

BUREAU OF LAND MANAGEMENT
TUCSON FIELD OFFICE

ENVIRONMENTAL ASSESSMENT

NEPA #
DOI-BLM-AZ-G020-2013-0029-EA

REMEDIATION OF HAZARDS AT 58 ABANDONED MINE LAND ADITS,
SHAFTS, PROSPECT PITS AND TRENCHES
IN TOMBSTONE PROJECT AREA OF THE TUCSON FIELD OFFICE



December 2013

PURPOSE & NEED

1.1 Introduction and Background

The Bureau of Land Management's Abandoned Mine Lands (AML) program enhances public safety by reducing or eliminating the effects of past hard rock mining in the western United States. Through backfilling, fencing, signing and gating, BLM mitigates AML hazards to protect public health and safety, and restore watersheds for resources, recreation, fish, and wildlife. The AML program helps restore the environment and improve safety for visitors and users of public lands.

The Tombstone Project Area of the TFO is contains approximately 6,400 acres of public land that contains numerous AML shafts, adits, pits and trenches. The area receives high levels of motorized recreation use. Many of the AML features are near high use areas, and are therefore hazardous to the public. In January and February 2011, BLM conducted physical inventory of 58 AML features on approximately 3,000 acres of public land in the Tombstone area. In June and July 2013, Bat Conservation International (BCI) a BLM cooperator surveyed these mine features to determine which of these features contain bats or bat habitat. Class III inventory was completed in November 2013.

1.2 Purpose and Need for the Proposed Action & Decision to be Made

The purpose of the action is to protect the public from the physical safety hazards created by the presence of mine shafts, adits, and pits on the public lands, in the Tombstone Project Area of the TFO.

The need for the action is that the numerous mine shafts, adits, pits and trenches in the Tombstone Project Area of TFO represent extreme hazards to the public users of these lands.

The BLM will decide whether to remediate or not, the public hazard represented by AML features (mine adits, shafts, prospect pits, and trenches) in the Tombstone Project Area of the Tucson Field Office.

1.3 Conformance with BLM Land Use Plan(s)

The proposed action is subject to the Phoenix Resource Management Plan (RMP), approved 1988. This proposed action has been reviewed to determine if it conforms with the land use plan terms and conditions as required by 43 CFR 1610.5, BLM MS 1617.3. The Phoenix RMP does not

specifically address the remediation of abandoned mine lands however BLM policy (see below) is to remediate abandoned mine lands that present a hazard.

1.4 Relationship to Statutes, Regulations, or Other Plans

BLM Manual 3720 – Abandoned Mine Land Program Policy, July 21, 2006, establishes BLM’s abandoned mine land policies. The proposed action would implement this policy. Specifically, BLM policy is to remediate abandoned mine lands that present a risk to public safety. BLM will give priority to mine features that are in areas of greater public use or in close proximity to population centers. The Tombstone AML features are in close proximity to areas of high recreational use.

1.5 Scoping & Issues

1.5.1 Internal scoping: On June 17, 2013, the proposed action was reviewed by the TFO NEPA Team. The internal scoping document that resulted from that review is attached as Appendix 1. It was determined through this scoping that external scoping should consist of notification to claimants associated with the AML feature to be remediated, as well as coordination with officials from City of Tombstone Government.

1.5.2 External scoping: A June 2013, BLM LR200 records search was conducted to determine claimants of record for the 58 AML features to be remediated. Four claimants were identified. On August 14, 2013, registered letters were sent to the 4 claimants indicating that if the claimants chose not to remediate the AML features, that BLM would assume responsibility of reclamation at no cost to the claimants. No claimant chose to assume reclamation responsibility.

1.5.3 Issues: From the June 17, 2013 Internal scoping meeting: the following Issues were identified:

- Fugitive dust production from backfilling activity
- Cultural Resources will be surveyed for by qualified contractors. If cultural resources are discovered in areas proposed for surface disturbance, the cultural resources would be protected by flag and avoidance measures

- Potential for heavy equipment to bring exotic weed species to the project area
- Increased safety to recreating public as a result of AML remediation
- Wildlife should be surveyed for and excluded prior to backfilling and BCI is performing bat surveys of the AML features through our Nationwide assistance agreement.
- Transportation of equipment to sites may require some road maintenance.
- Visual quality will be improved
- Claimants will be contacted by registered mail, informed of their reclamation responsibilities, and given opportunity to relegate those responsibilities to BLM
- Vegetation trimming and removal may be required to access sites; cacti species and agave will be avoided to the greatest extent possible. Transplant of cacti to nearby areas would occur if cacti can't be avoided.

2.0 Description of Alternatives, Including Proposed Action

2.1 Proposed Action: The BLM is proposing to reduce, and where feasible, permanently eliminate physical safety hazards associated with 58 mine shafts, adits, and pits and trenches on the public lands in the Tombstone AML project area (Appendix 2, Figure 1). The project will include the following activities:

- 2.1.1 Backfilling Vertical Shafts: Mine waste rock immediately surrounding vertical shafts will be moved by hand or with heavy equipment into the vertical shafts so that the vertical shafts are filled flush to the surrounding contour of the landscape. Remaining waste rock material will be re-contoured to match surrounding natural landscape.
- 2.1.2 Collapsing Adit Portals: Portal areas of adits will be collapsed by hand or with heavy equipment such that entry into the adits is not possible and the portal opening is filled flush to the surrounding landscape.
- 2.1.3 Improving Access to AML features: To access AML features, it may be necessary to blade portions of existing roads and trim vegetation. Vegetation will be trimmed or cleared to the extent necessary to gain access to the mine openings. Cacti will be avoided. Limited blading and earthwork may be needed to access mine openings. Cacti that need to be removed to facilitate access will be salvaged when possible and replanted

on site. Once remediation is completed, portions of roads upgraded to access AML sites will be returned to pre-reclamation condition.

- 2.1.4 Excluding Wildlife from AML Features to be backfilled, and Fencing and Signing, and Eventual Gating of AML Features Deemed Important for Wildlife: Shafts, adits, pits and trenches found to be suitable bat habitat will be surveyed for the presence of bats and other wildlife species. Unoccupied shafts, adits, and pits will be backfilled. Shafts, adits, and pits containing occupied bat habitat will be fenced and signed to prevent any additional and immediate human disturbance, and then eventually have properly designed bat gates or grates installed as funding and time will allow. Gates and grates will be designed to preclude human entry, allow bat ingress/egress, and withstand vandalism. In AML features that do not contain bats, but contain other wildlife species, these species will be excluded either seasonally or physically prior to backfilling.
- 2.1.5 Identifying and Avoiding Cultural/Historical Objects: A Class I mine history records check was conducted for the public lands surrounding the mine features to be remediated. A Class III cultural survey was conducted on routes used to access mine features and at adit features. Historical features requiring avoidance were identified at three sites. These features will be flagged by the BLM field office archaeologist and avoided. BLM contracting officers representative (COR) and/or field office archaeologist will be present during remediation operations and will identify areas that contractors should avoid due to presence of cultural/historical objects.
- 2.1.6 Hazmat: A Preliminary Assessment/Site Investigation (PA/SI, Phase 1 CERCLA investigation) may be implemented if warranted to address spoil materials found to exceed risk based soil concentrations for hazardous constituents. The filling of mine openings using suitable materials will not be delayed while the PA/SI is completed for the subject spoil materials. Predicting and evaluating the outcome of a PA/SI is beyond the scope of this EA. Any actions required as an outcome of a PA/SI will be analyzed under the requirements of CERCLA.
- 2.1.7 Temporary Mining Law Segregation: The Tombstone parcels will be segregated from the operation of the mining laws for the period required to complete remediation of physical safety hazards within the project area. This segregation will apply to new mineral entry and will not affect valid, existing rights.

2.2 Fence and Sign Only Alternative: Under this alternative, constructing four strand barbed wire fencing around the AML features, and posting AML warning signs on those fences would be the only remediation method conducted. Fencing and signing, limit access to the AML features much less so than backfilling. Fencing and signing would require monitoring and maintenance.

2.3 No Action Alternative: BLM would not implement the proposed action, which is to remove the hazards presented by the Tombstone AML Features. The no action alternative would be incompatible with BLM's policy of remediating physical mine hazards located in close proximity to population centers.

3.0 AFFECTED ENVIRONMENT

3.1 Resources Eliminated from Analysis

During internal scoping with the TFO NEPA Team on June 17, 2013 (Appendix 1), it was determined that the following resource elements are not affected by the proposed action or alternatives because they do not occur in the proposed use area, or because of the nature of the proposed action: Areas of Critical Environmental Concern (ACECs), Prime or Unique Farmlands, Native American Religious Concerns, Wetlands, Riparian Zones, Wild and Scenic Rivers, Wilderness, Environmental Justice, and Migratory Birds.

3.2 General Setting: Description by Resource Element

3.2.1 Air Quality: Dust generated by vehicles traveling on roads, construction, agriculture, burning and wind events create a type of air pollution called particulate matter. The Clean Air Act requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standard (NAAQS). EPA formally designates areas as "nonattainment" (not meeting the standard), "unclassifiable/attainment" (meeting the standard or expected to be meeting the standard despite a lack of monitoring data), or "unclassifiable" (insufficient data to classify). The project will occur in Cochise County, Arizona. Cochise County is not a non-attainment area relative to the Environmental Protection Agency's (EPA) 24-hour fine particle (PM_{2.5}) air quality standard.

3.2.2 Cultural Resources: In November 2013, BLM contracted a Class I record search and Class III cultural resource surveys of the

abandoned mine features and access routes the subject of this EA. Approximately 115 acres were surveyed, including 63 AML features (including the 58 to be remediated under this proposal) and accompanying access routes. Fourteen new sites and 29 isolated occurrences (IO) of artifacts were recorded (Lyon 2013). Ten of the sites contain historic mining features. The remaining four sites are historic artifact scatters. Only one of the sites recorded during the survey are considered to be eligible for the National Register of Historic Places (NRHP). The report recommends, and the TFO archaeologist concurs (A. Sobiech, pers com Nov 2013), that three features identified through these surveys be flagged and avoided, these include: a concrete foundation, rockwall and foundation, and a historic artifact scatter.

- 3.2.3 Water Quality: The Tombstone project area is encompassed by the 58 Sq mi Walnut Gulch sub watershed which is situated in the larger San Pedro River Basin. Watershed elevation ranges from 4,101 ft to 5,200 ft. Soils in the watershed derive from limestone influenced alluvial fill parent material. Soils are well drained, calcareous gravelly loams with high percentages of rock and gravel at the surface. Depth to ground water ranges from 164 ft to 475 ft.

The nearest residential well to AML features to be remediated is approximately 0.25 miles. The average distance from AML feature to be remediated to residential well is approximately 3 miles. No AML features proposed for remediation under this proposal indicate depth to ground water.

- 3.2.4 Threatened and Endangered Species: The U.S. Fish and Wildlife Service, Ecological Services threatened, endangered, and candidate species list for Cochise County is located at <http://www.fws.gov/southwest/es/arizona/Documents/CountyLists/Cochise.pdf>. Through internal scoping it was determined that numerous species noted on the list do not occur (due to habitat constraints) in the project area; however, the project site does contain desert tortoise (candidate species) and desert tortoise habitat. Lesser long-nose bats (endangered) are also possible in the project area as forage species are available and suitable roost habitat is present in the form of horizontal mine features.

- 3.2.5 Wastes, Hazardous or Solid: Mining started in the Tombstone area in the 1880's. Many of the mine openings to be filled may

have been open since that time. It is possible that hazardous materials may have been disposed in the shafts over the time period since mining began in the area. Waste rock is matrix rock, typically non-ore bearing overburden that was extracted as shafts or adits were driven into ore bodies. Waste rock is the material that is typically deposited immediately surrounding mine openings. Waste rock typically does not contain concentrations of metals and chemicals used to process ore. Mine tailings are the remains of chemical processing methods, and may contain a range of concentrations of lead, arsenic, and other potentially toxic metals. Mine tailings typically occur near mill sites, not near the mine features the ore was mined from.

- 3.2.6 Invasive and Non Native Weeds: Noxious or invasive weeds can be transported via vehicles and equipment and create unacceptable environmental consequences such outcompeting native vegetation, altering the fire regime, and providing toxic forage to wildlife and livestock.
- 3.2.7 Recreation: The Tombstone project area is used by the public for recreational activities including horse, ATV, motorcycle and mountain bike riding, walking, target shooting, and hunting. The public safety hazards identified in the Public Health and Safety section of this document apply to recreationalists. During field mapping of mine openings in 2011, vehicle tracks were found immediately adjacent to mine openings.

The presence of mine shafts, adits, and pits in close proximity to frequent motorized recreation creates a serious public safety issue. Openings were identified for closure based on depth and position on landscape. The average depth of the openings identified for closure is approximately seventy-three (73) feet, a sufficient depth to cause the serious injury or death of a person who falls into one of these openings. Shallower openings that might not present a serious hazard to a pedestrian might present a hazard to an ATV or motorcycle operator who encounters the opening unexpectedly. Mine adits present an attractive nuisance, as people are tempted to explore adits. Pits are identified for closure where the pits present a hazard to pedestrians or motor vehicle operators. In addition to fall hazards, pits may present an entrapment/engulfment hazard due to unstable banks. Some pits might actually be bridged over mine shafts where the bottom may give way under the weight of a person.

- 3.2.8 **Wildlife:** The project area is inhabited by numerous wildlife species including mule deer, coyote, jack rabbit, grey fox, rabbit, ground squirrel, rattlesnake, Gila monster, lizards, song birds, barn owls, red tail hawk, and numerous bee and wasp species. Insectivorous bats including Townsends' western big-eared bat, pallid bat, and cave myotis inhabit the area
- 3.2.9 **Access/Transportation:** BLM manages numerous roads and trails for public use in the project area. These roads and trails range in condition from well maintained, to rough and infrequently maintained.
- 3.2.10 **Visual Resources:** The Tombstone project area has been heavily impacted by past mining activities. Waste rock piles and mine spoils are readily visible across the project area.
- 3.2.11 **Mineral Resources:** The Tombstone project area is currently open to mineral entry. There are up to one hundred active mining claims within the Tombstone AML project area. Mining claims create a legal right to develop valuable mineral deposits.
- 3.2.12 **Vegetation:** The project area lies within the upper Sonoran Desert. Common vegetation includes: whitethorn acacia, cat-claw acacia, grasses, cholla, prickly pear cactus, palo verde, mesquite, barrel cactus, ocotillo, ironwood, hedgehog cactus, and mammillaria cactus.

4.0 ENVIRONMENTAL EFFECTS

4.1 Air Quality

- 4.1.1 **Proposed action:** The proposed action involves using hand tools or heavy equipment to move waste rock, construct fencing and build metal gates in areas with mine tailings present. Mine waste rock areas typically contain little vegetation and are subject to wind erosion. This activity will generate fugitive dust during the project as a result of moving the tailings material, but will result in a reduction in exposed surface area of waste rock once the project is finished.
- 4.1.2 **Fence and Sign Only Alternative:** This alternative involves very little disturbance of mine waste rock and consists solely of

constructing barbed wire fence around the AML features. Very little dust would be created by this alternative.

4.1.3 No Action Alternative: No impact

4.1.4 Mitigation: The contractor conducting AML remediation will be required to obtain the appropriate air quality permits, if any, from Cochise County and adhere to dust abatement stipulations which can require watering work sites to abate dust, restricting vehicle and equipment speeds, and dust monitoring on site.

4.1.5 Residual impacts: None. Contractors will be required to obtain Cochise County Air Quality Permits if required and remain compliant with Cochise County air quality standards.

4.2 Cultural Resources

4.2.1 Proposed Action: AML features to be remediated including mine shafts, adits, and pits will be backfilled with waste rock surrounding mine openings, fenced or bat gated/grated under the proposed action. Timber supports found in some of the shafts will be buried in place. The surface over the backfilled mine openings will be re-contoured to match the surrounding topography and little will remain to identify shafts, adits, and pit locations. Class I and Class III cultural surveys (Lyons 2013) identified 3 historic features to be flagged and avoided during remediation work. These

4.2.2 Fence and sign Only Alternative: Fencing and signing will not impact the physical integrity of AML features to be remediated.

4.2.3 No Action Alternative: No impact

4.2.4 Mitigation: All AML features to be remediated will be surveyed for historic features prior to remediation activity. Historic features will be recorded, photographed and avoided. If in connection with operations under this authorization, any human remains, funerary objects, sacred objects, or objects of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (16 U.S.C. 4701-4702; 54 Stat. 2688; 25 U.S.C. 3001) are discovered, workers shall stop operations in the immediate area of the discovery, protect the remains and objects, and immediately notify the Authorized Officer of the discovery. The workers shall continue to protect the immediate area of the discovery until notified by the Authorized Officer that operations may resume.

4.2.5 Residual impacts: None

4.3 Water Quality

- 4.3.1 Proposed Action: The proposed action includes the backfilling of shafts, adits, and pits that might serve as pathways to carry runoff into the subsurface. Filling these mine openings may reduce the likelihood of groundwater contamination. Removing the waste piles may reduce the potential surface runoff water quality contamination.
- 4.3.2 Fence and Sign Only Alternative: Fencing and signing would not change the current surface flow pathways and would have no impact of water quality.
- 4.3.3 No Action Alternative: No impact
- 4.3.4 Mitigation: None
- 4.3.5 Residual impacts: None

4.4 Threatened and Endangered Species

- 4.4.1 Proposed Action: The proposed action involves the use of hand tools or heavy equipment to move waste rock material to backfill AML features, and the use of hand tools to fence, and gate AML features. Desert tortoise utilizing AML features as habitat could be covered by backfill. Horizontal mine features used by Lesser long-nosed bats as roost habitat would be eliminated through backfilling, but preserved and protected through placement of gate gates, grates or cupolas.
- 4.4.2 Fence and sign Only Alternative: No Impact
- 4.4.3 No Action Alternative: No impact
- 4.4.4 Mitigation: Mine features to be backfilled will be surveyed for desert tortoise immediately prior to backfilling, and desert tortoise will be avoided or moved to nearby, but safe locations. AML features potentially suitable for bats will be internally surveys for presence of bats by biologists trained and certified to enter underground mine workings. National White-Nose Syndrome Decontamination Protocol v 01.25.2011 will be used by all personnel entering AML features (http://www.blm.gov/nm/st/en/prog/more/wildlife/white-nose_syndrome/decontamination_protocols.html) If horizontal mine features are found to contain significant bat use or potential for significant use, thee features would not be backfilled, but scheduled for gate, grate or cupola installation.
- 4.4.5 Residual impacts: None

4.5 Wastes, Hazardous or Solid

- 4.5.1 Proposed Action: The proposed action calls for the filling of mine openings that present an immediate physical hazard to the public. Filling the mine openings will prevent the future disposal of wastes in the openings. Solid wastes currently located within mine openings will be buried in place. Mine openings have not been maintained for human occupation and openings could collapse at any time. The high potential for injury to workers entering mine openings precludes the retrieval of solid waste materials from shafts, adits, or pits. Any un-breached drums, 5 gallon pails, or other un-breached containers that might contain hazardous wastes will be retrieved from mine openings by qualified personnel operating under a written confined space entry permit.
- 4.5.2 Fence and Sign Only Alternative: Because mine openings will not be backfilled under this alternative, the potential remains for AML features to be used as sites for illegal disposal of hazardous wastes.
- 4.5.3 No Action Alternative: Because mine openings will not be backfilled under this alternative, the potential remains for AML features to be used as sites for illegal disposal of hazardous wastes.
- 4.5.4 Mitigation: None
- 4.5.5 Residual impacts: None
- 4.6 Invasive and Non Native Weeds
 - 4.6.1 Proposed Action: The proposed action involves bringing trucks and heavy equipment to AML features in order to backfill, fence and gate the features. This equipment could contain non-native, exotic and noxious weed seeds; and thereby introduce these species to the project area. Non-native weeds can cause deleterious impacts to the ecology of area, most notably negatively influencing the fire ecology of the Sonoran Desert.
 - 4.6.2 Fence and Sign Only Alternative: Trucks and equipment would be brought into the area, thereby potentially introducing weed seeds as noted in the proposed action.
 - 4.6.3 No Action Alternative: No impact
 - 4.6.4 Mitigation: To reduce the potential the equipment could introduce weed seeds to the project area, BLM will require equipment to be thoroughly power washed prior to being brought on site.
 - 4.6.5 Residual impacts: None

4.7 Recreation

- 4.7.1 Proposed Action: The proposed action involves reducing and eliminating public access to AML features. This will have the effect of increasing safety for recreationists
- 4.7.2 Fence and Sign Only Alternative: Fencing and signing only serves as a partial barrier, and as such, the public can continue to access shafts, adits, pits and trenches if they wish to ignore the signage and breach fences. As such, the hazards presented to the by the AML features remains only partially mitigated under the Fence and Sign Only alternative
- 4.7.3 No Action Alternative: AML hazards would remain hazardous to the public.
- 4.7.4 Mitigation: None
- 4.7.5 Residual impacts: None

4.8 Wildlife

- 4.8.1 Proposed Action: The proposed action involves backfilling, fencing and gating AML features that could provide habitat to a variety of wildlife species including bats, reptiles, and birds. Backfilling directly eliminates opportunity for wildlife to use mine features in the future and could result in mortality to individuals present in features during backfilling. Fencing poses risk to large avian species such as barn owls. Gating does not negatively impact mine features in regard to their potential suitability as wildlife habitat, but instead protects features from destruction.
- 4.8.2 Fence and Sign Only Alternative: Fencing and signing AML features will not eliminate wildlife habitat; however, fencing could pose entrapment hazard to species such as barn owls.
- 4.8.3 No Action Alternative: No impact
- 4.8.4 Mitigation: All AML features that contain bats will be first fenced and signed to provide immediate protection, then appropriately bat gated in the future. Desert tortoise would be avoided or moved prior to backfilling. Backfilling would only occur during fall and winter season to increase the likelihood that bird species would have migrated from the AML features.
- 4.8.5 Residual impacts: Some wildlife habitat in shafts and adits will be eliminated by backfilling

4.9 Access and Transportation

- 4.9.1 Proposed Action: The proposed action involves improving (blading) limited sections of existing roads and trails in order

to move heavy equipment into the project area. These improved sections of road and trail would be rehabbed as necessary upon project completion. These improvements being temporary are not expected to change pace, frequency or duration of access and transportation in the project area; however, vehicular travel in the area would be made safer by the elimination of vertical shafts near travel routes.

4.9.2 Fence and sign Only Alternative: Improvements to access roads and trails would not be necessary under this alternative, and as such this alternative has no impacts on access and transportation.

4.9.3 No Action Alternative: No impact

4.9.4 Mitigation: Improved portions of road and trail will be rehabbed to pre-project condition.

4.9.5 Residual impacts: None

4.10 Visual Resources

4.10.1 Proposed Action: Backfilling activities will result in the obliteration mine features. These features will no longer be visible on the landscape, but the evidence of remediation activity will be visible until re-vegetation occurs. Fencing and signage will be visible.

4.10.2 Fence and sign Only Alternative: Fencing and signage will be visible on the landscape.

4.10.3 No Action Alternative: Existing mine features will remain visible on the landscape

4.10.4 Mitigation: None

4.10.5 Residual impacts: Evidence of remediation will be visible on the landscape.

4.11 Mineral Resources

4.11.1 Proposed Action: The project area is located in an historic mining district and is overlain with multiple active mining claims. The proposed action will close mine openings potentially useful to minerals exploration.

4.11.2 Fence and sign Only Alternative: This alternative would have minimal impact on mineral exploration activities through the placement of fencing around mine openings. Fencing and signing would bring the openings into compliance with State statues requiring mining claimants to secure mine openings on their claims, Arizona Revised Statute §27-318(A).

- 4.11.3 No Action Alternative: : Mine openings would remain out of compliance with State statues concerning mine safety.
- 4.11.4 Mitigation: Current claimants of record were notified of the proposed action and given opportunity to halt any closure of mine openings on their claims, subject to the claimants accepting responsibility for the openings.
- 4.11.5 Residual impacts: None
- 4.12 Vegetation:
 - 4.12.1 Proposed Action: Trimming and removal of vegetation will be required to facilitate access to the mine openings. The effects of the proposed action are likely to be short term with rapid recovery by grasses and shrub species, as the local seed base will remain intact.
 - 4.12.2 Fence and Sign Only Alternative: Impacts of this alternative are similar to the proposed action in that vegetation trimming and removal will be required. The extent of removal will be less under this alternative because no heavy equipment will not be moving tailings material under this proposal
 - 4.12.3 No Action Alternative: No impact
 - 4.12.4 Mitigation: Barrel and prickly pear cactus will be salvaged and replanted on site where possible. Saguaro cactus will be avoided.
 - 4.12.5 Residual impacts: The effects of the proposed action are likely to be short term with rapid recovery by grasses and shrub species as the local seed base will remain intact.
- 4.13 Cumulative Impacts
 - 4.13.1 Cumulative Impact Assessment Area: Cumulative Impact assessment Area is the Tombstone AML Project Area (Appendix 2). This area encompasses approximately 10,240 acres with approximately 6,400 acres of BLM land included and the focus of this assessment.
 - 4.13.2 Cumulative Impacts of the Proposed Action : The purpose of the proposed action is to protect the public from the physical safety hazards created by the presence of mine shafts, adits, and pits on the public lands, in the Tombstone Project Area of the TFO. The proposed action will accomplish this purpose, reducing or eliminating hazards on approximately 6,400 acres of public land in the project area. Mine hazards on the remainder of the project area (approximately 4,000 acres)

which is largely comprised of federal, state, and private ownership will remain un-mitigated. Public use of mitigated areas will be safer. Increased safety may result in greater or more diverse public use.

4.13.3 Cumulative Impacts of the Fence and Sign Only Alternative:
The fence and sign only alternative partially accomplishes the purpose of protecting the public from physical safety hazards presented by mine features in the Tombstone Project Area of the TFO. Under this alternative mine features are fenced and signed, however, the physical nature of mine openings are not altered and will remain hazards to the public if fences are breached. Additionally, mine openings on non-public lands in the project area will remain un-mitigated. Public use of mitigated areas will be safer. Increased safety may result in greater or more diverse public use.

4.13.4 Cumulative Impacts of the No Action Alternative: The continued existence of physical safety hazards throughout the Tombstone project area can be expected to deter future beneficial use of the impaired lands.

5.0 CONSULTATION AND COORDINATION

5.1 Persons, Groups, and Agencies Consulted

- Bill Harris, BLM Arizona – HAZMAT Coordinator
- Dan Moore, BLM- Tucson Geologist
- Leslie Uhr, BLM- Tucson GIS Specialist
- Darrell Tersey, BLM – Tucson Natural Resources Specialist
- Ben Lomeli, BLM – Tucson Hydrologist
- Amy Sobiech, BLM – Tucson, Archaeologist
- Linda Dunlevy, BLM – Tucson, Realty Specialist

5.2 List of Preparers and Reviewers

- Keith Hughes, BLM- Tucson Natural Resource Specialist
- Dan Moore, BLM- Tucson Geologist
- Karen Simms, BLM- Tucson Asst. Field Manager
- Claire Crow, BLM- Nepa Coordinator, Management Representative
- Amy Markstein, BLM- NEPA Coordinator, Employee Representative

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Internal Scoping Document for DOI-BLM-AZ-G020-2013-0029-EA

**PROGRAM CONSULTATION & COORDINATION
BUREAU OF LAND MANAGEMENT
TUCSON FIELD OFFICE**

NEPA #: DOI-BLM-AZ-G020 -2013-EA Subactivity: 1620

Project Name: Tombstone High Priority Mine Closures
Location: Tombstone AZ
Project Lead: Keith Hughes
Project Description: Backfilling and fencing AML features

TFO Managers Scoping Review	
Karen Sponer	<i>KS</i>
Brian Bellew	<i>BB</i>
Claire Crow	<i>CC</i>
Kirk Hughes for	<i>KH</i>
Karen Simms	<i>KS</i>
Mark Rekshtymkyj	<i>MR</i>

Plan Conformance?

NP = not present in the area impacted by the proposed or alternative actions
NI = present, but not affected to a degree that detailed analysis is required
PI = present with potential for impact - analyzed in detail in the EA

*this column ONLY for EAs

Resource	Determination	Rationale for Determination / Issue	EA sign off / Date
Air Quality	PI	Backfilling will produce dust	
Areas of Critical Env. Concern	NP	Not Present	
Cultural Resources/Paleo	PI	Historic mine features and cultural may be present, surveys will be conducted	
Environmental Justice	NP	Benefiting claimants by BLM remediation programs	
Farm Lands (Prime or Unique)	NP	Not Present	
Floodplain	NP	No Flood plain Issues	
Native American Religious Concerns			
Threatened or Endangered Species	NI	CCWA Range, Sacramento area possible	
Wastes, Hazardous or Solid	PI	open shafts could be used for illegal hazardous dumping	
Water Quality, Drinking or Ground	NI	Backfilling shafts reduces potential for groundwater contamination.	
Wetlands/Riparian Zones	NP	Not present	
Wild and Scenic Rivers	NP	not present	
Wilderness	NP	not present	
Wilderness Character	NP	1. Size 2. Naturalness 3. Solitude & Unconfined Recreation	Heavy Conc of Roads in Scoping Area precludes from Wilderness
Invasive & Non Native Weeds	PI	Equipment may bring weed seed in; control bare ground	
National Energy Policy	NP	not present	
Rangeland Health Standards	NI	action will impact livestock operation or rangeland health	
Migratory Bird Treaty Act	NP		
Recreation	NI	posting of mine through National Recreation System	
Wildlife	PI	Backfilling could harm wildlife	
Lands/Realty	NI		

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Access/Transportation	PE	Could be dangerous conflict of other public land users
Visual Resources	NE	Determine impacts/RA
Mineral Resources	NE	Not impacts - RA
Vegetation	PE	will be cutting/trim
Water Rights	NP	
Grazing Program	NI	
Public involvement needed?	Yes or no	If yes, what level? mining claimant notices EIS of Tompkins General Permits
Suggested Level of NEPA	EA, DNA, CX	

Public Involvement Levels:

- Level 1: **REQUIRED:** List the project and project lead on the AZ website and coordinate with authorized permit holders, permittees, and adjacent landowners.
- Level 2: Email or send postcards of the proposed action to the affected interests.
- Level 3: Make the unsigned FONSI with supporting NEPA document available for review.
- Level 4: Host public scoping meetings and make the unsigned FONSI with supporting NEPA document available for review.

Levels of NEPA Analysis:

- **DNA** (Determination of NEPA Adequacy) is a category used when actions are covered in an existing EA or EIS. If the existing EA or EIS covers the proposed action, then a decision on the action may be made without further NEPA analysis.
- **CX** (Categorical Exclusion) is a category of actions that federal agencies have determined not to significantly affect the quality of the human environment (individually or cumulatively) and for which, therefore, neither an EA nor an EIS is required (40 CFR 1508.4).
- **EA** (Environmental Assessment) is a category that requires the proposed action be analyzed and documented because it is not exempt from NEPA, has not been categorically excluded or analyzed in an existing EA or EIS. *Please refer to the BLM NEPA Handbook H-1790-1 for more detailed information on DNA, CX & EA.*

For EA Level Documents Only:

Environmental Assessment Final Review:

Unit Manager/Supervisor: Claire Graw Date: 6/17/13
 Environmental Coordinator: Claire Graw Date: 6/17/13

Appendix 2

Figure 1 Tombstone Abandoned Mine Lands Project Area

