

Worksheet
Determination of NEPA Adequacy (DNA)
U.S. Department of the Interior
Bureau of Land Management

OFFICE: Winnemucca District Office, Humboldt River Field Office

TRACKING NUMBER: DOI-BLM-NV-W010-2014-0034-DNA

CASEFILE/PROJECT NUMBER: N-65325

PROPOSED ACTION TITLE/TYPE: Lone Tree Mine Expansion – Brooks Project

LOCATION/LEGAL DESCRIPTION: T34N, R42E, sections 21, 22, 27, and 28.

APPLICANT (if any): Newmont Mining Corporation

A. Description of the Proposed Action with attached map(s) and any applicable mitigation measures.

Newmont Mining Corporation (Newmont) proposes to expand their existing operations at the Lone Tree Mine to include the Brooks project. The Brooks project is located approximately 1.5 miles southwest of the current Lone Tree Mine plan of operations (POO) boundary. Under this project, the POO boundary would be modified to include the Brooks project area, and the existing heap leach pad and ancillary support facilities would be used. The proposed project would include the following major components:

- One open pit (the “Brooks Pit”);
- Three waste rock storage areas;
- Laydown areas;
- Relocation of an existing lime silo;
- Storm water diversion ditches and storm water sediment basins;
- Exploration-related disturbance; and
- Haul and access roads.

Approximately 10.5 million tons of material would be mined from the Brooks Pit. Approximately 2.3 million tons would be heap leach ore, while the other 8.2 million tons would be placed in the waste rock storage areas. The material would be mined using conventional open-pit methods of drilling, blasting, loading, and hauling. Total surface disturbance would be approximately 229 acres (32 acres for open pit, 110 acres for waste rock storage, 56 acres for haul roads, 11 acres for laydown areas, 10 acres for exploration, and 10 acres for storm water diversion ditches). This represents a 5.4% increase to the existing surface disturbance associated with the Lone Tree Mine.

Following BLM and NDEP approval, operations would likely begin in early 2015. Stripping of overburden is expected to take approximately 1-2 months, after which

production would begin. Mining is expected to be completed in early 2018, and leaching should be completed in early 2021. Reclamation, post-closure monitoring, and other closure activities would continue for another 3 years.

The majority of surface disturbance would occur within T34N, R42E, section 28, with additional disturbance from the access road occurring in sections 21 and 22.

The Lone Tree Mine currently employs approximately 50 people. The proposed action expects to continue employing these individuals for approximately 3 additional years during stripping and production activities. For production activities, Newmont anticipates the work schedule would be 10 hours per day, 4 days per week, 52 weeks per year. Ore processing would occur 24 hours per day, 365 days per year.

The mitigation measures listed below are taken from the Record of Decision (ROD) for the *Final Environmental Impact Statement, Lone Tree Mine*, dated October 15, 1996, and are specifically applicable to this proposed action. Be advised, not all details of the mitigation measures are applicable to this action, however the mitigation measures are provided in their entirety. Some examples of details that are not applicable include actions on private land, descriptions of water quality, tailing impoundment and leach pads. These items do not pertain to the current proposed action since there are no private land, water quality, tailings impoundment or heap leach issues associated with this action. Additionally, when referencing the operator, Santa Fe Pacific Gold (a.k.a. SFPG) has been replaced with Newmont. The relevant mitigation measures are:

SOILS

Impacts from compaction are to be reduced by ripping and scarifying oxide overburden after placement.

In order to reduce soil loss and uncontrolled rilling and gulying on overburden faces, Newmont shall contour the tops of overburden disposal facilities to direct runoff inward on each bench or down dump faces into existing drainage bottoms (if water quality is acceptable).

Varying slope gradients are to be constructed on overburden disposal and heap leach areas to create more drainage diversity.

Newmont shall stabilize growth medium stockpiles by revegetating with an appropriate seed mixture.

RECREATION

Following the completion of mining operations, Newmont shall exclude access and mitigate safety hazards posed by pit walls by reclaiming all pit access roads. On private land, a 4-strand barbed wire fence will be constructed around the perimeter of the open pit approximately 100 feet back from the highwall edge. On public land, a berm will be constructed around the perimeter of the open pit approximately 100 feet back from the highwall edge. The fence and berm shall be posted with warning signs spaced every

2000 feet. The signs would be fabricated of metal warning visitors of unstable conditions and hazards. Signs shall also be installed warning the public of water quality conditions.

TERRESTRIAL WILDLIFE

Reclamation of overburden disposal areas and leach pads will incorporate the following measures which are intended to enhance the post mining wildlife habitat values of these sites.

- a. Individual boulders, rock piles, and areas resembling rock slides will be installed to provide diversity of habitat and perching, feeding, and loafing areas for resident raptor, small mammal, and reptile species inhabiting these sites. The location, distribution, size, and density of these areas will be determined with consultation from the BLM.
- b. During reclamation, surfaces of both side slopes and tops of overburden areas, heap leach pads, and tailings facility will be graded to incorporate a series of swales and irregularities in the contour surface, generating micro climates for post mining flora.

AIR RESOURCES

Fugitive dust from all disturbed areas and unpaved roads during the mine life would be controlled using water sprays, chemical stabilization or other dust controls approved by the Nevada Division of Environmental Protection (NDEP).

GEOLOGY

Overall side slopes of the overburden disposal areas will be 3.0H:1V. Reclamation goals for the overburden dumps will include ensuring slope stability, design more natural appearing slopes blending with surrounding topography, and minimize erosion and excessive soil loss.

All overburden and interburden disposal areas, tailings impoundment, and heap leach pads are to be designed, constructed and maintained ensuring stability during and post mining. Newmont shall apply mitigating measures for slump failures of overburden disposal areas, tailings impoundment and leach pads, including monitoring for slump failures of facilities during mining operations. In the event such monitoring identifies advanced signs of slope or slope failure, Newmont shall take remedial action to alleviate the problem, including performing the necessary earthwork to stabilize slump or slope failure and establish appropriate drainage, to deter unstable conditions in a manner acceptable to the BLM authorized officer.

VISUAL

To eliminate flat surfaces on overburden dumps and heap leach pads, the surfaces shall be recontoured and a sufficient number of large boulders of rock shall be placed on the tops of these facilities.

The long straight profiles of the overburden dumps shall be broken up by creating pseudo-drainages along the faces of the dumps.

Edges of overburden embankments will be rounded to reduce angular appearance and soften edges.

VEGETATION

Revegetation success standards are to be determined by attachment B of the “Nevada Interim Standards for Successful Revegetation.”

Disturbed and reclaimed areas shall be monitored to determine if undesirable species are becoming established. If weeds become a problem, a control plan shall be developed and approved by the BLM.

The operator shall be responsible for controlling all noxious weeds and other undesirable invading plant species in disturbed areas until revegetation activities have been determined successful and signed off by the BLM authorized officer. The operator shall obtain approval from the authorized officer prior to any and all application of herbicide. All seed shall be tested for noxious, poisonous, or prohibited plant species and the test results submitted to and approved by the BLM, unless certified weed free seed is procured.

CULTURAL

Newmont shall comply with requirements of the Surface Management Regulations 43 CFR 3809.420(b)(8) pertaining to cultural and paleontological resources. Project workers shall be instructed in cultural resource protection laws and associated responsibilities. If any new cultural resource sites not previously identified in the cultural resource inventories are encountered during facility construction and or operational activities, work shall stop at the particular location and Newmont shall notify the Winnemucca District of the BLM. Work at the location shall be deferred until the BLM Winnemucca District office directs Newmont on how to proceed.

Newmont must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.2). In the event that a discovery is found, Newmont must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

ADDITIONAL RECOMMENDED MITIGATION MEASURES

The following additional mitigation measures, or modifications to mitigation measures listed above and project design features, have been developed through this review. These measures provide clarification and strength to existing mitigation and design features. The nature of these measures do not trigger the need for analysis in a new environmental assessment. The additional recommended mitigation measures are:

SOILS

Newmont shall stabilize growth medium stockpiles by revegetating with a BLM-approved seed mixture.

TERRESTRIAL WILDLIFE

To minimize entanglement hazards to wildlife, the boundary fence shall be constructed to the bureau's antelope specifications (i.e., steel posts, four stands of wire, and steel pipe panels, wire spaced at 16", 22", 28", and 40", top three wires barbed, bottom wire smooth).

VEGETATION

A noxious weed monitoring and control plan shall be developed by the operator as part of the plan of operations, and subjected to BLM review and approval prior to the operator being issued a notice to proceed.

All seed shall be tested for noxious plant species as referenced in the Nevada Noxious Weed List (Nevada Department of Agriculture, 2011; Nevada Department of Agriculture, Plant Industry Division, Noxious Weeds List, http://agri.nv.gov/Plant/Noxious_Weeds/Noxious_Weed_List/) and the test results submitted to and approved by the BLM.

B. Land Use Plan (LUP) Conformance

LUP Name*: Sonoma-Gerlach Management Framework Plan

Date Approved: July 9, 1982

*List applicable LUPs (for example, resource management plans; activity, project, management, or program plans; or applicable amendments thereto)

The proposed action is in conformance with the LUP, even though it is not specifically provided for, because it is clearly consistent with the following LUP decisions (objective, terms, and conditions):

Objective M-1 (4130), which states:

Make all public lands and other federally owned minerals available for the exploration and development of mineral and material commodities.

C. Identify applicable National Environmental Policy Act (NEPA) documents and other related documents that cover the proposed action.

List by name, number and date (DR/FONSI or ROD) all applicable NEPA documents that cover the proposed action.

Final Environmental Impact Statement, Lone Tree Mine, BLM/WM/PL-96/1027+1610, ROD signed October 15, 1996 (Lone Tree EIS).

Final Environmental Impact Statement for the Phoenix Copper Leach Project, DOI-BLM-NV-B010-2011-0037-EIS, ROD signed June 18, 2012 (Phoenix EIS).

Environmental Assessment, Target 3 Project, Marigold Mining Company, DOI-BLM-NV-W010–2013–0018–EA, Decision Record and Finding of No Significant Impact (DR and FONSI) signed October 31, 2013 (Marigold EA).

List by name and date other documentation relevant to the proposed action (e.g., biological assessment, biological opinion, watershed assessment, allotment evaluation, and monitoring report).

-Air Quality Assessment Report, received July 2, 2014;

-Lone Tree Mine Expansion Project: Class III Cultural Inventory, BLM Report No. CR2-3255(P), received May 7, 2014 (this report contains confidential information);

-Newmont Lone Tree Expansion Project Additional Fence Inventory, Humboldt County, NV, BLM Report No. CR2-3273(N), received June 30, 2014 (this report contains confidential information);

-Technical Memorandum: Predicted Water Levels at the Brooks Deposit, received December 9, 2014;

-Memo: Waste Rock Characterization, Brooks Project, received March 6, 2014;

-Technical Memorandum: Geotechnical Considerations for the Lone Tree Expansion Project, received March 6, 2014; and,

-Baseline Biological Resources Report for the Lone Tree Mine Expansion Project, received June 10, 2014.

D. NEPA Adequacy Criteria

1. Is the new proposed action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA documents(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?

Yes. The proposed action is not only essentially similar, but precisely the same type of action as those analyzed in the supporting NEPA documents. The proposed action is an expansion of existing mining-related disturbance at the Lone Tree Mine. The construction of an open-pit mine, waste rock storage areas, laydown areas, storm water diversion features, exploration-related disturbance, haul and access roads, and heap leach ore processing are all types of activities that have been analyzed in the existing NEPA documents. The geographic and resource conditions of the action are sufficiently similar to those analyzed in the existing NEPA documents. To provide context with regard to the size of the proposed action, the Lone Tree Mine is currently permitted for approximately

4,275.5 acres of surface disturbance on public and private lands. The proposed action would add approximately 230 acres of new disturbance, an increase of 5.4 percent.

A hard look has been taken for each potentially affected resource to determine whether the existing NEPA analyses disclose impacts that are similar to those expected from the proposed action. Based on a review and evaluation of the existing NEPA documents against the proposed action, impacts from the proposed action would not be substantially different from the impacts disclosed in the existing NEPA documents.

For example, the Phoenix EIS discloses impacts consistent with the latest guidance for air quality analysis. In addition, the geographic area utilized for the cumulative effects analysis for air in the Phoenix EIS included the geographic area of this proposed action. This action did not exist as a reasonably foreseeable future action at the time of the analysis for the Phoenix EIS, however, the EIS provided an excellent baseline for air quality to evaluate the need for additional air analysis. Similarly, the Marigold EA contains the latest analysis regarding indirect impacts to cultural properties of the nearby California Emigrant National Historic Trail and is located in the same geographic vicinity as the proposed action (see also response to #3).

2. Is the range of alternatives analyzed in the existing NEPA documents(s) appropriate with respect to the new proposed action, given current environmental concerns, interests, and resource values?

Yes. There are no new environmental constraints relative to the proposed action and potentially affected resources that have not been considered in the range of alternatives analyzed in the existing NEPA documents. The type of actions and associated impacts have been analyzed in numerous documents in the geographic area under a reasonable range of alternatives, providing a high confidence level that alternatives have been considered. This being the case, the interdisciplinary review team focused its attention on two primary considerations: 1) whether impacts from this action would be of a magnitude or intensity that would require the need for new analysis, and 2) whether new analysis would be needed based on recent policy for certain resources. The response to #3 provides the detailed findings regarding these two primary considerations. After taking the hard look at these two factors it was evident that existing analyses fully covered the range and extent of alternatives necessary with respect to this proposed action.

3. Is the existing analysis valid in light of any new information or circumstances (such as, rangeland health standard assessment, recent endangered species listings, updated lists of BLM-sensitive species)? Can you reasonably conclude that new information and new circumstances would not substantially change the analysis of the new proposed action?

Yes. There have been recent updates of information and circumstances with regard to air quality, cultural resources, paleontological resources and special status species. New baseline information was collected to provide the BLM with a basis to determine if

additional analysis was necessary. The newest information and circumstances related to regulations, policy, and guidance have been incorporated into the supporting NEPA documents which exhibit geographic and resource conditions that are sufficiently similar to, or include, the proposed action. Details of the updated resource-specific information are provided below:

Air Quality:

In recent years, policy has developed with regard to air quality, specifically including requirements to disclose impacts from greenhouse gas emissions, new criteria pollutants (particulate matter 2.5 microns or smaller), and hazardous air pollutants such as mercury. The Phoenix EIS, ROD signed June 18, 2012, incorporates the newest case law, regulations, and policy. The expected emissions for the proposed action needed to be quantified to provide a basis for determining if new analysis would be necessary, especially with respect to the contribution to the cumulative area previously analyzed in the Phoenix EIS.

As a measure of establishing baseline information for the proposed action and evaluating the sufficiency of existing NEPA to support this DNA, a comprehensive emissions inventory was prepared for 109 individual emissions units including point sources, fugitive sources, mobile, and non-road combustion sources. Emissions estimates were prepared for: particulate matter 10 microns or smaller (PM₁₀), particulate matter 2.5 microns or smaller (PM_{2.5}), carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen oxides (NO_x), volatile organic compounds (VOCs), carbon dioxide (CO₂) and methane (CH₄).

After compiling the emissions inventory, air dispersion modeling was completed for PM₁₀, PM_{2.5}, CO, SO₂, NO_x, and VOCs. Based on the proposed action utilizing the existing heap leach pad for ore processing, modeling was not required for greenhouse gases (CO₂ and CH₄) and mercury, a hazardous air pollutant.

The only modeled criteria pollutant that was predicted to exceed National Ambient Air Quality Standards (NAAQS) was the 1-hour NO_x emissions. Because NO_x includes both nitric oxide and nitrogen dioxide (NO₂, the criteria pollutant), NO₂ emissions can be calculated using the Ambient Ratio Method (ARM) recommended by U.S. EPA. After the ARM is applied to the modeled NO_x emissions, NO₂ falls within the emissions allowable under the NAAQS. Therefore, results from the emissions inventory and air modeling showed that no criteria pollutants, greenhouse gases, or hazardous air pollutants would exceed national or state air quality standards, and emissions are generally expected to be low.

Similar emissions inventories and modeling were prepared for, and impacts disclosed in, the Phoenix EIS, Chapter 3.10, pages 3.10-1 through 3.10-19. A review and evaluation of the air quality direct, indirect, and cumulative analysis in the Phoenix EIS has determined that the impacts from the proposed action would not be substantially different or require additional analysis.

Cultural Resources:

In September, 2012, the BLM released Manual 6280 – *Management of National Scenic and Historic Trails and Trails Under Study or Recommended as Suitable for Congressional Designation (Public)*. This manual provides updated guidance regarding how the BLM should consider potential visual impacts to designated National Historic Trails (NHT). The southern route of the California Emigrant NHT is near the Lone Tree Mine, approximately 5 miles from the proposed action at the closest point. The Marigold EA, DR and FONSI signed October 31, 2013, analyzed potential affects to the California Emigrant NHT in Section 4.1.3, pages 107 and 108.

In order to establish baseline information for the proposed action and evaluate the sufficiency of the Marigold EA to support this DNA, a visual analysis was prepared. The visual analysis was used to determine which portions of the NHT had potential to be affected by the proposed action. Then, a visual assessment was prepared to determine the likelihood of affects based on the existing integrity of the trail including the setting, feeling, and association, and the likelihood of indirect effects based on distance to the action, contrast, and obstructions. The visual assessment concluded that the casual observer is not likely to notice the development of the proposed action, and no adverse visual effects are expected on the California Emigrant NHT.

A similar visual assessment was prepared for, and consideration given to, the California Emigrant NHT in preparation of the Marigold EA. The BLM has reviewed and evaluated the impact analysis in the Marigold EA and determined that the impacts from the proposed action would not be substantially different or require additional analysis.

Two cultural resource inventories, CR2-3255(P) and CR2-3273(N), were completed that covered the entire project area. A total of 5 new cultural resource sites, CrNV-02-12492 to -12496 were recorded. Two other previously recorded sites CrNV-02-5550 and CrNV-22-5551 were revisited and rerecorded. All seven sites were determined to be ineligible to the National Register of Historic Places. In addition to these sites, 2 isolated artifacts were recorded. Isolated finds are categorically ineligible to the National Register. The proposed project would have no effect on National Register values, and therefore, no new environmental analysis is necessary.

Paleontology:

The Paleontological Resources Preservation Act (PRPA) passed in 2009 requires the BLM to manage and protect paleontological resources on Federal land using scientific principles and expertise. Although implementing regulations have not yet been written, the BLM has issued two Instructional Memorandums, IM-2012-140 and IM-2012-141, which provide guidance regarding the collection and confidentiality of paleontological resources under PRPA.

The project area falls within areas ranked low to moderate (PFYC 2, 3, and 3b) for potential fossil yield. The Havallah sequence deposits in the project area were judged unlikely to produce significant fossils, and therefore, no new environmental analysis is necessary.

Special Status Species:

In 2010, the United States Fish and Wildlife Service found that listing of the greater sage-grouse under the Endangered Species Act was warranted, but precluded by higher priority listing actions. Since that time, the BLM has been taking steps to avoid listing the greater sage-grouse by reducing impacts where possible. Sage-grouse habitat, including leks and seasonal use habitat such as nesting, brood-rearing, summer and winter habitat, has been delineated to help the BLM manage resources and reduce impacts. Because the proposed action would not affect any designated or known potential sage-grouse habitat, the analyses conducted in the existing NEPA documents are still applicable and no new environmental analysis is necessary.

4. Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?

Yes. The direct, indirect, and cumulative impacts that would result from implementation of the proposed action are very similar to those previously analyzed. For example, the proposed action would add approximately 230 acres of surface disturbance on public land for the development of mineral resources in a geographic area that has been studied for cumulative impacts in great detail.

With regard to cumulative effects, the Lone Tree EIS analyzed the cumulative impacts associated with 26,884 acres of mining-related disturbance. The Phoenix EIS analyzed the impacts associated with 12,606 acres of mining-related disturbance. The Marigold EA analyzed the cumulative impacts associated with 19,918 acres of mining-related disturbance. Be advised, because the Lone Tree Mine, Phoenix Mine, and Marigold Mine are in close proximity to each other, the cumulative assessment areas for each NEPA document overlap, and therefore, the cumulative acres of mining-related disturbance in each document should not be considered as additive. The scale of the proposed action, in relation to the existing cumulative effects, does not raise new issues regarding potential cumulative impacts.

5. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?

Public outreach was conducted at numerous stages throughout the NEPA process for each of the supporting NEPA documents. Comments that emerged during those efforts pertained to issues that are not involved in this proposed action.

The proposed action would not be expected to elicit controversy from the public or identify issues that have not been previously analyzed. However, to ensure the public is given opportunity for input in the decision-making process, a draft version of the DNA will be posted for 30 days. Substantive comments will be addressed in the final version of the DNA.

Early coordination with the Nevada Department of Wildlife regarding the proposed action indicated that there were no major wildlife concerns requiring their dedicated attention.

Consultation letters were sent to the Battle Mountain Band Tribe and Fort McDermitt Tribe to ensure there are no Native American religious concerns.

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E. Persons/Agencies/BLM Staff Consulted

Name /Title	Resource/Agency Represented	Signature/Date	Comments (Attach if more room is needed)
Peggy McGuckian	Cultural Resources		
Peggy McGuckian	Paleontology		
Mark E. Hall	Native American Religious Concerns		
Debra Dunham	Lands and Realty		
Joey Carmosino	Recreation, Visual Res.		
Tyler Stewart	Rangeland Management		
Fred Holzel	Hazardous Materials		
Derek Messmer	Fire Management, Fuels		
Eric Baxter	Invasive, Non-Native Species		
Robert Burton	Soils, Vegetation		
Jean Black	Hydrology		
Craig Nicholls	Air Quality		
Dave Jones	Air Quality		
Amanda DeForest	T&E Species, Special Status, general Wildlife		
Julie Suhr Pierce	Social Values, Economics		

Note: Refer to the EA/EIS for a complete list of the team members participating in the preparation of the original environmental analysis or planning documents.

Conclusion *(If you found that one or more of these criteria is not met, you will not be able to check this box.)*

Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the NEPA documentation fully covers the proposed action and constitutes BLM' compliance with the requirements of the NEPA.

Signature of Project Lead

Signature of NEPA Coordinator

Signature of the Responsible Official

Date

Note: The signed Conclusion on this Worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision. However, the lease, permit, or other authorization based on this DNA is subject to protest or appeal under 43 CFR Part 4 and the program-specific regulations.

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