

FINDING OF NO SIGNIFICANT IMPACT

Boston Hill Mine Safeguard Project

eAMLIS Key: NM-935059

Introduction

The Office of Surface Mining Reclamation and Enforcement – Denver Field Branch (OSMRE - DFB) has reviewed the Environmental Assessment (EA) submitted by the New Mexico Energy, Minerals and Natural Resources Department – Abandoned Mine Land Program (AMLP) in support of the Boston Hill Mine Safeguard Project. Under the Preferred Alternative, OSMRE would provide Authorization to Proceed (ATP) to AMLP to expend federal abandoned mine land (AML) grant funds to address several hazardous mine features including unprotected mine openings, deep caverns, areas of potential subsidence, and exposed highwalls at the Boston Hill Mining District near Silver City, New Mexico. The project area consists of private land, land owned by the Town of Silver City, and land managed by the Bureau of Land Management Las Cruces District Office (BLM-LCDO). Safeguarding activities would include the construction or replacement of several structural barriers and fences and would close numerous mine openings via weathering steel gates, rock/concrete bulkheads and culvert gates, high tensile steel mesh, cupolas, backfills, and polyurethane foam (PUF) plugs with gated culverts. The selected method of each closure would be dependent on the nature of the opening and the presence of historic, cultural, and wildlife resources. Under the No Action Alternative, the hazards associated with the Boston Hill Mining District would remain and the public would maintain the ability to access the site with little restriction or warning.

Reason

The mine hazards associated with the Boston Hill Mine Safeguard Project have been ranked as Priority one and two safety hazards by the New Mexico AMLP. This classification and the need for the Preferred Alternative are based on the physical safety hazards posed by abandoned mine features to the public. Many of the features addressed in this project are readily accessible to the public and are located in areas frequented by recreationists for hiking and biking. In addition, the project area is a major driver of tourism and economic activity in the nearby Town of Silver City, New Mexico. Preserving the historic features while maintaining the safety of visitors is important for maintaining Silver City's culture and economy. Hazards to the public include unprotected mine openings, deep caverns, areas of potential subsidence, and exposed highwalls.

Under the Preferred Alternative, OSMRE would authorize the New Mexico AMLP to safeguard over 100 hazardous mine features utilizing fencing, gates, rock/concrete bulkheads with culvert gates, high tensile steel mesh, cupolas, backfills, and PUF plugs. Following construction, the New Mexico AMLP would be responsible for ensuring appropriate re-grading, re-vegetation, and monitoring of affected areas is carried out. Surface disturbance is expected to be minimal due to the nature of the project area. Established roads and trails would be used when possible, and no heavy machinery is expected to be needed. Materials would be brought onto the site either by hand or light equipment via existing trails.

Context 40 CFR 1508.27(a)

To determine whether the Preferred Alternative would have a significant effect on the human environment, impacts related to the Preferred Alternative were analyzed in terms of context and intensity based on the criteria at 40 CFR 1508.27(b). The Preferred Alternative project area is located near the Town of Silver City, New Mexico, with the majority of the project area falling within the Boston Hill Open Space area. Boston Hill Open Space is frequented by recreationists including hikers and bicyclists and contains a complex system of trails. The project area consists of private land, land owned by the Town of Silver City, and land managed by the BLM-LCDO. The Preferred Alternative is project specific, and any impacts would likely be realized at the local, rather than regional, national, or global levels. Affected interests include landowners, local biking and hiking interests, cultural preservation groups, merchant associations, the Town of Silver City, Grant County, the State Historic Preservation Division, and the general public.

Intensity 40 CFR 1508.27(b)

(1) The following resources were analyzed in the Boston Hill Mine Safeguard Project EA for beneficial and adverse impacts. A significant effect may exist even if OSMRE believes that on balance the effect will be beneficial.

Historic and Cultural Resources

A 100% pedestrian cultural resource inventory was conducted in the project area between June of 2018 and January of 2019. A total of 2,821 historic features, 12 historic artifact concentrations, 62 isolated historic artifacts, and seven prehistoric/aboriginal isolated occurrences were documented within the Area of Potential Effect (APE). All identified resources are listed under site LA 130556 which is eligible for inclusion on the National Register of Historic Places (NRHP) under criterion D. The Preferred Alternative would employ the following measures to minimize impacts to cultural resources: avoidance areas would be established around cultural resources prior to construction and would extend up to 50-feet from the edge of any documented cultural resource, high-visibility barriers and/or indicators would be installed where access roads or proposed construction activities approach avoidance areas, and physical closures would be designed to blend with the existing landscape. Native materials would be used when possible and shallow depressions would be left after backfilling to demarcate historic openings. Consequently, a determination of *no historic properties affected; eligible sites present but not affected* as outlined in 36 CFR 800 was reached for the Preferred Alternative. The New Mexico State Historic Preservation Officer offered its concurrence with this determination on June 7, 2021. In addition, the BLM-LCDO concurred with this determination on December 31, 2020. No sites of tribal importance are known to exist within the APE. In response to tribal outreach, the White Mountain Apache Historic Preservation Office issued its determination that the Proposed Alternative would not have an adverse effect on the tribe's cultural heritage resources and/or traditional cultural properties on June 4, 2021. The Navajo Nation also concurred with AMLP's determination on May 19, 2021. There would be little to no impact to historic and cultural resources under the No Action Alternative.

Fish and Wildlife

The U.S. Fish and Wildlife Service (USFWS) was informally consulted on July 9, 2019 through its Environmental Conservation Online System – Information for Planning and Consultation (ECOS-IPaC) database as part of the Biological Assessment and Biological Evaluation (BA/BE). The consultation identified 17 threatened, endangered, or candidate species potentially located in the project area including three mammals, four birds, two reptiles, one amphibian, and seven fish species. The BA/BE included a 100% pedestrian survey conducted by two biologists over three days during July of 2019. The BA/BE was completed in December of 2019 per 42 U.S.C. 4332(2)(C). The BA/BE considered all federal and state-listed plant and animal species with the potential to occur within the project area. Through the BA/BE, only one state-listed species was identified in the project area: the Northern Aplomado Falcon. Under the Preferred Alternative, if construction could not be completed outside of the migratory bird nesting season, defined as March through August, a pre-construction nest survey would be conducted prior to construction activity in compliance with the Migratory Bird Treaty Act (MBTA). If any nests were found, they would be flagged for avoidance during construction activities. No critical habitat or wetlands were identified within the project area. Little to no impact to fish and wildlife resources is expected under the Preferred Alternative. Under the No Action Alternative, there would be no impact to fish and wildlife resources.

Paleontology

The BLM conducted a pedestrian survey of the project area on November 15, 2021. The survey identified trace fossils around the North Pit and determined the rest of the project area could be cleared paleontologically, with no mitigation or project restrictions necessary. The only potential disturbance around the North Pit would be fencing. If during construction unanticipated paleontological resources were discovered on any portion of the project area, the contractor would immediately notify the BLM Authorized Officer and suspend all activities in the vicinity of the discovery until notified to proceed by the Authorized Officer. Little to no impact to paleontological resources is expected under the Preferred Alternative. Under the No Action Alternative, there would be no impact to paleontological resources.

(2) The degree to which the Preferred Alternative affects public health or safety

The Preferred Alternative's effect on local public health and safety would be moderate and positive. The features within the project area have a history of public visitation and are located within the Boston Hill Open Space near the Town of Silver City, New Mexico. Visitation to the project area could result in cave-ins, subsidence, falling rocks, and exposure to unprotected mine openings. Under the Preferred Alternative, AMLP would safeguard the project area by installing fencing, gated mine closures, rock/concrete bulkheads with gated culverts, high tensile steel mesh, cupolas, backfills, and PUF plugs where necessary. Under the No Action Alternative, the risk of cave-ins, subsidence, falling rocks, and exposure to unprotected mine openings would remain.

(3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

There are no prime farmlands, wetlands, wild and scenic rivers, wilderness areas, refuge lands, or ecologically critical areas within the Preferred Alternative project area. As such, the resources were not brought forward for analysis in the EA. Most of the project area falls within the Boston Hill Open Space; commonly used for hiking and biking. Under the Preferred Alternative, trail closures within the Boston Hill Open Space would be limited to areas where construction is occurring, and roads or trails are blocked.

(4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The Preferred Alternative would have no effects on the human environment that would be highly controversial.

(5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The Preferred Alternative would have no effects on the human environment that would be highly uncertain or involve unique or unknown risks. Since OSMRE's approval of the New Mexico AMLP in 1981, program staff have safeguarded numerous AML hazards across the state utilizing similar techniques as those presented under the Preferred Alternative.

(6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

Actions under the Preferred Alternative would not establish precedent for future actions with significant effects and would not represent a decision in principle about future considerations. The issues considered in the EA were developed by the interdisciplinary team within the context of past, present, and reasonably foreseeable actions.

(7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

Past activities in the project area include mining, the expansion of the Silver City urban area, and recreational use. Under the Preferred Alternative, appropriate coordination between AMLP and the contractor would help to ensure both short and long term cumulative environmental impacts are insignificant.

(8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

AMLP worked to make determinations of eligibility and effect as required by Section 106 of the National Historic Preservation Act. The APE contains one site eligible for the NRHP, LA 130556, which includes a total of 2,821 historic features, 12 historic artifact concentrations, 62 isolated historic artifacts, and seven prehistoric/aboriginal isolated occurrences. The Preferred Alternative would establish avoidance areas around the features and would implement high visibility barriers or markers to help avoid disturbance where necessary. In addition, physical closures would be designed to blend with the existing landscape by using native materials when available and leaving shallow depressions where possible to demarcate historic openings. As a result, the Preferred Alternative would result in *no historic properties affected; eligible sites present but not affected*. Under the No Action alternative there would be no historic properties affected.

(9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

Seventeen threatened, endangered, or proposed species have the potential to exist within the project area including the Gray Wolf, Mexican Long-nosed Bat, Mexican Wolf, Mexican Spotted Owl, Northern Aplomado Falcon, Southwestern Willow Flycatcher, Yellow-billed Cuckoo, Narrow-headed Gartersnake, Northern Mexican Gartersnake, Chiricahua Leopard Frog, Beautiful Shiner, Chihuahua Chub, Gila Chub, Gila Topminnow, Gila Trout, Loach Minnow, and Spikedace. None of these species were identified during the field survey, nor does suitable habitat exist within the project area to support them. No critical habitat or wetlands exist within the project area. Little to no impact to fish and wildlife resources is expected under the Preferred Alternative. The No Action Alternative would have no impact to fish and wildlife resources.

(10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

The Preferred Alternative would not violate any known federal, state, local, or tribal law or requirement imposed for the protection of the environment. The Preferred Alternative is consistent with applicable plans, policies, and programs.

Mitigation Measures

Under the Preferred Alternative, AMLP would ensure the following mitigation measures are implemented:

- Avoiding historic and cultural resources by establishing avoidance areas prior to construction, and installing high-visibility barriers or indicators where access roads or proposed construction activities come near avoidance areas;

- Stopping work and notifying state, federal, and tribal historic and cultural preservation authorities, as appropriate, and tribes in the event that any previously unidentified archaeological sites, deposits, paleontological resources or in situ artifacts are discovered;
- Installing sediment fences, straw wattles, and other best management practices to reduce erosion during construction;
- Limiting equipment access to existing roads and trails whenever possible;
- Ensuring the re-grading and re-vegetation of disturbed areas with a native seed mix post construction and the removal of any Tree of Heaven (Class B noxious weed) in or around mine openings;
- Completing nest surveys prior to commencing construction if work must occur within the nesting season;
- Using material types that blend with the landscape and prioritizing reinforcement and repair of existing structural barriers for minimal to no change to the existing landscape;
- Ensuring motorized equipment is in compliance with local and federal air emission standards;
- Maintaining hydraulic hoses and valves of equipment to avoid leakage;
- Sealing cabs on any equipment used for backfilling if there is a potential for heavy metal pollution in the soil being hauled, as required by BLM-LCFO;
- Controlling vehicle and equipment fugitive dust emissions with water or other dust suppressants;
- Limiting construction activities to weekdays between the hours of 8:00 AM and 8:00 PM to conform with local noise ordinances; and
- Developing a health and safety plan to be implemented by the contractor during construction.

Statement of Environmental Significance

The Preferred Alternative would not have a significant impact on the human environment and an Environmental Impact Statement is not required. Under the No Action Alternative, the public would continue to be exposed to potential cave-ins, subsidences, falling rocks, and exposure to hazardous mine openings in the vicinity of the project area. The Preferred Alternative would have a moderately beneficial impact on the local human environment. OSMRE selects the Preferred Alternative for the Boston Hill Mine Safeguard Project.

Reviewed

Approved

Brook Zeller
Environmental Protection Specialist
Denver Field Branch

Howard E. Strand
Manager
Denver Field Branch