FINDING OF NO SIGNIFICANT IMPACT

ABANDONED MINE LANDS SAFETY INSTALLATIONS
KEANE WONDER MINE COMPLEX
DEATH VALLEY NATIONAL PARK, CALIFORNIA and NEVADA

The National Park Service plans to implement safety options at abandoned mine lands in Death Valley National Park. The National Park Service completed an environmental assessment that provides an analysis of the environmental consequences of the alternatives considered. The environmental assessment was prepared in accordance with the National Environmental Policy Act of 1969, as amended, its implementing regulations by the Council on Environmental Quality (40 CFR Parts 1500-1508), and Director's Order #12 and accompanying Handbook, Conservation Planning, Environmental Impact Analysis, and Decision-making. This document also satisfies the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended.

PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of this project is to mitigate human and environmental hazards present in the Park. The need for the proposed abandoned mine safety installations is related to safety hazards created by a large number of old and deteriorated abandoned mine opening features. These types of hazards were recently documented in a report by the Office of the Inspector General (U.S. Office of the Inspector General 2008). To assure abandoned mine land sites are secured for visitor safety, each National Park Service region has been directed to identify and implement quick response measures for high-risk abandoned mine land features (National Park Service 2009).

The purpose of the proposed project is to improve visitor and staff safety at the Keane Wonder Mine complex in Death Valley while accommodating the use of abandoned mine land sites by wildlife (principally bats), minimize impacts on historic fabric and the visual character of the historic landscape, and minimize and offset potential adverse effects on natural resources using mitigation measures.

SELECTED ALTERNATIVE

Within the environmental assessment, the National Park Service identified Alternative B: Abandoned Mine Safety Installations, as the preferred alternative. The preferred alternative is also the selected alternative. No changes were made to this alternative based on public comment.

The selected alternative consists of installing safety features at multiple abandoned mine openings in the Park. In addition, some openings that already have safety features will continue to exist in their present state, as described in other alternatives considered.

The abandoned mine lands safety techniques can be grouped based on their similar effects. These groups of closure techniques include:

- Grates;
- Fencing;
- Bat gates, culvert gates, and cupolas;
- Cable mesh nets and screens;
- Polyurethane foam closures covered with backfill;
- Backfill alone; and
- Combination of applications of above methods to treat complex situations.

The number and types of treatment techniques vary according to site circumstances. For a simple mine safety installation situation, only one technique might be needed. For a complex site, several techniques may need to be combined. For example, a bat gate would be installed at an opening consisting of an adit and known to be used by bats, while a simple metal grate could be used at a similar opening not used by bats. Selection of treatment techniques for specific openings will be based on a number of factors, including physical features, conditions of the opening, types of structures present, safety hazards, presence or absence of bats, use of the mine by other wildlife such as owls, and presence and condition of historic features. The objective will be to select a set of techniques that eliminates safety hazards for future visitors, while simultaneously protecting historical resources, special-status species, and other wildlife that use the mines.

The selected alternative will provide a mechanism for treating abandoned mine openings at the Keane Wonder Mine complex over the long term, using proven, accepted techniques. Safety installations at abandoned mine openings will mitigate basic safety hazards at mine sites while simultaneously protecting special-status species and other wildlife that use the mines, as well as historic cultural resources. The components of alternative B will be determined based on site specific conditions. All variables, including bat and wildlife use, the presence of historic cultural resources, and the physical nature of the mine opening, will be considered at each individual site to determine the best methods of closure.

OTHER ALTERNATIVES CONSIDERED

The environmental assessment prepared for this project also analyzed another alternative: Alternative A: No Action. The No Action alternative would consist of the continuation of existing management practices for abandoned mine land sites at the Keane Wonder Mine complex. Additional abandoned mine safety installations would not be implemented by the National Park Service; unsafe conditions would continue to exist at sites with unclosed mine openings.

ALTERNATIVES CONSIDERED BUT DISMISSED

The installation of bat gates at all mine openings was considered as one alternative to improve public health and safety at mine openings. However, the universal application of bat gates was determined to be unsuitable for the following reasons. In some cases, an inordinately large gate would have been required and would have been impractical and/or cost prohibitive. A bat gate may not have been suitable because of individual site conditions. Some mines do not contain bats and the use of bat gates would have been an unnecessary and excessive use of materials and funds. This alternative was dismissed from further consideration because it would have resulted in inefficient use of resources.

RATIONALE FOR SELECTED ALTERNATIVE

Alternative B is the selected alternative because it offers the highest degree of resource protection for wildlife, special-status species, and cultural resources, while improving public health and safety, which is the primary purpose of the project. The safer environment created by alternative B will have a secondary benefit of reducing the need for emergency responses at abandoned mine lands because risks to human health and safety are reduced. If the No Action alternative had been selected, the National Park Service would have had limited capability to respond to future needs and conditions associated with abandoned mine land sites without major actions or changes in the present management course.

Environmentally Preferred Alternative

In accordance with the criteria in section 101(b) of the National Environmental Policy Act, the alternative that best meets the following criteria must be identified as the environmentally preferred alternative:

- Criterion 1: Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- Criterion 2: Ensure for all Americans, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- Criterion 3: Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
- Criterion 4: Preserve important historic, cultural, and natural aspects of national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice;
- Criterion 5: Achieve a balance between population and resource use which will permit high standards of living and wide sharing of life's amenities; and
- Criterion 6: Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Alternative A does not protect visitors and park staff from abandoned mine safety hazards or minimize potentially adverse effects on visitor experience, so it does not meet criteria 2, 3, and 5. Alternative A does not protect wildlife and special-status species from becoming trapped in open shafts, so it fails to fully meet criteria 1 and 4. It partially meets criterion 4 by preserving important historic and cultural aspects of national heritage, and maintaining an environment that supports a variety of individual choice. Regarding criterion 6, the disturbance and general lack of vegetation around most mine openings limits the ability of Alternative A to enhance the quality of renewable resources or approach the maximum attainable recycling of resources.

Alternative B protects visitors and park staff from abandoned mine safety hazards and minimizes potentially adverse effects on visitor experience, so it better meets criteria 2, 3, and 5. It also better meets criteria 1 and 4 by protecting wildlife and special-status species from being trapped in open shafts. While it preserves important historic, cultural, and natural aspects of national heritage and maintains an environment that supports diversity, it does not allow the same variety of individual choice provided in alternative A. Because there would be no change to the amount of disturbance or increase of vegetation around most mine openings, alternative B would not enhance the quality of renewable resources or approach the maximum attainable recycling of resources (criterion 6) any better than alternative A.

Because alternative B would ensure for all Americans safe surroundings, provide a greater opportunity for achieving a wide range of beneficial uses of the environment without risk of health or safety, and achieve a balance between population and resource use that would permit high standards of living and wide sharing of life's amenities, alternative E is the environmentally preferred alternative.

MITIGATION MEASURES

The National Park Service places a strong emphasis on avoiding, minimizing and mitigating potentially adverse environmental impacts. To help ensure the protection of natural and cultural resources and the quality of the visitor experience, the mitigation measures identified below will be implemented as part of the selected alternative. The National Park Service will monitor throughout the construction process to help ensure that protective measures are being implemented and are evaluated to determine if they are achieving their intended results. For example, actions with the potential to affect cultural resources would be reviewed by the park archeologist. Table 1 presents the mitigation measures to be implemented in association with the proposed action and the responsible person for monitoring those measures.

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Table 1. Mitigation Measures to be Implemented.

Resource / Topic	Mitigation Measures	NPS Responsibility
General Measures	• Construction limits would be delineated by the park prior to any construction activity. Workers would be instructed to avoid conducting activities and disturbing areas beyond the construction limits. • All tools, equipment, barricades, signs, surplus materials, demolition debris and rubbish would be removed from the project work limits on project completion. • Contractors will be required to properly maintain construction equipment and generators (e.g., mufflers) to minimize noise from use of the equipment. • All equipment on the project will be maintained in a clean and well-functioning state to avoid or minimize contamination from petroleum products. All equipment will be checked daily. • Materials will be stored, used, and disposed of in a proper manner. • A hazardous spill plan will be approved by the park prior to construction. This plan will state what actions will be taken in the case of a spill, notification measures, and preventive measures to be implemented, such as the placement of vehicles and generators.	Park Safety Officer
Soil Erosion and Vegetation Loss	• Wait until just before beginning construction to clear vegetation and to disturb the soil. • Minimize the area of bare soil within the approved work zone as much as possible. • Maintain a buffer of natural vegetation around the work area to slow runoff and trap sediments. • Consider phasing construction to minimize the extent of the disturbed soils. • Use existing roads and trails to access closure locations to maximum extent practicable. • Park vehicles and equipment and temporarily store materials on locations that are already devoid of vegetation and/or compacted from previous mine activities. • If vegetation disturbance cannot be avoided, the disturbed area will be minimized and naturalized after disturbance. Tire tracks or new foot paths will be raked out and disguised using onsite materials such as rocks, litter, or vertical mulch using locally obtained dead vegetation. Seeds, transplants or nursery outplants are not recommended due to the potential of introducing exotic species or new genotypes into native populations. The park botanist will be consulted with site photographs for site specific mitigation recommendations for areas larger than three square meters. • Ensure the final land form is stable, minimizes soil erosion, and is hydrologically compatible with the surrounding area. These actions would be reviewed by the NPS archeologist prior to implementation. • Provide slope and land form stability by reducing slope angles. These actions would be reviewed by the NPS archeologist prior to implementation.	Erosion Control (Park Hydrologist) Vegetation Disturbance (Park Botanist) Slope Stabilization (Park Geologist)

Resource / Topic	Mitigation Measures	NPS Responsibility
Water Quality and Aquatic Community Protection (rarely used due to arid and semi-arid conditions)	• Maintain a buffer zone between the construction activities and the edge of the water feature; a minimum separation distance of 100 feet is typically preferred. • If rain is anticipated, install temporary silt fence between the construction activity and the water feature and remove the fence after the work is completed. • In situations where a silt fence may not be adequate, create a temporary diversion or containment berm between the construction activity and the water feature to intercept and manage stormwater runoff. • Remove and reshape temporary containment berms once closure activities are completed. These actions would be reviewed by the NPS park archeologist prior to implementation. • Restore any drainage channels that may have been altered by closure activities to predisturbance shape, size, capacity, stability, and contours. These actions would be reviewed by the NPS park archeologist prior to implementation.	Park Hydrologist
Visitor Experience	• Provide interpretative or guided tours of safe mines (only exterior tours are being considered) to illustrate the facilities and techniques used to mine mineral resources and provide a sense of the conditions encountered by miners. • Minimize adverse visual experiences by using gates, fences, and other safety structures that are colored to resemble desert soils and vegetation. Design the structures to be low-profile or hidden from view. Allow the treatment structures to weather to resemble of old mine structural features.	Chief of Interpretation Contracting Officer's Technical Representative
Wildlife and Special-Status Species	• Time construction and other treatment activities to avoid or take place outside reproductive or sensitive portions of species' life cycles. • Use designs in gates, fences, and other treatment techniques that allow bat and owl access to mines that are occupied by these groups. • Conduct bat and other wildlife surveys of openings to be treated, and select techniques that would ensure that wildlife access was maintained. •	Park Wildlife Biologist Contracting Officer's Technical Representative

WHY THE SELECTED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.

No major adverse or beneficial impacts were identified that would require analysis in an environmental impact statement.

The impacts may differ depending on the closure technique implemented. Actions taken under the selected alternative will result in the following effects.

Public Health and Safety – The selected alternative will have long-term beneficial impacts for all closure techniques. Under the selected alternative, the safety installations will result in a benefit to public health and safety because risks posed at mine openings will be decreased. The additional improvements to public health and safety associated with the selected alternative will add to overall safety in the Park and will grow over time as more mine openings are closed. Overall, the effects of the selected alternative, combined with the effects of other plans and actions, will have a beneficial cumulative effect because all of the actions will either directly or indirectly enhance public health and safety.

Visitor Experience – Closing abandoned mine openings using the safety installation techniques described in the alternatives section will have a variety of effects on prospective future visitor use and experience, depending on the preferences and interests of the specific visitors. The selected alternative will restrict visitors from entering dangerous mine openings, but will provide most visitors with a continued opportunity to enjoy other existing types of park activities. Because most of the existing historical features at mine sites and camps will remain unchanged, the impact of mine safety installation activities will result in a long-term, minor, adverse impact on visitor experience. Potential adverse effects will be mitigated by the National Park Service by implementation of interpretive programs The public will, therefore, have an opportunity to learn more about the history of the Keane Wonder Mine complex, as well as the benefits provided by the safety installation treatments to bats and other wildlife. In addition, some mine safety installations will be designed to minimize the visual effects of safety installation structures by using techniques such as sunken bat gates or grates.

The selected alternative will have a long-term, minor, adverse impact on the experience of some visitors because treatments will prevent them from having full access to the mine openings. Improved interpretation will provide a long-term, beneficial impact. The effects of alternative B will substantially contribute to a cumulative, long-term, beneficial impact that will result from the ability to reopen the Keane Wonder Mine complex to visitors.

Special-status Species – Fencing will have negligible adverse to beneficial long-term impacts. Polyurethane foam with backfill will only be used where bat, owl, or other wildlife use of mine opening is minimal and, therefore, will have negligible to minor effects on special-status species. Bat gates, screens, nets, grates, or cupolas will have short- and long-term negligible adverse, as well as long-term beneficial, effects. Shallow backfill will have short-term negligible adverse effects. The impacts of combined methods will be associated with the greatest adverse impact of the techniques employed.

The effects to special-status species from using the proposed safety installation techniques can vary depending on the opening characteristics, the species using the opening, and the method(s) selected to close or restrict visitor access to the opening. The effects of additional mine safety installations on bats will range from long-term, negligible and adverse to long-term and beneficial. A high priority will be given to determining the appropriate installation method in respect to special-status species, along with the primary goal of protecting public health and safety. The mitigation measures incorporated in the mine safety installations for bats will ensure that these species would continue to have access to those mines.

While other plans and projects may affect special-status bats to various degrees, the mine safety installations will contribute negligible adverse cumulative effects for bats. Regardless of the potential impacts from other plans and projects, the cumulative impacts on state species of special concern bat species will not be greater than negligible and adverse, and there is a likely potential that the cumulative impact will be beneficial because in the long-term, mine habitats used by wildlife will no longer be subject to human intrusion.

Wildlife – Fencing will have negligible to minor, long-term adverse impacts. Polyurethane foam with backfill will only be employed where wildlife use is absent or rare, and the impacts will be negligible, long-term, and adverse. Bat gates, screens, nets, grates, or cupolas will have short- and long-term, negligible to minor adverse impacts, as well as beneficial impacts. Shallow backfill will have a negligible, short-term adverse impact and the impacts of combined methods will be associated with the technique with the greatest adverse impact.

The effects of the safety installations on wildlife can be either beneficial or adverse depending on the opening characteristics, the wildlife species using the opening, and the method(s) selected to close or restrict visitor access to the opening. Considerations for protecting existing and potential future wildlife uses of an opening are given one of the highest priorities in deciding the most appropriate closure approach. The potential effects on wildlife will be long-term, negligible to minor, and adverse, with the greatest effect associated with permanently closing an opening and causing wildlife to seek another mine opening or natural feature for shelter. Short-term, minor, adverse effects on wildlife will result from temporary disturbance caused by construction during safety installations. Beneficial effects for wildlife will also occur in those cases where wildlife access is accommodated, but human access is restricted, thus eliminating potential disturbance. The overall cumulative effect of the selected alternative on wildlife will range from short-term, negligible to minor and adverse, to predominantly long-term and beneficial.

The degree to which the proposed action affects public health and safety.

The selected alternative will have a long-term, beneficial effect on public health and safety by reducing overall risks to human health and safety caused by the continued existence of open abandoned mine openings. Temporary fencing could be employed at mine openings scheduled to be closed by one of the other various available closure techniques. Other closure techniques will include bat gates, nets, screens, grates, and cupolas, polyurethane foam closures covered with backfill, backfill alone, and combination applications of the above methods to treat complex situations. All these measures will have similar beneficial effects on public health and safety in that they will result in permanent closure of mine openings and will reduce risks to human health and safety.

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.

As described in the environmental assessment, ecologically critical areas, wild and scenic rivers, and prime and unique farmlands will not be affected. Effects to historic and cultural resources will be negligible to minor as a result of mitigation measures employed to minimize adverse impacts to these resources.

The degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks.

No highly uncertain, unique, or unknown risks were identified during either preparation of the environmental assessment or the public comment period.

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.

The selected alternative neither establishes a National Park Service precedent for future actions with significant effects nor represents a decision in principle about a future consideration.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

As described in the environmental assessment, cumulative impacts were determined by combining the impacts of the selected alternative (preferred alternative) with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects at Death Valley National Park and, if applicable, the surrounding region.

Projects Contributing to Cumulative Impacts

Other plans and projects with potential to contribute to cumulative impacts of abandoned mine opening safety installations are described below.

Other Abandoned Mine Lands Safety Installations

Several other mine safety installations have already been completed or are underway at Death Valley National Park, including mine safety installations in the Skidoo Mining District, Gem Mine area, Greenwater Valley, Eureka Mining area, 20 Mule Team and Gower Gulch area, and Titus Canyon area. Those mine safety installations include bat gates, cupolas, mesh nets, and fencing.

Area Closure and Related Projects

In September 2008, the National Park Service closed the Keane Wonder Mine complex to all public vehicular and foot access. The closure includes areas from the junction of Keane Wonder Road and Beatty Cut-off Road east to Chloride City, and approximately 1 mile both north and south of Keane Wonder Mine. This includes the Keane Wonder Mine, Mill and spring, Cyty's Mill, and the Big Bell and King Midas mines. Considerations that led the National Park Service to close the area included unsafe mine openings, unstable ground, potential toxic waste, and collapsing structures associated with the Keane Wonder Mine and

past gold extraction processes. This environmental assessment addresses the exposed mine openings and unstable ground associated with these openings.

Keane Wonder Mine Aerial Tramway Stabilization

The School of Engineering at the University of Vermont is collaborating with Death Valley National Park in a program of assessment, research, training, and stabilization of the aerial tramway structures at the Keane Wonder Mine. The National Park Service desires to repair structural damage to the 1.5-mile-long aerial tramway, and to that end has partnered with the University of Vermont in structural assessment, development of repair strategies, and repair implementation (University of Vermont 2009). Site work for the condition assessment was completed in the spring of 2009 and plans to commence the stabilization work are underway.

Contamination Remediation

The presence of mining-related contaminants is possible as a result of the previous mine operations and activities at the Keane Wonder Mine. The presence and extent of possible contaminants is currently unknown. Death Valley National Park has plans to do sampling at the complex to identify what contaminants may be present and determine whether remediation is necessary. If contaminants are discovered at the complex a contamination remediation plan would be developed.

The stability of the historic structures, including the tramway towers linking the upper and lower portions of the mine, will be addressed by the Keane Wonder Mine Aerial Tramway Stabilization project. Additionally, the National Park Service plans to sample and test waste present at the site to determine the presence and extent of any contamination. The National Park Service anticipates reopening the Keane Wonder Mine complex to the public after these safety concerns have been addressed.

The environmental assessment evaluated cumulative effects for each of the resources affected by the preferred alternative. As described in the environmental assessment, the cumulative impacts on public health and safety and visitor experience will be long-term and beneficial. Cumulative effects on special-status species and wildlife will range from negligible to minor and adverse as well as long-term and beneficial.

The degree to which the action may adversely affect districts, sites, highways, structures or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

The "Programmatic Agreement between the National Park Service (U.S. Department of the Interior) and the California State Historic Preservation Officer Regarding Mitigation of Physical Safety Hazards at Historic Abandoned Mineral Lands within the National Parks in California" was developed in anticipation of funding under the American Recovery and Reinvestment Act of 2009. It was signed by both parties on August 18, 2009. The purpose of this programmatic agreement is to establish a program for compliance with section 106 of the National Historic Preservation Act and set forth a streamlined consultation process when agreed upon criteria are met and procedures are followed in the installation of physical safety mitigation treatments at abandoned mine lands sites. As part of the development of the programmatic agreement, the National Park Service has established guidelines, standards, and technical information applicable to the treatment of these physical hazards in ways that would, to the extent possible, minimize the impacts of such treatments on the historic fabric and historic character of abandoned mine lands features at these sites.

The park would adhere to the programmatic agreement in implementing this project and would treat all the mine structures as potentially eligible for listing on the National Register of Historic Places. The National Park Service would install only reversible safety treatments unless the unsafe condition of the feature is of such severity that a reversible option is not viable. The standard treatments described in Attachment A to the programmatic agreement, due to their non-permanent and reversible nature, are deemed to produce "no adverse effect" for purposes of the programmatic agreement. As soon as park staff determines that a required alternative safety treatment would have an unavoidable and irreversible adverse effect on one or more historic properties, that portion of the project would be suspended and the park would immediately enter into consultation with the State Historic Preservation Officer to identify other treatment types that avoid, minimize, or mitigate the adverse effect. As a result of following the programmatic agreement and the mine treatment types it proposes, the impact to cultural resources at the Keane Wonder Mine complex would be negligible to minor.

The degree to which the action may adversely affect an endangered or threatened species or its critical habitat.

No federally listed threatened or endangered species or habitat is known to occur in the project area. No critical habitat has been designated in the park. The effects of additional abandoned mine safety installations on special-status bat species (state species of concern are the only species found at the Keane Wonder Mine complex) will range from long-term, negligible, and adverse to long-term and beneficial. A high priority will be given to determining the appropriate closure method in respect to special-status species, along with the primary goal of protecting public health and safety. The mitigation measures incorporated in the abandoned mine safety installations for bats will ensure that these species will continue to have access to those mines. While other plans and projects may affect special-status species to various degrees, the abandoned mine safety installations will contribute negligible adverse cumulative effects on bats. Regardless of the potential impacts to bats from other plans and projects, the cumulative impacts on the state species of concern bat species will not be greater than negligible and adverse, and there is a likely potential that the cumulative impact will be beneficial because in the long-term, mine habitats used by these species will no longer be subject to human intrusion.

Whether the action threatens a violation of federal, state or local law imposed for the protection of the environment.

The selected alternative violates no federal, state, or local environmental protection laws.

PUBLIC INVOLVEMENT AND AGENCY CONSULTATION

Staff of the park and resource professionals of the National Park Service Denver Service Center team initiated internal scoping in a project review meeting in September 2009. On October 14-16, 2009, park and Denver Service Center team staff conducted an onsite survey and discussed issues and options.

A scoping notice was sent in late October 2009 in which the National Park Service proposed to complete an environmental assessment to analyze the effects of implementing mine safety installation methods to mitigate visitor and staff safety hazards at the Keane Wonder Mine complex in Death Valley National Park. The notice was sent to approximately 30 tribal, federal, and state departments and districts including the agencies and organization listed above. Comments were solicited until the scoping period ended in late November 2009. The

notice was also posted to the park's Planning, Environment, and Public Comment project management database website for public review and comment. One comment, from an interested individual, was received through the National Park Service Planning, Environment and Public Comment website. It expressed agreement with the intent to provide safety installations at some of the mine openings but opposition to the closure of the entire Keane Wonder Mine complex area.

A Programmatic Agreement with the California State Historic Preservation Division was established defining a program for compliance with section 106 of the National Historic Preservation Act and setting forth a streamlined process where agreed-on criteria would be met and procedures would be followed in the installation of physical safety mitigation treatments at abandoned mine land sites. The National Park Service established guidelines, standards, and technical information applicable to the treatment of these physical hazards in ways that would, to the extent possible, minimize the impacts of such treatments on the historic fabric and historic character of non-archeological historic properties at these sites (see appendix B of the environmental assessment for a copy of this programmatic agreement).

In accordance with National Historic Preservation Act of 1966, as amended, regarding the Programmatic Agreement with the California State Historic Preservation Division, the National Park Service contacted the Timbisha Shoshone and Pahrump Paiute Tribes by letter on June 12, 2009, to initiate consultation and comment on the programmatic agreement and work plan. The consultation letters are included in appendix B of the environmental assessment.

Pursuant to section 7 of the Endangered Species Act of 1973, as amended, a letter requesting technical assistance was sent to the U.S. Fish and Wildlife Service on October 13, 2009. They responded with a species list on November 23, 2009. No federally listed species or their habitat is known to occur in the Keane Wonder complex. No critical habitat has been designated in the park. Because the proposed action would have no effect to listed species or their habitat, no consultation with the U.S. Fish and Wildlife Service was necessary. The letter requesting technical assistance and their response are included in appendix B of the environmental assessment.

The environmental assessment was made available for public review and comment during a 30-day period ending March 19, 2010. An electronic copy of the environmental assessment was placed on the Park's Planning, Environment, and Public Comment website. The public was invited to direct comments or concerns related to this project on the website and directly to Superintendent Craighead by postal mail. A total of 64 printed copies of the environmental assessment were distributed to the public. Copies of the environmental assessment were made available at five local public libraries and at the Park's visitor centers. An additional 89 entities on the mailing list received a press release announcing the availability of the environmental assessment for review. Due to the relatively low level of controversy relative to this project, no public meetings were held.

Recipients also included regulatory and affected agencies, including the U. S. Fish and Wildlife Service and the California Department of Fish and Game, the California State Historic Preservation Office and the tribes affiliated with Death Valley National Park.

During the 30-day public comment period, the National Park Service received two letters with comments on the environmental assessment. Xanterra parks and Resorts submitted a letter with one substantive comment about impairment. One comment entered into PEPC

was received from a concerned member of the public about potential impacts on bats. The comments and the National Park Service's responses to them are documented in an Errata prepared as a technical supplement to the original EA. The errata also contain summaries of the substantive comments received and NPS responses.

IMPAIRMENT OF PRESERVE RESOURCES OR VALUES

The National Park Service has determined that the implementation of the selected alternative will not constitute impairment to the resources or values of Death Valley National Park. This conclusion is based on a thorough analysis of the environmental impacts described in the Abandoned Mine Lands Safety Installations environmental assessment, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction in NPS Management Policies (2006). As described in the environmental assessment, implementation of the selected alternative will not result in major adverse impacts on a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Death Valley National Park; (2) key to the natural or cultural integrity of the Park; or (3) identified as a goal in the Park's General Management Plan or other relevant National Park Service planning documents.

CONCLUSION

The National Park Service has selected the abovementioned Alternative B: Abandoned Mine Lands Safety Installations, for implementation. The selected alternative does not constitute an action that would normally require preparation of an environmental impact statement. The selected alternative will not have a significant impact on the human environment. Negative environmental impacts that could occur are no greater than minor in intensity. There are no significant impacts on public health, safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the selected alternative will not violate any federal, state, or local environmental law.

Based on the foregoing, it has been determined that an environmental impact statement is not required for this action, and the projects will be implemented as soon as practicable.

Recommended: 4/5/10

Superintendent — Date
Death Valley National Park

Approved: 12 APRIL 2010

Regional Director, Acting — Date
Pacific West Region

ERRATA

ABANDONED MINE LANDS SAFETY INSTALLATIONS
KEANE WONDER MINE COMPLEX
DEATH VALLEY NATIONAL PARK, CALIFORNIA and NEVADA

This errata sheet documents changes to the text of the Death Valley National Park Abandoned Mine Lands Safety Installations at Keane Wonder Mine Complex environmental assessment as the result of comments received since the document was released on February 19, 2010. These errata must be attached to the original EA to comprise a full and complete record of the environmental implementation process. An interdisciplinary team reviewed these responses to identify any substantive comments. Substantive comments were considered to be comments that:

- Question, with reasonable basis, the accuracy of information in the environmental assessment.
- Question, with reasonable basis, the adequacy of the environmental analyses.
- Present reasonable alternatives other than those presented in the environmental assessment.
- Cause changes or revisions in the proposal.

Substantive comments and National Park Service responses are included following the text changes.

Environmental assessment text changes:

The National Park Service revised a vegetation disturbance mitigation measure to present new information. This additional mitigation measure, including the NPS party responsible for its implementation, is included above in table 1of this document. This new measure is also documented in the errata to the environmental assessment. Changes in the environmental assessment generated by substantive comments are presented below. These changes should be incorporated into the environmental assessment.

Add the following to the mitigation measures section of the environmental assessment on pages 20 and 21.

Soil Erosion and Vegetation Loss

- If vegetation disturbance cannot be avoided, the disturbed area will be minimized and naturalized after disturbance. Tire tracks or new foot paths will be raked out and disguised using onsite materials such as rocks, litter, or vertical mulch using locally obtained dead vegetation. Seeds, transplants or nursery outplants are not recommended due to the potential of introducing exotic species or new genotypes

Wonder Mine complex. A recent park survey indicates that seven of these species are present at sites throughout the park, including the complex. The remaining five species may potentially occur in abandoned underground mines, although there are currently no known occurrences. Of these 12 bat species, three are given special status as Species of Special Concern by the California Department of Fish and Game. All 12 bat species that use mine habitat in the park are addressed in this section because they use similar habitats and would be affected equally by any proposed mine safety installations."

Response to comments:

Comment: Table 6 in the environmental assessment does not accurately reflect the protected status of bat species as determined by the California Department of Fish and Game.

Response: The protected status of bat species shown on the California Department of Fish and Game Special Animals List, July 2009, at http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/spanimals.pdf, is correctly presented in table 6 of the environmental assessment. The current list indicated that only 3 of the 12 species of bat with potential to occur in the park have Species of Special Concern status. Table 6 should remain unchanged except for a revision to correct a typographical error (the scientific name *Myotis yumanensis* was incorrectly spelled in the environmental assessment).

Comment: A public commenter noted there are no state-listed bat species.

Response: The comment likely is referring to the word "listed" and its typical association with species designated as threatened or endangered, rather than referring to all protected status categories. Thus, the word "listed, "should not be used to describe the bat species that are categorized as Species of Special Concern by the California Department of Fish and Game. The next-to-last paragraph on page 39 of the environmental assessment should be revised to read:

"In addition to a variety of small mammals, abandoned underground mines provide habitat for bats. Death Valley is home to 12 bat species that could potentially occur at the Keane Wonder Mine complex. A recent park survey indicates that seven of these species are present at sites throughout the park, including the complex. The remaining five species may potentially occur in abandoned underground mines, although there are currently no known occurrences. Of these 12 bat species, three are given special status as Species of Special Concern by the California Department of Fish and Game. All 12 bat species that use mine habitat in the park are addressed in this section because they use similar habitats and would be affected equally by any proposed mine safety installations."

Comment: A commenter expressed concern regarding the description of some types of closures as bat compatible. The compatibility of particular designs with flight patterns of different bat species was questioned. The differing needs of individual or small numbers of bats versus large colonies and the impact of not excluding wildlife species prior to closing or gating a mine opening were also noted.

Response: The environmental assessment, on page 16, stated that the National Park Service would assess each mine safety installation individually and take site-specific conditions, including the presence of bats and other wildlife, into account when designing and installing safety features. The specific recommendations regarding design specifications and configurations provided by the commenter will be taken under advisement by the National Park Service when designing the closures. The following excerpts from the environmental

assessment describe the NPS commitment to install safety devises in a manner and using a design that minimizes adverse effects on bats and other wildlife species associated with mine features.

As noted on page 16:
"Selection of treatment techniques for specific openings would be based on a number of factors, including physical features and conditions of the opening, types of structures present, safety hazards, presence or absence of bats, use of the mine by other wildlife such as owls, and presence and condition of historic features. The objective would be to select a set of techniques that would eliminate safety hazards for future visitors, while simultaneously protecting historical resources, special-status species, and other wildlife that use the mines."

Mitigation measures presented on page 18 include:

- Use designs in gates, fences, and other treatment techniques that allow bat and owl access to mines that are occupied by these species.
- Conduct bat and other wildlife surveys of openings to be treated, and select techniques that would ensure that wildlife access was maintained.
- Exclude wildlife prior to installation of closure that would prevent passage by wildlife.

The environmental assessment also states on page 43:
"The decision to install a grate or screen is based on numerous factors, including use of the mine by bats. A recently completed bat survey, completed by the National Park Service, would be consulted before any mine safety installations were installed at a particular mine opening. Grates and screens could be combined with other treatment techniques (for example, a grate atop a cupola) that allow bat access in the case of mines where bat use is substantial. This would minimize the possibility that the structures would adversely affect bats."

Comment: A member of the public suggested that the impacts of closing mine openings for safety reasons could have impacts on bat colonies greater than the negligible to minor adverse impacts stated in the environmental assessment.

Response: The basis for the magnitude or intensity of each impact category used in the environmental assessment is defined in the methods discussion of each resource analysis. The expected impacts are characterized using these definitions. The definition of a minor adverse special-status species impact can be found on page 40 and states:

"Minor: The action would result in detectable effects to an individual (or individuals) of a listed species and bats, regardless of their status, or their critical habitat, but the effects would not result in population-level changes with measurable long-term effects on species, habitats, or natural processes sustaining them."

The analysis concluded the potential effects to bat species at the population level would be negligible to minor and adverse. While the potential impact to an individual or colony may differ, the population would likely experience minor adverse effects at most.

Comment: Xanterra Parks and Resorts commented that potentially keeping the Keane Wonder Mine complex closed could be viewed as detracting from visitor experience and adversely affecting park resources. They questioned whether continued closure of the Keane Wonder Mine complex would constitute impairment of the resource.

Response: Impairment is defined in the environmental assessment on pages 29 to 30 as follows:

"An impact to any park resource or value may, but does not necessarily, constitute impairment. An impact would more likely constitute impairment where it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- Identified as a goal in the park's general management plan or other relevant National Park Service planning documents as being of significance.

An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values and it cannot be further mitigated (National Park Service 2006)."

Closure of the Keane Wonder Mine complex would not be considered an impairment because visitor use of and experience at this complex are not necessary to fulfill specific purposes identified in the establishing legislation; visitor use and experience is not key to the natural or cultural integrity of the park; and visitor access to the mine complex is not a specific goal of the park's general management plan or other relevant NPS planning document. Furthermore, the 2002 Death Valley National Park General Management Plan (page 53) states that the National Park Service will not allow a recreational activity within the park if it would involve or result in unacceptable levels of danger to the welfare or safety of the public, including participants.