



United States Department of

Attachment 1.

BUREAU OF LAND MANAGEMENT

WASHINGTON, D.C. 20240

July 30, 1993

IN REPLY REFER TO:

6500 (240)
3809 (660)

Instruction Memorandum No. 93-304
Expires 9-30-95

To: All Field Officials

From: Director

Subject: Closure of Abandoned Mines and Preservation of Bat Habitat

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ACTION:	<u>92/930</u>
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	<u>10ANS</u>

Abandoned mines (i.e., shafts, tunnels, and adits) are used as habitat by many species of bats, birds, rodents, reptiles and other wildlife. Abandoned mines are essential to several State and federally listed threatened and endangered bat species for roosting, breeding and hibernating. Furthermore, a large percentage of the bat species in the United States are already threatened, endangered, or candidate species. Due to the unique biology of bats, the improper closure of even a single abandoned mine could seriously reduce numbers of an entire species, and could lead to another listing under the Endangered Species Act. Care must be taken to avoid such occurrences.

Bats are the major biological controllers of nighttime flying insects and, as a result, play an important ecosystem role. The insects controlled by bats include many agricultural and forest pest insects. In the southwest, many desert plant species are dependent on pollination by bats. The ecological and economic values of bats are just beginning to be understood by scientists and land management agencies.

Traditional methods used to close abandoned mines are often in conflict with the use of these mines by bats and other wildlife. Cost-effective solutions to this problem, such as gating, have now been developed to protect both human safety and the habitat of bats (see attachment 1). Recently in Idaho, Townsend's big-eared bats have been discovered utilizing an abandoned mine on the Bureau of Land Management (BLM) lands which were scheduled for closure. Now, cooperative plans are underway to gate the cave to allow the passage of bats. There are other success stories involving bats and management of abandoned mines (see attachments 2-6).

In light of the available information, all abandoned mines on the BLM-administered lands, prior to their closure, will be evaluated/investigated to determine if they are of value to sensitive wildlife, especially bats. Complete closure of abandoned mines known to support bats should be considered only as a last resort, and be done in consultation with qualified biologists experienced with bats.

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Each State Director should ensure that steps are taken to prevent the unnecessary destruction of bats and bat habitat. To accomplish this, the California State Director has required the development of a list of bat species occurring within the state. The list also indicated each species' State and Federal status. Maps indicating existing habitat distribution of bats by species were also prepared. These maps have been valuable in determining the potential occurrence of bat species within California Districts and Resource Areas.

Abandoned mine closure on the public lands must be evaluated to determine if the habitat of any species listed as threatened or endangered will be affected. If a determination of "may affect" is made, consultation with the U.S. Fish and Wildlife Service (FWS) is required to determine if the species likely to be affected would suffer any adverse effects. If adverse effects are identified, a formal consultation must be initiated with the FWS or the action modified to mitigate the adverse effects.

While active mining operations do not normally support bat populations and are not the major focus of this memorandum, it should be pointed out that older, inactive portions of active operations may support bats. Also, as mitigation for future operations, or for improving public relations, there are good opportunities for leaving mines or parts of mines open for future colonization by bats and other wildlife, while also protecting human health and safety. There are a number of success stories in California where mining companies have actively cooperated to help conserve bats with excellent results (see attachments).

Bureau regulations 43 CFR sections 3802.3-2 and 3809.2-2 require that the mining operator take such action as may be needed to minimize or prevent adverse impact upon plants, fish, and wildlife, including threatened or endangered species, and their habitat which may be affected by the operations. The Bureau commonly applies mitigating stipulations, normally developed as part of the Environmental Assessment, to approved plans of operation. Loss of bat habitat as a result of mining operations should be addressed and mitigated.

Bureau regulations 43 CFR 3802.4-5 and 3809.3-5 also require that mine operators take steps to remove hazardous conditions. Specifically, the Bureau has the authority to ensure through mining plans of operation that "hazardous sites or conditions resulting from operations shall be marked by signs, fenced, or otherwise identified to alert that the public in accordance with applicable Federal and State laws and regulations." Removal of hazardous conditions should include complete mine closure only as a last resort if bats or other important wildlife values are present.

We realize situations vary greatly and, therefore, no specific directions will apply to all cases. The attached guidelines (see attachment 7) developed by the California State Office should be useful in deciding what actions might be taken, or what measures might be applied to mining plans of operation or permits for exploration under 43 CFR 3802 and 3809.

The above recommended guidelines concerning methods of closure should not be applied to coal mines occurring on public lands. The closure of these is

regulated by 30 CFR 75.1711-1 and 75.1711-2. Coal mines may, however, provide suitable habitat for bats. It is, therefore, important to determine whether bats or other species of concern are present before performing closures. This will allow closures of coal mine openings during the appropriate season of the year so as to reduce impacts.

It is important that bat use be assessed during the appropriate time of year by a biologist experienced with bats. Untrained personnel may disturb maternal bat roosts, which may result in abandonment of the roost or aborting of embryos. Disturbance during winter hibernation is usually fatal to bats.

Monitoring should be conducted to assess the effectiveness of any gatings constructed. When compared to the baseline study, monitoring efforts should be designed and carried out to reveal any changes in bat use. Again, such studies should be conducted by qualified biologists experienced with bats.

Few Bureau wildlife personnel are currently qualified to judge bat habitat suitability or importance. Training will be necessary for BLM biologists, and in some cases, additional expert advice from experienced bat biologists will be required. Bat Conservation International (BCI), in Austin, Texas, through a newly signed Memorandum Of Understanding (see attachment 8), has agreed to assist BLM with these evaluations and training. The BLM Training Center is currently working with BCI to develop training on bat conservation and management. For more information call Mary Gilbert at the Training Center at (602) 336-6512. For additional information about bats and BCI, the address/phone of BCI is as follows:

Bat Conservation International, Inc. Phone Number: (512) 327-9721
P.O. Box 162603, Austin, Texas 78716

For more information regarding these guidelines please contact Jinx Fox, Division of Solid Minerals (WO-660), (202) 653-5182, or Fred Stabler, Division of Wildlife and Fisheries (WO-240), (202) 653-9210.

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7 Attachments

- 1 - Gating Paper (6 pp)
- 2 - Bats and Mines (4 pp)
- 3 - Abandoned Mines and Bats (2 pp)
- 4 - Bats: Habitat, Impacts and Mitigation (5 pp)
- 5 - Saving Mines and Bats (3 pp)
- 6 - Bats and American Girl Mines (2 pp)
- 7 - Guidelines for Mine Hazard Abatement & Bat/Wildlife Protection (2 pp)
- 8 - BCI MOU (5 pp)