

**APPENDIX A**

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**2004 Final EIR Imposed Mitigation and Conditions of Approval**



- \*\*58. Molycorp will develop and implement a plan to plant vegetation along the appropriate portions of the perimeter of the CHP MPRP area to provide screening for the visual impacts on the MPRP of the expanded overburden stockpiles. This Plan will be submitted to the County for approval, and the Plan will be compatible with the final approved Revegetation Plan.  
(EIR Mitigation Measure AES-1)
- \*\*59. Molycorp will not conduct reclamation grading activity concurrent with construction of the NEP.  
(EIR Mitigation Measure A-1)
- \*\*60. Molycorp will revise the Revegetation Plan to include the following components:
- a) a long-term, site-wide non-native plant eradication and control program. The eradication and control program will include all disturbed portions of the mine site, as well as the many natural drainages in the south-central portion of the mine site, where non-native vegetation has become established. This program will begin within one year of project approval for the existing site and will continue in concert with development of the proposed evaporation pond expansion area and overburden stockpile expansion areas. Special attention will be paid to eliminating salt-cedar within and adjacent to the mine site where access is allowed by the landowner or manager. Eradication efforts will occur at least twice each year (late spring and late fall), and will focus on chemical and manual methods to control the growth and dispersal of established colonies and individual plants of invasive, non-native species listed by the California Department of Food and Agriculture (<http://pi.cdfa.ca.gov/weedinfo/>).
  - b) a list of appropriate reference areas that will be used to collect baseline data against which revegetation success will be measured. The number of such baseline areas will be dependent upon two factors, the number of different habitats ultimately affected by the project and the variability of species diversity within each habitat. Molycorp will use the methodology discussed in the Revegetation Plan to sample an appropriate number of reference areas for each type of habitat requiring revegetation. Molycorp will determine the number of reference sites sampled for each affected habitat type based on the variability of species diversity for each reference site.
  - c) a map and list of sites where plants will be transplanted and propagated, and a detailed outline of the transplantation/propagation procedures that will be followed,
  - d) a detailed discussion of maintenance and monitoring requirements, including the number and locations of test plots.

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e) the seed mix to be collected and used at the site. The seed collection and maintenance will be performed by a qualified seed company that specializes in the collection of native seed from locally collected stock.  
(EIR Mitigation Measure B-1)

\*\*61. The final revegetation effort for the activities covered by this EIR will be performed at an approximately 1:1 replacement ratio, i.e. one acre of habitat restored for each acre of habitat disturbed.  
(EIR Mitigation Measure B-2)

\*\*62. Revegetation Monitoring will continue annually in a given area at the mine for 10 years after reclamation has been completed there. Following the first two years of qualitative monitoring, quantitative monitoring will be conducted. Monitoring will utilize methods appropriate to the areas under study based on discussions with the County. Beginning with the adoption of the final revision of the Reclamation Plan that encompasses all the needed changes to be consistent with the final conditions of project approval, and continuing until reclamation is completed at the mine, Molycorp will submit to the County annual monitoring reports. The reports will:

- a) describe revegetation actions undertaken in the reporting period;
- b) identify areas that have been disturbed;
- c) identify areas and acreage for which revegetation has been started;
- d) present results of investigations on species diversity and other measures of revegetation success in test and control or reference plots;
- e) describe successes and problems in the revegetation efforts for that year;
- f) describe steps taken to resolve problems or achieve revegetation success;
- g) describe disturbance and revegetation efforts planned for the next two years.

(EIR Mitigation Measure B-3)

\*\*63. If revegetation is not successful, Molycorp will undertake the following actions:

- a) If, during the first two years of qualitative monitoring, revegetation is clearly not successful, Molycorp will reevaluate the revegetation methods and will discuss changes to these methods with the County. Molycorp will revise the Revegetation Plan, secure concurrence from the County for the changes, and begin implementing the new measures.
- b) If the test plots do not meet the specified success criteria of the control plots after three years, Molycorp will make an assessment of the revegetation methods to identify any deficiencies contributing to planting failures. Corrective action shall be incorporated in follow-up testing.

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If after five years, the revegetated areas (as measured by the results of the test plots) have not achieved these success criteria, Molycorp will immediately begin to implement the measures identified in a contingency plan.  
(EIR Mitigation Measure B-4)

- \*\*64. Prior to ground disturbance for each component of the proposed project, intensive, focused surveys will be conducted by a qualified biologist approved by the County for the special-status species previously and potentially found onsite at an appropriate time of year for maximum detectability, with particular emphasis on burrowing owls, desert tortoise, and nesting birds. Wildlife surveys will include diurnal transect surveys for special-status animals and likely bat roosts.  
(EIR Mitigation Measure B-5)
  - \*\*65. Prior to ground disturbance for each component of the proposed project, a focused plant survey will be conducted by a qualified botanist at an appropriate time of year for maximum detectability in order to locate special-status species.  
(EIR Mitigation Measure B-6)
  - \*\*66. Special-status plant populations that are adjacent to, but outside of, the proposed work areas and not slated for development, will be flagged and temporarily fenced to ensure that these plants are not inadvertently harmed.  
(EIR Mitigation Measure B-7)
  - \*\*67. Special-status plants (as listed in County Development Code Section 89-0401 (et.al.), Desert Native Plant Protection, and those species identified/listed in Mitigation Measure B-6) and growing within the disturbed areas will be salvaged and/or propagules will be relocated to an appropriate location within the mine site that will not be disturbed by future mine activities. Prospective transplanting sites will be inspected and approved by a qualified botanist prior to removal of vegetation for the project. Transplanting efforts will be consistent with the revised Revegetation Plan.  
(EIR Mitigation Measure B-8)
  - \*\*68. Transplanted or propagated plants will be maintained for a minimum of three years, or until a qualified biologist(s) determine that the plants have been successfully established (e.g., plants are vigorous, flower, and produce seed). Successful re-establishment of the plants will be based on the replanted areas achieving density and diversity standards based on control plots.  
(EIR Mitigation Measure B-9)
  - \*\*69. Special-status species identified in preconstruction surveys discussed in **Mitigation Measure B-5** shall be relocated prior to vegetation clearing or building removal. Prior to disturbance of native habitat, a qualified biologist, approved by the County, will make a diligent effort to remove special-status
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species from the areas to be disturbed. This effort will focus on wildlife species with limited mobility. All individuals captured will be relocated to the nearest appropriate habitat within the Molycorp site. Individuals that are relocated will be reported to CDFG on an annual basis. Mobile species that move out of the disturbance area will be noted as well, but no specific effort to relocate these species will be attempted.

(EIR Mitigation Measure B-10)

\*\*70. Clearance of previously undisturbed land will be scheduled outside of the nesting period for both migratory bird species and special-status bird species if nesting birds occur on the subject land.

(EIR Mitigation Measure B-11)

\*\*71. Prior to disturbing each wash, Molycorp will complete the following actions;

a) submit a plan to the County that shows how much habitat will be affected, explains the habitat value of the affected habitat, and identifies measures to replace these habitat values with similar values and areas elsewhere (i.e., providing alternative areas with similar habitat values to the areas disturbed by the project, to compensate for the impacts of project activities on wash habitat areas);

b) initiate the implementation of the habitat value replacement actions;

c) establish a schedule for completion of the habitat value replacement activity including a monitoring and remedial program; and

d) concurrent with these activities Molycorp will secure from the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Game (CDFG) a 404 and 1603 permit, respectively, if legally required.

(EIR Mitigation Measure B-12)

\*\*72. The attractiveness of the site to ravens will be minimized by preventing access to potential food sources, such as garbage. Mine personnel, including personnel constructing the new facilities and implementing the Reclamation Plan, will be educated about the importance of placing garbage in closed containers and keeping the mine site free from trash. Compliance with this measure will be monitored annually. Molycorp will fund a study to determine the potential impacts if the efforts are unsuccessful to prevent raven access to garbage or other on-site food sources. Prior to project implementation, Molycorp will submit a Raven Control Plan that addresses the following: measures to reduce water availability for the ravens, such as covering site ponds, constructing vertical walls as pond edges, placing monofilament line or screening over the pond surface, and/or adding harmless but taste aversive chemicals to standing water sources. Depending on the outcome of these actions, additional measures to control raven impacts may be implemented. If measures to reduce the raven population are

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deemed necessary, Molycorp will obtain the appropriate permits from CDFG and/or USFWS.  
(EIR Mitigation Measure B-13)

- \*\*73. Fueling and maintenance of vehicles and other equipment shall occur at least 200 feet from any storm drain, riparian scrub habitat, water body, wash, or streambed, except at existing facilities with adequate spill control to prevent spills from affecting these resources. Molycorp shall ensure that contamination of these habitats, as well as upland habitats, does not occur during such operations. All spills of this nature will be promptly cleaned up and soil disposed of in an approved manner.  
(EIR Mitigation Measure B-14)
- \*\*74. The exclusion area will be surveyed for desert tortoise prior to initial project activities and every two years thereafter, (or more frequently on an as-needed basis, at the direction of the US Fish and Wildlife Service), for the life of the project. If desert tortoise are found on Molycorp property, Molycorp will secure an Incidental Take Permit from the USFWS for relocating the animal to suitable habitat off the property. Until the animal has been successfully relocated, Molycorp will avoid activities in the area where the animal was found.  
(EIR Mitigation Measure B-15)
- \*\*75. The berms and edges of water bodies will be kept free of vegetation in order to reduce the attractiveness of these features to wildlife.  
(EIR Mitigation Measure B-16)
- \*\*76. Molycorp will base remediation of the lanthanide storage ponds on risk-based criteria. By ensuring that residual constituent concentrations in the subject area are equal to or less than the risk-based criteria, Molycorp will demonstrate that potential ecological risks have been reduced to acceptable levels. The criterion of "an acceptable level" will be determined at the time of the closure of the facilities by representatives from the County and the resource agencies.  
(EIR Mitigation Measure B-17)
- \*\*77. Molycorp will remove the windblown tailings adjacent to the North Tailings Storage Area (P-16). The tailings will be placed back into P-16 prior to its closure or into another site deemed appropriate by the County and agencies with jurisdiction over the site. To confirm that the windblown tailings have been removed, Molycorp will submit a report to the County verifying that the windblown tailings have been removed and cleaned up to the satisfaction of the LRWQCB.  
(EIR Mitigation Measure B-18)
- \*\*78. On a quarterly basis, Molycorp will monitor the buildup of windblown tailings downwind of the NWTSA, both on-site and off-site. The details of the monitoring

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program have not yet been developed, e.g., specific monitoring locations, and the detailed monitoring protocols. These will be part of the LWRQCB's development of overall Waste Discharge Requirements for the project facilities. It is expected that monitoring will be required at various distances from the potential source of windblown tailings, e.g., 5 feet, 50 feet, and 500 feet.

The results of the monitoring will be reported to the County annually at the same time as the results are reported to the LRWQCB. If tailings are observed being transported off-site by either wind or water erosion, or if County representatives determine that the tailings are building up to a level sufficient to cause physical impacts to the vegetation, e.g. through direct burial, or would begin to pose a risk to wildlife, e.g. through exposure to the surface dust, then Molycorp will remove the built-up windblown tailings in a timely manner. If either of these conditions occurs, then Molycorp and the agencies involved will review, and if needed, modify the dust control measures that are in place at the time.

If dead desert tortoises are found within the on-site tortoise exclusion zone, Molycorp will arrange necropsies at the direction of the USFWS. This will allow appropriate decisions to be taken by the involved parties (e.g., Molycorp, the County, USFWS) concerning what subsequent actions (if any) should be taken. (EIR Mitigation Measure B-19)

\*\*79. For reclamation of the overburden stockpiles, Molycorp will use surface soils that do not contain the elevated concentrations of metals that drove the Ecological Risk Assessment (ERA), e.g. lead, strontium, and uranium. Molycorp will provide documentation to the County that the soils used for reclamation comply with this mitigation measure. Appropriate soils could come from either onsite or offsite. (EIR Mitigation Measure B-20)

\*\*80. If possible, future impacts to historic sites CA-SBR-7811H (the "Birthday Mine") and CA-SBR-7813H (the "Sulfide Queen Mine") will be avoided. If avoidance is not possible, the sites will be researched, photographed, and thoroughly documented to mitigate the loss of information resulting from their alteration or destruction. (EIR Mitigation Measure CR-2)

\*\*81. Because there is a possibility of discovering buried prehistoric and historic artifacts/sites during grading/excavation activities in previously undisturbed areas of the Mountain Pass Mine, these activities will be monitored by a qualified archaeologist. If additional cultural resources are discovered, they will be evaluated in consultation with the California State Historic Preservation Officer (SHPO) and appropriate Native American groups prior to further ground disturbance. The archaeologist will have the authority to halt work in the discovery area until evaluations are complete. Evaluation may involve test excavations to assess the nature, spatial extent, and integrity of the resource. If

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- a newly discovered site is determined to be significant by National Register of Historic Places (NRHP) criteria, a mitigation plan (i.e., data recovery and/or excavation) shall be prepared and implemented prior to further ground disturbance in the immediate vicinity of the site.  
(EIR Mitigation Measure CR-3)
- \*\*82. Monitoring of slope stability will be conducted annually during mining at every 100 feet of depth/height or whichever occurs first. A new slope stability study shall be conducted upon completion of mining and prior to reclamation.  
(EIR Mitigation Measure G-5)
- \*\*83. Prior to the start of construction at the site, a technical evaluation of site soils will be conducted to identify the most suitable material to be used as a growth medium for the site revegetation and reclamation.  
(EIR Mitigation Measure S-1)
- \*\*84. Prior to the start of construction, the operators of earth-working equipment will be trained to recognize fossils and fractures that contain fossils. The training will be conducted by a qualified vertebrate paleontologic monitor.  
(EIR Mitigation Measure P-2)
- \*\*85. If fossil remains are uncovered by earth-moving activities, activities will be stopped and a paleontologist will be called to the site to remove the remains. If warranted, additional mitigation measures will be implemented. Fossil remains and associated data will be processed as in P1, above.  
(EIR Mitigation Measure P-3)
- \*\*86. Prior to the start of the project, Molycorp will complete a detailed surface water management plan for the existing Mountain Pass mine site that includes changes to the mine site under the proposed project. This stormwater management plan will cover the proposed additional 30 years of mining and the mine site after reclamation. Surface water flows, stormwater flows under the 24-hour 100-year storm event, and water quality will be evaluated for the existing mine site, the mine site during the proposed 30 years of additional mining, and the mine site after reclamation. This surface water management plan will be submitted to the County of San Bernardino and LRWQCB for approval.  
(EIR Mitigation Measure F-2)
- \*\*87. Molycorp will determine the adequacy of the existing waste minimization/ source reduction plan, evaluate further means to reduce hazardous waste generation, and revise the plan accordingly. Employees will be trained in procedures to reduce the volume of hazardous waste generated at the proposed facility. The procurement of hazardous materials will be controlled to minimize surplus materials onsite and to prevent unused materials from becoming "off-

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specification.” Nonhazardous materials will be used in lieu of hazardous materials whenever feasible. Hazardous materials will be preferentially reused or recycled.

As required by CCR for waste management units containing mining waste, Molycorp will develop and implement a post-closure maintenance and monitoring program for the NEP and the NWTSA.  
(EIR Mitigation Measure WM-1)

\*\*88. Molycorp will perform a pre-start up safety review for those additions and modifications proposed under the project where the change is sufficient to require a change in the safety information and/or where an acutely hazardous and/or flammable material would be used. The review will be performed by Molycorp personnel with expertise in process operations and engineering. The review will verify the following:

- Construction, equipment installations, and equipment modifications are in accordance with design specifications and applicable codes.
- Safety, operating, maintenance, and emergency procedures are in place and are adequate to address various risk of upset scenarios.
- Process hazard analysis recommendations, as identified from the review discussed above, have been addressed and actions necessary for start-up have been completed.
- Training of each Molycorp operating employee and maintenance worker has been completed.

(EIR Mitigation Measure HM-1)

\*\*89. Molycorp shall continue to administer the ongoing employee radiation monitoring/safety program at the facility, and if required by DHS/RHB, will develop and implement a formal, comprehensive radiation monitoring program for milling and waste management operations. Molycorp will advise the County if a formal comprehensive radiation monitoring program for milling and waste management operations is implemented, and will advise the County if any notices of violation are issued for failure to properly implement these monitoring/safety programs.

(EIR Mitigation Measure HM-2)

\*\*90. Molycorp will implement a long-term air monitoring program in accordance with protocol developed with input from the Mojave Desert Air Quality Management District and the California DHS. The monitoring program (which has already been developed and began in May 2002 as a recommendation of the Phase I HHERA in advance of formal approval as a mitigation measure by the County), includes measurements of wind speed and direction at the primary receptor locations. Chemicals monitored include black carbon (a major constituent of diesel exhaust and measured as a surrogate for diesel exhaust), lanthanide metals, other metals

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of potential concern, PM10, and radioisotopes (natural uranium, and isotopes of radium of thorium).

(EIR Mitigation Measure RA-1)

\*\*91. Molycorp will contribute to the development of additional experimental evidence to fully characterize the potential health effects of the lanthanide metals. The nature, scale, and timing of Molycorp's contribution will be determined by the Phase II Human Health and Ecological Risk Assessment (HHERA).  
(EIR Mitigation Measure RA-2)

\*\*92. Molycorp will develop and implement remedial activities as needed, should air monitoring indicate that the modeled concentrations of constituents of potential concern (COPCs) were underestimated or that the toxicities of the lanthanides were underestimated. Among the remedial measures that would be considered are increasing the frequency of water application and/or chemical dust suppressant use. Although no other feasible dust control technologies have been identified, other control technologies that may have emerged and demonstrated their feasibility will be considered when/if additional measures are deemed necessary.  
(EIR Mitigation Measure RA-3)

\*\*93. (a) Upon cessation of mining and within one year after the LRWQCB determines that dewatering of the mine pit is no longer necessary, Molycorp shall initiate pit lake water quality mitigation. An evaporative barrier shall be installed on the surface of the pit lake or the best available technology as determined in subsection (e) shall be used. The barrier shall incorporate the best available technology available at that time and significantly reduce evaporation of the pit lake to the extent that it will result in long-term water quality that meets or exceeds all pertinent groundwater quality standards and requirements, including background water quality as established by LRWQCB. Should the evaporative barrier not meet performance standards as required by subsection (c), an alternative mitigation measure may be recommended as a result of subsection (e).

(b) Molycorp shall establish an appropriate water quality monitoring program related to the quality of water in the pit lake. The required reports shall detail the results of this monitoring program and shall be provided to the County Geologist and LRWQCB. The groundwater quality reporting shall compare the water quality of the pit lake against the anticipated long-term water quality of the pit lake as modeled and the effectiveness of the evaporative barrier. Reports of the groundwater quality sampling shall be provided to the County at the following intervals: 1 time per year for the first 10 years; 1 time every two years for the next 20 years; 1 time every 5 years for the next ten years; 1 time at the end of the next ten year period; or as required by the LRWQCB. If the sampling indicates

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that water quality may degrade, then additional modeling shall be prepared and appropriate modifications to the evaporative barrier may be recommended.

(c) Molycorp shall establish an on-site testing area to develop on-site data about the use of an evaporative barrier as proposed in subsection (a). A program of the evaporative barrier demonstration testing shall be submitted to the County Advance Planning Division for review and approval within six months of project approval (the "testing program"). The testing shall be initiated within 90 days of approval of the testing program. The testing program will include a test facility that will be filled with water and covered with a currently commercially available evaporative barrier, such as the synthetic ball covers product. Molycorp shall monitor the effect of the evaporative barrier from the time of initial mine expansion to the point in time determined in the testing program for completion of the analysis. Molycorp shall monitor the reduction of evaporative losses, the durability of the product and the impacts of degradation of the evaporative barrier product in the water, if any, over time. Reports evaluating the results of the demonstration testing program shall be submitted throughout the duration of testing as identified in the testing program.

(d) A re-evaluation of backfilling the pit and an analysis of the groundwater contamination potential of the overburden materials shall be conducted. The analysis shall examine the overburden when placed as stockpiles and when placed as backfill within the open pit. The proposed analysis methodology shall be submitted to the County and the LRWQCB for review and approval within six months of project approval. The analysis shall be initiated within 90 days of approval of the methodology. The analysis shall be conducted concurrently with the evaporative barrier demonstration testing so as to provide information if a mitigation alternative to the evaporative barrier is required. The analysis shall undergo technical review and approval by County staff and the LRWQCB. Based on the DEIR, no potential for impacts from the overburden stockpiles is expected, however, if a significant potential for groundwater contamination is shown, appropriate mitigation will be required in consultation with the LRWQCB.

(e) Five years prior to pit lake reclamation, a joint panel from the County, the LRWQCB, and other agencies and experts as appropriate will be convened to reexamine the modeling and other data collected to date and determine the most technically feasible mitigation for the pit lake water quality. The results of the evaporative barrier testing as required in subsection (c), the results of the backfilling analysis as required in subsection (d), and relevant new technology will be considered.

(EIR Mitigation Measure W-2)

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