

ENVIRONMENTAL ASSESSMENT, FONSI AND DECISION RECORD

BLM, Bishop Field Office
351 Pacu, Suite 100
Bishop, CA 93514

I. EA Number:

II. Lease/Serial/Case File No.:

III. Proposed Action Title/Type: Southern Belle Blasting Closures

IV. Location of Proposed Action: T6S R33E Sec 2, northeast of Laws, CA

GPS ID (NAD 83):

Site 3: 37.46132 latitude, 118.31675 longitude, elevation 4856 feet

Site 6: 37.46112 latitude, 118.31683 longitude, elevation 5000 feet

Site 7: 37.46114 latitude, 118.31642 longitude, elevation 4971 feet

V. Applicant (if any): BLM action

VI. Plan Conformance: This proposed action is subject to the Bishop Resource Management Plan, approved March 25, 1993. The proposed action conforms with General Policies, Area Manager's Guidelines, Valid Existing Management, Standard Operating Procedures, Decisions and Support Needs prescribed in the Bishop RMP. A review of the RMP identifies the proposed action is in conformance with the plan.

Government-wide and Bureau-wide policies emphasize and prioritize closing abandoned mines for public safety (see <http://www.abandonedmines.gov>). The Bishop RMP states "Management of public lands will consider safety of the public and Bureau personnel" (p. 8, General Policies). Guidance specific to abandoned mine closures is under Standard Operating Procedures, p. 14: "For abandoned mine shafts... a survey for wildlife use, particularly bats, will be conducted. If bats are present, mines will be gated. Gate design will also consider the needs of other wildlife species potentially inhabiting the mine. If sealing of known hibernacula or maternity roosts must occur, sealing will not occur during the winter or maternity period. If surveys determine there is no use or potential for use by bats, sealing may be done at any time."

VII. Need for Proposed Action: The Southern Belle mine area is a set of abandoned mine workings including numerous surface pits, and other openings that lead to extensive drifts, stopes, and winzes. These present a serious hazard to human safety. In April of 2006 BLM constructed a bat compatible gate on one shaft, and discussed methods to close the other 17 hazardous openings found within the main canyon area. Openings at three sites (Map 1, sites 3, 6 and 7) are so unstable, due to the extremely brittle rock and friable soil surrounding them, that it would be impossible to construct bat-compatible gates. Each of these openings are too large and on slopes too steep to carry foam to for a solid closure.. Consequently the only safe and effective method of closure is to blast these openings shut.

VIII. Description of Proposed Action:

All residents in the vicinity will be notified in person prior to the day of blasting. A detailed flyer will be left at the home of anyone not contacted in person, describing the work and listing a contact to call at BLM with any questions they may have.

This project is funded through an Assistance Agreement between BLM and the State of California Department of Conservation (DOC) for closing unsafe features at the Southern Belle Mine. DOC has selected Ed Winchester of Frontier Environmental as their contractor for closures, and the contractor has subcontracted these closures involving blasting to Alpha Explosives. Alpha Explosives is licensed with the State of California and federal government. All required permits would be obtained by Alpha Explosives (including a permit from the Inyo County Sheriffs Department already obtained) and blasting would follow all required procedures.

Ammonium nitrate / fuel oil blasting agent (ANFO) would be used, in the minimum amount required. The ANFO would be set underground for sites 6 and 7 on the south side of the canyon, and at site 3 on the high south facing wall above the large overhanging opening. Detonating charges would be placed at each site, linked together and detonated from a safe distance.

The area would be inspected after treatment to ensure that no undetonated explosive materials remain, and detonate again to dispose of them if necessary. Alpha Explosives is licensed to haul the explosives and would remove any unused explosives.

IX. Other Alternatives (No Action)

As closure by other means would be physically impossible, No Action (no closure of the three hazardous openings) is the only other alternative. This would fail to address the hazard to public safety, therefore is not a viable alternative.

X. Affected Environment:

The Southern Belle mine and mill site saw production of gold and silver from 1893 through 1937 (U.S. Bureau of Mines production records). The mine workings have several portals connected by more than 3,900 feet of drifts, stopes, and winzes; surface workings include numerous pits. The New Year shaft is reported to be 260 ft. deep with development on three levels. The Southern Belle deposit consists of intensely folded and faulted argillite, hornfels, phyllite, shale and marble, broken by steeply dipping tensional faults filled by quartz veins that contain gold, copper, sulfides and iron oxides. On abandonment the workings were left open. The area includes historic debris and remnants, and a historic site recorded as CA-170-06-18-S1 with historic wooden structures.

The mine workings are situated in rocky, friable soil on a very steep, dry slope at the base of the White Mountains, in sparsely vegetated desert shrub habitat supporting no known nor expected endangered, threatened, or sensitive plant or wildlife species. The mine workings provide underground habitat for bats, including two BLM California Sensitive Species, Townsend's

western big-eared bat and pallid bat, along with *Myotis* spp. and western pipistrelles; and for other small mammals such as wood rats and ringtails.

The site is readily accessible by dirt roads from nearby communities, especially the Rudolph Ranch housing development. Recreational use of the site includes foot and horseback travel. Legal motorcycle and off-highway vehicle use takes place on nearby roads and trails; illegal use outside of designated routes occurs in the mine area. There is evidence of illegal recreational exploration and vandalism of the mine workings.

XI. Environmental Impacts:

Adherence to Local, State and Federal Environmental Ordinances/Laws

Closure of abandoned mine sites is in adherence with laws, ordinances and policies at all levels of government, and blasting will be conducted in adherence with all regulations.

Air Quality

The proposed action is not within a federal air quality nonattainment area. The action would not result in the emission of PM₁₀. Blasting would raise a localized cloud of dust which would settle within about 20 minutes. There would be no longterm impact to air quality.

Consistency with County Planning – no inconsistency.

County Infrastructure – not affected.

Cultural resources

Bishop Field Office personnel completed a Cultural Resource Inventory for the Southern Belle mine on May 12, 2006. Portions of Site CA-170-06-18-S1 (Maps 2 and 3) are located within the Area of Potential Effect (APE) for closure of the mine's hazardous openings, including the closures proposed for this project (Map 3, eastern portion of Locus 3). This site does not appear to meet eligibility for inclusion in the National Register of Historic Places, and is not likely to yield further information regarding historic gold and silver mining in the Owens Valley, pursuant to criterion "D" (CFR36, part 60.4). The project is exempt from review by the California State Historic Preservation Officer (SHPO) pursuant to the Protocol Agreement (2004) between BLM, California and the SHPO – Section V(G), Appendix D(B4): "Hazardous abatements including... filling, barricading, or screening of abandoned mine shafts, adits and stopes where such features are not historic or contributing properties."

The workings proposed for closure in this project contain no cultural materials, and framing is absent or lacking integrity; therefore it falls under the following stipulation for a no effect determination: "Shafts (void of cultural materials and framing) may be back-filled, foamed, covered (bat cupola), or any combination as a safety measure."

Economic Impacts – none.

Environmental Justice

There would be no disproportionate impacts to low income or minority groups, per Executive Order 12898 (2/11/94).

Farmlands, Flood Plains, and Water Quality

There would be no impacts to prime farm lands, flood plains, nor water quality (including ground or surface waters).

Hazardous Materials

The project site has been inspected for hazardous materials and none were found. The materials used for blasting will be handled in accordance with hazardous materials procedures as described under the Proposed Action. No hazardous materials impacts are expected.

Invasive, Non-native Species – no effect.

Land Uses / Realty / Rights-of-way – no effect.

Local Community

According to Alpha Explosives personnel assessing potential impacts at the project site, at the time of blasting local residents will hear a sound similar to a sonic boom, with no noticeable surface shaking of the ground. If there is cloud cover the blast may sound louder. The local community would experience a net beneficial effect due to elimination of the public safety hazard created by these extremely unstable, accessible openings.

Minerals

Closure of these abandoned, unstable openings would not affect the potential for future minerals exploration or development.

Threatened/Endangered/Sensitive Species

There are no known listed species or their habitats within the proposed action area. See Wildlife Habitat, below, for discussion of sensitive bat species.

Trust Status, Federal Trust Responsibilities, Tribal Sovereignty – no effect.

Vegetation

Effects on vegetation would be minimal, with the potential for a few small plants very near the mine openings to be uprooted and/or buried by the blast.

Visual Resources – no effect.

Wilderness/Wild and Scenic Rivers/ACECs

The proposed action is not within a Wilderness, Wilderness Study Area, Area of Critical Environmental Concern, nor Wild and Scenic River corridor, and there would be no effects on any lands so designated.

Wildlife Habitat

Bat Dr. Patricia Brown-Berry and assistants, conducted surveys of the area to determine bat use and excluded bats from the three sites prior to closure. Dr. Berry found that habitat accessed by these openings was used by Townsend's western big-eared bats and pallid bats (both BLM California Sensitive Species), and by *Myotis* spp. and Western pipistrelles. She determined that the habitat lost by closing these openings would be a small percentage of the available habitat provided by the mine, with bat-compatible gates planned for other openings. They were not being used by maternity colonies, and would not be in use as hibernacula at an early autumn closure date.

On September 30 2008, Dr. Brown-Berry, assisted by BLM personnel and volunteers, excluded individual bats currently using the openings by arranging temporary, partial chicken wire closures such that bats could easily exit but not re-enter; watching the openings with night vision equipment to ensure all bats exiting at nightfall did not re-enter; and reconfiguring the chicken wire to keep bats out until blasting closes the openings permanently, prior to freezing night temperatures and the hibernation season.

As a result of the exclusion efforts, and timing to avoid both maternity and hibernation seasons, the proposed action is not expected to result in mortality to individual bats. Due to extensive habitat elsewhere in the mine complex accessible by gateable openings, it is expected to have a minimal effect on bat habitat availability.

There may be similarly minor habitat loss for, and mortality of, small mammals other than bats. Dr. Brown-Berry observed signs of use by other small mammals such as wood rats and ringtails. No individuals were observed during the bat exclusion process. Bat gates to be installed at other mine openings will be accessible to other small mammals as well.

XII. Cumulative Effects

Cumulative effects are direct or indirect effects that result from an action when considered with other past, present and reasonably foreseeable future actions of the agency and other agencies or private parties.

The amount of foraging habitat (carrying capacity) will determine the number of bats in an area. Their habitat may have been more dispersed for roosting prior to abandoned mines. In the mid 1800s these mines became available for the bats as they adopted them for habitat. The various

species of bats are now concentrated in fewer roost sites. (joy you may have changed this already, but that is my attempt).

BLM Bishop FO intent is to prioritize the closure of hazardous mine openings, closest to populated areas, roads, and recreational areas. As time, funding and opportunity allow other closures will be completed. (my note: I don't know if I want the record to show that I will close all haz. Openings, as we might not be able to find them all or funding may preclude it). Bat accessible gates and cupolas will be placed on other, more stable openings that provide access to bat habitat, wherever possible. The proposed action combined with these future actions, together with the past action of recent installation of a bat-accessible cupola at the Southern Belle site, is expected to contribute to net cumulative effects of minor loss of bat habitat at the site; negligible loss of bat habitat from a region-wide perspective; and a major reduction in public safety hazards. The project is expected to have positive cumulative impacts upon the human environment.

XIII. Description of Mitigation Measures and Residual Impacts:

No mitigation is required. Other than the minor loss of bat habitat, there will be no residual impacts.

XIV. Implementation Monitoring:

BLM Bishop FO geologist Cheryl Seath will verify that the action and any required mitigation have been completed as described. A brief report will be attached to the original copy of this document.

XV. Effectiveness Monitoring:

None required.

XVI. Persons/Agencies Consulted:

Patricia Brown-Berry, Brown-Berry Biological Consulting
Dan Gear, Alpha Explosives

XVII. Preparers:

Joy Fatooh, Wildlife Biologist, BLM Bishop FO
Kirk Halford, Archaeologist, BLM Bishop FO
Cheryl Seath, Geologist, BLM Bishop FO

Date: October 8, 2008

Reviewed By: _____ **Date:** _____
Environmental Coordinator

FINDING OF NO SIGNIFICANT IMPACT

It is my determination that this decision will not result in significant impacts to the quality of the human environment. Thus, the project does not constitute a major federal action having a significant effect on the human environment and an environmental impact statement (EIS) is not necessary and will not be prepared. This conclusion is based on my consideration of CEQ's following criteria for significance (40 CFR §1508.27), regarding the context and intensity of the impacts described in the EA and based on my understanding of the project:

1) Impacts can be both beneficial and adverse and a significant effect may exist regardless of the perceived balance of effects. Potential adverse impacts include minor loss of underground wildlife habitat, vegetation removal, soil disturbance and temporary noise and dust. However, none of these impacts would be significant at the local scale or cumulatively because of the small scale of the project and the abundance of similar wildlife habitat in the area.

2) The degree of the impact on public health or safety. No aspects of the project have been identified as having the potential to significantly and adversely impact public health or safety. In fact, the project is designed to enhance public safety by closing extremely unstable hazardous mine openings in an area that receives recreation use..

3) Unique characteristics of the geographic area. The project will not significantly affect any unique characteristics of the area.

4) The degree to which the effects on the quality of the human environment are likely to be highly controversial effects. No anticipated effects have been identified that are controversial in any way.

5) The degree to which the possible effects on the human environment are likely to be highly uncertain or involve unique or unknown risks. The analysis does not show that this action would involve any unique or unknown risks.

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. Neither mine closure nor the manner of closing these openings is new or precedent setting.

7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. No significant site specific or cumulative impacts have been identified.

8) The degree to which the action may adversely affect National Historic Register listed or eligible to be listed sites or may cause loss or destruction of significant scientific, cultural or historical resources. The project area does not include any sites listed on the National Register of Historic Places or sites known to be eligible, and the project as proposed has been determined to have no effect on historical resources.

9) *The degree to which the action may adversely affect ESA listed species or critical habitat.*
No ESA listed species nor their habitat are known to occur in the project area.

10) *Whether the action threatens a violation of environmental protection law or requirements.*
There is no indication that this decision will result in actions that will threaten such a violation.

I have determined that the proposed project is in conformance with the Bishop Resource Management Plan, which was approved March 25, 1993. This plan has been reviewed, and the proposed action conforms with the land use plan terms and conditions as required by 43 CFR 1610.5.

Authorized Official: _____
Acting Field Office Manager

Date: _____