

2000

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### Recommended Citation

Darin, Thomas F. (2000) "The Bureau of Land Management's Proposed Surface Management Regulations for Locatable Mineral Operations: Preventing or Allowing Degradation of the Public Lands, The," *Land & Water Law Review*: Vol. 35 : Iss. 2 , pp. 309 - 337.

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University of Wyoming  
College of Law

LAND AND WATER  
LAW REVIEW

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VOLUME XXXV

2000

NUMBER 2

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**THE BUREAU OF LAND MANAGEMENT'S  
PROPOSED SURFACE MANAGEMENT  
REGULATIONS FOR LOCATABLE MINERAL  
OPERATIONS: PREVENTING OR ALLOWING  
DEGRADATION OF THE PUBLIC LANDS?**

*Thomas F. Darin*\*

I. INTRODUCTION

The Bureau of Land Management (BLM) is responsible for managing 264 million acres of public land, approximately one-eighth of all land in the United States, in addition to 300 million acres of subsurface mineral resources.<sup>1</sup> Pursuant to the General Mining Law of 1872, 30 U.S.C. § 22 *et seq.* ("Mining Law"), all valuable mineral deposits on public lands are free and open to entry, location and patent.<sup>2</sup> Only locatable mineral deposits including, but not limited to, copper, lead, zinc, magnesium, nickel, tung-

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1. Bureau of Land Management, "BLM Facts," (last modified Sept. 1, 1998) *available at* <[www.blm.gov](http://www.blm.gov)>

2. Bureau of Land Management, "Draft Environmental Impact Statement: Surface Management Regulations for Locatable Mineral Operations," 1, 14 (Feb. 9, 1999) [hereinafter DEIS].

sten, gold, silver, and uranium, may be staked and claimed under the Mining Law.<sup>3</sup>

In 1980, BLM first developed surface management regulations regarding locatable minerals pursuant to the Federal Land Policy and Management Act of 1976, 43 U.S.C. 1701 *et seq.* (FLPMA). FLPMA contains a congressional mandate that the Secretary of Interior (SOI) shall "take any action necessary to prevent unnecessary or undue degradation of the [public] lands."<sup>4</sup> BLM pledged to reassess and, if necessary, amend the regulations at the end of two years in order to protect public lands from unnecessary or undue degradation. In the early 1990s, BLM initiated a rulemaking process to amend the regulations, but put the rulemaking on hold due to legislative proposals in the 103<sup>rd</sup> and 104<sup>th</sup> Congresses (1993-1996) that would have significantly overhauled the Mining Law.

Ultimately, no legislation was passed. This prompted BLM to take a proactive position. In January of 1997, SOI Bruce Babbitt stated that, "It is plainly no longer in the public interest to wait for Congress to enact legislation that corrects the remaining shortcomings of the 3809 regulations."<sup>5</sup> Secretary Babbitt directed BLM to restart the rulemaking process, which was followed by an extensive two-year scoping process for public comment pursuant to the National Environmental Policy Act, 42 U.S.C. 4321 *et seq.* (1970) (NEPA).

On February 9, 1999, the Department of the Interior (DOI) published its proposed revisions to the section 3809 regulations in the Federal Register.<sup>6</sup> Part II of this paper will provide a brief history of the Mining Law including significant changes since 1872. Part III will discuss the key aspects contained in the present 3809 regulations. Part IV will review recent reform proposals, from both Congress and interested stakeholders. Part V will analyze the proposed changes to the 3809 regulations. Part VI will discuss public comment received by BLM during the rulemaking process. Part VII will address the findings of the report on hard-rock mining reform compiled by the National Academy of Sciences. Finally, part VIII will analyze the proposed 3809 regulations' implications regarding BLM's statutory duty to prevent unnecessary or undue degradation to the public lands.

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3. *Id.* Note that other minerals, classified as leasable or salable, e.g., oil, gas, coal, sand and gravel, are not covered by the proposed surface management regulations and, therefore, are outside the scope of this article.

4. 43 U.S.C. 1732(b)(1994). Note that the regulations that relate to surface management of locatable minerals are codified at 43 C.F.R. § 3809 (1999). "Unnecessary or undue" degradation is not defined in FLPMA.

5. Mining Laws, 64 Fed. Reg. 6,422, 6,424 (1999) (to be codified at 43 C.F.R. pt. 3800).

6. See Mining Laws, 64 Fed. Reg. 6,422-6,468 (1999) (to be codified at 43 C.F.R. pt.3800).

## II. BACKGROUND

In 1872, Congress enacted the General Mining Law declaring that, “all valuable mineral deposits in lands belonging to the United States, both surveyed and unsurveyed, are hereby declared to be free and open to exploration and purchase, and the lands in which they are found to occupation and purchase, by citizens of the United States.”<sup>7</sup> The Mining Law grants free access to both individuals and corporations to prospect for minerals on public domain lands, to stake claims on a deposit upon making a discovery and to patent and purchase claims for either \$2.50 or \$5.00 per acre. No royalty is collected by the federal treasury for extracted minerals. The Mining Law originally applied to all minerals except coal.<sup>8</sup>

In general, after a prospector makes a “discovery” of a valuable mineral on public domain land, a mining claim may be “located.” Discovery and location are essential elements of a valid mining claim, which grants the locator an exclusive right of possession to the mineral deposit. No patent is needed to remove minerals from a mining claim. The predominant mining claims are lode and placer. Lode claims are located on bedrock; placer claims typically involve mineral-bearing sands and gravels. Prior to FLPMA, claimants were required to file location and assessment notices in the office of the county recorder where the claim was located. Originally, the Mining Law required the annual performance of at least \$100.00 worth of labor or improvements to retain a possessory interest in a claim. Both under the 1872 law and presently, if a prospector desires title to the locatable minerals and the surface estate, he may patent the claim for \$2.50 or \$5.00 per acre for placer and lode claims, respectively, provided that \$500.00 worth of development is completed on the claim.<sup>9</sup> The Mining Law does not prescribe environmental protection, reclamation standards or the degree to which the federal government is to oversee and administer mining claims.

In 1920, Congress passed the Mineral Leasing Act, 30 U.S.C. § 518 *et seq.*, which removed oil, gas, oil shale, phosphates, sodium and other minerals from the Mining Law’s claim/patent system. As the name of the Act implies, the 1920 Leasing Act provided that the federal government retained ownership of the leased lands. Strong environmental standards including those requiring reclamation for coal extraction surface disturbance were first enacted in the Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. § 1201 *et seq.* (SMCRA). As these standards do not affect hard-rock mining for locatable minerals, they will not be addressed herein.

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7. 30 U.S.C. § 22 (1994).

8. Marc Humphries, “The 1872 Mining Law: Time for Reform?” (1999) (hereinafter “Humphries”), available at [cnie@cnie.org](http://cnie@cnie.org) (Committee for the National Institute for the Environment).

9. DEIS, *supra* note 2, at 14-15.

Until 1976, the public domain lands consisting of over 485 million acres involved a complex network of 3,500 statutes, without a legislatively established administrative agency for oversight and control.<sup>10</sup> In fact, until 1946, the General Land Office (GLO) of the United States, established in 1812, had primary jurisdiction over the entire public domain and was primarily a record-keeping organization. As stated, under the Mining Law, prospectors were not required to file notice of a claim with the federal government. In 1946, the GLO merged by executive order with the Grazing Service to create BLM. As it was not legislatively established, however, it had no coherent mission, no effective enforcement powers and received little budgetary consideration. As such, not only were hard-rock mining claims unknown to the federal government, there was no effective agency to control, administer and monitor the effects of hard-rock mining on the public domain lands.<sup>11</sup>

This all changed with the enactment of FLPMA in 1976. First and foremost, FLPMA declared that the public lands—formerly referred to as the public domain lands—would be retained in federal ownership, ending the uncertainty created by the “until final disposition” language contained in the Taylor Grazing Act of 1934, 43 U.S.C. § 315 *et seq.* Importantly, FLPMA legislatively established BLM—it existed previously pursuant to an executive reorganizing order—and gave it enforcement authority.<sup>12</sup> FLPMA mandates that the public lands be managed on the basis of multiple use and sustained yield in a manner “that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values.”<sup>13</sup> FLPMA further mandates that owners of unpatented claims—including those located prior to the Act—file in the field office of BLM a notice or certificate of claim.<sup>14</sup> FLPMA further requires the SOI to take any action necessary, by regulation or otherwise, to prevent “unnecessary or undue degradation” of the public lands.<sup>15</sup>

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10. SAMUEL T. DANA, ET AL., *FOREST AND RANGE POLICY: ITS DEVELOPMENT IN THE UNITED STATES*, at 337 (2d ed. 1980) (hereinafter DANA).

11. As stated by Dana, “The effect of the reorganization [of the Grazing Service and GLO into the BLM] was to grant authority over most of the federal lands and all of the federal mineral estate to an uneasy collection of Grazing Service range managers and political hacks and the GLO’s Washington-based clerks, bookkeepers, and paper shufflers. It was not designed to usher in an era of effective land stewardship.” DANA, *supra* note 10, at 188.

12. 43 U.S.C. §§ 1731; 1733 (1994).

13. 43 U.S.C. § 1701(a)(7)-(8) (1994).

14. 43 U.S.C. § 1744(a) (1994).

15. 43 U.S.C. § 1732(b) (1994). In addition, 43 U.S.C. § 1740 (1994) requires the SOI to promulgate rules and regulations to carry out the purposes of the Act.

### III. PRESENT 3809 REGULATIONS<sup>16</sup>

In 1980, the DOI established the first regulations affecting surface-disturbance activities on public lands resulting from mining operations.<sup>17</sup> The purpose of the regulations is to assure that mining activities are conducted in a manner “that will prevent unnecessary or undue degradation and provide protection of nonmineral resources of the Federal lands.”<sup>18</sup> “Unnecessary or undue degradation” is defined by the current regulations as “surface disturbance greater than what would result when an activity is being accomplished by a prudent operator in usual, customary and proficient operations of similar character and taking into consideration the effects of operations on other resources and land uses, including those resources and uses outside the area of operations.”<sup>19</sup> This is known as the “prudent operator” standard.

Mining operations are classified into three categories: casual use, notice-level, and plan of operations-level. For all mining activities involving casual use, no notice need be given to BLM and no bonding for reclamation is required.<sup>20</sup> Casual use is defined as activities that ordinarily result in only “negligible” disturbance, e.g., activities that do not involve earth moving equipment, explosives or motorized vehicles in certain areas.<sup>21</sup>

Notice-level operations are those that cause a cumulative surface disturbance of five acres or less during a calendar year. At this level of disturbance, an operator is required to provide notice to BLM at least fifteen calendar days before commencing operations. The notice shall include a statement of the proposed activities, a description of access routes and the type of equipment that will be utilized. Further, the notice must provide a statement that reclamation will be completed at the earliest time feasible, except as necessary to preserve evidence of mineralization. Importantly, BLM approval of notice-level operations is not required.<sup>22</sup>

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16. The 3809 regulations concern only public lands outside wilderness study areas; BLM wilderness study areas are governed by 43 C.F.R. § 3802 (1999). See generally THE ROCKY MOUNTAIN MINERAL LAW FOUNDATION, 5 AMERICAN LAW OF MINING at 173-25 to 173-33 (2d ed. 1997) (discussing differences between wilderness study areas, section 3809 regulations and Forest Service mining regulations); TERRY S. MALEY, MINING LAW: FROM LOCATION TO PATENT 452-58 (1985) (discussing wilderness and non-wilderness BLM mining regulations).

17. Codified at 43 C.F.R. § 3809 (1999).

18. 43 C.F.R. § 3809.0-2(a) (1999).

19. 43 C.F.R. § 3809.0-5(k) (1999).

20. 43 C.F.R. § 3809.01-9(a) (1999).

21. See 43 C.F.R. §§ 3809.1-2; 1-9 (1999)(notice and bonding provisions); 43 C.F.R. § 3809.0-5(b) (1999) (casual use definition).

22. See 43 C.F.R. § 3809.1-3(a)(1999) (definition of notice-level operations); 43 C.F.R. § 3809.1-3(a) (1999)(fifteen day notice requirement); 43 C.F.R. § 3809.1-3(c)(3)(1999); 43 C.F.R. § 3809.1-3(c)(4), (d)(3) (1999)(completion of reclamation); 43 C.F.R. § 3809.1-3(b) (1999) (no approval required).

The reclamation standards for notice-level operations include, but are not limited to: (1) saving topsoil for final application after reshaping disturbed areas; (2) taking measures to control erosion; (3) taking measures to isolate, remove or control toxic materials; (4) reshaping the disturbed area, including applying topsoil and revegetation "where reasonably practicable"; and (5) rehabilitating fisheries and wildlife habitat.<sup>23</sup> When reclamation is complete, BLM must be notified so that an inspection can be made.<sup>24</sup> As with casual-use, notice-level operations do not require any financial guarantee or bonding.<sup>25</sup>

The third tier is for activities requiring a "plan of operations." These plan-level operations involve disturbance areas of greater than five acres and *any* operation, except casual-use, in designated areas of critical environmental concern or lands in certain conservation areas.<sup>26</sup> Plan-level operators must file a plan of operations with BLM which must include a map detailing means of access, a description of the type of operations, a plan for reclaiming the disturbed surface acreage<sup>27</sup> and measures to be taken by the operator in periods of non-operation to maintain the area in a safe and clean manner.<sup>28</sup>

Plan-level operations require additional BLM involvement. Unlike notice-level operations, the submitted plan of operations "shall" be analyzed by BLM personnel to prevent unnecessary or undue degradation.<sup>29</sup> The plan must be analyzed within 30 days upon receipt to ensure compliance with NEPA (which may require an environmental impact statement), the National Historic Preservation Act and the Endangered Species Act's section seven consultation requirements.<sup>30</sup>

Another important distinction between notice-level and plan-level operations is that the latter require financial guarantees, usually in the form of a surety bond, to ensure reclamation is completed. However, furnishing a bond is up to the discretion of the BLM authorized officer and not required

23. 43 C.F.R. § 3809.1-3(d)(4)(i-v) (1999). The regulations mandate that all operations, including casual-use, be reclaimed. 43 C.F.R. § 3809.1-1 (1999). Reclamation is generally defined as, "taking such reasonable measures as will prevent unnecessary or undue degradation of the Federal lands, including reshaping land disturbed by operations to an appropriate contour and, where necessary, revegetating disturbed areas so as to provide a diverse vegetative cover." 43 C.F.R. § 3809.0-5(j)(1999). Another area of environmental protection applicable to all mining operations mandates compliance with federal air and water quality laws, federal and state standards for disposal of solid wastes, preventing adverse impacts to threatened or endangered species and their habitat and preventing disturbance to cultural, historical or paleontological resources and survey monuments. 43 C.F.R. § 3809.2-2 (1999).

24. 43 C.F.R. § 3809.1-3(d)(5)(1999).

25. 43 C.F.R. § 3809.1-9(a)(1999).

26. 43 C.F.R. § 3809.1-4(a)-(b)(1999).

27. The reclamation requirements are the same as for notice-level operations. See 43 C.F.R. § 3809.1-5(c)(5) (1999).

28. 43 C.F.R. § 3809.1-4(c)(6)(1999).

29. 43 C.F.R. § 3809.1-6(a)(1999).

30. 43 C.F.R. § 3809.1-6(a)(4), (5); 3809.2-1 (1999).

if the proposed operations would cause “only minimal disturbance.” There is no set limit for the amount of the bond; it again is a discretionary function of the BLM officer considering “the estimated cost of reasonable stabilization and reclamation of areas disturbed.” When a bond has been posted and any portion of the reclamation has been performed, the operator may notify BLM and seek a reduction or release of the guarantee, at which point the BLM officer “shall” inspect the reclaimed lands in order to authorize a partial or full release. Upon patenting a claim, the BLM officer is required to release the portion of the guarantee that applies to the patented land.<sup>31</sup>

Regarding inspection, BLM officers may periodically inspect all operations to ensure compliance with the 3809 regulations. As a practical matter, however, as BLM has no knowledge of casual-use operations and no bonding is required for reclamation of notice-level operations, and given that this BLM function is discretionary, inspections are the exception, not the norm. If non-compliance is determined by BLM, such as failing to provide notice or a plan of operations or failing to reclaim areas as required, the appropriate BLM officer, “at [his or her] discretion” may serve a notice of non-compliance.<sup>32</sup> Mining operations may be enjoined by BLM only by obtaining an injunction in federal court.

Notably, the 3809 regulations do not preempt state laws relating to the conduct of mining operations, including reclamation, on federal lands. However, the BLM director is required to review state laws and regulations relating to unnecessary or undue degradation of lands disturbed by mining operations. In addition, the director may consult with the states to formulate and provide for a joint federal/state program for administration and enforcement.<sup>33</sup>

#### IV. RECENT PROPOSALS FOR HARD-ROCK MINING REFORM

To properly understand the context of the newly proposed 3809 regulations, a review of certain problems with the current regulations and their application is necessary. Importantly, many of the cited problems have been recognized by BLM itself, which has prompted calls for reform by environmental groups, BLM and Congress.

##### *Federal Studies on Hard-rock Mining and Reclamation*

Subsequent to the promulgation of the 3809 regulations in 1980, certain developments in hard-rock mining technology increased attention on

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31. See 43 C.F.R. § 3809.1-9(b) (1999)(discretion to require bond and set reasonable bond limit); 43 C.F.R. § 3809.1-9(f) (1999)(partial release of bond); 43 C.F.R. § 3809.1-9(g) (1999)(release upon patent).

32. 43 C.F.R. § 3809.3-2(a) (1999).

33. 43 C.F.R. § 3809.3-1 (1999).



developing stricter regulatory standards. For example, the DOI recognized that one of the most important mining developments is the widespread use of cyanide leaching technology to extract gold from low-grade ores. In 1980, approximately 67% of the 960,000 troy ounces of gold mined in the U.S. utilized cyanide technology; by 1997, almost all of the ten million troy ounces of mined gold used cyanide. Cyanide mining processes large amounts of ore, affecting large areas of land, creating large pits and utilizing significant amounts of water. Concerns mounted regarding the effect of these cyanide processes on wildlife populations and human health and safety.<sup>34</sup>

The abuses of hard-rock mining are well documented in a series of General Accounting Office (GAO) reports of the late 1980s. In a March 1986 report, the GAO reported there were approximately two million mining claims on federal lands.<sup>35</sup> Notably, the GAO reported that despite 3809 regulations requiring reclamation, "some BLM lands are not being reclaimed, and BLM does not require *most* miners to post [reclamation] bonds."<sup>36</sup> Moreover, in five of ten western states where most mining occurs, BLM offices did not screen mining claims to ensure that they were not on lands withdrawn from mineral exploration and development. Colorado and Nevada each had over two thousand mining claims on these withdrawn lands.<sup>37</sup>

Regarding BLM's discretionary inspections, in the most active mining districts in the ten western states, more than fifty percent of the 556 mines that began operations in 1981 had not been inspected, meaning that BLM had no idea whether the mines were abandoned or left unreclaimed.<sup>38</sup> Although BLM could require a bond for plan-level operations, it rarely did so—usually in the case where an operator had a record of noncompliance.<sup>39</sup>

This is particularly troubling given some of the examples of environmental ruin as reported by the GAO: (1) twenty-five acres of removed topsoil, exposing a mineral deposit, in Winnemucca, Nevada; (2) at a ten acre

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34. Mining Laws, 64 Fed. Reg. 6,422, 6,423 (1999) (to be codified at 43 C.F.R. pt. 3800).

35. United States General Accounting Office Report, "Public Lands: Interior Should Ensure Against Abuses From Hardrock Mining," at 2 (March 1986) [hereinafter GAO, Public Lands].

36. GAO, Public Lands *supra* note 35, at 3 (emphasis added).

37. GAO, Public Lands *supra* note 35, at 3. Also noted in the GAO report were problems with claim screening. As noted above, the 3809 regulations require sufficient information that claims can be found on the ground. In reality, there are two problems: first, many claims do not provide sufficient information for BLM officers to locate them (e.g., close to 3,000 claims examined in Colorado and 5,000 in Nevada); second, depending on the BLM state office, many claims are never screened. These two principles lead to many claims existing on federal lands withdrawn from mining. Accordingly, the GAO recommended that the SOI require the BLM director to establish a uniform policy to ensure that sufficient detail is provided to locate claims and that all claims located on withdrawn lands are invalidated. GAO, Public Lands *supra* note 35, at 14-19.

38. GAO, Public Lands *supra* note 35, at 3.

39. GAO, Public Lands *supra* note 35, at 4.

mine site in Washoe County, Nevada, two fifty-gallon barrels of sulfuric acid and sacks of chemicals were left behind and had been vandalized, with acid leaking into the ground; and (3) numerous instances of exploratory trenches left unfilled (one 5' X 15' X 150') and cyanide leaching ponds still filled with contaminated liquids.<sup>40</sup> Accordingly, the GAO recommended that the SOI require mandatory bonding for all mining operations, as the current bonding policy was not achieving environmental protection goals, particularly in light of the low cost of bonding—from \$12.00 to \$75.00 per year for small operations.<sup>41</sup> As seventy-seven percent of the mining activity under the 1872 Mining Law involved notice-level operations, which do not require any form of reclamation bonding, the GAO recommended that bonding not be based on past performance or the amount of land involved, but based on the significance of land disturbance likely to result.<sup>42</sup>

In an October 1987 report, the GAO revisited thirty unreclaimed sites discussed in its 1986 findings: six had been reclaimed fully, four were partially reclaimed and twenty were wholly unreclaimed.<sup>43</sup> Incredibly, since 1985, BLM had taken no action regarding fifteen of the nineteen sites that still remained unreclaimed in 1987. BLM officials explained that other land management duties took precedence over pursuing reclamation of these sites and also blamed lack of staff.<sup>44</sup> GAO concluded that mandatory and proper bonding would go a long way in terms of procuring reclamation.<sup>45</sup>

The GAO was not long with its third report detailing the environmental horrors of unreclaimed mine sites. In its April 1988 report, the GAO reported that 424,049 acres of federal land disturbed by mining activities were left unreclaimed: approximately two-thirds (281,581 acres) involved abandoned, suspended or unauthorized mining operations.<sup>46</sup> For the 281,581 unreclaimed and abandoned acres, 162,911 acres needed the most basic

40. GAO, Public Lands *supra* 35, at 25-26.

41. GAO, Public Lands *supra* 35, at 4-5. Nevada and Colorado were the focus of the GAO inspections. In Nevada, for example, only fifty-six percent of one district office's mine claims were inspected. Of the rest, thirty-nine percent were not reclaimed after a period of one to four years of nonuse. These periods of inactivity led BLM officials to conclude that no reclamation would occur—the sites had been abandoned, and if reclamation were to occur at all, it would be at the public's expense.

42. GAO, Public Lands *supra* note 35, at 29-33. Interestingly, the GAO report noted that the Forest Service requires reclamation bonds for all types of operations likely to cause a significant disturbance, meaning that if the operator fails to reclaim, reclamation will occur based on the guarantee and, importantly, not at the public's expense. GAO, Public Lands *supra* note 35, at 30. See also United States General Accounting Office Report, "Federal Land Management: Financial Guarantees Encourage Reclamation of National Forest System," (August 1987) (finding that FS's requirement of financial guarantees was successful in meeting goal of reclaiming mine sites and importantly, finding that mining associations generally supported reclamation guarantees).

43. United States General Accounting Office Report, "Federal Land Management: Limited Action Taken to Reclaim Hardrock Mine Sites," at 1-2 (October 1987) [hereinafter GAO, Limited Action].

44. GAO, Limited Action *supra* note 43, at 4-5.

45. *Id.*

46. United States General Accounting Office Report, "Federal Land Management: An Assessment of Hardrock Mining Damage," at 6 (April 1998) [hereinafter GAO, Assessment].

level of reclamation—reshaping and/or recontouring; an additional 157,322 acres were left unseeded. In terms of more direct environmental hazards, 24,916 acres were littered with mine waste and harmful materials and 74,236 acres were left exposed, creating erosion, landslide and water runoff problems.<sup>47</sup> The total cost to reclaim the disturbed federal land, most likely to be borne by the public rather than the operators, mine claimants or mining companies, was estimated at \$284 million. Between 1974 and 1987, state and federal agencies spent over \$3.2 million to reclaim federal land disturbed by hardrock mining.<sup>48</sup>

### *BLM Response*

In direct response to the GAO reports, in January of 1989 the director of BLM established a task force to address hardrock mining reform. Later that year, the task force recommended an expansion of bonding requirements, the development of a cyanide policy, a review of current reclamation practices and a review of pre-1981 mining operations that had been abandoned.<sup>49</sup> As a result, BLM developed a cyanide policy and a Solid Minerals Reclamation Handbook, as well as a proposed rule to revise its bonding requirements in the 3809 regulations. By 1991, BLM still had not conducted its “two year” review after developing the 1980 regulations, and published its notice of intent to propose a rulemaking.<sup>50</sup> The process was halted in 1992, as it appeared that there would be significant congressional reform of the 1872 Mining Law in 1993 or 1994.<sup>51</sup>

### *Congressional Calls for Reform*

Although there have been several attempts at congressional reformation of the Mining Law,<sup>52</sup> both chambers in the 103rd Congress passed two separate bills, which have come the closest to hardrock mining reform. Unfortunately, but perhaps predictably, no consensus could be reached regarding the two bills, one supported by the mining industry and the other backed by environmentalists. As such, neither bill, nor a comprised version of the two, was enacted into law. These two bills, as they relate to prevent-

47. GAO, Assessment *supra* note 46, at 8 (Table 1.1).

48. GAO, Assessment *supra* note 46, at 12-15.

49. Mining Laws, 64 Fed. Reg. 6,422, 6,423 (1999) (to be codified at 43 C.F.R. pt. 3800).

50. *Id.* As the 1991 notice sought comments on essentially the same issues that are addressed in the present 1999 proposed regulations, and especially given that the proposed rulemaking did not result in any amendments to the 3809 regulations, they will not be discussed. See Mining Laws, 64 Fed. Reg. 6,422, 6,423-24 (1999) (to be codified at 43 C.F.R. pt. 3800).

51. *Id.* at 6,424..

52. For an excellent overview of recent legislative attempts at reform, see generally Humphries, *supra* note 8; Committee For The National Institute For The Environment, *The 1872 Mining Law: Time for Reform? II*, (1999) available at [cnie@cnie.org](mailto:cnie@cnie.org); Robert J. Uram, *Prospects for Mining Law Reform*, 12 NAT. RESOURCES & ENV. 191 (1995) [hereinafter Uram]; Jay Letto, *1872 Mining Law: Meet 1993 Reform*, E MAGAZINE 21 (Sept./Oct. 1993).

ing unnecessary or undue degradation to the public lands, will be discussed in this section.<sup>53</sup>

First, Senate bill 775 (S. 775), known as the Hardrock Mining Reform Act of 1993, passed in the Senate on May 25, 1993.<sup>54</sup> Senate Bill 775, introduced by Senator Larry E. Craig (R-Idaho), primarily dealt with the time-old issue of fair market value for mineral revenues and was backed by the mining industry. With respect to environmental and reclamation reform, the bill would require, in the words of its sponsor that , “every mineral activity causing more than a minimal disturbance on federal land must file a plan of operation.”<sup>55</sup> “Minimum disturbance” was defined in S. 775 as “minor, short-term alteration of surface resources,” meaning that all mining operations other than casual-use would require full bonding.<sup>56</sup> According to Senator Craig, “almost every industry [was] working to improve its environmental record,” and S. 775 ensured that mining operations would be in compliance with federal environmental laws such as the Clean Air and Water Acts, NEPA, ESA, etc.<sup>57</sup> Reclamation, or the lack thereof, as cited by the GAO reports, would be left to state control.<sup>58</sup> Importantly, S. 775 required a financial guarantee, in the form of a bond or surety, “in an amount determined by the [SOI] that is not less than the estimated cost to complete reclamation of the land disturbed by operations.”<sup>59</sup>

In another area, S. 775 would have established an abandoned hard rock mine reclamation program. The program authorized the SOI to make grants to eligible states for the reclamation and restoration of “land and water resources adversely affected by past hardrock mining.”<sup>60</sup> S. 775 received the support of the American Mining Congress (which merged with the National Coal Association in 1995 to become the National Mining Association) with the view that state and existing federal reclamation standards were sufficient.<sup>61</sup>

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53. The portions of the bills that call for reform on the price for acquiring title (e.g., \$2.50/\$5.00 per acre) and proposing that operators pay a fair market royalty for mineral deposits (presently there is no such royalty) are outside the scope of the 3809 regulations and BLM's authority regarding rulemaking. Accordingly, they will not be discussed herein.

54. S. 775, 103rd Cong., 1st Sess. § 1 (1993). *et seq.*

55. Larry E. Craig, *Mining Act Needs Reform, Not Refrain*, 10 THE ENV. FORUM 30 (No. 4 1993) [hereinafter Craig]; S. 775, 103rd Cong., 1st Sess. § 7 (1993).

56. S. 775, 103rd Cong., 1st Sess. § 7(b) (1993).

57. Craig, *supra* note 55, at 30. This overlooks, however, that the 3809 regulations in effect at the time required the same. See 43 C.F.R. § 3809.2-2; § 3809.1-6(a) (1999).

58. Craig, *supra* note 55, at 30.

59. S. 775, 103rd Cong., 1st Sess. § 8(a)(1) (1993).

60. S. 775, 103rd Cong., 1st Sess. § 12(b)(1) (1993).

61. John A. Knebel, *It Just Needs a Few Revisions*, 10 THE ENV. FORUM 32 (No. 4 1993) [hereinafter Knebel]. Knebel, president of the American Mining Congress, stated that the environmentalists' “outrageous” demands were “a thinly disguised attempt to drive the [mining] industry and others off the nation's public lands,” which effectively blocked any compromise. *Knebel*, at 34.

The House of Representatives, of course, had its own vision for mining reform—the Mineral and Exploration and Development Act of 1993<sup>62</sup> (H.R. 322) sponsored by Representative Nick Rahall (D-W.Va.). Similar to the Craig bill, H.R. 322 contained several reform proposals not directly related to areas covered by the existing 3809 regulations. These included proposals regarding the Mining Law's discovery requirement, providing for an exclusive right to resources as long as annual rents were paid, an elimination of the patent feature—meaning the federal government would retain ownership—and a provision for royalties, most of which would pay for reclamation of abandoned mines.<sup>63</sup> H.R. 322 was supported by the Mineral Policy Center, as it would protect the environment from “further pollution, and the public domain from further destruction.”<sup>64</sup>

Importantly, H.R. 322 proposed several reforms relating to reclamation, performance standards, financial guarantees and land-use planning guidelines for certain lands where mining would be inappropriate.<sup>65</sup> The need for improved performance and reclamation standards as well as bonding requirements was highlighted by the Summitville mine in the San Juan mountains of southwestern Colorado. Using cyanide open-pit leaching, 280,000 ounces of gold were extracted (worth approximately ninety-eight million dollars), with no royalty paid to the U.S. government. However, the leach pad was poorly installed and leaked, resulting in poisoning seventeen miles of the Alamosa River with devastating effects to farms and ranches. After the reclamation bond was hiked to \$7.2 million, the operator declared bankruptcy; Summitville was then listed as an EPA Superfund site, with cleanup costs projected to run over one hundred million dollars.<sup>66</sup>

Regarding performance standards, in addition to FLPMA's “unnecessary or undue degradation” standard, H.R. 322 would have required the SOI to ensure that mineral activities on federal lands minimized adverse impacts to the environment.<sup>67</sup> For all operations creating more than a “negligible disturbance,” a permit would need to be obtained from BLM. Any operations that used mechanized earth moving equipment, suction dredging, explosives, motor vehicles in areas closed to off-road vehicles, construction of roads or toxic/hazardous materials, were automatically excluded from the negligible disturbance requirement.<sup>68</sup> The reclamation standards in H.R. 322 were stringent, including specific standards for soils, stabilization of surface

62. H.R. 322, 103rd Cong., 1st Sess. § 1 (1993) *et seq.*

63. See Nick J. Rahall II, *A Statute in Need of Major Reform*, 10 THE ENV. FORUM 34, 34-35 (No. 4 1993) [hereinafter Rahall]; H.R. 322, 103rd Cong., 1st Sess. §§ 102; 103; 107; 306; 417 (1993).

64. Phil Hocker, *Mining Reform Is An Urgent National Priority*, 10 THE ENV. FORUM 31, 32 (No. 4 1993).

65. Rahall, *supra* note 63, at 35.

66. John Skow, *Mother Lode Versus Mother Nature*, reprinted in 139 CONG. REC. 29,975-76 (1993).

67. H.R. 322, 103rd Cong., 1st Sess. § 201 (1993).

68. H.R. 322, 103rd Cong., 1st Sess. § 202(b) (1993).

areas, sediments, erosion, drainage, hydrologic balance, surface restoration, vegetation, excess waste, sealing holes, backfilling, removal of structures, and fish and wildlife.<sup>69</sup> Reclamation would have to utilize the “best technology currently available.”<sup>70</sup> Importantly, before any permit was issued, a financial assurance (surety bond) would be required in an amount that would assure reclamation in accordance with the terms of the Act.<sup>71</sup> The Act further required mandatory inspections and monitoring by BLM.<sup>72</sup> H.R. 322 passed the House on November 18, 1993, by a 316 to 108 vote.

Although S. 775 and H.R. 322 each passed one chamber of Congress, no compromise could be reached—despite attempts to reach a consensus through September of 1994. This was primarily due to the differences in royalty payments to the U.S. treasury and H.R. 322’s anti-patent provision and stringent reclamation standards.<sup>73</sup> However, both bills would have established an abandoned hard-rock mining fund to reclaim the million acres of federal land that were left scarred and in ruins after mining operations ceased without reclamation. In addition, both bills abandoned the 5-acre threshold between notice-level and plan-level operations. Instead, *any* mining activity creating more than a “minimal”(S. 775)/negligible” (H.R. 322) disturbance required a permit or plan of operations approval from BLM, with full bonding a necessity.

### *Environmental Community Calls for Reform*

Defenders of Wildlife called for reform due to the damaging effects of gold, silver, and uranium mining activities on the nation’s water sources in the western states. Defenders called for: (1) comprehensive operating and reclamation standards; (2) the exclusion of mining in areas with important water, recreational, or scenic resources; (3) public participation in mine inspections and in the development of operating standards; and (4) stronger enforcement provisions. Defenders further suggested that the notice-level operation exemption should be eliminated. In addition, bonding was recommended to be required for all operations and that the bonds be held by the federal government until reclamation was satisfactorily completed.<sup>74</sup>

The Mineral Policy Center (MPC) voiced its concern with the present 3809 regulations and proposed reform in many key areas. MPC noted that the 3809 regulations do not require sufficient performance standards to protect against unnecessary or undue degradation. The “prudent operator”

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69. H.R. 322, 103rd Cong., 1st Sess. § 207(b)(1993).

70. H.R. 322, 103rd Cong., 1st Sess. § 207(a)(2) (1993).

71. H.R. 322, 103rd Cong., 1st Sess. § 206 (1993).

72. H.R. 322, 103rd Cong., 1st Sess. § 404 (1993).

73. Uram, *supra* note 52, at 193-195.

74. Defenders of Wildlife, “Essential Elements of Regulatory Reform: Additional Background Information for ‘3809’ Comments,” (1998), *available at*, <>.

standard, it argued, did not require specific operating techniques. As such, MPC called for “best available demonstrated technology” standards, which apply to coal mining through SMCRA, to minimize the impacts of mining on water, air, soil, flora, fauna and human health. MPC cited the Zortman-Landusky (Z-L) gold mine in north-central Montana as illustrative of the shortcomings of the current 3809 regulations. The Z-L mine was one of the first to utilize the cyanide heap-leach process, which required in some instances processing one hundred tons of low-grade ore to recover one ounce of gold, generating enormous waste. Between 1982 and 1984, ten leaks and spills released fifty-two thousand gallons of cyanide solution, which contaminated an entire community’s drinking water and had devastating effects on wildlife. The Z-L mine’s chronic problems with cyanide and acid mine drainage resulted in a paltry fifteen thousand dollar fine from the State of Montana.<sup>75</sup>

MPC called for more stringent reclamation standards to repair topography, including the restoration of soil, vegetation, and fish and wildlife habitat to pre-mining conditions. Accordingly, pre-mining baseline data should be required. Similar to Defenders, MPC called for stronger bonding requirements, an end of the notice-level exemption and stronger enforcement procedures—meaning the BLM should not be required to go to federal court in every instance of noncompliance to enjoin certain activities.<sup>76</sup>

### *Mining Industry Response*

The most prominent voice representing the mining industry is the National Mining Association (NMA). NMA’s views regarding the 3809 regulations necessarily correspond to its view of government agencies as the “Unelected Legislature” run by a “self-selected elite whose self-assigned mission is to impose on the rest of us their vision of what is best; that is, to save us from ourselves whether we need saving or not.”<sup>77</sup> NMA views any attempt by BLM to revise the 3809 regulations as a run-around of the legislative process due to the fact that major reform attempts failed in Congress. In essence, NMA’s position is that BLM should defer to the states on reclamation standards and any reclamation standards should be co-developed by state and federal authorities such that they are tailored to site-specific mining operations. NMA vigorously opposes any uniform national standard on either performance or reclamation standards. Citing that mining contributed \$524 billion to the U.S. economy and \$57 billion in federal revenues in

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75. Carlos Da Rosa, “Righting the Regs,” (June 1997), available at <[http://www.mineralpolicy.org/law&reform\\_links.html](http://www.mineralpolicy.org/law&reform_links.html)>

76. See generally Da Rosa, “Righting the Regs,” *supra* note 75; Mineral Policy Center, “43 CFR 3809 Regulatory Reform,” (1997), available at [http://www.mineralpolicy.org/law&reform\\_links.html](http://www.mineralpolicy.org/law&reform_links.html).

77. National Mining Association, *Mining and the Struggle for America’s Economic Future: A Contest Between Wide Possibilities and Narrow Views*, (April 6, 1998) available at [www.nma.org/regulations.html](http://www.nma.org/regulations.html).

1995, NMA called for the federal government to “reassess its attitude toward, and relationship with, the American mining industry.”<sup>78</sup>

## V. PROPOSED CHANGES TO THE 3809 REGULATIONS

On February 9, 1999, BLM published its draft EIS (DEIS) regarding the proposed changes to the 3809 regulations. Four alternatives were proposed and their projected effects were analyzed. Alternative one is “no action” or to leave the existing regulations unaltered. Alternative two defers regulation to the states, and the 3809 regulations would define “unnecessary or undue degradation” to require compliance with all local, state and federal laws and regulations. As such, there would be no other BLM regulations. Alternatives one and two were rejected by BLM as the current regulations do not prevent “undue or unnecessary degradation” and state regulation would not ensure adequate protection.<sup>79</sup>

Alternative three, the proposed action and preferred alternative, would change the existing regulations in significant areas. First, the “prudent operator” standard would be replaced by more specific performance standards. In general the performance standards would be outcome (as opposed to design) oriented and would require the use of the “most appropriate technology and practices” (MATPs). MATPs are defined as the technology and practices that demonstrate feasibility, success and practicality in achieving the standards for protecting surface and ground water, wetland and riparian areas, soil, fish and wildlife, and cultural, paleontological and cave resources. Revegetation standards would require that all disturbed lands be revegetated to establish a stable and long-lasting cover and comparable to preexisting natural vegetation, and that noxious weeds be controlled.<sup>80</sup>

MATPs would incorporate the existing BLM acid rock drainage and cyanide policies—formally not a part of the existing regulations.<sup>81</sup> Because of the documented problems with cyanide use, the existing cyanide policy

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78. See Richard L. Lawson, “Letter to the Editor, The Courier Journal,” (Feb. 19, 1999) (stating that the industry provided 5 million jobs in 1997 and “further restriction of lands available for mineral exploration will deprive state and local governments of billions in tax revenue and will require the American people to make up the difference.”); National Mining Association, “BLM Conducts Public Hearings on Proposed Section 3809 Regulations,” (April 14, 1999) (wherein NMA stated that the current regulatory regime is sufficient to prevent unnecessary or undue degradation and further called for an extension on the public comment period to allow for the completion of a study conducted by the National Academy of Sciences), both of which are available at [www.nma.org](http://www.nma.org).

79. DEIS *supra* note 2, at 29-39.

80. DEIS *supra* note 2, at 42-43.

81. DEIS *supra* note 2, at 44. The BLM issued its cyanide management policy on August 6, 1990. See U.S. Dept. of Interior, “Bureau of Land Management Policy for Surface Management of Mining Operations Utilizing Cyanide or Other Leaching Techniques,” Instruction Memorandum 90-566 (August 1990). In response to acid rock drainage concerns, which “historically [have] been the most significant environmental problem associated with the mining of ores which contain sulfide materials,” BLM issued its acid rock drainage policy on April 2, 1996. See U.S. Dept. of Interior, “Bureau of Land Management Acid Rock Drainage Policy,” Instruction Memorandum 96-79, at attachment 1-1 (April 1996).



would be strengthened by: requiring secondary containment systems as an added safeguard against leaks; monitoring to detect leaks from heaps and tailing impoundments; and taking measures to prevent wildlife mortalities.<sup>82</sup>

The performance standards would require that mining pits be back-filled, "unless backfilling is demonstrated to be infeasible," with the burden of proof on the operator to demonstrate infeasibility.<sup>83</sup> Infeasibility would include analyzing economic feasibility, environmental soundness and safety. Economic feasibility would not, at least by definition, consider the impact of the cost of backfilling on the rate of return for the mining venture. Rather, "BLM would weigh the expected environmental benefits in relation to operational economic factors such as whether the project is a single or multiple pit operation, the distance and grade from mine site to waste rock storage versus backfill location, the direct haul cost versus temporary storage and rehandling cost, and reclamation costs as a function of disturbance area size."<sup>84</sup> If backfilling is not required by BLM, mitigation would be required to ensure that the impacts of not backfilling a site are minimized.

Second, the proposed regulations would expand the definition of public lands by including "split-estate" lands patented under the Stock Raising Homestead Act. This would add an additional seventy million acres of lands to be covered by the regulations that were previously not subject to regulation because the surface estate is privately owned, whereas the sub-surface mineral estate is reserved to the U.S. and generally open to mining.<sup>85</sup>

Third, the disturbance categories of casual use, notice-level and plan-level operations would remain the same. However, casual use would exclude truck-mounted drilling equipment, portable suction dredges, the use of certain chemicals and hobby or recreational mining if the cumulative impact of the activities resulted in more than a negligible disturbance.<sup>86</sup> Depending upon the diameter of the suction dredge, these activities would fall into either notice or plan-level operations; the use of certain chemicals, such as cyanide, would require a plan of operations to be filed.

There are two proposed alternatives for the definition of activities requiring a plan of operations. The first definition would, like the present regulations, automatically include areas disturbing more than five acres. Recognizing, however, that some activities can cause undue degradation regardless of the acreage affected, BLM would require a plan of operations for certain mining practices that involved: (1) activities occurring on special areas of environmental concern, on lands withdrawn from the Mining

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82. DEIS *supra* note 2, at 44.

83. DEIS *supra* note 2, at 44.

84. DEIS *supra* note 2, at 45.

85. DEIS *supra* note 2, at 39, 77.

86. Mining Laws, 64 Fed. Reg. 6,422, 6,427 (1999) (to be codified at 43 C.F.R. pt. 3800).

Law or on sensitive lands recognized through FLPMA's land use planning process; (2) any leaching process; and (3) processes using or storing chemicals such as cyanide or sulfuric acid.<sup>87</sup>

The alternative definition for plan-level operations would mirror the Forest Service's (FS) mining regulations. Essentially, the FS decides whether a full plan of operations is required on a case-by-case basis, depending on the proposed activity and the potential for significant disturbance. Thus, casual use operations are exempt from notice, but there would be no acreage threshold for notice and plan-level operations. For all activities exceeding casual use, an operator would have to file a Notice of Intentions which would then be reviewed by BLM to determine whether a plan of operations needed to be filed.<sup>88</sup>

A fourth area of proposed change concerns state-federal coordination. The present regulations allow BLM to enter into agreements with the states to provide for uniform administration and enforcement and to avoid duplication of efforts. In addition to utilizing these agreements, the new regulations would require BLM to defer regulatory authority to a state if the state program is determined to be the equivalent of BLM's standards. However, when there is such a deferral, BLM would be required to approve plan of operation activities and concur with the approval and release of reclamation bonds.<sup>89</sup>

The next area of change, and one that is significant, is that a financial guarantee, usually in the form of a surety bond, would be required for all mining operations except casual use. The bond would have to cover one hundred percent of the reclamation cost, based upon the estimated cost if BLM, through hiring subcontractors, had to reclaim the area according to the reclamation plan. This is an important change from the existing regulations, which do not require any bonding for notice-level operations and plan-level bonds are at the discretion of the BLM state officer. In addition, the proposed regulations would require that all bonds obtained, even through a state agency, must be redeemable by the SOI to ensure that BLM can review a site before releasing the guarantee. Moreover, the new regulations would provide for public comment before the final bond release.<sup>90</sup> Importantly, there is no public comment solicited regarding the proposed amount of notice-level bonds; the proposed regulations do, however, spe-

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87. DEIS *supra* note 2, at 40.

88. DEIS *supra* note 2, at 40. The current FS hard-rock mining regulations are codified at 36 C.F.R. § 228 (1999).

89. DEIS *supra* note 2, at 40-41.

90. DEIS *supra* note 2, at 45.

cifically allow for public comment on the amount of the financial guarantee for plan-level operations.<sup>91</sup>

The fifth major area of proposed change involves inspection and monitoring. BLM's current practice of quarterly inspections of cyanide operations and sites where acid rock drainage could occur would become a requirement. In addition, under certain circumstances, members of the public may participate in inspections.<sup>92</sup>

The last major area of proposed change concerns enforcement. Currently, BLM can issue noncompliance notices, but must obtain injunctions in federal court to halt operations that are not in compliance. The proposed regulations would allow BLM to issue enforcement orders for failing to comply with the notice or plan provided to BLM, or any of the regulations. BLM would now have the authority to issue: suspension orders; immediate suspension orders if necessary to protect health, safety or the environment from imminent harm; and, penalties of up to \$5,000.00 per day for noncompliance with the regulations.<sup>93</sup>

Alternative four, described by BLM as providing the "maximum" environmental protection, essentially builds upon the changes in alternative three. Significant additional measures would include prescriptive design requirements for mining operations, as opposed to the outcome oriented proposed performance standards, mandatory pit backfilling, and elimination of notice-level operations, meaning that plan of operations would have to be filed for all activities except casual use.<sup>94</sup>

Alternative three was chosen as the preferred alternative without much of an explanation in the DEIS. One can speculate, however, that the more stringent requirements of alternative four, which would generally decrease mining activities by twenty to thirty percent,<sup>95</sup> would be too objectionable to the mining industry. Alternative one would be the status quo, and would not be a logical choice given BLM's own statements regarding the problems with the existing regulations. Alternative two would give the states complete regulatory control, which BLM estimated would increase mining activities by five percent and, correspondingly, would increase disturbance to the public lands.

Accordingly, alternative three represents a middle-ground compromise between competing interests. Although charged with preventing unnecessary or undue degradation, BLM recognized that the total acres disturbed per

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91. Proposed 43 C.F.R. § 3809.411(d)(1999).

92. DEIS *supra* note 2, at 45.

93. DEIS *supra* note 2, at 46.

94. DEIS *supra* note 2, at 46-50.

95. DEIS *supra* note 2, at 63 (table 2.3).

year with its preferred alternative would decline only by 5.6 percent (from 12,500 to 11,800). In addition, BLM stated that there would be no appreciable differences between the existing regulations and those in alternative three in the following environmental areas: (1) water quantity; (2) soil quality; (3) revegetation to pre-mining condition; (4) habitat disturbance; and (5) fish and wildlife populations. The DEIS simply states that these areas would receive less impact due to mining because mining activities in general would decrease. Thus, the DEIS does nothing more than state the obvious—if there is five percent less mining, there will be less environmental degradation.<sup>96</sup>

## VI. PUBLIC COMMENT

Public comment for the proposed regulations closed on May 10, 1999. BLM received thousands of comments from the public on the rulemaking; as such, this section will be limited to a review of three areas of comments: (1) those received at a public hearing; (2) those filed by the National Mining Association; and (3) those jointly submitted by several environmental groups.

### *Public Hearings*

BLM conducted public hearings in thirteen states between March and April 1999. As part of the research conducted for this paper, the author attended the public meeting held in Helena, Montana on April 14, 1999. At the meeting, over thirty individuals representing themselves, mining industries and environmental groups provided their comments in two sessions. Indeed, the majority of commentators were individuals involved in small-scale mining operations who were generally opposed to any of the alternatives except alternative one—no action. Although there was much anti-government and anti-Babbitt rhetoric that had little to do with the DEIS—one individual stated, “The last thing we need in this country is more laws . . . I believe that we should just say, hey, no more laws, we don’t want any more of this stuff,”<sup>97</sup>—there were plenty of thoughtful comments from both sides.

Generally, the mining industry commentators expressed the view that the current regulations were adequate to prevent unnecessary or undue degradation. In addition, these individuals argued that BLM did not sufficiently demonstrate a need to alter the regulations.<sup>98</sup> Another dominant theme in-

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96. DEIS *supra* note 2, at 66-75 (table 2.3).

97. Transcript of Public Hearing, “43 C.F.R. Part 3800: Mining Claims Under the General Mining Laws—Surface Management, Proposed Rule,” at 88 (April 14, 1999, Helena, MT) [hereinafter Transcript] (on file with author).

98. See generally Transcript *supra* note 97, at 22-24 (Jill Andrews of Montana Mining Assoc.); 42, 84, 96.

volved the report commissioned by Congress whereby the National Academy of Sciences (NAS) undertook a review of the adequacy of the existing 3809 regulations, with its report due by July 31, 1999.<sup>99</sup> Several commentators felt that BLM should extend its comment period to allow for the report's findings.<sup>100</sup> BLM representatives responded that the proposed rule-making was initiated two years ago and that the NAS report would be incorporated into the final EIS, with the possibility of extending the public comment period.<sup>101</sup>

More specific comments concerned the definition of casual use and involving the public in mine inspections. One commentator suggested that the definition of casual use should include the use of metal detectors, motorized "highbankers" and other motorized equipment that could be hand held. The rationale cited was that these tools could be used and transported by one person and did not degrade the public lands.<sup>102</sup> Finally, one of the regulation proposals that drew the most fire from the industry was the inclusion of the public during inspections. Legitimate concerns were raised about safety, liability, and trade secrets.<sup>103</sup>

Not surprisingly, the environmental advocates testified that the proposed regulations did not go far enough to prevent undue degradation. James Curtis of the Montana Sierra Club argued that the definition of MATPs was subject to varying degrees of interpretation, which would lead to a lack of uniform operating standards. The Sierra Club further took issue with the regulations' performance standards which in many respects utilized the words "minimize" and "where feasible" with respect to environmental impacts (instead of "prevent," which was in the earlier proposed version of the regulations). The Sierra Club also opposed the continuation of the five-acre notice threshold, as a mining operation affecting less than five acres did not necessarily mean that there would be no environmental degradation. Rather, the Sierra Club argued that requiring a plan of operations for all activities except casual use would allow for public participation for these mining activities. Lastly, the Sierra Club objected to the economic feasibility test for backfilling, arguing that backfilling was necessary in all instances to prevent degradation to the environment.<sup>104</sup>

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99. 1998 Omnibus Consolidated and Emergency Supplemental Appropriations Act, Pub. L. No. 105-277, 112 Stat. 2681, § 120(a) (1998).

100. See generally Transcript *supra* note 97, at 5-6, 38, 84.

101. Transcript *supra* note 97, at 85. After the comment period closed, the NAS report was published in October 1999. Congress left no choice for BLM to reopen the comment period—it passed as part of the FY 2000 Budget of the United States Government. See 1999 Emergency Supplemental Appropriations Act, Pub. L. No. 106-31, 113 Stat. 57, § 3002 (1999).

102. Transcript *supra* note 97, at 9; 11 (Allen Corneliusen, Northwest Montana Gold Prospectors).

103. See generally Transcript *supra* note 97, at 7, 10, 69, 81.

104. Transcript *supra* note 97, at 18-22 (Other commentators similarly objected to the five-acre threshold). See Transcript *supra* note 97, at 28-31 (Richard Parks, a fishing outfitter and representing

Montana Environmental Information Center (MEIC) cited the Kendall mine in Montana as an example of how the current regulations did not go far enough to prevent ground and surface water contamination. The specific problem cited was that the reclamation plan approved by BLM for Kendall did not include a final reclamation provision for water quality. When faced with state court litigation, the operators finally took measures, but instead of treating the water, they literally pumped millions of gallons out of the ground in order to evaporate the water and precipitate out the contaminants. The result was that wells and streams ran dry.<sup>105</sup>

The Northern Plains Resource Council (NPRC) argued against the provision in the regulations that allowed for corporate self-bonding. Rather, operators should be required to post a bond that involves a third-party performing the reclamation, as companies can go bankrupt. NPRC further argued against the provision that toxic cyanide open leach pits could be placed on public lands outside the mine claim and mill sites.<sup>106</sup>

#### *National Mining Association's Comments*

The National Mining Association (NMA) submitted its comments on May 10, 1999. NMA had more than seventy specific objections to the proposed regulations in its one hundred and twentypage submission. Accordingly, only NMA's primary objections will be discussed.

In general, NMA opposed any further regulations, citing the mining industry's \$524 million contribution to the national economy in 1995, and taking the position that any BLM regulations should "maximize access" for mineral activities on the public lands.<sup>107</sup> NMA's primary objection is that BLM did not identify any need to revise the regulations, stating that the current ones have the hallmarks of "flexibility and reasonableness—characteristics that have served the mining industry, BLM and the public well in assuring that our Nation's resources are developed in an economically and environmentally sound manner."<sup>108</sup> Indeed, the only area cited by NMA that needed adjustment was the bonding requirement for notice-level operations.<sup>109</sup>

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Bear Creek Council) (Mr. Parks further testified that as a fishing outfitter, his business was negatively affected by mining related contamination of Montana's streams and rivers).

105. Transcript *supra* note 97, at 44-47 (James Jensen).

106. Transcript *supra* note 97, at 33-38 (Julia Page). (Citizens not representing larger groups provided comments concerning how the present mining practices destroy wildlife habitat and harm agriculture lands). See Transcript *supra* note 97, at 14-16 (Steve Gilbert, wildlife biologist); *Id.* at 31-33 (Dan Tiegen, farmer and rancher).

107. National Mining Association, *Comments of the National Mining Association*, at 2 (May 10, 1990) [hereinafter NMA Comments].

108. NMA Comments *supra* note 107, at 6, 1-5.

109. *Id.* at 5. (However, NMA opposes public comment on financial guarantees, continuing liability after the release of a guarantee and guarantee forfeiture for noncompliance). *Id.* at 41, 59, 61.

NMA also lodged a procedural objection regarding extending the comment period for all stakeholders to have the opportunity to analyze the NAS study commissioned by Congress. NMA accused BLM of not waiting for the study's results because BLM had already decided the outcome of the rulemaking, despite what evidence to the contrary might be revealed in the NAS report.<sup>110</sup>

As to specific portions of the rulemaking, NMA objected to extending 3809 coverage to Stock-Raising Homestead Laws, as there are separate regulations covering these areas. NMA further objected to the definitions of "casual use," "minimize," "mitigation," "unnecessary or undue degradation," and "MATPs," in that they allow BLM too much discretion to preclude certain mining activities.<sup>111</sup> Another objection was lodged against the special regulatory treatment for riparian areas, as these areas may be covered by the Clean Water Act.<sup>112</sup> Additional objections included: (1) per se plan of operations status when certain chemicals are used or special areas are involved; (2) that the regulations in effect preempted state laws; (3) a fear that MATPs will result in de facto design (as opposed to outcome) performance measures; (4) reclamation requirements for land stability, grading and pit filling; (5) allowing the public on inspections; and (6) BLM's enhanced enforcement authority.<sup>113</sup>

### *Environmental Community's Comments*

A not uncommon phenomenon in the NEPA process is that no group is satisfied with the proposed rulemaking. The proposed 3809 regulations are certainly no exception. Four leading environmental groups, led by the Mineral Policy Center (MPC), filed their sixty-three pages of comments on May 10, 1999. MPC applauded BLM's extension of bonding to notice-level operations and the emphasis on public participation, but criticized the rulemaking in five key areas: (1) expanding the Mining Law to nonclaimed lands; (2) failing to define "unnecessary or undue degradation," (3) including economic feasibility as the determining factor in performance standards; (4) allowing self-bonding; and (5) permitting discretionary enforcement.<sup>114</sup>

MPC's argument that BLM has exceeded its authority by expanding the 1872 Mining Law to "nonclaimed" lands is complex—indeed, nineteen pages alone are spent on this subject. The DEIS states that, "the Mining Law does not require operators to have a mining claim or mill site before

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110. *Id.* at 3, 8.

111. *Id.* at 23-27.

112. *Id.* at 30.

113. NMA Comments *supra* note 107, at 31-32, 35, 43, 52-55, 62, 63-67.

114. Center for Science in Public Participation, Mineral Policy Center, Western Mining Action Project, Western Organization of Resource Councils, *3809 Comments*, at 1-3 (May 10, 1999) [hereinafter MPC Comments]. (on file with author).

conducting operations on BLM lands. If the lands are open to locatable mineral activity under the Mining Law, operators do not need a mining claim to conduct operations.”<sup>115</sup> MPC contends that this position is contradicted by federal law, on the basis that a valid mining claim has been uniformly interpreted to require both the discovery *and* location of a valuable mineral deposit.

The problem in this area of contention is that the current regulations impose no duty on the BLM to certify the validity of a mining claim—notice or plan level—as part of its review process (which is primarily focused on the adequacy of reclamation plans, bonding, etc.). As such, BLM, which is charged in FLPMA with preventing unnecessary or undue degradation, might allow mining operations to go forward that are invalid, and hence, illegal. MPC argues that this necessarily will result in undue degradation.<sup>116</sup>

MPC’s second argument is that the regulations focus on unnecessary degradation, without providing specific guidelines for FLPMA’s second requirement, that there be no “undue” degradation. In essence, MPC contends that some mining activities might, because of the available technology, inflict “necessary” degradation, but nevertheless cause “undue” harm where “activities [] involve too great a sacrifice of collective values for too little societal gain.”<sup>117</sup> Thus, in some instances, where a proposed notice or plan-level operation is outweighed by particular environmental, cultural, historical or religious concerns, BLM should have the authority to prevent the operations on the “undue” degradation basis.

MPC’s third major objection is that the performance standards allow exceptions such as “where practicable” and “not economically feasible.” Part of the problem cited is BLM’s proposed definition of “minimize” which does not mean “reduce to a minimum”—i.e., its everyday meaning—but rather, is defined as reducing the impact of a particular operation to the “lowest practical level.”<sup>118</sup> In addition, in areas such as wetland and riparian areas and revegetation requirements, the inclusion of the words “where feasible” and “to the extent feasible” allow economic concerns to outweigh the statutory charge of preventing environmental degradation. Regarding back-filling, MPC objects to any exception that considers economic feasibility; this would in effect allow the “mining industry to destroy a portion of the public lands for a single use” in violation of FLPMA’s multiple use mandate.<sup>119</sup>

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115. DEIS *supra* note 2, at 30.

116. MPC Comments *supra* note 114, at 9-13.

117. MPC Comments *supra* note 114, at 55 (citation omitted).

118. *Id.* at 28.

119. *Id.* at 41. See generally MPC Comments *supra* note 114, at 28-41.



MPC's fourth major objection is allowing corporations to post their own guarantees as a sufficient bond. This argument essentially maintains that bonding monies should be posted with and held by third parties; if the corporations are allowed to hold the capital required for reclamation, there is too great a likelihood that operators who do not have enough money to perform reclamation will also not be left with the money to honor their corporate guarantee.<sup>120</sup>

MPC's fifth objection is that the enforcement provisions are replete with discretionary words such as "may." MPC argues that these sections will have no practical effect in that there will be a natural tendency of BLM agency officials to use this discretion too liberally "to try and work things out," whereas mandatory penalties would force operators in violation of the regulations into compliance.<sup>121</sup>

## VII. NATIONAL ACADEMY OF SCIENCES REPORT

In 1998, Congress commissioned the National Academy of Sciences to review the adequacy of the existing 3809 regulations in terms of preventing unnecessary or undue degradation.<sup>122</sup> Indeed, several of the negative comments from the mining industry concerning the DEIS concerned the lack of having the benefit of the study's conclusions to address any need for reform.<sup>123</sup> The voice of the mining industry was heard by Congress that enacted legislation requiring BLM to reopen the comment period after the study was released.<sup>124</sup> The NAS findings were completed in October 1999 and the comment period was extended for one hundred and twenty days to February 23, 2000.<sup>125</sup>

### *NRC Report and Conclusions*

The Natural Academy of Sciences (NAS) through the National Research Council (NRC) appointed the Committee on Hard-rock Mining on Federal Lands in January of 1999. The NRC Committee was charged with assessing the adequacy of existing statutes and regulations to prevent unnecessary or undue degradation of the federal lands.<sup>126</sup> Indeed, the NRC Committee had no less than sixteen recommendations and conclusions regarding the adequacy of BLM's existing regulations, many of which called

120. *Id.* at 46.

121. MPC Comments *supra* note 114, at 49-53.

122. 1998 Omnibus Consolidated and Emergency Supplemental Appropriations Act, Pub. L. No. 105-277, 112 Stat. 2681, § 120(a) (1998).

123. See generally *supra* notes 99-101, 110 and accompanying text.

124. See 1999 Emergency Supplemental Appropriations Act, Pub. L. No. 106-31, 113 Stat. 57, § 3002 (1999).

125. BLM Supplemental Proposed Rule: Reopening of Comment Period on Draft Environmental Impact Statement, Mining Claims, 64 Fed. Reg. 57,613-19 (1999).

126. Natural Resource Council, *Hardrock Mining on Federal Lands*, at Chaper 2 (Oct. 1999), available at [http://books.nap.edu/html/hardrock\\_fed\\_land.html](http://books.nap.edu/html/hardrock_fed_land.html) [hereinafter NRC, Hardrock Mining].

for stronger environmental protection. As the full report is over two hundred and fifty pages in length, only the significant findings will be discussed.

First, the Committee observed numerous examples of undue degradation of the federal lands due to inadequate reclamation bonding. The Committee, consistent with the proposed 3809 regulations, recommended adequate bonding for all activities beyond casual use.<sup>127</sup> The Committee, however, suggested "standard bond amounts" for certain types of activities, whereas the proposed 3809 regulations based bonding upon projected reclamation costs for each project. Accordingly, BLM sought additional comments on this issue, and particularly, how the "standard" amounts would be set.<sup>128</sup>

Second, in a major departure from the proposed regulations, the Committee observed numerous examples of notice-level activities that caused undue environmental harm. As such, the Committee recommended that all activities beyond exploration require a plan of operations to ensure that potential environmental impacts are considered and that the lands will be reclaimed after the mines and mills close.<sup>129</sup> The proposed regulations had two alternatives on this point: One which mirrored the FS' regulation requiring a plan of operations when there is a significant disturbance of surface resources; the other which required no plan of operations for activities affecting less than five acres unless certain chemical leaching techniques are used. Accordingly, BLM requested comments on this NRC recommendation, which would require plans of operations for all operations save those limited to exploration.<sup>130</sup>

Third, the Committee recommended that BLM and the FS revise their regulations to define when mines should be considered temporarily closed, when temporarily closed mines should be considered permanently closed and requiring interim management plans for temporary closures. NRC justified this recommendation on recent mine closures due to market fluctuations; in many cases, the lack of interim management for extended periods of closure leads to environmental harms and at some point, the lack of mining should be a de facto closure of the mine such that reclamation can commence.<sup>131</sup> BLM opened the comment period on the issues of temporary closure, interim management plans and permanent closure standards.<sup>132</sup>

Fourth, the NRC Committee recommended that BLM have the author-

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127. NRC, *Hardrock Mining* at Chapter 4.

128. *Mining Claims*, 64 Fed. Reg. 57,613, 57,615 (1999).

129. NRC, *Hardrock Mining* at Chapter 4.

130. *Mining Claims*, 64 Fed. Reg. 57,613, 57,615 (1999).

131. NRC, *Hardrock Mining* at Chapter 4.

132. *Mining Claims*, 64 Fed. Reg. 57,613, 57,616 (1999).

ity to mete out administrative enforcement penalties, as the only current enforcement mechanism available to BLM is seeking a court injunction.<sup>133</sup> BLM's proposed regulations do have provisions for administrative penalties, but importantly, they are not mandatory.<sup>134</sup> The Committee did not address the discretionary nature of penalties.

Fifth, the Committee recommended that BLM and the FS use performance based standards rather than "rigid, technically prescriptive" standards.<sup>135</sup> NEPA processes that address each project as site-specific would allow for changing technology and the recognition that some technologies, while feasible, may be inappropriate depending on unique site characteristics. BLM did not, for reasons unknown, request for comment on this proposal, although it directly conflicts with BLM's Most Appropriate Technology and Practices (MATPs). While "most appropriate" does allow for some flexibility in technology and practices that may be used, it does not include a component of performance standards. Rather, a MATP is one that is either "proven or reasonably expected to be effective in a particular region or location."<sup>136</sup> "Effective" presumably means feasible in that area, without regard to whether it may cause undue environmental harm.

#### VIII. CONCLUSION: PREVENTING OR ALLOWING UNNECESSARY OR UNDUE DEGRADATION?

In enacting FLPMA in 1976, Congress not only charged the Secretary of Interior to prevent undue or unnecessary degradation, but also included a requirement that in all land-use plans, the Secretary "shall": use and observe the principles of multiple use; consider present *and* potential uses of public lands; and weigh long-term benefits to the public against short-term gains.<sup>137</sup> When calling for environmental reform, one must recognize the importance of mineral resources to our nation's economy; indeed, there is no question that the mining industry is a vital component to the United State's fiscal well-being.

Nonetheless, the congressional mandate in FLPMA regarding environmental degradation is not a suggestion; rather, the statute clearly says "shall." Indeed, the General Accounting Office made it clear that the Secretary's initial regulations for hard-rock mining came far short of FLPMA's requirements. The examples of mining abuses, unfortunately, do not end with the 1980 reports. In 1999, for example, Friends of the Earth reported that there were more than 550,000 abandoned mines in 32 states, many of

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133. NRC, *Hardrock Mining* at Chapter 4.

134. Proposed 43 C.F.R. § 3809.334, 424 (1999).

135. NRC, *Hardrock Mining* at Chapter 4.

136. Proposed 43 C.F.R. § 3809.5 (1999).

137. 43 U.S.C. § 1712(c)(1), (5), (7) (1994).

which are on the Superfund priority list, with estimated cleanup in the billions of dollars.<sup>138</sup>

Importantly, BLM did take important measures in the current revisions to the 3809 regulations to curb some of the problems. Bonding will now be required for all mining activities, save casual use. Certain mining activities that utilize toxic chemicals and activities occurring in environmentally sensitive areas, will all require plans of operations to be filed, regardless of the acreage affected. In addition, more public participation in various stages of the mining process will provide for the public being able to oversee activities that affect public, meaning the entire country's, lands.

As in most natural resource debates, the issue invariably boils down to how we define the public interest. Local miners and regional mining companies have economic interests that are often in direct conflict with the larger national public sentiment. Although BLM should be praised for its proactive attempt to reform the regulations when Congress failed to overhaul the antiquated Mining Law of 1872, unfortunately, the proposed regulations fall short of FLPMA's mandatory duty to prevent unnecessary or undue degradation in several key areas.

First, even the mining industry bill that passed the senate in 1993 recognized the arbitrariness of the five-acre definition for notice-level operations—yet BLM still clings to this threshold. Importantly, even the NRC Committee recommends abandoning this arbitrary distinction and requiring plans of operations for all mining activities except exploration. Given that over three-fourths (seventy-seven percent) of all hard-rock mining on public lands is notice-level, this is a major area of concern. By requiring a plan of operations for *any* mining activity that is more than casual use, the public, which after all is, and should be, concerned with environmental degradation to its lands, would have an opportunity to participate in key elements of BLM's review process. Discarding the notice-level exemption would involve the public in not only the release of a reclamation bond, but also—perhaps just as critical—in commenting on the amount of the bond in the first place. Given the reported abuses of reclamation from both government and environmental watch-dog groups concerning inadequate reclamation that affects not only public lands but also water and habitat quality on state and private lands, the public should be given a voice in what the actual reclamation bond should cover. This is particularly significant given that the BLM dropped its proposed requirement during the two-year scoping process that an independent “third-party professional engineer” verify that particular bond amounts would be sufficient for proper reclamation.

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138. Brian Dunkiel, et al, *Sharing the Wealth*, E MAGAZINE (March/April 1999).

A second shortcoming is the regulations' repeated fall-back position concerning performance standards that abandons certain reclamation requirements when determined "impractical" or "economically infeasible." It is not, and should not be, the BLM's role to ensure profit margins for the mining industry. It is noteworthy that BLM did not address in reopening the comment period the NRC Committee recommendation for performance and not rigid, technologically driven standards. Obviously, some mining practices, as recognized by Congress, will involve "necessary" degradation. However, when unfilled mining pits remain exposed, causing erosion, acid rock drainage and water pollution problems—which the current regulations would allow—the degradation in many instances is "undue." "Economic feasibility" in plain and simple terms unjustifiably allows horrible environmental hazards to occur, simply because they may affect the bottom line of a company—which, we must keep in mind, is paying no royalties for billions of dollars of extracted minerals.

Third, pursuant to FLPMA, BLM is the lead (and only) agency to protect the public lands from undue degradation. The proposed regulations lump "unnecessary" and "undue" together, and do not recognize an important distinction. For example, while a mining plan of operations may cause "necessary" degradation, it may nonetheless still be "undue" in terms of other affected uses and the feasibility of adequate and full reclamation. Importantly, the Department of Interior Board of Land of Appeals has held that "[i]f unnecessary or undue degradation cannot be prevented by mitigating measures, BLM is required to deny approval of the plan."<sup>139</sup>

Undue degradation is also caused when mining occurs based upon an invalid claim. BLM must incorporate into its review process a procedure to verify the validity of all claims, *prior* to commencement of operations. A corollary here is the GAO study reflecting thousands of illegal claims staked on withdrawn lands due to poor BLM screening. Regarding claim validity, BLM is the sole agency to prevent invalid mining operations and the failure to do so must automatically result in undue degradation. It is axiomatic that any invalid mining claim will necessarily cause undue degradation—as in such circumstances there would be no right under the Mining Law to mine in any fashion.

Finally, the BLM has had discretionary enforcement authority since the 3809 regulations were first enacted in 1980. The GAO reported that this discretion weighed in favor of mining concerns to the detriment of our natural environment. Nineteen years later, it is time to make enforcement mandatory. Accordingly, the proposed regulations fall far short of preventing

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139. *Department of the Navy*, 108 IBLA 334, 336 (1989). See also *Kendall's Concerned Area Residents*, 129 IBLA 130, 140 (1994).

unnecessary or undue degradation by allowing discretionary enforcement when it is, in practice, rarely exercised.

Attending the public comment meeting in Helena, Montana highlighted both the industry's and the environmental community's distrust of the federal government and the mutual distrust between the two groups themselves. Hard-rock mining will no doubt continue in the U.S. The issue then necessarily turns to how BLM will reconcile industry concerns with the interests of the nation at large. Short-term gains must not out-weigh long-term benefits. Allowing the public to participate in mining inspections will hopefully lead to all stakeholders initiating building blocks of trust. In that spirit, the proposed regulations should also involve the public in the NEPA process for the majority of mining activities by eradicating the notice-level exemption. In addition, must provide for the mandatory enforcement of the very rules BLM has proposed to prevent unnecessary or undue environmental degradation.