or Forest Resources.

### **2.3 Mitigation Measures**

No significant agricultural or forestland impacts were identified so no mitigation measures are required. No previous significant agricultural impacts were identified. Therefore, no mitigation was imposed on the previously approved project.

### **2.4 Conclusions**

Agricultural impacts are expected to be less than significant.

**CHAPTER 2: ENVIRONMENTAL CHECKLIST**

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**III. AIR QUALITY.**

When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**3.1 Significance Criteria**

Increase in impacts for criteria pollutants will be evaluated and compared to the significance criteria in Table 2-2. If the increases equal or exceed any of the criteria in Table 2-2, they will be considered significant. The criteria for determining whether a given impact from the modification of a project is significant is delineated in Section 15162 of the CEQA Guidelines, which states that the impacts must be "... new significant environmental effects or a substantial increase in the severity of previously identified significant effects." Thus the impact of the modification is determined by comparing the difference between the post-modification emissions to those previously approved.

**TABLE 2-2**

**Air Quality Significance Thresholds**

<b>Mass Daily Thresholds</b>		
<b>Pollutant</b>	<b>Construction (lbs/day)</b>	<b>Operation (tons/year)</b>
CO	548	100
NO <sub>x</sub>	137	25
VOC/ROG	137	25
SO <sub>x</sub>	137	25
PM10	82	15
PM2.5	82	15

Source: MDAQMD, 2009.

CO = Carbon Monoxide, NO<sub>x</sub> = Nitrogen Oxides, VOC = Volatile Organic Compounds, SO<sub>x</sub> = Sulfur Oxide, PM10 = particulate matter less than 10 microns in size, PM2.5 = particulate matter less than 2.5 microns in size.

Toxic air contaminant (TACs) emissions will be considered to cause significant health risk if the project results in:

- A potential to increase cancer risk by 10 in one million or more.
- A change in the chronic hazard index of 1.0 or more.

A potential for a project to cause a nuisance to or adversely impact a nearby sensitive receptor, would also be considered significant.

**3.2 Environmental Setting and Impacts**

**3. a)** An inventory of existing emissions from industrial facilities is included in the baseline inventory to the Attainment Plans for the Mojave Desert Air Quality Management District (MDAQMD). The Mojave Desert Planning Area Federal Particulate Matter (PM10) Attainment Plan identifies emission reductions from existing sources and air pollution control measures that are necessary in order to comply with the federal standard (July, 1995). The 2004 Ozone Attainment Plan (State and Federal) does not contain any control measures, but instead relies upon existing and proposed State and Federal control measures affecting mobile and area sources to comply with the ambient air quality standards (April, 2004). The control strategies are based on projections from the county general plan. Projects that are consistent with the general plan are consistent with air quality related regional plans. The currently proposed modification activities are consistent with the current activities at the mine property, which is included in the existing plans. The 2008 Ozone Attainment Plan was prepared for the Western Mojave Desert Non-attainment Area, which does not include the Molycorp mine. Therefore, the currently proposed modifications will not conflict with or obstruct implementation of the applicable air quality plans.

### 3. b and c) Emission Estimates

**Previously Approved Project:** Impacts to air quality from the planned operations during the Molycorp Mountain Pass Mining and Reclamation Plan were assessed in the 2004 Final EIR. Impacts were evaluated for construction of the Northwest Evaporation Ponds and the East Tailing Storage Area, as well as alternatives including a Tailings Paste Alternative. Impacts were evaluated for operation of the newly constructed facilities. Emissions of carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), and particulate matter less than 10 microns in diameter (PM<sub>10</sub>) were considered significant air quality impacts during construction. Operational PM<sub>10</sub> emissions were considered a significant impact. As a condition of approval, southern fenceline air monitoring was required. Molycorp completed Phases I, and II of the monitoring program and is currently providing annual monitoring reports as required under Phase III of the fenceline air monitoring program. The monitoring reports have demonstrated that actual measured emissions are less than emissions that were modeled for the facility in the 2004 EIR.

**Currently Proposed Modifications: Construction Emissions** - The currently proposed modifications provide operational efficiency benefits without changing the basic function of the Mountain Pass operation. The existing processing facilities will be replaced with new facilities to improve recovery of the rare earth elements. In addition, Salt Recovery and Recycling Facilities will be installed in lieu of the previously approved Northwest Evaporation Ponds. To provide consistent and reliable power for the processing operations, a CHP Plant equipped with an SCR using aqueous ammonia injection will be constructed onsite. The peak daily emissions from the construction of the currently proposed modifications are presented in Table 2-3 (see Appendix B for additional details).

The construction of the currently proposed modifications does not overlap with the previously approved project construction schedule. The construction emissions from the currently proposed modifications were compared to the emissions evaluated in the 2004 Final EIR for the previously approved project. The difference between the previously approved project and the currently proposed modifications is considered significant if there is an increase that is greater than the significance threshold. As shown in Table 2-3, the construction of the currently proposed modifications does not create a significant increase in emissions from the previously approved construction emissions. Therefore, air quality impacts from construction are expected to be less than significant.

**Currently Proposed Modifications: Operational Emissions** – The previously approved project did not modify the existing Mineral Recovery Facilities and the only pollutant potentially affected by the project was PM<sub>10</sub>. Therefore, only PM<sub>10</sub> emissions were evaluated in the 2004 Final EIR. To adequately evaluate the currently proposed modifications, a comparison of the previously approved operations to the operations following completion of the currently proposed modifications is needed. The currently proposed modifications do not alter the PM<sub>10</sub> emissions from the previously approved project. Therefore, only the operations affected by the currently proposed modifications are quantified. The existing (or baseline) operational emissions have been calculated and are presented in Table 2-4 (see Appendix B for additional details).

**TABLE 2-3**

**Molycorp  
Peak Construction Emissions<sup>(1)</sup>  
(lbs/day)**

<b>ACTIVITY</b>	<b>CO</b>	<b>VOC</b>	<b>NOx</b>	<b>SOx</b>	<b>PM10<sup>(2)</sup></b>	<b>PM2.5</b>
Construction Equipment	220.43	57.62	512.07	0.54	17.76	21.00
Vehicle Emissions	64.35	6.64	6.58	0.08	1.90	1.19
Fugitive Dust	--	--	--	--	410.54	124.18
Architectural Coatings	--	0.00	--	--	--	--
<b>Currently Proposed Construction Emissions</b>	<b>284.77</b>	<b>64.26</b>	<b>518.65</b>	<b>0.62</b>	<b>430.20</b>	<b>146.37</b>
2004 Final EIR Construction Emissions <sup>(3)</sup>	400	50	400	33	350	119 <sup>(4)</sup>
<b>Net Change in Construction Emissions<sup>(5)</sup></b>	<b>-115</b>	<b>14</b>	<b>119</b>	<b>-32</b>	<b>80</b>	<b>27</b>
Regional Significance Threshold	548	137	137	137	82	82
<b>Above the Peak Daily Emissions Threshold?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

- (1) See Appendix B for more detail on construction emission calculations.
- (2) Peak emissions occur in February 2011, except for PM10, which occurs in December 2010.
- (3) Emissions from the 2004 Final EIR, Paste Tailings Alternative.
- (4) PM2.5 emissions were previously not calculated for the 2004 Final EIR; therefore, PM2.5 emissions are assumed to be 34% of PM10. Scaled based on currently proposed modifications emissions.
- (5) Difference of currently proposed modifications and 2004 Final EIR construction emissions for comparison to the Regional Significance Threshold to determine if the currently proposed modifications present a "substantial increase in the severity of previously identified significant effects" as stated in CEQA Guidelines § 15162(a)(1).

The calculated emissions from operations following the completion of the currently proposed modifications are summarized in Table 2-5 (see Appendix B for additional details). In Table 2-5, the emissions from the CHP, Salt Recovery and Recycling Facilities, and the Mineral Recovery Facilities modifications have been compared to the baseline emissions and the significance thresholds. The currently proposed modifications will improve the facility emissions with reductions of VOC, NOx, and SOx emissions. The efficiency improvements (e.g., replacement of older equipment with newer equipment) in the currently proposed modifications reduce VOC and SOx, emissions and the conversion from diesel fuel to natural gas for combustion and the utilization of a modern mining fleet reduces NOx emissions. The VOC, NOx, and SOx emission reductions provide a regional benefit to air quality. Emission increases in CO, PM10, and PM2.5, primarily from the CHP Plant, are below the significance thresholds. Therefore, the change in operational emissions from the currently proposed modifications is not expected to exceed the significance thresholds. Therefore, the currently proposed modifications are not expected to produce significant air quality impacts from operations.

**TABLE 2-4**  
**BASELINE OPERATIONAL EMISSIONS<sup>(1)</sup>**  
**(tons/yr)**

Process	CO Emissions	VOC Emissions	NO <sub>x</sub> Emissions	SO <sub>x</sub> Emissions	PM10 Emissions	PM2.5 Emissions <sup>(2)</sup>
Combustion - Diesel	7.45	0.30	29.81	59.28	3.62	3.55
Combustion - LPG	0.05	0.02	0.26	0.04	0.01	0.01
Rare Earth Separation	0.00	90.63	2.01	0.72	12.00	7.32
Mining Equipment	0.00	0.00	492.38	0.00	28.03	27.47
Total Emissions	7.51	90.95	524.47	60.04	43.66	38.35

- (1) As approved in the 2004 Final EIR with no ETSA.  
 (2) PM2.5 not previously calculated in the 2004 Final EIR.

**TABLE 2-5**  
**PROJECT OPERATIONAL EMISSIONS**  
**(tons/yr)**

Process	CO Emissions	VOC Emissions	NO <sub>x</sub> Emissions	SO <sub>x</sub> Emissions	PM10 Emissions	PM2.5 Emissions
Combustion - Diesel	0.85	0.14	2.62	0.11	0.07	0.07
Combustion - CHP	57.00	10.00	29.00	2.00	35.00	35.00
Rare Earth Separation	17.33	10.52	10.32	0.13	11.06	6.74
Mining Equipment	0.00	0.00	240.36	0.00	8.77	8.60
Total Operational Emissions	75.18	20.66	282.30	2.24	54.90	50.41
Baseline Emissions	7.51	90.95	524.47	60.04	43.66	38.35
<b>Net Change in Emissions<sup>(1)</sup></b>	<b>67.67</b>	<b>-70.29</b>	<b>-242.17</b>	<b>-57.8</b>	<b>11.24</b>	<b>12.06</b>
<b>Emissions Threshold</b>	<b>100</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>15</b>	<b>15</b>
<b>Significant?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

- (1) Difference of currently proposed modifications and baseline emissions for comparison to the Regional Significance Threshold to determine if the currently proposed modifications present a "substantial increase in the severity of previously identified significant effects" as stated in CEQA Guidelines § 15162(a)(1).

New stationary or modified emission sources in the currently proposed modifications are required to comply with the MDAQMD regulations including the requirements to implement Best Available Control Technology (BACT) for sources subject to Regulation XIII – New Source

Review. All new and modified process components are required to conform to the BACT Guidelines. In order to consider the worst case scenario, emissions from fugitive components or for components that have various BACT options were estimated without the inclusion of BACT. Therefore, final project emissions from these components are expected to be lower than the emission estimates from those presented in Table 2-5. BACT for the gas turbine in the CHP will be the use of SCR and a CO catalyst to reduce NO<sub>x</sub> emissions and CO emissions, respectively. Emissions from the CHP are expected to be controlled to about 5 part per million (ppm) NO<sub>x</sub> and 5-10 ppm for CO. Ammonia slip is expected to be limited to 5 ppm. BACT for VOC, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> will be the use of natural gas. BACT for PM<sub>10</sub> and PM<sub>2.5</sub> control from mineral process operations will be the continued use of baghouses/dust collectors.

In addition to the use of BACT, emission offsets are required for newly permitted and modified permitted emission sources for VOC, NO<sub>x</sub>, SO<sub>x</sub>, and PM<sub>10</sub> emissions pursuant to Regulation XIII. Therefore, emission offsets will be required for emission increases for individual permitted sources greater than one pound per day (e.g., CHP), which will further reduce the impacts associated with emissions from stationary sources.

Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, a lead agency need not consider the effect significant, but must briefly describe the basis for concluding that the incremental effect is not cumulatively considerable. The currently proposed modification's contribution to air quality is not cumulatively considerable and thus not significant. This conclusion is consistent with CEQA Guidelines §15064 (h)(4), which states, "The mere existence of cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable". Therefore, the currently proposed modifications are not expected to result in significant adverse cumulative air quality impacts.

### 3. d) Toxic Air Contaminants

**Previously Approved Project:** Impacts to sensitive receptors (i.e., the CalTrans and California Highway Patrol residences located on the southern property line) from the planned operations during the Molycorp Mountain Pass Mining and Reclamation Plan were assessed in the 2004 Final EIR. A detailed health risk assessment of facility-wide activities were evaluated, which evaluated emissions from combustion sources and the mineral recovery facilities, and determined that health risks from the Molycorp facility operations were less than significant. Chemicals evaluated in the health risk assessment included various metals, lanthanides, inorganics, and organics such as polycyclic aromatic hydrocarbons (PAHs), formaldehyde, acetaldehyde, and metals, ammonia, chlorine, and hydrogen chloride (see Appendix B for the complete list of chemicals evaluated).

**Currently Proposed Modifications:** The currently proposed modifications include the conversion from diesel fuel to natural gas for non-emergency stationary combustion sources and relocation of combustion sources to locations which are farther from the sensitive receptors located on the southern property line. The conversion to natural gas provides health benefits in that it eliminates the diesel particulate and reduces other toxic air contaminants such as PAHs, formaldehyde, acetaldehyde, and metals, which have been identified to cause cancer and non-

cancer (i.e., chronic or acute) health effects. On an equivalent heat content basis, the health risk from natural gas is almost 2,500 times less carcinogenic and has a 1.5 times lower impact of chronic health effects than diesel fuel. Therefore, the conversion to natural gas for the non-emergency stationary combustion sources in the currently proposed modifications is expected to reduce the health risk associated with the facility. In addition, the relocation of combustion sources away from sensitive receptors will reduce impacts to the receptors, since stationary source emission impacts reduce with distance.

The mineral recovery facilities are expected to continue to emit other inorganic toxic air contaminants including chlorine and hydrogen chloride emissions. The emissions of chlorine and hydrogen chloride are not considered carcinogens but do contribute to the chronic health hazards from the facility. The chlorine and hydrogen chloride emissions contribution to the chronic hazard index of 1.33 for the previously approved project was 0.17. The chlorine and hydrogen chloride emissions are expected to double compared to the previously approved project emissions, therefore, the chronic hazard contribution would also double. The change to the chronic hazard index would be 0.17 which is less than the significance threshold of 1.0. In addition, the minor increase in the chronic health effects associated with the mineral recovery facilities will be counterbalanced by the reduction in chronic health effects from the conversion to natural gas for combustion sources. Additionally, the relocated mineral recovery facilities will be slightly farther from the sensitive receptors located at the southern property line, which will slightly reduce the health risks of the mineral recovery facilities. The currently proposed modifications are not expected to increase the health risks to sensitive receptors and would not cause an increase in cancer or chronic health risks. Therefore, the currently proposed modifications are not expected to produce significant impacts to sensitive populations.

3. e) The currently proposed modifications include NO<sub>x</sub> emissions control at the CHP with the use of aqueous ammonia, which can have a strong odor. Ammonia emissions (also referred to as ammonia slip) will be from the CHP stack and will be limited to 5 ppm. Since exhaust emissions are buoyant as a result of being heated, ammonia will disperse and ultimate ground level concentrations will be substantially lower than 5 ppm. Five ppm is below the odor threshold for ammonia of 20 ppm (OSHA, 2007). Therefore, no significant odor impacts are expected from the currently proposed modifications.

### 3.3 Mitigation Measures

No significant air quality impacts were identified so no mitigation measures are required for the currently proposed modifications. The previously proposed mitigation was related to the construction of the ETSA and NEP, which will not occur. The currently proposed modifications will not change the requirement for the southern fence line air monitoring program that was a condition of approval for the previously approved project and, therefore, monitoring will continue.

### 3.4 Conclusions

Air quality impacts are expected to be less than significant.

**REVISED MINE AND RECLAMATION PLAN FOR THE MOUNTAIN PASS MINE**

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>IV. BIOLOGICAL RESOURCES.</b> Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 4.1 Significance Criteria

The impacts on biological resources will be considered significant if any of the following criteria apply:

The project conflicts with local state or federal plans and policies protecting sensitive species and habitat resources.

The project results in adverse effects on a rare or endangered species of animal, plant, or the habitat of the species.

The project results in substantial reduction of species diversity or abundance.

The project creates a barrier that prevents the migration of resident or migratory fish or wildlife species.

The project interferes with natural processes, such as fire and flooding, upon which habitat depends.

The project results in a loss of valuable habitat for fish, wildlife, or plants.

#### 4.2 Environmental Setting and Impacts

**4. a, b, and c) Previously Approved Project:** Impacts to biological resources from the planned operations during the MolyCorp Mountain Pass Mine and Reclamation Plan were assessed in Section 3.4 of the 2004 Final EIR. It was determined that the project would result in the loss of 642 acres of blackbrush-juniper-Joshua tree woodland community that supports a high density and diversity of cacti, vegetation, and wildlife. To minimize these impacts, MolyCorp implements a Re-vegetation Plan with four major components: collection of baseline data, salvaging of soils and plants, re-vegetation of disturbed areas, and monitoring of re-vegetated areas. Impacts to biological resources were determined to be less than significant for all resources following mitigation, except that the habitat loss was considered to remain a significant impact.

**Currently Proposed Modifications:** The impacts to biological resources from the previously approved project were associated with the amount of landform alterations that were expected. As noted in Table 2-1, the area that would be disturbed under the currently proposed modifications is about 98 acres less than previously proposed, primarily due to the reduction in size of the Northwest Evaporation Ponds. The currently proposed modifications would eliminate the need for additional evaporative capacity and no additional evaporative ponds are currently proposed to be constructed. Most of the 133 acres associated with the Northwest Evaporation Ponds would remain undisturbed; however, roads and pipelines serving the existing evaporation ponds will continue to be used with less use than expected in the previously approved project.

In addition, the currently proposed modifications include some additional grading and industrial structures on 24 undisturbed acres in the central portion of the facility associated with the Crusher Area and the Mineral Recovery Plant. Additional grading on approximately 11 undisturbed acres

will also be required for the new access road; however, installation of these facilities will result in significantly less land disturbance (about 98 acres less) than the previously approved project.

The currently proposed modifications would result in the conservation of 98 acres of blackbrush-juniper-Joshua tree woodland community that supports a high density and diversity of cacti, vegetation, and wildlife as compared to the project evaluated in the 2004 Final EIR. The habitat, types of vegetation, and biological resources within the Mountain Pass property are essentially the same with some exceptions near ponds and developed areas. The currently proposed modifications would also centralize mineral recovery activities and eliminate the North Evaporation Ponds, which would preserve undisturbed land that is adjacent to off-site open space areas on the Bureau of Land Management lands to the north. Therefore, the currently proposed modifications would result in less habitat loss than evaluated for the previously approved project and fewer impacts on biological resources.

The construction of the currently proposed modifications, including the expansion of the Mineral Recovery Plant and new roads, include potential construction in state-jurisdictional streambeds within the mine site; 0.7 acres of black brush scrub and 1.3 acres of Desert Wash habitat. The primary vegetation type in the vicinity of the proposed new road is black brush scrub. The dominant plant species include black brush (*Coleogyne ramosissima*), bladder sage (*Salasaria mexicana*), Joshua tree (*Yucca brevifolia*), banana yucca (*Yucca baccata*), Mojave yucca (*Yucca schioidigera*), buckhorn cholla (*Opuntia acanthocarpa*), turpentine broom (*Thamnosma montana*), mormon tea (*Ephedra sp.*), Green tea (*Ephedra viridis*), virgin river encelia (*Encelia virginensis*), Nevada joint-fir or tea (*Ephedra nevadensis*), matchweed (*Gutierrezia sarothrae*), cheesebush (*Hymenoclea salsola*), spiny menodora (*Menodora spinescens*), bitterbrush (*Purshia glanduls*), wolfberry (*Lycium andersonii*), and Utah juniper (*Juniperus osteosperma*). Construction activities associated with the road will also occur within the Desert Wash Habitat. Dominant species in this vegetation include four-wing saltbush (*Atriplex canescens*), cheesebush (*Hymenoclea salsola*), and *Tamarix sp.* See Appendix C for the Biological Resource Assessment for Modifications to the Mine and Reclamation Plan for the Mountain Pass Mine (Lilburn Report) for a more detailed discussion of the potential habitat impacts associated with the currently proposed modifications. As discussed in the 2004 Final EIR, mitigation measures were developed to minimize the potential impacts on biological resources. The currently proposed modifications are expected to potentially impact the black brush scrub and desert wash habitat features. The existing mitigation measures will also apply to the currently proposed modifications. Therefore, with the implementation of the mitigation measures which includes offset for habitat losses, biological impact would be less than significant.

**4. d) Currently Proposed Modifications:** The currently proposed modifications also centralize mineral recovery activities and eliminate the North Evaporation Ponds, which would preserve undisturbed land that is adjacent to off-site open space areas on the Bureau of Land Management lands to the north, allowing additional opportunities for wildlife movement. Further, as noted in Table 2-1, the area that would be disturbed under the currently proposed modifications is about 98 acres less than previously proposed, primarily due to the reduction in size of the Northwest Evaporation Ponds. Therefore, the currently proposed modifications would result in less habitat loss than evaluated for the previously approved project, more open space adjacent to BLM property, and fewer impacts on biological resources. The currently proposed modifications will

eliminate the North Evaporation Ponds that had the potential to attract wildlife, reducing the potential risk of exposure to wildlife. Therefore, the currently approved project will not have significant impacts on movement of native species, migratory wildlife, or impede the use of native wildlife nursery sites.

**4. e and f) Currently Proposed Modifications:** The currently proposed project modifications will not conflict with any local ordinances or habitat conservation plan protecting biological resources such as the Desert Native Plant Protection Ordinance. The currently proposed modifications will comply with the requirements of the Desert Native Plant Protection Ordinance by obtaining the necessary Tree or Plant Removal Permit and having the required preconstruction inspection. Further, there is no adopted habitat conservation plan that applies to the site. However, the Northern and Eastern Mojave Conservation Area Plan applies to public land surrounding the site. Molycorp will continue to comply with applicable requirements of the Mine Reclamation Plan with respect to re-vegetation requirements for disturbed areas and preconstruction surveys. Therefore, no significant adverse impacts on preservation policies/ordinances or habitat conservation plans are expected.

### **4.3 Mitigation Measures**

The currently proposed modifications will result in impacts that are less than those previously analyzed, thus no additional mitigation beyond that previously proposed will be required. Previously imposed mitigation measures to reduce potential biological impacts included measures and conditions to survey for special-status species including but not limited to burrowing owls, desert tortoise, bat roosts, nesting birds, and special-status plant species, followed by implementation of appropriate measures depending on the result of the surveys. Surveys must also identify and move plants as listed in County Code under Desert Native Plant Protection favorable for salvaging and transplanting. A Streambed Alteration Permit is also required.

### **4.4 Conclusions and Significance Following Mitigation**

Biological impacts are expected to be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>V. CULTURAL RESOURCES.</b> Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**5.1 Significance Criteria**

Impacts to cultural resources will be considered significant if:

The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group.

Unique paleontological resources are present that could be disturbed by construction of the proposed project.

The project would disturb human remains

**5.2 Environmental Setting and Impacts**

**5. a, b, c) Previously Approved Project:** Impacts to cultural resources from the planned operations during the Molycorp Mountain Pass Mine and Reclamation Plan were assessed in Section 3.5 of the 2004 Final EIR. It was determined that the previously approved project could result in potentially significant cultural resources impacts in the absence of mitigation due to the presence of cultural resources in the East Tailings Storage Area (ETSA). Development of the

ETSA was replaced with the development of the Northwest Tailings Disposal Facility (NWTDF), and the cultural resources located in the vicinity of the ETSA will remain in tact. Impacts to cultural resources were determined to be less than significant in the 2004 Final EIR.

**Currently Proposed Modifications:** The impacts to cultural resources from the previously approved project were associated with the amount of landform alterations that were expected. As noted in Table 2-1, the area that would be disturbed under the currently proposed modifications is about 98 acres less than previously proposed, primarily due to the reduction in size of the Northwest Evaporation Ponds. The currently proposed modifications would eliminate the need for additional evaporative capacity and no additional evaporative ponds are currently proposed to be constructed. Most of the 133 acres associated with the Northwest Evaporation Ponds would remain undisturbed; however, roads and pipelines serving the existing evaporation ponds will continue to be used.

In addition, the currently proposed modifications include some additional grading and industrial structures in the central portion of the facility associated with the Mill/Flotation Plant/Crusher Area, and the Mineral Recovery Plant. Some additional grading will also be required for the new access road; however, installation of these facilities will result in significantly less land disturbance (about 98 acres less) than evaluated for the previously approved project. The currently proposed modifications would result in less site disturbance in the western portion of the site and reduce the potential for impacts to cultural resources over the previously approved project. The additional grading in the central portion of the site will impact about 35 acres of previously undisturbed areas; however, they occur adjacent to areas that are previously disturbed or on steeply-sloped areas where cultural resources are not expected to be encountered. Further, the currently proposed modifications avoid the identified cultural resources so the impacts on cultural resources are expected to be reduced over the previously approved Reclamation Plan. Therefore, no significant impacts to cultural resources are expected from the currently proposed modifications.

### 5.3 Mitigation Measures

The proposed modifications will result in impacts that are less than those previously analyzed, thus no additional mitigation beyond that previously proposed will be required. Previously imposed mitigation measures to reduce potential cultural impacts included monitoring during grading/excavation activities of previously undisturbed areas by a qualified archaeologist, who has the authority to stop work to evaluate the find. The currently proposed modifications do not remove or change the previously required mitigation.

### 5.4 Conclusions and Significance Following Mitigation

No significant adverse impacts are expected on cultural resources, following the mitigation as previously required.

**REVISED MINE AND RECLAMATION PLAN FOR THE MOUNTAIN PASS MINE**

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VI. GEOLOGY AND SOILS.</b>				
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a know fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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## 6.1 Significance Criteria

The impacts on the geological environment will be considered significant if any of the following criteria apply:

The project modifications result in major changes in topography or ground surface relief features.

The project results in the disturbance or destruction of unique geologic features or physical features.

The project results in unstable earth conditions.

The project results in a large increase in erosion onsite or off-site, if the erosion is related to activities on the site.

The project exposes people or property to geologic hazards such as earthquakes, active faults, landslides, mudslides, ground failure, or similar hazards

## 6.2 Environmental Setting and Impacts

**Previously Approved Project:** Impacts to geology and soils from the planned operations during the Molycorp Mountain Pass Mine and Reclamation Plan were assessed in the 2004 Final EIR (see Final EIR pages 3-88 through 3-109). It was determined that the topographic changes would remain significant following mitigation. Aside from impacts from topographic changes, there would be no remaining significant impacts to geological resources after implementation of mitigation measures.

### 6. a, c, and d) Earthquake Hazards

**Currently Proposed Modifications:** Historically, the Mountain Pass Mine is in an area of low seismic activity. The most significant recent earthquakes in the Mojave Desert region include the Landers Quake (7.3 magnitude, 6/28/92) and Hector Mine Quake (7.2 Magnitude, 10/16/99). Both of these quakes were at least 60 miles from the site (USGS, 2010).

Earthquakes can cause ground motion and induce ground failure that can result in damage to roads, structures, and utilities. Given the relative lack of potential seismic activity and faults in the vicinity, and the low ground motions that could be expected, surface displacement and ground motion from earthquakes is not expected to have an impact on the site. Soil liquefaction is not expected to impact the mine site given the depth to groundwater, the relative lack of seismic activity in the vicinity, and the fact that much of the site lies directly on exposed bedrock.

The currently proposed modifications will result in some new and relocated structures at the Molycorp site, e.g., the CHP, mineral recovery facilities, and the Salt Recovery and Recycling Facilities. All new structures must be designed to comply with the Uniform Building Code Zone

4 requirements since the currently proposed modifications are located in a seismically active area. The County of San Bernardino is responsible for assuring that the proposed modifications comply with the Uniform Building Code as part of the issuance of the building permits and can conduct inspections to ensure compliance. Adherence to the Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The goal of the code is to provide structures that will: (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage, but with some non-structural damage; and (3) resist major earthquakes without collapse, but with some structural and non-structural damage. The Uniform Building Code bases seismic design on minimum lateral seismic forces ("ground shaking"). The Uniform Building Code requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represent the foundation conditions at the site.

New structures at the Molycorp site will require building permits, as applicable, for all new structures at the site. Building plans will be required to be submitted to the County for review. Molycorp must receive approval of all building plans and building permits to assure compliance with the Uniform Building Code prior to commencing construction activities, thus assuring proper seismic design standards were met. No significant impacts from seismic hazards are expected since the currently proposed modifications will be required to comply with the Uniform Building Codes.

#### **6. b) Soil Erosion/Topographic Impacts**

Although wind erosion may occur from overburden stockpiles, roads, and eroded areas of the pit wall, a reduction of about 98 acres of soil disturbance is expected under the currently proposed modifications as compared to the previously approved project. Successful implementation of the Mine Reclamation Plan during and after mine operations would minimize soil erosion caused by wind and water. Therefore, significant erosion impacts are not expected with implementation of the Reclamation Plan. Molycorp will continue to minimize erosion at the mine site during reclamation using the following reclamation efforts:

- During mining and reclamation, areas that are disturbed will be treated with water sprays and water-retaining treatment chemicals.
- Molycorp will comply with the requirements of the Industrial and Construction storm water general permits, which require the installation of storm water Best Management Practices intended to minimize soil erosion.

Erosion from wind or water could occur during construction and operation of the proposed modifications. The topography of the site will change due to operational and reclamation activities. However, the currently proposed modifications are expected to result in a 98 acre reduction in land disturbance, as compared to the previously approved project since the Northwest Evaporation Ponds will not be constructed. Therefore, the topographic and erosion impacts

associated with the currently proposed modifications are less than under the previously proposed project and will be less than significant.

**6. e)** The currently proposed modifications will not result in any changes or modifications to the existing wastewater disposal systems in the area so no impact on alternative wastewater disposal systems is expected.

### **6.3 Mitigation Measures**

The currently proposed modifications will result in impacts that are less than those previously analyzed, thus no additional mitigation beyond that previously proposed will be required. Previously imposed mitigation measures to reduce potential geologic hazard and erosion impacts included measures and conditions to monitor slope stability, prepare erosion and sediment control and grading plans, control dust, and evaluate soils for suitability for grading and building construction.

### **6.4 Conclusions and Significance Following Mitigation**

Geology and soils impacts are expected to be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**VII. GREENHOUSE GAS EMISSIONS.**

Would the project:

- |  |                          |                                     |                          |                                     |
|--|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?      | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**7.1 Significance Criteria**

San Bernardino County uses the South Coast Air Quality Management District’s (SCAQMD) adopted greenhouse gas (GHG) significance thresholds for industrial facilities. The following bullet points describe the SCAQMD’s tiered interim GHG significance threshold for stationary/industrial sources (SCAQMD, 2008).

- **Tier 1** – consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- **Tier 2** – consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The County is currently preparing a GHG reduction plan for the areas within jurisdiction but no such plan is currently available. If the project is not consistent with a local GHG reduction plan, there is no approved plan, or the GHG reduction plan does not include all of the components described above, the project would move to Tier 3.
- **Tier 3** – establishes a screening significance threshold level of 10,000 metric tons of CO<sub>2</sub> equivalent emissions per year (MTCO<sub>2</sub>e/yr) (the majority of combustion emissions are comprised of CO<sub>2</sub>). If a project's GHG emissions exceed the GHG screening threshold, the project would move to Tier 5.
- **Tier 4** – SCAQMD staff recommended deferring consideration of this tier pending further evaluation and direction from the SCAQMD's Governing Board. Currently, Tier 4 would establish a decision tree approach that would include compliance options for projects which have incorporated design features into the project and/or implement GHG mitigation measures; demonstrate a 30 percent reduction for normal business as usual

practices; demonstrate early compliance with AB32 control measures; or comply with sector based performance standards.

- **Tier 5** – would require projects to mitigate GHG emissions to less than the applicable GHG screening threshold level.

**7.2 Environmental Setting and Impacts**

**Previously Approved Project:** The previously approved project was approved prior to the requirement to include GHG emissions in CEQA documents. Therefore, to establish a baseline from which significance can be evaluated, the GHG emissions from existing operations were calculated for the same baseline operating conditions as previously analyzed for criteria pollutants and are presented in Table 2-6 in metric tons of CO<sub>2</sub>e/year. CO<sub>2</sub>e emissions include the nitrous oxide and methane emissions adjusted to account for their global warming potential. GHG sources include combustion sources, process-generated emissions, delivery trucks (both receipts and shipment), employee commuting, electricity generation, and steam production. Sources that would not be affected by the currently proposed modifications were not included as those source emissions would remain unchanged. See Appendix B for more detailed information on the GHG emission calculations.

**TABLE 2-6**  
**BASELINE GHG EMISSIONS**  
**(metric tons CO<sub>2</sub>e/year)**

Emission Source	Emissions
Diesel Fuel Combustion	51,670
Propane Combustion	346
Process Emissions	10,684
Reagent Production	89,375
Supplied Power	20,358
Delivery Trucks	3,743
Commuting	1,831
<b>Total</b>	<b>178,007</b>

See Appendix B for more detailed GHG emission calculations.

**Currently Proposed Modifications:** The currently proposed modifications will replace existing diesel and propane combustion with natural gas except for the emergency generators needed for the CHP, reduce reliance on grid supplied commercial electrical power by installing the onsite CHP, reduce delivery truck trips by installing the Salt Recovery and Recycling Facilities, and decrease employee commuting emissions. The GHG emissions are shown in Table 2-7.

**TABLE 2-7**  
**POST-MODIFICATION GHG EMISSIONS**  
**(metric tons CO<sub>2</sub>e/year)**

Emission Source	Emissions
Diesel Fuel Combustion	1,295
Propane Combustion	0
Process Emissions	65,684
Delivery Trucks	1,241
CHP	469,700
Supplied Electrical Power	6,779
Commuting	1,308
<b>Total</b>	<b>546,007</b>

The currently proposed modifications will increase GHG emissions by approximately 368,000 metric tons per year during operation of the facility (546,007 – 178,007 = 368,000). Including the construction emissions amortized over 30 years of 11 metric tons per year, the GHG emissions increase will be 368,011 metric tons per year (368,000 + 11). The currently proposed modifications GHG emissions would exceed the 10,000 metric ton threshold by 358,011 metric tons and are expected to be significant before mitigation.

### 7.3 Mitigation Measures

The currently proposed modifications will require the following mitigation measure to offset GHG emissions:

- GHG -1: Molycorp shall provide GHG emission mitigation by purchasing 358,011 metric tons of GHG emission reduction credits from a credible emissions broker. The emission reduction credits purchased will be from permanent, verifiable reduction projects. The emission reduction credits will be acquired prior to the startup of the operations that will generate the additional GHG emission increases.

### 7.4 Conclusions and Significance Following Mitigation

The GHG emissions from the currently proposed modifications will be mitigated to less than significant. The use of combined heat and power production is considered an energy efficient onsite preferred method of supplying electricity and steam to the Mountain Pass mineral recovery industrial facilities as offsite commercial electricity generation required has not been reliable or of sufficient quantity in the past.

**CHAPTER 2: ENVIRONMENTAL CHECKLIST**

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VIII. HAZARDS AND HAZARDOUS MATERIALS.</b> Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be 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, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
h) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### 8.1 Significance Criteria

The impacts associated with hazards will be considered significant if any of the following occur:

Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.

Substantial human exposure to a hazardous chemical as defined by exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels, which is 150 ppm for ammonia and 3 ppm for chlorine.

### 8.2 Environmental Setting and Impacts

**Previously Approved Project:** The impacts of the use of hazardous materials were evaluated in the 2004 Final EIR (see pages 3-121 through 3-124). It was determined that the operation of new facilities will be designed to meet applicable standards to reduce the risk of an accidental release, operated in a manner to comply with safety standards and practices, maintained to provide a safe workplace for Molycorp personnel, and to prevent significant adverse offsite impacts to the public at large. Compliance with various regulations and industry standards would minimize hazard impacts associated with the operation of the Molycorp facility.

The ore at Mountain Pass contains 0.02% thorium and 0.002% uranium by weight. The elements occur naturally with the ore, as these elements behave similarly to the rare earth elements in the geologic processes that created the Mountain Pass ore body. The uranium and thorium occur with the bastnasite mineral, and eventually need to be separated from the rare earth elements to produce pure rare earth products.

In the previously approved project operation, the radionuclides were present with the bastnasite through mining, crushing and milling and could be found both in the mill tailings and the bastnasite concentrate that were produced in the milling operation. The bastnasite was subsequently subjected to a leaching step, where the uranium would dissolve with the rare earth elements and the thorium would remain with the cerium as a solid. The cerium containing

thorium was sold as a product, and the uranium was precipitated from solution ahead of the rare earth separations process and was subsequently shipped offsite for disposal.

During the 2004 EIR CEQA analysis, the the California Department of Public Health – Radiologic Health Branch, had not decided on the proper nature and scope of the license for the Mountain Pass operation. Since that time, the agency has decided that the appropriate mechanism for licensing the facility is a broad scope license, which allows facility personnel to conduct the day-to-day management of radioactive materials under the oversight of a Radiation Safety Officer and a Radiation Safety Committee, along with state inspections of the operation and a number of prescriptive license conditions. The license was most recently amended by the state on 6/17/10 to add the previously approved paste tailings facility to the license.

**8. a and b) Currently Proposed Modifications:** In order to produce globally competitive rare earth products, Molycorp is proposing modifications to improve the efficiency of its rare-earth mining operations. The proposed modifications include the addition of a CHP Plant and Salt Recovery and Recycling Facilities. The addition of the CHP Plant includes Selective Catalytic Reduction (SCR) equipment that will use aqueous ammonia to control NO<sub>x</sub> emissions. The Salt Recovery and Recycling Facilities will generate gaseous chlorine during the process that is further reacted in the process to produce hydrochloric acid and sodium hypochlorite (commonly known as bleach). These two materials, aqueous ammonia and chlorine, both have the potential to produce toxic impacts in the event of a release. A review of the overall project components did not identify any other new toxic materials at the Molycorp site associated with the currently proposed modifications.

To evaluate the potential impacts associated with a release, a series of release and vapor dispersion calculations were performed to quantify the consequences following a release of aqueous ammonia from a storage tank and gaseous chlorine from the Salt Recovery and Recycling Facilities (see Appendix D for further details on the hazard calculations). The releases were designed to calculate the largest potential toxic gas impacts following a failure of the aqueous ammonia storage tank or chlorine line rupture in the Salt Recovery and Recycling Facilities. The maximum on-site storage of aqueous ammonia is about 8,000 gallons. The maximum inventory of chlorine in a Salt Recovery and Recycling Facilities cell is about 200 pounds.

The potential releases of ammonia and chlorine were modeled using CANARY by Quest, that contains a set of complex models that calculate release conditions, initial dilution of the vapor (dependent upon the release characteristics), and the subsequent dispersion of the vapor introduced into the atmosphere. The models contain algorithms that account for thermodynamics, mixture behavior, transient release rates, gas cloud density relative to air, initial velocity of the released gas, and heat transfer effects from the surrounding atmosphere and the substrate. The modeling results are presented in Table 2-8.

**TABLE 2-8**

**Hazard Modeling Dispersion Results**

<b>Release Scenario</b>	<b>Wind Speed</b>	<b>Stability Class</b>	<b>Concentration ERPG-2 (ppm)</b>	<b>Distance to ERPG-2 (feet)</b>
Aqueous ammonia storage tank	1.5	F	150	65
	5.0	D	150	30
Rupture of chlorine transfer piping in Salt Recovery and Recycling Facilities cell	1.5	F	3	1,860
	5.0	D	3	695

Note: ERPG-2 = Emergency Response Planning Guideline 2

Rupture of the 8,000-gallon aqueous ammonia storage tank would result in the rapid release of aqueous ammonia into the tank impoundment area. As the liquid spreads across the impoundment and partially fills the impoundment, gaseous ammonia is released from the liquid surface. The ammonia slowly mixes with the ambient air and disperses downwind. The results of modeling indicate that the ERPG-2 concentration would be reached within 65 feet of the release during stable meteorological conditions (Stability Class F or 30 feet during less stable meteorological conditions). The modeling results indicate that a release of ammonia would be limited to the Molycorp property and no off-site populations would be exposed to concentrations above the ERPG-2 threshold level for ammonia.

The Salt Recovery and Recycling Facilities produce gaseous chlorine as part of the process. The chlorine is transferred within the unit via a 1.5 inch diameter pipe. The maximum inventory of chlorine in an individual cell is 200 pounds. Therefore, a pipe rupture, followed by the complete loss of 200 pounds of chlorine was modeled. The results of modeling indicate that the ERPG-2 concentration would be reached within 1,860 feet of the release during stable meteorological conditions (Stability Class F or 695 feet during less stable meteorological conditions). The modeling results indicate that a release of chlorine would be limited to the Molycorp property and no off-site populations would be exposed to concentrations above the ERPG-2 threshold level for chlorine.

There are a number of rules, regulations, and laws that Molycorp must comply with that helps minimize hazard impacts. Section 112 (r) of the Clean Air Act Amendments of 1990 [42 U.S.C. 7401 et. Seq.] and Article 2, Chapter 6.95 of the California Health and Safety Code require facilities that handle listed regulated substances to develop Risk Management Programs (RMPs) to prevent accidental releases of these substances. A RMP consists of four main parts: hazard assessment that includes an off-site consequence analysis, five-year accident history, prevention program, and emergency response program. An RMP that covers the use and storage of aqueous ammonia and chlorine will need to be prepared for the currently proposed modifications.

The Molycorp facilities will comply with all applicable design codes and regulations, conform to National Fire Protection Association standards, and conform to policies and procedures concerning leak detection containment and fire protection. The Hazardous Materials Transportation Act is the federal legislation that regulates transportation of hazardous materials. Therefore, no significant adverse compliance impacts are expected.

Based on the above, no significant impacts are expected due to a release of ammonia from the ammonia storage tank or chlorine from the Salt Recovery and Recycling Facilities.

With respect to the naturally occurring radionuclides, no change in the amount of radionuclides present at the site will occur as a result of the currently proposed modifications. The currently proposed modifications will eliminate radionuclides from the rare earth products produced at the facility.

**8. c)** No schools are located within one-quarter mile of the Molycorp Mountain Pass facility. The Mountain Pass Elementary school was previously located near the entrance to the Molycorp facility. However, the school has been closed since 2003 and no longer operates as a school. It has most recently operated as a storage and aggregate processing facility for a highway construction project. Therefore, the currently proposed modifications will have no impacts to existing or proposed schools.

**8 d).** The proposed project will be constructed within the confines of the existing Molycorp facility. CEQA Section 21092.6 requires the lead agency to consult the lists compiled pursuant to Section 65962.5 of the Government Code to determine whether the project and any alternatives are located on a site which is included on such list. The Mountain Pass facility is not included on the list prepared pursuant to Government Code Section 65962.5 (<http://www.envirostor.dtsc.ca.gov>). The facility is included on the California Department of Toxic Substances Envirostor database as a site that completed corrective action for a drum yard and concrete casting and stage area. On December 10, 2003, the DTSC issued a letter to Molycorp's Mountain Pass facility acknowledging and accepting the closure certification for the drum yard and concrete casting and staging area and released Molycorp from closure financial responsibility. Therefore, no significant hazards are expected to the public or environment as a result of contamination at the site.

**8. e) and f)** The Molycorp site is not within an airport land use plan or within two miles of a public or private airport. There will be no change in project location due to the currently proposed modifications. Therefore, the currently proposed modifications will not result in any incremental safety hazards relating to airports in the region.

**8. g)** The currently proposed modifications are not expected to interfere with an emergency response plan or emergency evacuation plan. The currently proposed modifications will result in operational modifications to the existing Molycorp facility. All construction activities will occur within the confines of the existing facility so that no emergency response plans should be impacted. Molycorp has implemented emergency response plans at its facility. The currently proposed modifications are not expected to alter the route employees would take to evacuate the site, as the evacuation routes generally direct employees outside of the main operating portions of the facility. Installation of the CHP, SCR Unit, and the Salt Recovery and Recycling Facilities

will add new processes and chemical hazards to the facility so emergency response plans will require modification to include the new facilities. Since the emergency response plans are generally limited to Molycorp employees, no significant impacts are expected.

**8. h)** The currently proposed modifications are not expected to increase the existing risk of fire hazards in areas with flammable brush, grass, or trees. The Molycorp facility will continue to use flammable materials. As discussed in the 2004 Final EIR, the Molycorp site is heavily disturbed and lacks substantial vegetation for natural fuel sources. Therefore, no significant increase in fire hazards is expected at the Molycorp site due to the currently proposed modifications.

### **8.3 Mitigation Measures**

No significant hazard impacts would be expected to occur as a result of the currently proposed modifications. Therefore, no further mitigation measures are required.

### **8.4 Conclusions**

Hazard impacts associated with the currently proposed modifications are expected to be less than significant.

**CHAPTER 2: ENVIRONMENTAL CHECKLIST**

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>IX. HYDROLOGY AND WATER QUALITY.</b>				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**REVISED MINE AND RECLAMATION PLAN FOR THE MOUNTAIN PASS MINE**

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**9.1 Significance Criteria**

Potential impacts on water resources will be considered significant if any of the following criteria apply:

The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.

The project will cause the degradation of surface water substantially affecting current or future uses.

The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.

The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.

The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.

The project results in alterations to the course or flow of floodwaters.

The existing water supply does not have the capacity to meet the increased demands of the project, or the project increases water demand by more than 300,000 gallons per day.

## 9.2 Environmental Setting and Impacts

**Previously Approved Project:** Impacts to hydrology and water quality from the planned operations during the Molycorp Mountain Pass Mine and Reclamation Plan were assessed in the 2004 Final EIR (see Final EIR pages 3-138 through 3-179). Impacts to surface water flow, including flood hazards, and water quality would be reduced to less than significant following mitigation. Impacts to surface water quality were expected to remain significant due to the contamination levels in the pit lake.

### 9. a, f) Water Quality

**Currently Proposed Modifications:** As with the previously approved project, both construction and operation activities would occur entirely within the boundaries of the existing mine site. The wastewater generated as part of the previously approved facility is expected to be reduced due to the installation of the Salt Recovery and Recycling Facilities, which will allow water to be reclaimed and reused onsite, thereby reducing the volume of wastewater generated. The previously approved Northwest Evaporation Ponds will not be constructed. Therefore, no additional wastewater treatment facilities will be required by the proposed modifications. Further, the proposed modifications will not increase the number of employees at the facility so no increase in sanitary waste water is expected. The currently proposed modifications will result in less wastewater discharged, reducing the potential impacts on water quality from mining operations. Other aspects of the previously approved project mining activities will remain the same.

### 9. b) Ground Water Impacts

**Previously Approved Project:** The Mountain Pass operation relies on the Shadow Valley and Ivanpah fresh water production wells to provide fresh and potable water for use at the facility. Under the previously approved project, the water drawn from these well fields would not exceed 525 gpm, and the water would be used in the mineral recovery operations. Water would also be provided from the open pit and the ground water remediation systems, and that water would be treated using reverse osmosis and nanofiltration systems to render these streams suitable for use in the mineral recovery operation. Wastewater generated from the mineral recovery operations and treatment of pit water and ground water remediation systems would be evaporated in a series of on-site solar ponds. Water use was depicted on Figure 3.8-9 in the 2004 Final EIR.

**Currently Proposed Modifications:** In the previously approved project, fresh water and remediation water are used to makeup for the water that is evaporated in the solar evaporation ponds. With the currently proposed modifications, recycling predominates with the fresh water and remediation water used to makeup process losses primarily from steam and cooling tower losses. The 2004 EIR evaluated the freshwater usage and determined that Molycorp facility operations would not exceed 525 gpm. As discussed below, the currently proposed modifications are not expected to increase water demand at the site. The currently proposed modifications to the facility will eliminate the solar evaporation ponds, and replace the solar evaporation operation with Salt Recovery and Recycling Facilities. Wastewater from the mineral recovery operations would be sent to the Salt Recovery and Recycling Facilities, where the salt content would be

recycled into hydrochloric acid, sodium hydroxide and sodium hypochlorite, which will be re-used in the mineral recovery operation or sold as a product. This recycling practice will eliminate the need for additional solar evaporation ponds, and will also reduce fresh water requirements. At the same time, the Salt Recovery and Recycling Facilities as well as the CHP will consume water for uses in cooling towers and steam production. Both the cooling towers and the steam production operations result in water losses to the atmosphere through evaporation. The net result of these changes is an estimated reduction in fresh water use to 390 gpm.

Under the currently proposed modifications, Molycorp would continue to consume all of the water that flows into the open pit (average flow of about 150 gpm) as well as the water generated from the ground water remediation systems (average flow of about 40 gpm) and that water would be treated using reverse osmosis and nanofiltration systems to render these streams suitable for use in the mineral recovery operation. Pumping of the open pit water and the remediation water is part of the overall ground water remediation system required by the Lahontan Regional Water Quality Control Board to address historic ground water impacts at the Molycorp facility. In the event that either of these streams is unavailable as a result of short term operational or maintenance issues, water from the fresh water production system would be used to make up the difference, to a maximum of 525 gpm. The currently proposed modifications have removed previously proposed evaporation ponds and do not include large water or wastewater storage capacity. This will require Molycorp to operate the facility within water balance and will not allow the use of more water than what is needed to make up for the water losses from the system. Thus, the currently proposed modifications to the facility are not expected to result in a net increase in fresh water usage at the Molycorp site or result in a related increase in the use of ground water.

### **9. c, d, e) Drainage Patterns/Storm Water Runoff**

The proposed access road will be designed with culverts to allow the existing wash drainages to continue to drain in the same fashion.

**Currently Proposed Modifications:** The currently proposed modifications are not expected to alter drainage patterns of storm water at the Molycorp site. Most of the facility modifications will occur within the same or similar locations as the previously approved project. As noted in Table 2-1, the area that would be disturbed under the currently proposed modifications is about 98 acres less than previously proposed. The currently proposed modifications include some additional industrial structures associated with the CHP and Salt Recovery and Recycling Facilities; however, installation of these facilities will result in significantly less land disturbance than evaluated in the 2004 Final EIR and fewer impacts to storm water runoff. A proposed new access road will be constructed to provide access to the Salt Recovery and Recycling Facilities and warehouse and has the potential to impact drainage patterns. However the proposed access road will be designed with culverts to allow the existing wash drainages to continue to drain storm water in the same fashion. The proposed modifications will require and will be subject to the requirements of a streambed alteration permit from the California Department of Fish and Game. A Stormwater Pollution Prevention Plan (SWPPP) for construction activities that includes best management practices addressing sediment control and other construction-related pollutants will be developed and implemented under the General Permit for Stormwater Discharges Associated

with Construction Activity. Similarly, an SWPPP for operational activities will be updated and implemented under the Industrial Activities Stormwater General Permit. For both SWPPPs, appropriate selection and implementation of best management practices, including sediment and erosion control, would reduce potential water quality and storm water runoff impacts to less than significant. Therefore, the storm water impacts associated with the currently proposed modifications are less than the currently approved project and less than significant.

### **9. g, h, i) Flood Hazards**

**Currently Proposed Modifications:** The Mountain Pass Mine is not within a San Bernardino County Flood Plain Safety or Dam Inundation Overlay District. Several natural drainage courses are present in the mine area. The surface drainages in the Mountain Pass area are intermittent and only rarely have flows except during heavy precipitation events. As with the previously approved project, the currently proposed modifications will not place housing or any other structures within a 100-year flood hazard area and flooding hazards are less than significant.

### **9. j) Seiche, Tsunami or Mudflow**

**Currently Proposed Modifications:** The Mountain Pass Mine is located a substantial distance from the ocean or other large water body, so there is no potential for the occurrence of a seiche or tsunami. The surface drainages in the Mountain Pass area are intermittent and only rarely have flows because of the desert environment, except during heavy precipitation events, which minimizes the potential for mudflows. The currently proposed modifications are expected to result in a reduction of about 98 acres that would be disturbed on the Molycorp site, thereby reducing the potential for mudflow-related impacts.

## **9.3 Mitigation Measures**

The proposed modifications will result in impacts that are less than those previously analyzed, thus no additional mitigation beyond that previously proposed will be required. Previously imposed mitigation measures to reduce potential water quality impacts included measures and conditions for ground water monitoring. These mitigation measures would still be imposed.

## **9.4 Conclusions and Significance Following Mitigation**

Hydrology and water quality impacts are expected to be less than significant

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>X. LAND USE AND PLANNING.</b> Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to a general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### 10.1 Significance Criteria

Significance criteria for land use are based on the compatibility of the currently proposed modifications with existing and future land uses and with established policies and regulations. A project would have a significant impact if it:

- Conflicts with adopted environmental plans and goals of the local community;
- Disrupts or divides the physical arrangement of an established community; or

### 10.2 Environmental Setting and Impacts

**10. a, b, and c) Previously Approved Project:** Impacts to Land Use and Planning from the planned operations during the Mountain Pass Mine and Reclamation Plan were assessed in Section 3.9 of the 2004 Final EIR. It was concluded that uses for the Molycorp property are for mining purposes only and the previously approved project is consistent with the land use policies. No significant land use impacts were expected as a result of the Mine and Reclamation Plan.

**Currently Proposed Modifications:** The currently proposed modifications are within the confines of the existing Molycorp site in the Resource Conservation area of the county. The General Plan allows mining and related activities within any land use district within the County; therefore, the project modifications are consistent with County land use policies. No change to

the previously approved project is proposed that would cause a significant impact or substantially increase an already significant impact. The currently proposed modifications are not expected to conflict with local habitat conservation plans or natural community conservation plans, as the Molycorp site is located within an area in which mining and related activities are permitted uses. There is no established community residing within the subject property. Therefore, there is no potential for the currently proposed modifications to displace a large number of people or disrupt or divide the physical arrangement of an established community. The uses for the subject property are for mining purposes only and, therefore; do not conflict with any established recreational, education, religious or scientific uses located within the subject property.

### **10.3 Mitigation Measures**

No significant land use impacts would be expected to occur as a result of the previously approved project or the currently proposed modifications. Therefore, no mitigation measures are required.

### **10.4 Conclusions**

Land use impacts are expected to be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XI. MINERAL RESOURCES.** Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**11.1 Significance Criteria**

Project-related impacts on mineral resources will be considered significant if any of the following conditions are met:

The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

The proposed project results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

**11.2 Environmental Setting and Impacts**

**11. a, b) Previously Approved Project:** Impacts to Mineral Resources from the planned operations during the MolyCorp Mountain Pass Mine and Reclamation Plan were assessed in the 2004 Final EIR, Appendix A. It was determined that the previously approved project would not have any adverse impacts because it would not prohibit or restrict the development of mineral resources.

**Currently Proposed Modifications:** There are no changes proposed to the MolyCorp site that would have and impact on mineral resources. The currently proposed modifications will not adversely impact (prohibit or restrict) the development of mineral resources. The currently proposed modifications will facilitate the continued development of a unique mineral resource, which is the rare earth deposit that is presently being utilized at the site. The currently proposed

modifications will allow the continued beneficial use of these strategically important mineral resources.

### **11.3 Mitigation Measures**

No significant impacts to mineral resources would be expected to occur as a result of the Mine and Reclamation Plan or the currently proposed modifications. Therefore, no mitigation measures are required.

### **11.4 Conclusions**

Mineral resources impacts are expected to be less than significant.

**REVISED MINE AND RECLAMATION PLAN FOR THE MOUNTAIN PASS MINE**

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XII. NOISE.</b> Would the project:				
a) Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Expose persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) 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 and expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**12.1 Significance Criteria**

Impacts on noise will be considered significant if:

The project increases the ambient noise levels at the nearest receptors above the maximum allowable noise levels, based on the land use classification.

The project increases the ambient noise levels more than 3 decibels (dBA) at the nearest sensitive receptor.

The project results in exceedance of noise standards of the County of San Bernardino.

## 12.2 Environmental Setting and Impacts

**12. a), b), c), and d) Previously Approved Project:** Noise impacts from the planned operations during the Mountain Pass Mine and Reclamation Plan were assessed in Section 3.10 of the 2004 Final EIR. It was concluded that construction and operational noise would be less than significant.

**Currently Proposed Modifications:** The currently proposed modifications will have similar construction activities to those analyzed in the 2004 Final EIR. The nearest residential receptor is no less than approximately 0.5 miles from the planned construction activities. There will not be a change in the amount or type of equipment utilized or activities undertaken during construction of the modifications to the Molycorp operations. Therefore, noise levels generated during construction activities are not expected to be different from previously analyzed, which were less than significant. Therefore, noise from construction activities is expected to be less than significant.

The operational activities at the site will remain the same with the addition of the CHP and Salt Recovery and Recycling Facilities. The operational noise from the new sources will be required to be less than 85 dBA at three feet from the exterior of the source to comply with worker safety regulations. The new facilities are expected to be approximately 1 mile from the nearest resident with intervening topographic features. Extrapolation of the equipment sound levels using standard free-field hemispheric sound propagation (6 dBA reduction per doubling of distance), the noise level from the equipment is expected to be approximately 40 dBA at the nearest resident, which is less than the County of San Bernardino Maximum Hourly Noise Level Performance Standards for residential receptors of 75 dBA. The actual noise level is expected to be less given the intervening topographic features. The predominant noise sources near the residences will not change from the existing sources (i.e., grading equipment and vehicles transporting ore, overburden, and tailings). The addition of the CHP and Salt Recovery and Recycling Facilities are not expected to be discernable from the existing noise sources. Therefore, no significant impact from noise is expected from the currently proposed modifications.

**12. e), f)** The Molycorp site is not located within an airport land use plan or within 2 miles of an airport or heliport. There are no changes to airport activities since they were assessed in the 2004 Final EIR, Appendix A. Therefore, there are no significant impacts associated with airport noise expected from the currently proposed modifications.

### **12.3 Mitigation Measures**

No significant impacts from noise would be expected to occur as a result of the previously approved project or the currently proposed modifications. Therefore, no mitigation measures are required.

### **12.4 Conclusions**

Noise impacts are expected to be less than significant.

**CHAPTER 2: ENVIRONMENTAL CHECKLIST**

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	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XIII. POPULATION AND HOUSING.</b> Would the project:				
a) Induce substantial population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**13.1 Significance Criteria**

The impacts of the currently proposed modifications on population and housing will be considered significant if the following criteria are exceeded:

The demand for temporary or permanent housing exceeds the existing supply.

The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

**13.2 Environmental Setting and Impacts**

**13. a, b, c) Previously Approved Project:** Impacts to Population and Housing from the planned operations during the MolyCorp Mountain Pass Mine and Reclamation Plan were assessed in the 2004 Final EIR, Appendix A. It was determined that the previously approved project would not have any adverse impacts because no housing would be constructed and workers were expected to come from the surrounding community.

**Currently Proposed Modifications:** Impacts to population and housing from the proposed modifications are expected to remain less than significant. Construction activities at MolyCorp will not involve the relocation of individuals, impact housing, or change the distribution of the population because the currently proposed modifications will occur completely within the boundaries of an existing industrial site. The construction work force, which is temporary, is

expected to come from the existing labor pool in the general Las Vegas, Nevada and southern California areas. Additionally, once the currently proposed modifications are complete, operational activities are expected to require workers at a staffing level similar to historical operations at the mine. Since all potential impacts will occur at an existing industrial facility, displacement of housing of any type is not anticipated from the proposed project. Therefore, implementation of the currently proposed modifications is not expected to have a significant adverse impact on population, population distribution, or housing.

### **13.3 Mitigation Measures**

No significant impacts to population and housing would be expected to occur as a result of the previously approved project or the currently proposed modifications. Therefore, no mitigation measures are required.

### **13.4 Conclusions**

Population and housing impacts are expected to be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XIV. PUBLIC SERVICES.** Would the project:

- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**14.1 Significance Criteria**

Impacts on public services will be considered significant if the project modifications result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives.

**14.2 Environmental Setting and Impacts**

**14. a, b, c) Previously Approved Project:** Impacts to Public Services from the planned operations during the implementation of the Molycorp Mountain Pass Mine and Reclamation Plan were assessed in the 2004 Final EIR, Appendix A. It was determined that the previously approved project would continue similar mining operations as currently allowed and would not require new facilities or result in an increased need for fire, police, or recreational services.

**Currently Proposed Modifications:** Impacts to public services associated with the currently proposed modifications are expected to remain less than significant. Compliance with state and local fire codes is expected to eliminate the need for additional fire protection services. Molycorp is served by its own emergency response team along with local fire department and other

emergency services. The currently proposed modifications will include requirements for fire protection services that are available from existing sources. Fire-fighting and emergency response personnel and equipment will continue to be maintained and operated at the facility. Close coordination with local fire departments and emergency services will also continue.

Molycorp has an existing contract security services that provides 24-hour protective services for people and property within the fenced boundaries of the site. Along with the existing work force, entry and exit of the construction work force will be similarly monitored and controlled using a manned access gate. Once implemented, the currently proposed modifications are not expected to change the staffing at the mine. Thus, no additional or altered police protection will be required for the currently proposed modifications.

The currently proposed modifications will not result in a higher labor force than previously employed at the mine and, therefore, will not result in additional population growth. Therefore, the currently proposed modifications are not expected to have impacts on schools, parks or other public facilities.

### **14.3 Mitigation Measures**

No significant impacts to public services would be expected to occur as a result of the previously approved project or the currently proposed modifications. Therefore, no mitigation measures are required.

### **14.4 Conclusions**

Public services impacts are expected to be less than significant.

**CHAPTER 2: ENVIRONMENTAL CHECKLIST**

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XV. RECREATION.** Would the project:

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) | Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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**15.1 Significance Criteria**

The impacts to recreation will be considered significant if:

The project results in an increased demand for neighborhood or regional parks or other recreational facilities.

The project adversely affects existing recreational opportunities.

**15.2 Environmental Setting and Impacts**

**15. a, b, c) Previously Approved Project:** Impacts to Recreation from the planned operations during the Molycorp Mountain Pass Mine and Reclamation Plan were assessed in the 2004 Final EIR, Appendix A. It was determined that the previously approved project would occur entirely within the boundaries of the mine and would not affect recreational opportunities or require additional recreational facilities in the area.

**Currently Proposed Modifications:** As with the previously approved project, both construction and operational activities would occur entirely within the boundaries of the existing mine site. No recreational facilities are located within the Molycorp property. The currently proposed modifications would not add any additional land to the site; therefore, no impacts to recreational facilities are expected.

The currently proposed modifications will not result in a higher labor force than previously employed at the mine and, therefore, will not result in additional population growth. Therefore, the currently proposed modifications are not expected to have impacts on recreational facilities.

### **15.3 Mitigation Measures**

No significant impacts to recreational facilities would be expected to occur as a result of the previously approved project or currently proposed modifications. Therefore, no mitigation measures are required.

### **15.4 Conclusions**

Impacts on recreational facilities are expected to be less than significant.

**CHAPTER 2: ENVIRONMENTAL CHECKLIST**

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XVI. TRANSPORTATION/TRAFFIC.</b> Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards because of a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## 16.1 Significance Criteria

The impacts on transportation/traffic will be considered significant if any of the following criteria apply:

A major roadway is closed to all through traffic, and no alternate route is available.

There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.

The demand for parking facilities is substantially increased.

Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.

## 16.2 Environmental Setting and Impacts

**16. a, b, and f) Previously Approved Project:** Impacts to transportation and traffic from the planned operations during the Molycorp Mountain Pass Mine and Reclamation Plan were assessed in the 2004 Final EIR, Appendix A. It was determined that the previously approved project would continue similar existing mining activities with no additional traffic generation planned. Therefore, no impacts on transportation/traffic were expected.

**Currently Proposed Modifications:** The site is accessed via the Bailey Road interchange on Interstate 15, approximately 15 miles southwest of the California-Nevada state line and 30 miles northeast of Baker, California. Traffic in the vicinity of Bailey Road is primarily associated with Molycorp with minor traffic associated with California Highway Patrol's Mountain Pass Resident Post and a Caltrans Maintenance station and housing area located west of the main entrance to the Molycorp mine. No traffic signals are located in the vicinity of the mine and the Bailey Road/I-15 intersection is controlled by a stop sign.

The continued operation of the mine will continue to generate traffic associated with mining activities. The traffic associated with various activities at the Molycorp mine is summarized in Table 2-9 for the previously approved project, as well as the currently proposed modifications.

**TABLE 2-9**

**Trips Associated with Molycorp Operations**

Trip Purpose	Trips per Year	Trips per Day
<b>Previously Approved Project</b>		
Delivery of Diesel	797	3
Deliver of Propane	36	<1
Delivery of Reagents/Waste Transport	14,292	55
Product Transport	1,167	5
Employees	30,333	117
<b>Total:</b>	46,625	180
<b>Currently Proposed Modifications</b>		
Delivery of Diesel	26	<1
Deliver of Propane	0	0
Delivery of Reagents/Waste Transport	3,572	14
Product Transport	3,497	10
Employees	21,667	83
<b>Total:</b>	27,762	108

Source: Molycorp, 2010

Traffic associated with the mine operations includes employees traveling to/from work, the delivery of fuels, the delivery of reagents and other materials, the transportation of wastes from the site, and the transportation of finished products from the site. The currently proposed modifications are expected to result in the conversion of equipment from fuel-driven (e.g., diesel or propane) to natural gas equipment (e.g., boilers), thus reducing the amount of fuel needed at the facility. The currently proposed modifications are also expected to reduce the amount of reagents required at the facility by installing the Salt Recovery and Recycling Facilities that will reduce the transport of acids and bases used in the mineral recovery operations. Finally, the number of employees required to operate the facility under the currently proposed modifications is expected to be lower than the previously approved project.

The traffic associated with the operation of the Molycorp mine is expected to be less than traffic under the previously approved project. Traffic associated with the operation of the mine has not been a problem in the past due to the rural nature of the site and the fact that most of the traffic that uses Bailey Road is associated with Molycorp mining operations. Based on the above, no significant traffic impacts are expected due to the currently proposed modifications.

Traffic during construction activities is expected to be similar to traffic levels under the previously approved project. Construction activities will occur in phases and major construction activities will occur before full mining operations are achieved. As construction activities

decrease, mining operations will increase. Therefore, traffic associated with construction activities is also expected to be less than significant.

Due to the rural nature of the site, there are no congestion management plans or programs that apply to the currently proposed modifications. There is no pedestrian or bike traffic, except for within the Molycorp site. Further, mass transit, e.g., buses, does not travel to the site. Therefore, the currently proposed modifications will have no impacts on any traffic plans, ordinances or policies related to traffic.

**16. c)** Mining operations occur within the confines of the Molycorp site. The currently proposed modifications will not result in an increase in air traffic or a change in air traffic plans. Materials delivered to the site will be transported via truck or pipeline (natural gas). Therefore, no impact on air traffic is expected.

**16. d and e)** The currently proposed modifications will result in no change in the public road system leading up to the Molycorp site so no increase in traffic hazards are expected. The currently proposed modifications will result in changes to the internal traffic circulation within the confines of the Molycorp site. The construction of the access road from the site entrance to the proposed new warehouse area will separate delivery and product transportation trucks from existing mining operations, thus, reducing potential traffic conflicts and improving traffic safety within the site. Emergency access to the site will remain unchanged with the exception of the proposed access road, which would also provide another access in the event of emergencies. The currently proposed modifications are not expected to result in any significant impacts on hazards or emergency access.

### **16.3 Mitigation Measures**

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

### **16.4 Conclusions**

Transportation and traffic impacts are expected to be less than significant.

**CHAPTER 2: ENVIRONMENTAL CHECKLIST**

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less-than-Significant Impact	No Impact
<b>XVII. UTILITIES/SERVICE SYSTEMS. Would the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### 17.1 Significance Criteria

The impacts to utilities/service systems will be considered significant if any of the following criteria are met:

The generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.

The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use a substantial amount of potable water.

The project increases demand for water by more than 300,000 gallons per day.

### 17.2 Environmental Setting and Impacts

**Previously Approved Project:** Impacts to Utilities from the planned operations during the MolyCorp Mountain Pass Mine and Reclamation Plan were assessed in the 2004 Final EIR (Section 3.11). It was determined that the previously approved project would not impact utility and service systems and would not substantially increase the amount of solid waste generated at the mine and transported offsite for disposal. Water used onsite is supplied by MolyCorp-owned production wells from two offsite well fields (discussed in Section 3.8 of the 2004 Final EIR). The Mountain Pass facility also has a current Domestic Water System Permit issued by San Bernardino County Department of Environmental Health Services which is renewed annually (January 1 through December 31). As a supplier of domestic water, MolyCorp must comply with the requirements of Title 22 of the California Code of Regulations. MolyCorp operates a domestic wastewater system per the Lahontan Region Regional Water Quality Control Board Order 6-01-18 Domestic Wastewater System. Therefore, no significant impacts to utilities/service systems are expected.

#### 17. a, b, e) Wastewater:

**Currently Proposed Modifications:** As with the previously approved project, both construction and operation activities would occur entirely within the boundaries of the existing mine site. The wastewater generated by the facility is expected to be reduced by the installation of the Salt Recovery and Recycling Facilities, which will allow water to be reclaimed and reused in the process, thereby reducing the volume of wastewater generated. The previously approved evaporation ponds will not be constructed. Therefore, no additional wastewater treatment facilities will be required by the currently proposed modifications. The currently proposed modifications do not increase the number of employees at the facility and do not affect the existing sanitary sewer system.

**17. c) Storm Water:** The previously approved project did not impact storm water drainage. The facility was constructed with a series of storm water diversion ditches and settling ponds, along with a series of check dams and silt fencing to minimize erosion. The currently proposed modifications do not alter drainage patterns of storm water at the facility as compared to the previously approved project. The proposed access road will be designed with culverts to allow the existing wash drainages to continue to drain in the same fashion. The Facilities pad will be paved, and storm water will be direct to existing natural was channels to the south and east of the pad. Therefore, no impact to storm water drainage facilities is expected.

**17. d) Water Supply:** The previously approved project utilized approximately 525 gallons per minute (gpm) of water provided by two well fields operated by Molycorp. The water supply is a vested right for the Molycorp facility. As discussed below, the currently proposed modifications are not expected to increase water demand at the site. The currently proposed modifications to the facility will eliminate the solar evaporation ponds, and replace the solar evaporation operation with Salt Recovery and Recycling Facilities. Wastewater from the mineral recovery operations along with water from the pit and water generated from the ground water remediation treatment system would be sent to the Salt Recovery and Recycling Facilities, where the salt content would be recycled into hydrochloric acid, sodium hydroxide and sodium hypochlorite, which will be re-used in the mineral recovery operation or sold as a product. This recycling practice will eliminate the need for additional solar evaporation ponds, and will also reduce fresh water requirements. At the same time, the Salt Recovery and Recycling Facilities as well as the CHP will consume water for uses in cooling towers and steam production. Both the cooling towers and the steam production operations result in water losses to the atmosphere through evaporation. The net result of these changes is an estimated reduction in fresh water use to 390 gpm.

Under the currently proposed modifications, Molycorp would continue to consume all of the water that flows into the open pit (average flow of about 150 gpm) as well as the water generated from the ground water remediation systems (average flow of about 40 gpm). Pumping of the open pit water and the remediation water is part of the overall ground water remediation system required by the Lahontan Regional Water Quality Control Board to address historic ground water impacts at the Molycorp facility. In the event that either of these streams is unavailable as a result of short term operational or maintenance issues, water from the fresh water production system would be used to make up the difference, to a maximum of 525 gpm. The currently proposed modifications have removed previously proposed evaporation ponds and do not included large water or wastewater storage capacity. This will require Molycorp to operate the facility within water balance and will not allow the use of more water than what is needed to make up for the water losses from the system. Thus, the currently proposed modifications to the facility are not expected to result in a net increase in fresh water usage at the Molycorp site or result in an increase in water demand at the site.

#### **17. e and f) Solid/Hazardous Waste**

**Previously Approved Project:** The impacts of the use of hazardous materials and generation of hazardous waste were evaluated in the 2004 Final EIR (see pages 3-121 through 3-124) for the previously approved project. It was determined that Molycorp will not use substantially greater

amounts of hazardous materials in the construction or implementation of the Reclamation Plan. Therefore, no significant impact to hazardous waste was expected following mitigation.

### **Currently Proposed Modifications**

**Solid Waste:** The previously approved project was not predicted to impact solid/hazardous waste. The currently proposed modifications will reduce the amount of solid waste produced and shipped offsite, since the elimination of the Northwest Evaporation Ponds will not produce the evaporated salts (primarily sodium chloride) which require offsite disposal. In addition, the construction of the Salt Recovery and Recycling Facilities will allow Molycorp to use and recycle the salt waste onsite as opposed to transport offsite for disposal, resulting in an estimated reduction in solid waste disposal (salt waste) of about 90-100 tons per day.

**Hazardous Waste:** The currently proposed modifications will result in additional processing of rare earth materials. The leaching of bastnasite is expected to solubilize rare earths, as well as lead materials, potentially generating about four to ten tons per day of hazardous waste due to the presence of lead.

There are two hazardous waste (Class I) facilities in California: the Chemical Waste Management Inc. (CWMI) Kettleman Hills facility in King's County, and the Safety-Kleen facility in Buttonwillow in Kern County. Kettleman Hills receives an average of 2,700 tpd and has an estimated 2 million cubic yard (cy) capacity. The facility is expected to continue receiving wastes for approximately 3 years without an expansion or 25 years with an expansion. The facility operators are in the process of obtaining permits for expansion that would increase the landfill's life by another 5 years. The facility operators would then seek a permit for development of a new landfill with a 15-year life (email communication, Fred Paap, Chemical Waste Management Inc.). Buttonwillow receives approximately 960 tpd of hazardous waste and has an approximate remaining capacity of 8.8 million cy. The expectant life of the Buttonwillow Landfill is approximately 40 years (Personal communication, Marianna Buoni, Clean Harbors Buttonwillow, Inc.). Hazardous waste also can be transported to permitted facilities outside of California. The nearest out-of-state landfills are U.S. Ecology, Inc., located in Beatty, Nevada; USPCI, Inc., in Murray, Utah; and Envirosafe Services of Idaho, Inc., in Mountain Home, Idaho, US Ecology located in Grandview, Idaho and Energy Solutions located in Clive, Utah.

There are sufficient hazardous waste facilities available to handle the potential waste generated as part of the currently proposed modifications. Therefore, no significant impacts to hazardous waste disposal facilities are expected due to the operation of the currently proposed modifications.

### **17.3 Mitigation Measures**

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

### **17.4 Conclusions**

Utilities/service system impacts are expected to be less than significant.

**CHAPTER 2: ENVIRONMENTAL CHECKLIST**

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.**

- |   |                          |                                     |                                     |                          |
|---|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a 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)   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**18. MANDATORY FINDINGS OF SIGNIFICANCE**

**18. a)** The currently proposed modifications do not have the potential to reduce or eliminate any plant or animal species or destroy prehistoric records of the past. The currently proposed modifications are located at an existing mine site, which has been previously disturbed, graded and developed. The impacts to biological resources from the previously approved project were associated with the amount of landform alterations that were expected (as discussed in Section 4.2). The area that would be disturbed under the currently proposed modifications is about 98 acres less than previously proposed, primarily due to the reduction in size of the Northwest Evaporation Ponds. The currently proposed modifications would eliminate the need for additional evaporative capacity and no additional evaporative ponds are currently proposed to be constructed. Most of the 133 acres associated with the Northwest Evaporation Ponds would

remain undisturbed; however, roads and pipelines serving the existing evaporation ponds will continue to be used with less use than expected in the previously approved project.

The currently proposed modifications would result in the conservation of 98 acres of blackbrush-juniper-Joshua tree woodland community that supports a high density and diversity of cacti, vegetation, and wildlife as compared to the project evaluated in the 2004 Final EIR. The currently proposed modifications would also centralize mineral recovery activities and eliminate the Northwest Evaporation Ponds, which would preserve undisturbed land that is adjacent to off-site open space areas on the Bureau of Land Management lands to the north. Therefore, the currently proposed modifications would result in less habitat loss than evaluated for the previously approved project and fewer impacts on biological resources.

The impacts to cultural resources from the previously approved project were also associated with the amount of landform alterations that were expected and about 98 acres less land would be disturbed under the currently proposed modifications than evaluated for the previously approved project. The currently proposed modifications would result in less site disturbance in the western portion of the site and reduce the potential for impacts to cultural resources over the previously approved project. The additional grading in the central portion of the site will impact about 35 acres of previously undisturbed areas; however, they occur adjacent to areas that are previously disturbed or on steeply-sloped areas where cultural resources are not expected to be encountered. Further, the currently proposed modifications avoid the identified cultural resources so the impacts on cultural resources are expected to be reduced over the previously approved Reclamation Plan. Therefore, no significant impacts to cultural resources are expected from the currently proposed modifications. For additional information, see Section 4.0 – Biological Resources (page 2-19) and Section 5.0 – Cultural Resources (page 2-23).

**18. b)** The currently proposed modifications are not expected to result in significant adverse cumulative environmental impacts. Because of the rural nature of the area, few other activities occur in the vicinity of the Mountain Pass mine. The currently proposed modifications will improve the efficiency of rare-earth mining operations at the Molycorp Mountain Pass facility. A discussion of key cumulative impacts follows below.

The proposed modifications include the replacement of older, previously permitted equipment with newer, more efficient equipment which must meet more stringent requirements, including BACT requirements for air emissions. The currently proposed modifications are expected to result in a decrease in VOC, NO<sub>x</sub> and SO<sub>x</sub> emissions. The incremental increased emissions of CO, PM<sub>10</sub>, and PM<sub>2.5</sub> are expected to be below the significance thresholds. Further, most emission increases associated with stationary sources must be offset through emission reduction credits associated with the reduction of emissions from other sources. Therefore, overall air quality impacts are expected to be beneficial and the cumulative air quality impacts are less than significant.

The construction activities associated with the currently proposed modifications are not expected to overlap with other construction activities. As discussed in Section 3. c), cumulative construction emissions are expected to be less than significant. The potential increase in GHG

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emissions is expected to be offset with GHG reduction credits and no other development is proposed in the area, so cumulative GHG impacts are expected to be less than significant.

With respect to aesthetics, no cumulative impacts are expected. The aesthetic impacts in the 2004 Final EIR were associated with the amount of landform alterations that were expected. The area that would be disturbed under the currently proposed modifications is about 98 acres less than previously proposed. The currently proposed modifications include some relocated and additional industrial structures, however, installation of these facilities will result in significantly less land disturbance than evaluated in the previous EIR. New buildings and facilities will be painted with exterior colors that reflect the muted earth tones found in the surrounding landscape. The slopes of the facilities pad and the road slopes will be landscaped with native desert plants. No changes to the size, location and height of the overburden stockpiles will occur as a result of the currently proposed modifications. Therefore, the aesthetic impacts associated with the currently proposed modifications are less than the previously approved project.

With respect to hazards, no cumulative hazard impacts are expected. The new CHP and Salt Recovery and Recycling Facilities will be located within an industrial area and within the confines of the existing facility. All hazard impacts will be limited to within the boundaries of the existing Molycorp site and would not have cumulative impacts with other hazards.

With respect to hydrology/water quality and utilities/service systems, Molycorp uses about 525 gallons per minute (gpm) of ground water. The currently proposed modifications are not expected to result in an increase in water demand. The design of the currently proposed modifications will require that the facility be operated within water balance. The installation of the Salt Recovery and Recycling Facilities will allow Molycorp to recycle a majority of its existing process water, reducing the volume of wastewater generated, reducing the potential for water quality impacts, reducing the potential for ground water contamination, and potentially reducing the cumulative impacts on the water supply.

The construction activities associated with the proposed project modifications that generate noise will be carried out during daytime hours. No other construction activities are expected at the site. New equipment is proposed to be built at the site (e.g., CHP and Salt Recovery and Recycling Facilities) and existing equipment is expected to be replaced. The new facilities are expected to be approximately 1 mile from the nearest resident with intervening topographic features. Extrapolation of the equipment sound levels using standard free-field hemispheric sound propagation, the noise level from the equipment is expected to be approximately 40 dBA at the nearest resident, which is less than the County of San Bernardino Maximum Hourly Noise Level Performance Standards for residential receptors of 75 dBA. The actual noise level is expected to be less given the intervening topographic features. No other noise sources are expected to be constructed in the area so cumulative noise impacts are less than significant. Therefore, noise impacts will be limited to the noise impact analysis in Section 12 herein, and noise impacts are considered to be less than significant so no cumulative impacts are expected.

The traffic associated with the operation of the Molycorp mine is expected to be less than traffic under the previously approved project. Traffic associated with the operation of the mine has not been a problem in the past due to the rural nature of the site and the fact that most of the traffic

that uses Bailey Road is associated with Molycorp mining operations. The construction of other projects near the mine is not currently proposed. Therefore, no significant cumulative traffic impacts are expected due to the currently proposed modifications.

The cumulative impacts of the currently proposed modifications on other resources, including agriculture, geology/soils, land use and planning, mineral resources, population and housing, public services, and recreation are also less than significant.

Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, a lead agency need not consider the effect significant, but must briefly describe the basis for concluding that the incremental effect is not cumulatively considerable. Therefore the project's contribution to air quality, aesthetics, hazards, noise and traffic are not cumulatively considerable and thus not significant. This conclusion is consistent with CEQA Guidelines §15064 (h)(4), which states, "The mere existence of cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable". Therefore, the currently proposed modifications are not expected to result in significant adverse cumulative impacts.

**18. c)** The currently proposed modifications will improve the efficiency of rare-earth mining operations at the Molycorp Mountain Pass facility. The proposed modifications include the replacement of older, previously permitted equipment with newer, more efficient equipment which must meet more stringent requirements, including BACT requirements for air emissions. The currently proposed modifications are expected to result in a decrease in VOC, NO<sub>x</sub> and SO<sub>x</sub> emissions and the increased emissions of CO, PM<sub>10</sub>, and PM<sub>2.5</sub> are expected to be below the significance thresholds.

As discussed in Section 3.d, the currently proposed modifications include the conversion from diesel fuel to natural gas for non-emergency stationary combustion sources and relocation of combustion sources to locations which are farther from the sensitive receptors located on the southern property line. The conversion to natural gas provides health benefits in that it eliminates diesel particulate emissions and reduces other toxic air contaminants such as polycyclic aromatic hydrocarbons (PAHs), formaldehyde, acetaldehyde, and metals, which have been identified to cause cancer and non-cancer (i.e., chronic or acute) health effects. On an equivalent heat content basis, the health risk from natural gas is almost 2,500 times less carcinogenic and has a 1.5 times lower impact of chronic health effects than diesel fuel. Therefore, the conversion to natural gas for the non-emergency stationary combustion sources in the currently proposed modifications is expected to reduce the health risk associated with the facility. In addition, the relocation of combustion sources away from sensitive receptors will reduce impacts to the receptors, since stationary source emission impacts reduce with distance. Therefore, the currently proposed modifications are not expected to produce significant impacts to sensitive populations.

As discussed in Section 8, the hazards associated with a rupture of the aqueous ammonia storage tank are expected to be limited to within 65 feet of the release. The hazards associated with a chlorine release from the Salt Recovery and Recycling Facilities is expected to be limited to about 1,860 feet from the release. The modeling results for the hazard analysis indicate that a release of chlorine or ammonia would be limited to the Molycorp property and no off-site populations

would be exposed to concentrations above the ERPG-2 threshold level for chlorine; therefore, no significant hazard impacts are expected.

### CONCLUSION

In 2004, a Final EIR was prepared for the Molycorp Inc., Mountain Pass facility that analyzed the impacts from the mining operations for a period of 30 years. The 2004 Final EIR concluded that the Molycorp facility would result in potentially significant aesthetic, air quality, biological resources, geology/soils (land form alterations), hydrology/water quality (groundwater recharge and surface water quality in the pit lake). The project impacts on other environmental resources were determined to be less than significant.

The currently proposed modifications will improve the efficiency of rare-earth mining operations at the Molycorp Mountain Pass facility. The currently proposed modifications include the replacement of older, previously permitted equipment with newer, more efficient equipment which must meet more stringent requirements. In addition, Molycorp is proposing modifications to improve the efficiency of minerals recovery while minimizing project impacts at the Mountain Pass facility through the relocation of the crusher plant and stockpiles; the addition of a Combined Heat and Power (CHP) Plant; the installation of salt recovery facilities; the modification of existing mineral recovery facilities; the construction of an addition to the central shop, a warehouse, and truck shop; and the improvement and extension of the access road to the new warehouse and Salt Recovery and Recycling Facility. Molycorp is proposing to continue mining operations under current production rates at its Mountain Pass Mine facility in California as has been approved for the next 30 years. To continue this operation, Molycorp will continue to exercise its vested right to conduct mining activities in various locations throughout the site, in accordance with an approved Reclamation Plan. Molycorp will also shift the approved 30-year operational time span to cover 2012 through 2042.

The environmental analysis in Chapter 2 of this document demonstrates that the proposed efficiency improvements to the Molycorp Mountain Pass facility will not cause a new significant adverse impact or a substantial increase requiring a subsequent EIR for the following reasons:

1. The 2004 Final EIR included an analysis of the impacts from the mining operations for a period of 30 years. The current proposed modifications involve the efficiency improvements that will upgrade equipment and operations, but will not substantially change mine and process operations at the Molycorp Mountain Pass facility. In addition, there will be a reduction in land disturbance of about 98 acres. Therefore, there will be a reduction in biological, storm water runoff and other related impacts.
2. Diesel-fired equipment will be replaced with natural gas-fired equipment or equipment that uses electricity (e.g., boilers and dryers) resulting in a reduction in the use of diesel fuel and reduced diesel particulate emissions from the Molycorp Mountain Pass facility.

3. The potential air quality impacts associated with the new equipment will comply with Mojave Desert Air Quality Management District Best Available Control Technology requirements.
4. The installation of on-site Salt Recovery and Recycling Facilities will reduce transportation impacts.
5. Improvements in the efficiency of the milling and rare earth separations operations will increase yields from 50% historically to approximately 90%, resulting in a substantial improvement in the utilization of the rare earth mineral resource at Mountain Pass.
6. An analysis of the other environmental topics in the CEQA Guidelines indicates that the currently proposed modifications will not result in any significant adverse environmental impacts after mitigation.

Based on the environmental analysis prepared for the currently proposed project modifications, it has been quantitatively and qualitatively demonstrated that the currently proposed modifications will not generate any significant adverse environmental impacts and meets the qualifications for the preparation of a Subsequent Negative Declaration per the requirements of CEQA Guidelines §15162.

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### REFERENCES

MDAQMD, 2009. California Environmental Quality Act (CEQA) and Federal Conformity Guidelines. Planning and Rule Making Section, Surveillance Section, February 2009.

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