

CHAPTER 1

INTRODUCTION: PURPOSE OF AND NEED FOR ACTION

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 to the existing regulations for the relevant issues identified during the scoping process. The existing surface management regulations are found under 43 CFR 3809 and presented in Appendix A.

Chapter 1 explains the overall purpose of and need for action, gives a brief background and summary of relevant laws and regulations, and discusses issues suggested by the public and BLM employees for consideration in the rulemaking process. Results from the National Research Council (NRC) study, *Hardrock Mining on Federal Lands* (NRC 1999) are presented where applicable.

PURPOSE OF AND NEED FOR ACTION

The purpose of the Proposed Action is to address issues that have developed since BLM's Surface Management Program began in 1981 and to improve BLM's management of locatable mineral activities on the public lands. Congress, the General Accounting Office, the National Research Council, BLM, and the public have all recognized the need for improvement in BLM's Surface Management Program under the existing 3809 regulations. 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 for operations conducted under the mining laws, including performance standards, bonding, and enforcement provisions.
- Improving working relationships with state regulators to reduce or eliminate duplication of mining plan review, bonding, and permitting.
- Public and stakeholder involvement in the review and approval processes.
- Receiving fair market value for the mining of common variety minerals that may not be locatable under the mining laws.
- Determining the validity of mining claims within areas closed to mining before surface disturbance.

In addition, changes to the existing 3809 regulations are needed to address the following problems or regulatory gaps:

- Financial assurance for reclaiming disturbed areas is now required only for Plan-level activity. BLM cannot require reclamation bonding for Notice-level activity under the existing regulations. NRC recommended that secure financial assurances be required for reclamation of all disturbances beyond casual use, including Notice-level activity.
- BLM has no official way of clearing records for Notices. Notice-level activities are often never completed, or in some cases never started. Without a reclamation bond, or an expiration term, Notices are often left open for years with no incentive for the operator to complete the reclamation, notify BLM, and get the Notice closed.
- Some small mining operations with high environmental risks, such as cyanide use or acid rock drainage potential, can proceed without National Environmental Policy Act (NEPA) review or BLM approval, simply because they disturb less than 5 acres and qualify for having to submit only a Notice. A 1999 survey of BLM field offices found more than 500 operations that operators had abandoned and left BLM with the reclamation responsibility. These were mostly small mining operations conducted under Notices. NRC recommended that all mining and milling operations be conducted under Plans of Operations and that Notices be used only for exploration.
- BLM lacks clear, consistent standards for environmental protection in the existing regulations. As NRC noted, although mining operations are regulated under a variety of environmental protection laws implemented by federal and state agencies, these laws may not adequately protect all the valuable environmental resources at a particular location proposed for mining development. Furthermore, the existing definition of “unnecessary or undue degradation” does not give BLM authority to protect all valuable resources.
- Mitigation is not defined to allow BLM to require compensation at offsite locations when the disturbed areas cannot be reclaimed to the point of giving plants, animals, and people the same benefits that existed before disturbance. This fact has resulted in an overall decrease in productivity around the areas of operations.
- BLM cannot suspend or nullify operations that disregard enforcement actions or pose an imminent danger to human safety or the environment. Criminal penalties under the existing regulations have often proven ineffective. The existing regulations do allow BLM to use civil penalties as an enforcement tool. NRC recommended that BLM have the authority to issue administrative penalties for violations of the regulations.
- BLM can require modifications to Plans of Operations only after a review by the State

Director concludes that the circumstance prompting the modification could not have reasonably been foreseen in the original approval. The NRC recommended that this “looking backward” process should be abandoned in favor of one that focuses on what may be needed in the future to correct the environmental harm. NRC also recommended that the regulations be revised to provide more effective criteria for BLM to require Plan modifications where needed to protect federal land.

- The existing regulations do not distinguish between temporarily idle mines and abandoned operations. This distinction is needed to determine which mines need just to be stabilized, if idle, or which need to be reclaimed, if abandoned. NRC recommended that the regulations be changed (1) to define the temporary versus abandoned conditions and (2) to require interim management plans for operations that are only temporarily closed.
- The existing regulations do not provide for long-term, or perpetual, site maintenance such as water treatment or protection of surface reclamation. NRC recommended that BLM plan for and assure the successful long-term post-closure management of mine sites.
- The lack of clarity in the types of activities permissible under “casual use” has led to inconsistencies and, occasionally, environmental damage. Damage results mostly when many people concentrated in a small area engage in actions that individually fall into the category of casual use. The cumulative impacts of such activities by groups often exceed the “negligible disturbance” in the existing definition of casual use.
- In some operations proposed under the existing 3809 regulations the legal status of the material to be mined is in dispute as to whether it is locatable under the Mining Law or saleable as a common variety mineral. BLM needs regulations to resolve disputes without unreasonably delaying operations.
- The existing regulations have no requirement for preventing disturbances in areas closed to mineral entry until a discovery is determined to be valid or not. In areas closed to the operation of the Mining Law, surface disturbance should be allowed only where the right to mine predates the segregation or withdrawal.

Scoping has identified specific program issues, which are discussed later in Chapter 1. The purpose of the Proposed Action is to adopt regulations that would address the issues and improve BLM’s management of locatable mineral activities on the public lands.

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 environmental impact statement (EIS) must be prepared.

The rulemaking and EIS processes have been combined wherever possible to eliminate duplication. Concurrent comment periods, including public hearings on both the draft EIS and the proposed regulations, were held to solicit public comments according to the requirements of APA and NEPA.

The integration of the NEPA and APA processes during the revisions of the 3809 regulations is procedurally complex. Interaction between the preparers of the proposed regulations and the interdisciplinary team preparing the EIS resulted in several internal iterations of analysis before the proposed and final regulations were developed.

The two acts also have their own scheduling requirements. The Council on Environmental Quality (CEQ) regulations implementing NEPA require that a decision cannot be made until 30 days after publishing the notice of availability of the final EIS in the *Federal Register*. APA requires a 30-day delay in the effective date of the final regulations after they are published.

The EIS is not itself a decision document. It serves to help decision makers by disclosing the environmental consequences of implementing the Proposed Action and the 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 decisions on any future mining proposals on a case-by-case basis under the regulations.

Other requirements for a rulemaking include preparing a cost-benefit analysis. Although related to the economic analysis in the EIS, the cost-benefit analysis involves different assumptions and is prepared for different purposes.

BLM AUTHORITY AND RESPONSIBILITIES

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 on BLM-managed lands open to operations under the Mining Law. 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 be conducted to prevent unnecessary or undue degradation. This framework gives BLM much discretion in regulating how exploration and mining are conducted on public lands but less discretion in determining whether exploration and mining should occur if the lands are legally open to operation of the Mining Law. Other processes, beyond the scope of the 3809 regulations, are used to close lands to exploration and development under the Mining Law. Such processes include administrative and congressional withdrawals.

COOPERATING AGENCIES

No formal cooperating agencies were designated for preparing this EIS. BLM coordinated with state regulatory agencies through the Western Governors’ Association and with other federal agencies in developing the proposed and final regulations. (See Chapter 4, Consultation, Coordination, Public Participation, and Preparers.)

DEVELOPMENT OF THE MINING LAW AND MINERAL POLICIES

Before 1866 the United States lacked comprehensive legislation that defined mineral rights and access to minerals on the public lands. From 1797 to 1855 several partial leasing acts (covering lead, iron, salt, and copper) and the Cash Sale Act of 1826 allowed the sale for \$5 an acre of lands surveyed by the United States and classified as mineral lands. The rest of the public land could be purchased for \$1.25 an acre. Except for the Cash Sale Act, these acts all expired before 1855.

The 1849 California gold rush and the 1854 Nevada silver rush (to the Comstock silver lode in Virginia City) radically changed the entire perspective on mineral rights, access to minerals, and mineral titles on the public lands. Arriving by the thousands from the East Coast and disembarking in San Francisco, miners established themselves along the California mother lode

belt (the western Sierra Nevada). Exploring ever eastward, they established hundreds of mining camps in the Sierra Nevada and in the Virginia Range in Nevada.

In the absence of federal legislation on mining rights and titles, the miners established their own rules for acquiring mineral rights, mining claims, and diligence (assessment work). Though everyone was technically in trespass on the public domain, each mining district devised rules based on the Spanish Royal Codes of 1783 and the English customs and traditions of the Cornwall and Devon tin and lead districts. Surviving records show that by 1860 California, Nevada, and Arizona had some 650 mining districts, each with its own rules.

In 1866 Congress finally reacted by passing the Lode Law, which applied only to lode claims. The Lode Law recognized the existing rules of the mining districts, required assessment work for keeping claims, and allowed the patenting of mining claims. In 1870 the Lode Law was amended by the Placer Act, which treated placer claims in a similar manner to lode claims. In 1872 Congress revised the Lode and Placer Acts, added amendments to protect agricultural rights, established federal rules, and passed what is today called the General Mining Law of 1872 or the Mining Law.

U.S. mining laws class minerals as locatable, leasable, or salable. Locatable minerals are neither leasable minerals (e.g. oil, gas, coal, oil shale, phosphate, sodium, potassium, sulfur, asphalt, or gilsonite) nor salable mineral materials (e.g. common variety sand and gravel). Locatable minerals include copper, lead, zinc, magnesium, nickel, tungsten, gold, silver, bentonite, barite, feldspar, flourspar, and uranium. Only locatable mineral deposits may be staked and claimed under the Mining Law.

Under the Mining Law all valuable mineral deposits on lands belonging to the United States are free and open to entry, location, and patent. When minerals are found in enough quantity and quality on public land open to mineral entry, a person who locates a mining claim, complying with regulations prescribed by law, has the exclusive right of possession and enjoyment of the surface area of the claim and the mineral veins, lodes, and ledges within the claim as well as extra-lateral rights.

Principles of the Mining Law

The Mining Law consists of five basic elements:

- discovery** of a valuable mineral,
- location** of mining claims,
- recordation** of claims,
- maintenance**, performance of annual requirements on claims,
- patenting** of the mineral, and possibly surface, estate to the claimant.

Discovery

No federal statute defines what constitutes a valuable mineral deposit, but several judicial and administrative rulings or declarations have been made on the subject. In 1894 in the case of *Castle v. Womble* the Department of the Interior established the “prudent person rule.” This rule states the following:

“...where minerals have been found and the evidence is of such a character that a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success in developing a valuable mine, the requirements of the statutes have been met.”

This definition was affirmed by the United States Supreme Court in 1905.

In 1968 in the case of *U.S. v. Coleman* the Supreme Court approved the marketability test as a complement to the prudent person rule. This test requires a showing of marketability to confirm that a mineral could be mined, removed, and marketed at a profit. In other words, the marketability test considers economics, requiring claimants to show that they have a reasonable prospect of selling material from a claim or a group of claims. The material does not have to have been sold or to be selling at a profit. There just needs to be a reasonable likelihood that it could be sold at a profit.

Demonstrating an established market for precious and base metals is not difficult because of the international acceptance of metals and their universal needs. For industrial minerals the demonstration of a market is harder to establish because these markets are regional.

Location

Mining claims may be located only by citizens of the United States, persons who have declared an intention to become citizens, and corporations organized under any state law. Mining claims may be located only on public domain lands open to mineral entry under the mining laws and only for mineral commodities considered to be “locatable.” A mineral is locatable if it is in the public domain and is a metallic mineral or an uncommon variety mineral valuable chiefly for chemical rather than physical properties.

Upon discovery of a valuable mineral on unappropriated public domain land, a mining claim may be located. This claim grants the locator an exclusive possessory right to the mineral deposit. This possessory right allows the locator to continue to develop the claim as provided for by law. A mining claim is a valid right against the United States and other claimants only if a valuable mineral deposit has been discovered.

There are four types of mining claims. The main types are lode and placer. **Lode claims** are

located on bedrock, whereas **placer claims** are usually located on loosely consolidated materials such as mineral-bearing sands and gravels. A **mill site claim** may be located on unappropriated public domain land that is nonmineral in character and may be used for erecting a mill or reduction works, or for other uses reasonably incident to support of a mine. A **tunnel site claim** may be located on land where a tunnel is run to develop a vein or lode, or for intersecting unknown veins or lodes.

The actual location of a mining claim involves posting a notice of location at the discovery point and erecting corner posts, or monuments, on the ground to ensure that the claim boundaries are readily recognizable.

Recordation

Before enactment of the Federal Land Policy and Management Act of 1976 (FLPMA), claimants were required to file their location and assessment notices only in the office of the county recorder or county clerk in the county in which the claim was located. Under FLPMA, notices of location and other notices must be filed with the BLM state office as well as the county recorder. This requirement has allowed BLM to generally know the number and types of claims on public land and their current status. To file a mining claim, the claimant must also pay a recordation fee. Failure to file these documents and pay the fee can constitute abandonment of a mining claim.

Maintenance

The Mining Law requires the annual performance of at least \$100 worth of labor or improvements to retain a possessory interest in the claim or site. An affidavit of assessment work must be filed with both the county recorder and with the BLM state office. Owners of mill and tunnel sites are not required to file assessment work but must file a notice of intent to hold the site. Congress has changed the annual assessment work requirement by substituting a requirement to pay BLM a \$100 maintenance fee per mining claim. A claimant with fewer than 10 mining claims can perform the assessment work and file a small-miner exemption. Failure to pay the maintenance fee or obtain a waiver from BLM will constitute forfeiture of a mining claim.

Patents

One need not have a patent to mine and remove minerals from a mining claim. A patent gives the owner exclusive title to the locatable minerals and in most cases to the surface estate. To obtain patent, claimants must do the following:

- Perform at least \$500 worth of development work per claim.

- Have a mineral survey and plat prepared at their expense.
- Show that they hold possessory rights by chain of title documents.
- Publish a notice for potential adverse claimants to assert their claims.
- Demonstrate discovery of a valuable mineral deposit within the meaning of the Mining Law.

Upon satisfactory completion of the above requirements, claimants can purchase their mining claims at \$2.50/acre for placer claims and \$5/acre for lode claims.

Since 1994, Congress has established and continued a moratorium on filing new patent applications. The only patents now being processed are those that have received the first half of the mineral entry final certificates.

Mining Law Amendments

The Mining Law has been amended several times since its passage in 1872. The most important amendments are as follows.

The Mineral Lands Leasing Act of 1920 removed oil, gas, coal, sodium, potash, oil shale, and phosphate from the provisions of the Mining Law and made them leasable minerals. Geothermal energy was added as a leasable mineral in 1970.

The Surface Resources Act of 1955 removed sand, gravel, cinders, and other construction materials from the provisions of the Mining Law and made them subject only to contract sales. This act also made all mining claims subject to the right of the United States to manage the surface resources on the claims and made it illegal to use and occupy a mining claim or site except for legitimate mining, milling, or exploration.

The Federal Land Policy and Management Act of 1976 (FLPMA) established a national-level recording system for all mining claims and required that in managing the public lands the Secretary of the Interior shall, by regulation or otherwise, take any action needed to prevent *unnecessary or undue degradation* of the lands. FLPMA also requires the Secretary to develop and maintain land use plans for the public lands. One purpose of land use plans is to select areas to be withdrawn from operation of the mining laws.

Several other acts shape BLM's management of minerals on public land. These acts include the **1970 Mining and Mineral Policy Act** and the **1980 National Materials and Minerals Policy Research and Development Act**, both of which require that the public lands be managed to recognize the Nation's need for domestic sources of mineral production.

In addition, a variety of state and federal environmental laws regulate locatable mineral activities. The federal and state laws on air and water quality, wildlife, and hazardous materials apply to all

operations on BLM-managed lands. In addition to BLM requirements, states have passed their own permitting and reclamation laws, which apply to activities on public lands.

HISTORY OF THE SURFACE MANAGEMENT REGULATIONS

BLM adopted the 3809 regulations in 1981 after completing a programmatic EIS (BLM 1980). The existing 3809 regulations are presented in Appendix A and described in Chapter 2. These regulations classify surface disturbance into three categories: casual use, Notice-level operations, and activities under Plans of Operations, also referred to as Plan-level operations.

Casual use involves only negligible disturbance, usually with hand tools or nonmechanized earth-moving equipment and does not require the operator to notify BLM.

Notice-level operations may use mechanized earth-moving equipment but only disturb 5 acres or less. For these operations BLM must be notified 15 calendar days in advance to ensure that the activity does not cause unnecessary or undue degradation.

A Plan of Operations is required for more than 5 acres of surface disturbance or any surface disturbance in BLM's special status areas, such as areas of critical environmental concern (ACECs). BLM must review and approve a Plan of Operations before an operation begins. Since approval of a Plan of Operations is a federal action, an environmental assessment (EA) or environmental impact statement (EIS) must be prepared. Reclamation bonding can be required only for Plan-level operations under the existing regulations or for Notice-level operations if BLM has issued the operator a record of noncompliance.

Since the original rules were issued in 1981, they have had several legal challenges. The factual basis for the regulations and the legal status of the Notice were the main issues in a 1986 suit filed by the Sierra Club. Issues raised included the adequacy of the 1980 EIS (BLM 1980) and whether a Notice was a federal action requiring environmental review under National Environmental Policy Act (NEPA), similar to a Plan of Operations. The Ninth Federal Circuit Court ruled, among other matters, that a Notice, as constructed in the 3809 regulations, was essentially an enforcement tool (to remind operators of their reclamation responsibilities), and enforcement actions were exempt from the requirements of NEPA. See *Sierra Club et al. v. Penfold et al.*, 664 F. Supp. 1299 (District of Alaska, 1987); aff'm *Sierra Club v. Penfold*, 857 F. 2d 1307 (9th Circuit, 1988).

RECENT STUDIES AND CHANGES TO THE SURFACE MANAGEMENT PROGRAM

When the regulations were published in 1981, BLM made a commitment to review their effectiveness after 3 years. In 1985, a BLM work group was formed to consider changes to the regulations relating to reclamation bonding. In 1989 BLM began a surface management

initiative to make policy changes for cyanide use and compliance inspections in response to growing criticism of its management 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 for implementing the regulations has undergone several important policy changes since 1981. A cyanide management policy was developed in 1990, and state-specific cyanide management plans were adopted 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 to give guidance on reclamation practices. In 1996 BLM issued an acid rock drainage policy as guidance for program staff and managers for regulating mining. Also in 1996 BLM published the regulations at 43 CFR 3715 on occupancy of mining claims.

In early 1997 BLM revised the 3809 regulations for reclamation bonding. These changes were intended to address some of the problems BLM was experiencing in maintaining adequate reclamation bonds and improving its enforcement program. But the Northwest Mining Association challenged the 1997 regulations in court for failure to follow the requirements of the Regulatory Flexibility Act in relation to 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 prepared a report under the direction of Congress to assess the adequacy of the existing regulatory framework for hardrock mining on public lands. This report, *Hardrock Mining on Federal Lands*, was completed on September 29, 1999. The NRC report (NRC 1999) concluded that improvements in implementing the existing regulations present the greatest opportunity for improving 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. These recommended changes are discussed as part of scoping in the next section.

SCOPING

In January 1997 the Secretary of the Interior directed BLM to restart the regulatory review

process promised by BLM in 1981 and again in 1992. In March 1997, BLM appointed a task force of agency staff experienced in the program to coordinate public involvement, develop regulation options, and oversee preparation of a programmatic EIS on the effect of any changes in the regulations.

Because of the time that had passed since the 1992 effort, BLM conducted an extensive public participation process starting early in 1997. From March through May 1997, BLM held briefings on the revision process for conservation and industry groups; congressional offices; the Western Governors' Association; and local, state, and federal government agencies. BLM also requested comments from its field offices on the adequacy of the existing regulations along with suggestions for improvement.

An April 4, 1997 *Federal Register* notice announced preparation of the EIS, requested comments on the scope of the analysis in the EIS, and set forth a schedule for public scoping meetings. To collect a wide range of comments BLM arranged for public meetings to be held at a variety of locations across the country in the spring of 1997. (See Chapter 4: Consultation, Coordination, Public Participation, and Preparers.)

To establish a framework for the scoping process BLM presented the following list of topics, including those specified in the Secretary of the Interior's memorandum and others that had previously been named as program issues:

- Definition of *unnecessary or undue degradation*.
- Need to develop specific performance standards for mining and reclamation.
- Five-acre disturbance threshold between a Notice and a Plan of Operations.
- Effectiveness of coordination among state and federal regulators.
- Type and adequacy of penalties for violating the regulations.
- Review time frames for Notices and Plans of Operations.
- Definition of *casual use*.
- Requirements for reclamation bonding.

Participants were also invited to comment on any other issues of concern with respect to the surface management program.

BLM formally accepted scoping comments through June 23, 1997, but the record remains open until the final regulations are completed. In addition to oral comments at the public meetings, BLM received 1,832 comment letters on revising the 3809 regulations. A more detailed presentation of the comments received during scoping may be found in the September 1997 Scoping Report (BLM 1997a) available from BLM.

The results of the NRC (1999) report also constitute scoping comments in that NRC provided

professional input on the existing regulatory program and suggested new issues or possible alternatives. NRC findings and recommendations are included in this section.

ISSUES AND CONCERNS

Scoping helped BLM determine the issues that needed to be considered in the rulemaking and EIS processes. These issues include the following.

Definition of *Unnecessary or Undue Degradation*

The Federal Land Policy and Management Act charges the Secretary of the Interior with preventing “unnecessary or undue degradation” of the public lands. The current definition of “unnecessary or undue degradation” is set forth in the 3809 regulations. Whether the existing definition is adequate or should be expanded to include items such as the use of best available technology and practices (BAT) was the subject of a wide range of comments.

A large segment of industry and some agency staff assert that the existing definition is workable and flexible and should not be changed. Many commenters questioned exactly what was meant by BAT and were concerned that it would lock industry into “one-size-fits-all” design standards that ignore site-specific characteristics, fail to consider economics, and stifle innovation.

On the other hand, many commented that the current definition is too open to interpretation and, hence, abuse. They asserted that a less subjective definition is needed, and that “prudent operator” and “usual, customary, and proficient,” terms used in the existing regulations, neither ensure the feasibility of control technology nor adequately protect public land resources.

BLM also received comments on setting a specific threshold for unnecessary or undue degradation on the basis of measured impacts (e.g. rills greater than 3-inches deep, any offsite impacts, impact greater than if BAT were used). Some commenters recommended that the land use planning process specify stated levels of protection for sensitive resources and locally refine the definition of unnecessary or undue degradation. Other commenters felt that the definition should include items such as the following:

- Prohibiting irreparable resource damage.
- Requiring logical mineral development sequencing.
- Prohibiting uses not reasonably incident to mining or milling.

NRC recommended that BLM prepare guidance manuals and conduct staff training to communicate its authority to protect resources that may not be protected by other laws. NRC noted that the current regulatory definition of unnecessary or undue degradation does not explicitly provide authority to protect valuable or sensitive resources that are not protected by

other laws. Some resources may deserve to be protected from all impacts, whereas other resources may withstand some impacts with mitigation.

Performance Standards for Operations and Reclamation

The existing regulations include general performance standards such as preventing unnecessary or undue degradation and complying with all other environmental laws. Whether specific performance standards should be developed, and if they should be design based or outcome based, was the subject of comment.

Comments ranged from “do not have any standard other than preventing unnecessary or undue degradation” to “develop uniform national design standards for operations and reclamation.” Many commenters were concerned that “one-size-fits-all” national standards would not be flexible enough to account for site-specific conditions. Other commenters thought that the current general industry were not an acceptable minimum for public lands. There was concern that BLM-developed standards would conflict with standards used by states with primacy under the Clean Water Act. Many felt that if standards were developed, they should be outcome-based performance standards rather than having a certain design or technology mandated by BLM.

Comments on the standards for pit backfilling varied. Some felt backfilling should always be required to bring the land surface back to premining conditions. Others noted that pit backfilling would make many mines uneconomic and was not feasible in all cases. Several noted that pit backfilling can create greater environmental impacts than leaving pits open after mine closure. Others argued that water quality in postmining pit lakes poses a potentially permanent hazard.

NRC recommended that BLM continue to base permitting decisions on the site-specific evaluation process provided by NEPA. NRC also recommended that BLM continue to use comprehensive performance-based standards rather than using rigid, technically prescriptive standards. NRC noted that BLM should regularly update technical and policy guidance to clarify how statutes and regulations should be interpreted and enforced. Although a variety of environmental protection laws regulate mining, NRC determined that these laws may not adequately protect all the valuable environmental resources, such as springs, seeps, riparian habitat, ephemeral streams, and certain types of wildlife.

Definition of Federal Lands

The existing 3809 regulations apply only to BLM-managed surface where the mineral estate is subject to the mining laws. In certain situations under the current requirements at 43 CFR 3814, BLM does process Plans of Operations and administer bonding on behalf of the surface owner where the surface is privately owned and the minerals are federally owned. This situation generally applies to (1) lands patented under the Stock Raising Homestead Act, where the

government reserved the locatable minerals or to (2) other lands where the minerals were reserved from a sale or exchange. Some commented that the 3809 regulations should apply to these lands. Another comment was that regulations were needed on lands where BLM manages only the surface but the mineral estate is held in private or state ownership. According to this comment, the 3809 regulations are best suited for this situation because they were formulated to address the private development rights of mining claimants.

Threshold for a Notice or Plan of Operations

At present most mineral activities that disturb less than 5 acres during any calendar year operate under a Notice and do not require BLM approval. Operations that disturb more than 5 acres need a Plan of Operations, review under the National Environmental Policy Act, and BLM's formal approval. Comments varied from raising the threshold and having more Notices to eliminating the Notice provision entirely and requiring all activity greater than casual use to have approved Plans of Operations. Comments proposed various acreage thresholds. Other suggestions proposed basing the threshold on impacts instead of acreage, or on the type of activity by retaining Notices only for exploration and requiring Plans of Operations for mining.

Secretary Babbitt also directed BLM to analyze impacts of adopting the Forest Service threshold of significant disturbance for a Plan of Operations. Concern was expressed about the amount of time BLM would take to process a large increase in the number of Plans of Operations and the increased workload that would result from making Notices federal actions under the National Environmental Policy Act.

NRC recommended that Plans of Operations be required for mining and milling operations other than those classified as casual use or exploration, even if the area disturbed consists of less than 5 acres. NRC also believes that a Plan of Operations should generally be required for activities involving bulk sampling due to the significant amount of disturbance that can occur from this form of advanced exploration. NRC concluded that, with financial assurance, the 5-acre threshold appears reasonable for requiring exploration disturbance to go to a Plan of Operations.

Definition of Casual Use

Casual use refers to activities causing negligible surface disturbance where an operator does not have to notify BLM or submit either a Notice nor a Plan of Operations. Comments on clarifying the definition of casual use focused on such topics as the acceptable size (if any) of a portable suction dredge, the use of explosives or earth-moving equipment, underground mining, and the impacts of recreational mining. Comments varied from stating that any activity producing a salable commodity was not casual use to casual use should allow up to 1 acre of disturbance. Commenters gave examples of environmental degradation caused by the cumulative impacts of casual use, such as concentrated weekend mining by recreation groups.

NRC (1999) commented that it favors BLM retaining the distinction for casual use operations and that it believes BLM is properly regulating small suction dredging operations under the current regulations as casual use.

Notice and Plan of Operations Processing and Contents

Comments were received on the amount of time BLM takes to process Notices and Plans and what amount of time is suitable. Many commenters felt that the current Notice time frame of 15 calendar days is too short and suggested more review time to assure that resources are adequately protected. Comments on Plans of Operations criticized the excessive time (years) needed to get through the National Environmental Policy Act process or some other statutory review and stated that few Plans can be approved in 90 days if impacts are controversial or significant.

Some commenters requested that the review process be speeded up, whereas others wanted it slower to allow more public involvement. An automatic approval provision was recommended for cases in which BLM would fail to meet review time frames. Some suggested that the problem is not with the time frames themselves but with BLM's low staffing levels and budget. Commenters suggested that BLM specify that it must receive a "complete" Plan or Notice before the start of any time frame and that a completeness process be developed in the regulations.

NRC (1999) had several recommendations for the contents and processing of Plans of Operations. NRC believed that with adequate bonding for reclamation, small miners should receive expedited permits. NRC also concluded that the current BLM 3809 regulations with a 15-day response time for Notice-level exploration should be retained.

NRC recommended that from the earliest stages of the NEPA process, all agencies with jurisdiction over mining or affected resources should be required to cooperate in the scoping, preparation, and review of EISs or environmental assessments for new mines. Tribes and nongovernmental organizations should be encouraged to participate from the earliest stages. NRC also suggested that BLM develop procedures to enable it to determine, in the review and approval process for Plans of Operations, the kinds of postmining requirements that are likely to arise and to incorporate these requirements into the approved Plan of Operations.

In addition, NRC recommended that (1) BLM plan for and implement a more timely permitting process, while still protecting the environment, and that (2) the lead agency set and achieve deadlines and have enough qualified staff to do so. BLM should compile and study information on the time involved in recent reviews to determine causes for delays.

State Government Coordination

Because most states have reclamation laws with environmental permitting requirements that also

apply on BLM lands, coordination between BLM and state regulatory agencies is essential. Comments tended to be divided over who should develop the regulations for BLM-managed lands. Some commented that consistent nationwide federal rules are needed to provide a minimum standard and that BLM must retain primacy on public lands. Others commented that current state programs are adequate and more suitable for local conditions and that BLM should not duplicate them. Commenters also suggested that BLM “certify” state programs for the public lands and retain oversight.

NRC pointed out that given the variation in topography, climate, and area of federal lands open to hardrock mining in any state, differences in state laws, and local differences in public attitudes toward mining, consistency among state agreements may not be needed or even desirable.

Claim Validity and Valid Existing Rights

Some comments recommended that to prevent unnecessary or undue degradation and mining scams, BLM should determine if an economic deposit exists before permitting operations. Others commented that BLM should conduct claim validity exams on all lands before accepting Notices or approving Plans of Operations, or that BLM should conduct validity exams on claims in withdrawn areas or special management areas before allowing mining.

Common Variety Minerals

A current problem is that Notices or Plans of Operations are filed for mining of material that may not be locatable under the Mining Law but rather should be sold as common variety materials. The present policy is to process the 3809 action and collect potential royalties in escrow while the locatable versus salable nature of the material is determined. Comments recommended that this procedure be included in the 3809 regulations or that some other procedure be devised to address this issue.

Inspection and Monitoring Programs

BLM inspects operations to determine if operators are complying with the regulations. But particularly on large projects, operators are responsible for conducting the routine environmental monitoring and reporting the results. Comments suggested that the regulations do the following:

- Mandate a set inspection frequency by BLM.
- Require operators to hire independent outside consultants to conduct environmental monitoring.
- Allow citizens to accompany BLM on inspections.

Other comments said that self-monitoring was acceptable if BLM verified the results and that the

frequency of inspections should be based on the individual risk of the operations and not be specified in the regulations.

NRC concerns about inspection and monitoring focused on post-closure issues. NRC noted that an important part of long-term management will be monitoring, inspection, and low-level maintenance of reclamation features, such as soil cover, vegetation, closed impoundments, waste rock piles, and water diversion structures. In some cases the quality of surface or ground water must also be monitored.

Type and Adequacy of Penalties for Noncompliance

The issue of penalties for noncompliance was presented to the public because the current system does not include administrative penalties but relies on filing complaints in federal court. Comments on this issue varied from those who felt that BLM should stay away from any penalty system to those who favored stronger penalties and permit revocations for noncompliance. Some industry representatives favored an intermediate administrative penalty system and process as a way of resolving cases before court proceedings begin. Several related issues arose during scoping. Among these were using compliance history as a basis for future permit decisions, revoking mining claims or permits for noncompliance, and blocking future permits for noncompliance.

NRC recommended that BLM should have both (1) authority to issue administrative penalties for violations of their regulatory requirements, subject to due process and (2) clear procedures for referring activities to other federal and state agencies for enforcement.

Reclamation Bonding Requirements

The regulations published in February 1997 required some form of financial assurance for reclaiming all Notice- and Plan-level operations. In May 1998 these regulations were remanded to BLM and are no longer in effect. As part of the overall revision of the 3809 regulations, BLM asked for more comments on this issue. One comment suggested eliminating the requirement in the 1997 version for bond cost estimates to be certified by a third-party registered professional engineer. Some commenters wanted the bonding requirement eliminated, or eliminated for Notice-level operations or small mines. Others wanted all surface disturbance, regardless of size, to be fully bonded for reclamation.

Still others commented that the bond amount should be expanded from covering just the reclamation costs to include the possible costs of an accidental spill, release, or structural failure. BLM's administering of a nationwide bonding pool was suggested as a way to provide bonding for small operators. Comments further suggested that (1) bonds need to be held for years past mine closure in certain areas to ensure reclamation success and (2) that public notification and

comment should be obtained on the bond amount and before bond release.

The NRC (1999) report made several comments on financial guarantees. NRC concluded that the financial mechanisms be secure and liquid enough to allow responses to near-term needs. NRC found that current procedures for financial assurance inadequately protected the public and the environment. NRC recommended that financial assurance be required for reclaiming disturbances to the environment caused by all mining activities beyond casual use, even if the area disturbed is less than 5 acres. Financial assurance instruments should also be updated with changing conditions that might affect the levels of bonding or other forms of financial assurance.

NRC further recommended that BLM establish standard bond amounts for certain types of activities on specific kinds of terrain. A set of activity- and terrain-dependent standard bond amounts should be established for typical activities in lieu of detailed calculations based on the engineering design of a mine or mill. Suitable types of financial assurance should be investigated for long-term water treatment. NRC also encouraged the use of bond pools to lessen the financial burden on small miners. NRC stated that it did not intend that bonding of exploration result in a federal action that would automatically require an environmental assessment or EIS.

Plan Modifications

Another issue discussed by NRC was the Plan modification process, through which BLM, when finding a problem with an ongoing operation, can require that the Plan of Operations be modified. NRC recommended that BLM revise its regulations to give more effective criteria for modifications to Plans, where necessary, to protect federal lands. NRC noted that staff comments and documents suggest that the regulations should be modified to improve criteria for modifications, require periodic reviews, and/or specify expiration dates for approved Plans of Operations to assure the opportunity to adjust practices where needed. But NRC did not determine if Plans of Operations should be reviewed or reopened at predetermined intervals.

Temporary or Permanent Closure

NRC made two recommendations on temporary or permanent closure. The first recommendation is that BLM adopt consistent regulations that do the following:

- Define conditions under which mines will be considered temporarily closed.
- Require that interim management plans be submitted for such periods.
- Define the conditions under which temporary closure becomes permanent and all reclamation closure requirements must be met.

The second recommendation is that BLM should plan for and assure the long-term post-closure

management of mine sites on federal lands.

NRC went on to state that BLM should consider land uses suitable for closed and reclaimed mines and whether any uses should be controlled or precluded. NRC noted that management requirements need to address and assure the following:

- Future mineral access.
- Measures to protect the public from safety hazards.
- Measures to assure integrity of closed waste units, including monitoring and repair.
- Long-term environmental monitoring with corrective measures.
- Operation and maintenance of water treatment facilities needed to maintain water quality compliance over the long term.
- Financial assurance for implementing these post-closure management requirements.

Appeals Process

Under the existing regulations, operators can appeal to the BLM state director and then to the Interior Board of Land Appeals (IBLA). Parties other than operators must appeal directly to IBLA. Decisions are in full force and effect during an appeal unless a written request for a stay is granted.

Several entities commented on the appeals process. One comment suggested that, upon appeal, the decisions of the authorized officer be automatically stayed (put on hold) until the appeal has been fully considered. Another comment recommended that the appeals process for operators and third parties be the same and have a state director review provision.

Definition of Project Area

The current definition of a project area is a single tract of land upon which operations are conducted and one or more mining claims have been filed under one ownership. Some comments stated that the definition should allow for multiple claim ownership where a single operator is mining. Other comments stated that a project area should include underground mining beneath BLM lands and support facilities not on the claims, and that a permit or project area boundary be specified to define individual project areas.

Existing Operations

If the regulations are changed, the question of how they would apply to existing or pending operations must be addressed. Comments ranged from exempting existing operations to giving existing operations a set period of time in which to comply with any new requirements.

ISSUES AND CONCERNS NOT ADDRESSED

The following issues were raised but are not within the scope of the 3809 regulations and were neither addressed through this rulemaking process nor used to develop alternatives in the EIS.

1872 Mining Law

The issues of patenting of mining claims and lack of royalties on mineral production are outside the scope of the surface management regulations. These provisions are part of the ongoing national debate over the Mining Law and are best addressed through congressional action.

American Indian Trust Responsibilities

Commenters stated that mining has affected American Indian lands, resources, and people, and that the 3809 regulations should be written to preclude activities with those impacts. Also raised were the following concerns:

- The public lands are important to American Indians for their traditional cultural values.
- These lands are not being protected from mining by the 3809 process.
- These types of impacts violate Executive Order 12898 on Environmental Justice.

These issues are commonly raised for many activities on public lands and are larger in scope than the 3809 regulations. The 3809 regulations are not used to review or approve mining on Indian lands. BLM's American Indian trust responsibilities are defined through legislation, executive order, and Department of the Interior policy, regardless of the type of activity or degree of specificity in regulations. To maintain consistency in how BLM executes its trust responsibilities, the EIS does not consider alternatives that would establish separate trust responsibilities specific to mining. But as part of its impact analysis, this EIS does address the effect of the alternatives on American Indian social, cultural, and religious concerns.

Citizen Suits

Scoping comments requested that the 3809 regulations incorporate "citizen suit" provisions to allow citizens to enforce the regulations through the court system. The emphasis of these comments was that citizens need to gain access to mining projects and see firsthand the inspections that are being conducted because BLM is not promptly responding to citizen complaints. Provisions for citizens to accompany inspectors are within the scope of the regulations and are included in the alternatives discussion. But the underlying authority does not provide for establishing a citizen suit provision (Federal Land Policy and Management Act) and citizen suits are outside the scope of the regulations to address.

BLM Cost Recovery

Comments suggested that BLM require recovery of some or all of its administrative costs from the mineral operators as a way of funding the program. The issue of cost recovery is broader in scope than the 3809 regulations. Cost recovery may be addressed by a separate rulemaking for all programs, not just for locatable minerals.

Agency Funding and Staffing

Many comments noted that BLM does not have adequate funding and staffing to administer the program and that increases in the funding and staffing levels are the best way to address current problems. Aside from certain cost-recovery provisions (see above), agency funding and staffing levels cannot be established through regulations but are subject to congressional appropriation. While NRC noted that better implementing of the existing program presents the greatest opportunity for improving regulatory efficiency, the funding and staffing issue is outside the scope of the regulations to resolve. Nor does changing the regulations preclude BLM from pursuing regulatory efficiency. The EIS does include a discussion of the relative workload costs for implementing each alternative.

National Environmental Policy Act Processing of Plans of Operations

BLM received comments on how to conduct environmental review (environmental assessments or EISs) for Plans of Operations during scoping with regard to cumulative impact analysis, evaluating mitigating measures, and establishing EIS consultant qualifications. The NRC report emphasized continued reliance on the NEPA process and the early involvement of all stakeholders. The Council on Environmental Quality regulations at 40 CFR 1500 provide the requirements for implementing NEPA. Guidance on how to conduct environmental analysis for mining is more suitably developed through agency manuals or handbooks than by regulation, because of the evolving techniques in impact analysis and rapid technological developments in reclamation and mitigation.

Abandoned Mine Lands

One scoping comment stated that BLM lacks a consistent, nationwide review and approval process for abandoned mine land projects and that BLM should use the review process and performance standards in the 3809 regulations to review its own abandoned mine land projects. BLM does not consider this issue to be within the scope of the 3809 regulations. The technical requirements and capabilities of new or active mines under the 3809 regulations differ greatly from those of historic abandoned mines. Most abandoned mines that predate modern permitting regulations lacked the planning for eventual reclamation that goes into present-day mines and therefore are much more difficult to reclaim. The performance standards in the 3809 regulations

rely on advanced consideration of eventual reclamation needs before mining begins in order to have practical application. It may not be technically or economically feasible to apply the 3809 performance standards to an abandoned mine that did not consider reclamation needs during its operation. The issue of a consistent review and approval process for abandoned mine lands has been forwarded to BLM's Abandoned Mine Lands Task Force for its consideration.

Diligent Development

Some comments noted that Notice- or Plan-level operations often sit idle for many years with only minimal work and that a diligence requirement should be included in the regulations. Requiring diligent mineral development as a prerequisite to maintaining mining claims is not considered within the scope of the 3809 regulations because the mining laws mention no time frame for mineral extraction. The mining laws focus instead on assessment work and claim maintenance fees. A discussion of the related issue of diligent reclamation and temporary or permanent closure of operations is included under Notices and Plans of Operations in Chapter 2.

Recreational Mining

Commenters stated that recreational mining was not intended under the mining laws since it did not result in commercial production. Establishing separate requirements to determine if a person is engaged in hobby versus commercial mining is not considered within the scope of the 3809 regulations. This determination would involve evaluating the economics of hobbyists working in areas open to recreational use anyway. Rather, the environmental effects of such concentrated activity are considered under the definition of casual use and alternatives considered for determining at what level of activity a Notice or a Plan of Operations should be required.

Public Availability of Information

Some comments suggested that all mine records be open for public review and that companies be required to disclose information on company finances, corporate officers, partners, directors, and compliance history. Much of this information may already be obtained from other government agencies such as the Securities and Exchange Commission. Most project-specific information that BLM receives may be obtained under the Freedom of Information Act, which applies to all BLM programs. A need for public disclosure requirements beyond existing authorities has not been established.

Combining 3809 Regulations with Occupancy Regulations

One comment suggested that BLM combine the 43 CFR 3715 regulations for mining claim occupancy with the 3809 regulations. Changes in the procedures for addressing occupancy have recently been addressed through regulation. A cross-reference with the 3715 regulations has

been included in the proposed regulations to maintain consistency and improve user understanding.

Consistency with the Forest Service Regulations

Some commenters requested that both BLM and the Forest Service change their surface management regulations at the same time to promote consistency. Others said that BLM should not try to parallel Forest Service regulations. A joint revision effort requires Forest Service action. The NRC (1999) report concluded that the Forest Service and BLM need not have identical regulations that are uniform in all respects. Rather the report suggested changes that would make the agencies' approach to regulating hardrock mining more similar. It is beyond BLM's authority to change any of the surface management requirements for operations on lands administered by the Forest Service or to require the Forest Service to revise its regulations concurrently with BLM. The proposed regulations did consider adopting a threshold between a Notice and a Plan of Operations similar to current Forest Service regulations.