

SUMMARY

This final environmental impact statement (EIS) analyzes the Bureau of Land Management's (BLM) surface management program for locatable mineral operations on BLM-administered lands. The EIS analyzes the environmental impact of the existing regulations and alternatives for the relevant issues recognized during the scoping process.

PURPOSE OF AND NEED

The purpose of the Proposed Action is to adopt regulations that would address issues that have developed since BLM's surface management program for locatable mineral operations began in 1981 and to improve BLM's management of locatable mineral activities on the public lands. Issues of general concern include the following:

- BLM's effectiveness and consistency in the day-to-day implementing of the regulations in the field.
- Environmental protection requirements, including performance standards, bonding, and enforcement provisions.
- Working relationships with state regulators in reducing or eliminating duplication of mining plan review, bonding, and permitting.
- Public and stakeholder involvement in the review and approval processes.
- Receiving market value for mining of minerals that may not be locatable under the mining laws but are common variety minerals.
- The validity of mining claims within areas closed to mining.

BLM AUTHORITY

The General Mining Law of 1872, as amended, allows the location and use of mining claims on sites "...under such regulations prescribed by law," 30 U.S.C. 22, 26 and 28.

Section 302 of the Federal Land Policy and Management Act (FLPMA) addresses the management of use, occupancy, and development of the public lands. Section 302(b) of FLPMA recognizes the entry and development rights of mining claimants while directing the Secretary of the Interior to "...by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands." These requirements and other legislation authorize BLM to regulate mineral activities so as to prevent unnecessary or undue degradation. The 43 CFR 3809 regulations (3809 regulations) have been prepared to meet that legislative intent.

The 3809 regulations apply to lands that are open to exploration and development under the Mining Law. The regulatory framework is not to decide "if" mining should be allowed but to regulate "how" activities already authorized by the Mining Law are to operate to prevent unnecessary or undue degradation. This framework gives BLM much discretion in regulating exploration and mining on public lands but less discretion in determining whether exploration and mining should occur.

HISTORY OF THE SURFACE MANAGEMENT REGULATIONS

BLM adopted the 3809 regulations in 1981 after completing a programmatic EIS (BLM 1980). These regulations classify surface disturbance into three categories: casual use, Notices, and Plans of Operations. Casual use involves only negligible disturbance with hand tools and does not require the operator to notify BLM.

Notice-level operations use mechanized earth-moving equipment and disturb 5 acres or less. Operators must submit Notices to BLM at least 15 calendar days before operations begin to ensure that the activity does not cause unnecessary or undue degradation.

A Plan of Operations is required when mining or exploration would disturb more than 5 acres or for any surface disturbance in BLM's special status areas. BLM must review and approve Plans of Operations before operations begin. Since approval of a Plan of Operations is a federal action, an environmental assessment (EA) or environmental impact statement (EIS) must be prepared.

Under the existing regulations reclamation bonding can be required only for Plan-level operations or for Notice-level operations if BLM has issued the operator a record of noncompliance.

When the regulations were published in 1981, BLM made a commitment to review their effectiveness after 3 years. In 1985 BLM formed a work group to consider changing the regulations for reclamation bonding. In 1989 BLM began a initiative to change policy for cyanide use and compliance inspections in response to growing criticism of its managing of mining operations, particularly the issues of wildlife deaths, failure to perform reclamation, and residential occupancy not incident to mining. These issues were the subjects of reports prepared by the U.S. General Accounting Office (1986, 1987a,b, 1988, 1989, 1990, 1991a).

In 1992 a task force of BLM specialists collected public comments and recommended changes to the 3809 regulations (BLM 1992a). In 1993 this revision effort was put on hold because it appeared that pending changes in the Mining Law would supersede any changes in the surface management regulations.

Although these initiatives did not lead to overall revision of the 3809 regulations, the surface management program has undergone several important policy changes since 1981. BLM developed a cyanide management policy in 1990 and adopted state-specific cyanide management plans to give guidance for managing cyanide use on public lands under the existing regulations. In 1992 the BLM *Solid Minerals Reclamation Handbook* (BLM 1992b) was completed as guidance on reclamation practices. In 1996 BLM issued an acid rock drainage policy and published the 43 CFR 3715 regulations on occupancy of mining claims.

In early 1997 BLM revised the 3809 regulations for reclamation bonding, intending to address some of the problems of maintaining adequate reclamation bonds and improving enforcement. But the Northwest Mining Association challenged the 1997 regulations in court for BLM's failure to follow the requirements of the Regulatory Flexibility Act in assessing the effects on small entities. In May 1998 the District Court ruled against BLM, and the 1997 regulation revision is no longer in effect (*Northwest Mining Association v. Babbitt*, No. 97-1013, D.D.C., May 13,

1998).

In February 1999 BLM published the proposed 3809 regulations and draft EIS (BLM 1999b) for public comment. Later that year the National Research Council completed a report (NRC 1999) under the direction of Congress to assess the adequacy of the existing regulatory framework for hardrock mining on public lands.

CONSULTATION, COORDINATION, AND PUBLIC PARTICIPATION

Consultation and Coordination

No cooperating or joint lead agencies participated in preparing this EIS. We coordinated with state governments, state regulatory agencies, American Indian tribal governments, and other federal agencies, including the Environmental Protection Agency, Fish and Wildlife Service, and Bureau of Indian Affairs, in developing the proposed regulations and preparing the draft and final EISs.

In his January 6, 1997 memorandum directing BLM to start the rulemaking process, the Secretary of the Interior directed that “Coordination with state regulatory programs should be carefully addressed, to ensure that Federal Land Policy and Management Act’s purpose of avoiding unnecessary or undue degradation is achieved, while minimizing duplication and promoting cooperation among regulators.”

We started working closely with the governors and state agencies of the “Mining Law” states before issuing the Notice of Intent to Prepare an EIS and continued this consultation through the issuance of the Notice of Availability for the final EIS. The importance of this consultation and coordination was reiterated in the 1998 Interior Appropriations Act, which directed the Secretary of the Interior to certify that he had consulted with the affected states. On April 8, 1997, March 3, 1998, and again on September 22, 1998, we participated in meetings hosted by the Western Governors’ Association. These meetings focused on concerns about concepts and provisions in the proposed regulations. We also solicited written comments on the drafts of the proposed regulations from the states.

To obtain input from American Indians, we consulted and coordinated with the Bureau of Indian Affairs, the Native American Indian Congress, and tribal governments. We distributed preliminary draft regulations to potentially affected tribal governments and held an information briefing/public meeting on the Fort Belknap Indian Reservation in Montana. In addition, we solicited written comments on the draft EIS and proposed regulations from all federally recognized tribal governments.

While developing the proposed regulations and preparing the draft EIS, we consulted informally with the U.S. Fish and Wildlife Service and U.S. National Marine Fisheries Service on the proposed regulations. In revising the proposed regulations and preparing the final EIS, we prepared a biological assessment of the proposed rules.

Public Participation

In January 1997 the Secretary of the Interior directed BLM to continue with the regulation review process promised in 1981 and begun in 1991. Because of the time that had passed since the 1991 effort, we started a new public participation process in early 1997 and requested comments from its field offices on the existing regulations and suggestions for improvement. We encouraged public participation by the following actions:

- Prescoping outreach to special interest groups and government officials.
- Scoping for the EIS, including a formal 81-day comment period and 19 public meetings in 12 cities.
- Placing the proposed regulations, draft EIS, and related documents on BLM's Internet web site.
- Two public comment periods for the EIS and proposed 43 CFR 3809 regulations, including 29 public hearings in 16 cities.

We analyzed the information gathered during the prescoping outreach and public scoping process and used it to determine the issues addressed and alternatives presented in detail in the draft EIS.

The proposed regulations and draft EIS were subject to public review and comment during two public comment periods. The first period ran from February 9, 1999 to May 10, 1999. Starting on March 23, 2000, we held 29 public hearings in 16 cities on the proposed regulations and draft EIS. In addition to public hearing transcripts, we received more than 2,100 comment letters, including email. After the close of the first comment period we released to the public a content analysis report (BLM 1999c) summarizing the public comments.

On September 29, 1999, the National Research Council (NRC) released its report *Hardrock Mining on Federal Lands* (NCR 1999), which assessed the adequacy of the existing federal/state regulatory program. As directed by Congress, we allowed for a 120-day comment period and requested more public input on the proposed regulations in relationship to the NRC recommendations.

This comment period ran from October 26, 1999 to January 24, 2000, during which we received more than 400 comment letters. Following this second comment period, we revised the proposed regulations and prepared the final EIS. The final EIS responded to all substantive comments from both comment periods and incorporated changes in response to those comments.

We have encouraged public involvement throughout the process to ensure that the process is open and that we have considered information from all interested parties, including the following:

- Other federal agencies.
- State and local governments.
- American Indian tribal governments.
- The scientific community.
- Professional, conservation, and trade organizations.
- Public land users and stakeholders.
- Citizens at large.

One of the efforts to increase information to the public was to post the proposed regulations, draft

EIS, other documents, announcements, and schedules on BLM's Internet web site. The web site was updated regularly to give users the latest information on working drafts of the regulations, schedules, and other information on the project. As of July 31, 2000, the Internet web site had had more than 25,000 visits.

THE REGULATION DEVELOPMENT AND EIS PROCESSES

Revision of the 3809 regulations is proceeding under Section 553 of the Administrative Procedures Act (APA), 5 U.S.C. 553. BLM has determined that the proposed changes constitute a major federal action significantly affecting the human environment. Therefore, under the National Environmental Policy Act of 1969 (NEPA) an EIS must be prepared.

We have combined the rulemaking and EIS processes wherever possible to eliminate duplication. We held concurrent comment periods, including public hearings on the draft EIS and the proposed regulations, to solicit public comments in accord with the requirements of APA and NEPA.

The EIS is not itself a decision document but a document to help decision makers by disclosing the environmental consequences of implementing the Proposed Action and alternatives. No sooner than 30-days after this final EIS is published, BLM will issue a record of decision selecting an alternative for implementation. This record of decision will most likely be incorporated within the preamble to the final regulations. The record of decision will not contain site-specific decisions for any mining proposals. BLM will make future decisions on mining proposals on a case-by-case basis under the regulations.

Issues

The scoping effort helped us determine the issues we needed to consider in the rulemaking and EIS processes. These issues include the following:

- Definition of *unnecessary or undue degradation*.
- Performance standards for mining and reclamation.
- Definition of federal lands.
- The threshold for a Notice or Plan of Operations.
- Definition of *casual use*.
- Notice and Plan of Operations processing and contents.
- State government coordination.
- Claim validity and valid existing rights.
- Common variety minerals.
- Inspection and monitoring programs.
- Type and adequacy of penalties for noncompliance.
- Reclamation bonding requirements.
- Plan modifications.
- Temporary or permanent closure.
- Appeals process.
- Definition of project area.

- Existing operations.

The following issues were raised but are not within the scope of the 3809 regulations. We therefore did not specifically address them through this rulemaking process or use them to develop alternatives in the EIS.

- The 1872 Mining Law.
- American Indian trust responsibilities.
- Citizen suits.
- BLM cost recovery.
- Agency funding and staffing.
- NEPA processing of Plans of Operations.
- Abandoned mine lands.
- Diligent development.
- Recreational mining.
- Public availability of information.
- Combining the 3809 regulations with occupancy regulations.
- Consistency with the U.S. Forest Service regulations.

Developing the Alternatives

The purpose of the alternatives is to allow the decision maker to consider ways to address and resolve issues recognized during the scoping process or raised during the public comment period. The resolving of significant issues forms the framework of an alternative, with the resolving of lesser issues included around the alternative's central theme. The development of alternatives centered on addressing regulatory issues in six general areas:

- Coordination between BLM and state regulatory agencies.
- The Notice-Plan of Operations threshold.
- Defining performance standards.
- Financial assurance for reclamation.
- Regulation enforcement and penalties for noncompliance.
- Consistency with the NRC report.

Although we considered other relevant issues, these six issues played a major role in defining the alternatives to be analyzed in detail.

State-Federal Coordination - A significant issue consists of maintaining and improving coordination between the states and BLM and of determining the relative level of responsibility for regulating mineral exploration and development. Alternatives developed to address this issue range from turning the program entirely over to state regulation to having BLM always assume the lead role for regulating activities on public lands.

Notice or Plan of Operations Threshold - Under the existing regulations, a Notice is required for surface disturbance of 5 acres or less, whereas a Plan of Operations is required for disturbance of more than 5 acres, or disturbance of any size exceeding casual use in special status areas. BLM

received a wide range of comments on this threshold. Some wanted the threshold left as it currently is. Others believed that the requirements to file a Notice or Plan duplicated the filing requirements under state regulatory programs and were not needed. Alternatives 3 and 5 maintain the Notice provision, but change the threshold from 5 acres of surface disturbance to a criterion based on mining versus exploration.

This approach responds to the comments that the Notice or Plan threshold should be driven mainly by the type of activity, not necessarily acres disturbed. Special status areas, where a Plan of Operations is always required, have been expanded under Alternative 3 to address comments that sensitive lands and resources need increased protection. Some commenters were concerned that allowing operations under Notices would never be suitable because no National Environmental Policy Act review or opportunity for public involvement would be required.

Performance Standards - An important aspect of the 3809 regulations consists of the standards that govern how operators must control the extent of impacts on the ground. Alternatives were developed to address comments on the following:

- The environmental resources for which standards should be developed.
- Whether those standards should be design or outcome oriented.
- The level of environmental protection the standards should provide.

Every alternative includes compliance with other state or federal laws and regulations as a minimum performance standard. Federal environmental statutes are summarized in Appendix C, and state regulatory programs are summarized in Appendix D of the EIS.

Financial Assurance (Bonding) - Many commented on the adequacy of financial assurance requirements—generally referred to as bonding—and what these requirements should cover. Typically, bonding is required as a compliance tool to ensure that disturbed land is reclaimed should the operator be unable or unwilling to do so. With the recent district court case on BLM’s 1997 bonding regulations, and the NRC report, the issue of reclamation bonding is even more relevant today than when the regulation revision process began. We have developed alternatives for addressing the issue of bonding in response to comments.

Enforcement and Penalties - We received many comments on enforcement and penalties. The enforcement provisions in the alternatives range from maintaining the existing system to establishing mandatory administrative penalties and permit blocks for noncompliance. The range of alternatives we developed for enforcement and penalties respond to comments that assert that enforcement is not a large problem to comments that assert that existing enforcement programs are not strong enough. Alternative 5 limits the regulation changes to those recommended in the NRC report.

NRC Report Consistency

The National Research Council evaluated the adequacy of the existing 3809 regulatory framework. The NRC (1999) report *Hardrock Mining on Federal Lands* contains both regulatory and nonregulatory recommendations for changes in the existing program. The report

concluded that improved implementation of the existing regulations presents the greatest opportunity for improved environmental protection and the efficiency of the regulatory process. The NRC report then listed gaps in the existing regulations and recommended regulatory and nonregulatory changes to the program.

After the release of the report, Congress directed that BLM could spend funds only to finalize the proposed 3809 regulations during fiscal year 2000, and that the final regulations could not be inconsistent with the recommendations in the NRC report. BLM considers this requirement as prohibiting the agency from selecting a final regulation alternative that would contradict or oppose a NRC recommendation. Where NRC is silent on an aspect of the existing regulations, BLM-proposed changes would not be inconsistent with any NRC recommendations. In response to this requirement, we have modified Alternative 3, the proposed regulations, so as not to be inconsistent with the NRC recommendations.

Others have commented that the congressional requirement allows BLM to make only the regulation changes that NRC specifically recommended and that any change in the regulations outside those recommended would be inconsistent with the NRC report. We developed Alternative 5 to address this view. Table 2-2 in Chapter 2 of the EIS summarizes the regulatory recommendations in the NRC report.

Alternative 1, retaining the existing regulations, would be inconsistent with the NRC recommendations but would not conflict with congressional requirements because Congress did not require BLM to change the regulations. Congress required only that should BLM make changes, they not be inconsistent with NRC's recommendations.

Alternative 2 would be inconsistent with the NRC recommendations since it would lessen many of the filing, bonding, and operating requirements in direct contradiction to many NRC recommendations.

Alternative 4 is also inconsistent with the NRC recommendations. Eliminating Notice provisions and applying design-based performance standards would impose requirements much greater than those recommended by NRC as needed to protect the public lands.

Although Alternatives 1, 2, and 4 are not consistent with the NRC recommendations, they remain feasible alternatives. They address program issues recognized by the public and could still be selected for implementation if the congressional limitations on contents of the final regulations were lifted or expired.

DESCRIPTION OF THE ALTERNATIVES

This EIS considers five alternatives, including the Proposed Action and the No Action alternatives. Table 2-1 in Chapter 2 of the EIS summarizes each of the components of the five alternatives.

Alternative 1: Existing Regulations (No Action)

Under Alternative 1 the existing surface management regulations at 43 CFR 3809 would continue to be used, and no changes would be made. These are essentially the same regulations that have been in effect since 1981. Over the years BLM has developed policy documents, manuals, and handbooks that give guidance on how the regulations are to be implemented. Appendix A of the EIS contains the existing 3809 regulations.

Alternative 2: State Management

Under Alternative 2 BLM would defer regulating exploration and mining to the states and other federal agencies. The regulations would define *unnecessary or undue degradation* to mean failure to meet all local, state, and federal laws and regulations for conducting exploration and mining. BLM would not approve of any specific project. Nor would BLM prepare any NEPA documentation or engage in any consultation under Section 106 of the National Historic Preservation Act.

The operations would still have to comply with federal laws such as the Clean Water Act and Endangered Species Act, but BLM would not regulate the operations. In accordance with the Federal Land Policy and Management Act, BLM would continue to prepare land use plans to determine areas to be opened or closed to operations under the Mining Law through the withdrawal process. State regulators could also use land use plans for information on special management concerns in areas open to operations. BLM would continue to process mineral withdrawals and examine mining claims for validity to meet its land management objectives. But BLM would not be involved in the day-to-day regulation of mineral operations.

Alternative 3: Proposed Action (Preferred Alternative)

Alternative 3 constitutes BLM's preferred alternative, and the proposed regulations would replace the existing regulations at 43 CFR 3809. The regulations have been changed from those presented in the draft EIS in response to public comments and so as not to be inconsistent with the NRC report.

Major provisions of the proposed regulations would include the following:

- Selecting performance standards that all operations would have to meet for environmental protection.
- Replacing the "prudent operator" standard in the current definition of unnecessary or undue degradation with a requirement to comply with the performance standards.
- Redefining unnecessary or undue degradation to include: "...conditions, activities, or practices that...result in substantial irreparable harm to significant scientific, cultural, or environmental resource values of the public lands that cannot be effectively mitigated."
- Adjusting the "threshold" for casual use, Notice-level operations, and filing Plans of Operations.
- Increasing the bonding coverage to include Notice-level activity and requiring bonding at

- 100% of reclamation costs.
- Extending the regulations to cover federal minerals under private lands, including Stock Raising Homestead Act lands.
- Increasing inspections under some circumstances.
- Being able to issue administrative penalties.

Alternative 4: Maximum Protection

Under Alternative 4 the 3809 regulations would contain prescriptive design requirements for resource protection. These requirements would increase the level of environmental protection and give BLM more discretion in determining the acceptability of proposed operations. Major changes from the current regulations under Alternative 4 include the following:

- Expanded application to public lands with any mineral or surface interest.
- Numerical performance standards for mineral operations.
- Required pit backfilling.
- Eliminating Notices so that all disturbances greater than casual use would require Plans of Operations.
- Required conformance with land use plans.
- Prohibitions against causing irreparable harm or having to permanently treat water.

Alternative 5: NRC Recommendations

Alternative 5 would change the existing regulations only where recommended by the NRC (1999) report. Major provisions of this alternative would include the following:

- Adjusting the threshold for Notice-level operations and filing Plans of Operations.
- Increasing bonding coverage to include Notice-level activity and requiring bonding at 100% of reclamation costs.
- Gaining the discretion to issue administrative penalties.

SUMMARY OF IMPACTS

Table 2-3 in Chapter 2 of the EIS summarizes the environmental, social, and economic impacts of each alternative.

Alternative 1: Existing Regulations (No Action)

Continuing current management would affect environmental conditions, the mining industry, and communities in the same ways as in the past. Mining is expected to remain relatively steady, depending mainly on conditions in commodity markets. Mining-related impacts to water and air quality, soil, vegetation, wildlife, fisheries, riparian-wetlands areas, and other resources are expected to continue at current rates. Economic activity is also expected to continue at current rates, depending on market conditions. Social conditions would not appreciably change.

Alternative 2: State Management

Impacts under the State Management Alternative would be similar to those under Alternative 1. Change in overall mining in the EIS study area is expected range from no change to an increase by as much as 5%, although not necessarily in all locations. For example, activity might not change in California, Montana, and Washington because these states have environmental review provisions similar to the federal National Environmental Policy Act requirements. A change in mining-related impacts to water and air quality, soil, vegetation, wildlife, fisheries, riparian-wetland areas, and other resources is expected to be proportionate with the change in mineral activity. Change in mining-related economic activity would range from no change to an increase of as much as 5%.

Alternative 3: Proposed Action (Preferred Alternative)

Under the Proposed Action mining is expected to decrease for all types and sizes of operations. The following main provisions of the new regulations would affect mining:

- Including a substantial irreparable harm provision to the definition of unnecessary or undue degradation.
- Establishing performance standards.
- Changing the threshold for casual use and Notice and Plan-level operations.
- Increasing bonding levels.
- Eliminating the future use of corporate guarantees.

Mining-related impacts to water and air quality, soil, vegetation, wildlife, fisheries, riparian-wetlands areas, and other resources are expected to decrease proportionately. Overall, mining-related economic activity would decrease by 10% to 28%. Mineral activity might not decrease uniformly in all states because of differences in state regulations and the type of mineral activity prevalent within the state.

Alternative 4: Maximum Protection

Alternative 4 would provide the most environmental protection of the five alternatives. It also has the potential to create the largest decrease in overall mineral activity of all alternatives, ranging from 45% to 69%. Open pit mining is expected to decrease the most—50% to 75%. Strip mining (the typical method for many industrial minerals) is expected to decrease the least—10% to 20%.

Provisions expected to have the greatest effect in reducing the level of future mining include the following:

- Applying the regulations to exiting operations.
- Mandatory backfilling and other restrictive environmental performance standards for reclamation.
- Specific technology design standards.
- Eliminating Notices.
- Native American concurrence.

- Establishing suitability criteria.

Mining-related impacts to water and air quality, soil, vegetation, wildlife, fisheries, riparian and wetland areas, and other resources are expected to decrease proportionately for future operations. In addition, the higher environmental performance standards would further decrease environmental impacts at ongoing and future operations.

Economic activity overall would decrease by 45% to 69% but would vary significantly by state, depending on mine type and commodities most prevalent. Depending on the degree of mining dependence in a community, Alternative 4 could significantly affect social conditions.

Alternative 5: NRC Recommendations

Under Alternative 5 an overall decrease in mineral activity is expected to range from 1% to 6%. Small mining operations that now operate under Notices would undergo the greatest decrease by 5% to 10%. Provisions expected to have the greatest effect in reducing the level of future mining include changing the threshold for Notice- and Plan-level operations, and bonding for Notices. Mining-related impacts to water and air quality, soil, vegetation, wildlife, fisheries, riparian and wetlands areas, and other resources are expected to decrease proportionately for future operations.