Congressional Research Service
Informing the legislative debate since 1914

The U.S. Mining Industry and the *Rosemont* Decision

August 26, 2024

Congressional Research Service
https://crsreports.congress.gov
R48166

CRS REPORT
Prepared for Members and
Committees of Congress

Congressional Research Service
Informing the legislative debate since 1914

SUMMARY

R48166

August 26, 2024

Emma Kaboli
Analyst in Energy Policy

Adam Vann
Legislative Attorney

The U.S. Mining Industry and the *Rosemont* Decision

The General Mining Act of 1872 (Mining Act) formed the bedrock of U.S. mining policy during westward expansion in the 19th century. The law remains in effect. Among other provisions, it allows parties to explore for and mine *hardrock* minerals—such as gold, silver, copper, iron, and lead—on federal lands without specific authorization from the federal government. Upon discovery of a deposit of specified materials, parties may file a claim with the government and begin the process for approval and permitting of production.

The scale of modern mining operations is significantly larger than that of the 1800s. With these changes, new laws have been enacted to address certain subsets of mining and extraction activities on federal lands, including coal, oil, and natural gas extraction; gravel and sand materials sales; and reclamation of lands used for energy extraction. However, the core provisions of the Mining Act—which have remained generally unchanged since its enactment more than 150 years ago—continue to guide hardrock mineral exploration and production on federal lands.

A 2022 ruling from the U.S. Court of Appeals for the Ninth Circuit related to the proposed Rosemont Copper Mine in Arizona contributed to renewed attention to this framework. In the *Rosemont* case, a number of parties challenged the proposed use of certain "claimed" federal lands to deposit waste from mining operations. Despite assertions from the mining company that using federal land to deposit mining waste was a long-standing practice generally allowed by the Bureau of Land Management, the court found that this was not a viable use of the claimed land under the Mining Act, noting that the Act allows parties to obtain a different type of claim for mining waste.

Responses to the decision have been varied. Some mining industry advocates assert that the newfound uncertainty over how to manage waste from mining operations on federal lands will increase waste disposal costs and limit production. Some environmental groups and other stakeholders contend that the Mining Act was never intended to authorize large-scale operations such as the proposed Rosemont operations and that increased federal oversight of hardrock mining operations is long overdue. A number of stakeholders have proposed a variety of amendments to the Mining Act and federal mining regulation more broadly. This has occurred within the context of increased attention to the mining industry at large, brought on by the influx of interest and investment in the market for critical minerals and materials.

Congress has considered, and may further consider, a range of potential issues related to mining and mineral policy, including but not limited to mining waste disposal on federal lands that was at the center of the *Rosemont* dispute. Some Members in the 118th Congress have introduced legislation to amend the Mining Act, including the Mining Regulatory Clarity Act (H.R. 2925 and S. 1281) and the Clean Energy Minerals Reform Act of 2023 (H.R. 3495 and S. 1742). Both of these bills address the mining waste storage issue raised in *Rosemont*, among other things.

Contents

Figures

Contacts

Introduction

Since settlers migrated west during the 19th-century California gold rush, hardrock mining has been an important part of the United States' history and economic development. Hardrock mining is a complex process conducted in various stages, as detailed in **Figure 1** below. Mining is a necessary process for extracting minerals from the earth, which are essential for applications across industries including health care,[1] defense,[2] energy,[3] and more.[4] Mining is also a resource-intensive process that may cause environmental damage and raise health concerns.[5] Mining on federal lands raises additional concerns related to the sharing of natural resources and stewardship of public lands. Over time, Congress has considered and enacted legislation to address mining development on lands owned or managed by the federal government. One of these laws, the General Mining Act of 1872 (Mining Act), forms the bedrock of U.S. mining policy on federal lands.[6]

Since the enactment of the Mining Act, subsequent laws have addressed mining and extraction of a variety of resources from federal lands, including but not limited to coal, oil, and natural gas.[7] Certain minerals regulated by these other laws—including energy leasable minerals such as oil, natural gas, and coal and non-energy leasable minerals such as phosphate, sodium, potassium, sulfur, and gilsonite—are subject to royalty fees paid to the federal government.[8] Congress has also enacted other laws aimed at protecting natural and cultural resources, which may apply to hardrock mining on federal lands.[9] However, the core provisions of the Mining Act—which have remained generally unchanged since its enactment more than 150 years ago—continue to generally guide hardrock mineral exploration and production on federal lands.

[1] National Mining Association, *Minerals in the Medical Supply Chain*, https://nma.org/minerals-in-the-medical-supply-chain/.

[2] Gregory D. Wischer, *Industry Perspective: U.S. Needs Industrial Policy for Critical Minerals*, National Defense Magazine (Feb. 14, 2023), https://www.nationaldefensemagazine.org/articles/2023/2/14/us-needs-industrial-policy-for-critical-minerals.

[3] U.S. DEP'T OF ENERGY, CRITICAL MATERIALS ASSESSMENT (2023), https://www.energy.gov/sites/default/files/2023-07/doe-critical-material-assessment_07312023.pdf.

[4] U.S. Geological Survey, *How many pounds of minerals are needed for each person in the U.S. per year?*, https://www.usgs.gov/faqs/how-many-pounds-minerals-are-required-average-person-a-year?qt-news_science_products=7#qt-news_science_products.

[5] American Geosciences Institute, *Metal Mining and the Environment* (Oct. 1999), https://www.americangeosciences.org/sites/default/files/metalenvfull.pdf.

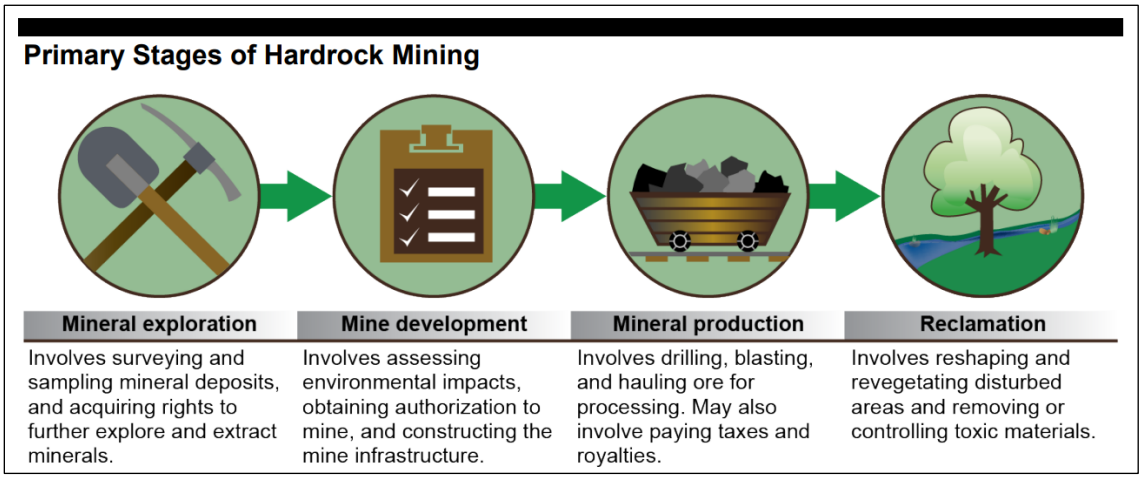
[6] Act of May 10, 1872, ch. 152, § 1, 17 Stat. 91 (codified at 30 U.S.C. §§ 21–54).

[7] Mineral Leasing Act of 1920, Pub. L. No. 66-146, 41 Stat. 437 (codified at 30 U.S.C. §§ 181–196); Mineral Materials Act of 1947, 61 Stat. 681 (codified at 30 U.S.C. §§ 601-615);

[8] BLM, *About Mining and Minerals*, https://www.blm.gov/programs/energy-and-minerals/mining-and-minerals/about (last visited Aug. 1, 2024).

[9] *E.g.*, National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852 (codified as amended at 42 U.S.C. §§ 4321 et seq.); the Endangered Species Act of 1973, Pub. L. No. 93-205, 87 Stat. 884 (codified as amended at 16 U.S.C. §§ 1531–1544); National Historic Preservation Act of 1966, Pub. L. No. 89-665, 80 Stat. 915 (codified as amended at 54 U.S.C. §§ 300101 et seq.); Clean Water Act, Pub. L. No. 92-500, 86 Stat. 816 (codified as amended at 33 U.S.C. §§ 1251–1387); Clean Air Act, Pub. L. No. 88-206, 77 Stat. 392 (codified as amended at 42 U.S.C. §§ 7401–7671); Federal Land Policy and Management Act (FLPMA), Pub. L. No. 94-579 (codified as amended at 43 U.S.C. ch. 35); National Forest Management Act, Pub. L. No. 101-630 (codified as amended at 16 U.S.C. §§1600 et seq.).

Figure 1. Hardrock Mining Process



Source: U.S. GOV'T ACCOUNTABILITY OFF., GAO-21-298, HARDROCK MINING MANAGEMENT: SELECTED COUNTRIES, U.S. STATES, AND TRIBES HAVE DIFFERENT GOVERNANCE STRUCTURES BUT PRIMARILY USE LEASING 9 fig. 1 (2021).

One issue that has risen to the forefront of the mining policy debate regarding environmental concerns, public lands usage, and economically viable mining operations is how to dispose of the waste generated from mining on federal lands. A 2022 decision in the U.S. Court of Appeals for the Ninth Circuit (Ninth Circuit), *Center for Biological Diversity v. U.S. Fish & Wildlife Service* (the *Rosemont* decision)—related to the Rosemont Copper Mine in Arizona—challenged industry practice with respect to the handling of mining waste on federal lands.[10]

In *Rosemont*, both the district court and the circuit court found that large-scale mining operations could not rely on certain types of claims under the Mining Act to use federal land for storage of such waste.[11] At issue in the case was whether the Rosemont copper mining operations could deposit waste from a mining operation on a separate lode mining claim the company had asserted pursuant to the Mining Act. The Ninth Circuit found that a lode mining claim unsupported by locatable minerals could not be used for disposal of mining waste and determined that mill site claims were more appropriate means for establishing a mining waste disposal site under the Mining Act.[12]

Stakeholder responses to the Ninth Circuit's ruling have varied. Some mining industry advocates have asserted that the ruling will undermine the domestic mining industry, "destabiliz[ing] the careful balance required between the vital need for responsible domestic mineral development and the preservation of certain federal lands."[13] Some environmental groups and other stakeholders have welcomed the decision, claiming that increased regulation of mining operations is long overdue and that the "ecological cost of mining is far greater than any of the benefits that might accrue for the American people."[14] The decision has caused uncertainty in waste disposal

[10] Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv., 409 F. Supp. 3d 738, 747–48 (D. Ariz. 2019), *aff'd*, 33 F.4th 1202 (9th Cir. 2022) (hereinafter *Rosemont*).

[11] *Rosemont*, 33 F.4th 1213–14.

[12] *Id.* at 1217. In a basic sense, lode claims contain mineral deposits while mill claims do not. This is discussed in greater detail below.

[13] National Mining Association, *NMA Statement on 9th Circuit Decision Regarding Proposed Rosemont Mine* (May 12, 2022), https://nma.org/2022/05/12/nma-statement-on-9th-circuit-decision-regarding-proposed-rosemont-mine/.

[14] *Mining*, CTR. FOR BIOLOGICAL DIVERSITY, https://www.biologicaldiversity.org/programs/public_lands/mining/ (last visited June 21, 2024).

best practices for an industry that has not faced major policy shifts in decades. The *Rosemont* decision has brought increased scrutiny to the mining industry, which has received increased attention in recent years in part due to a policy focus on supply chains of critical minerals and materials.[15] The Biden Administration convened an interagency working group to broadly evaluate the Mining Act as it relates to issues such as permitting, royalties, and other potential reforms.[16] The working group published its final report in September 2023.[17]

This report provides an overview of the Mining Act and the mining industry prior to the *Rosemont* decision. It also discusses the litigation surrounding the Rosemont mine and analyzes the potential impacts of the court's decision on the hardrock mining industry. The report concludes with considerations for Congress related to the *Rosemont* decision and the Mining Act more broadly.

The General Mining Act of 1872

During the 19th century, Congress sought to incentivize westward migration and mineral production on federal lands through the Mining Act. Pursuant to this law, mineral deposits on federal lands were declared to be "open to exploration and purchase, and the lands in which they are found to occupation and purchase, by citizens of the United States."[18] The law remains in effect, and the federal government has continued to allow private parties to assert "the right to develop and extract" minerals through exploration and production on federal lands.[19]

The Mining Act established the "claim and patent" system.[20] Under this system, eligible parties are permitted to stake "claims" for tracts of land in certain public lands owned by the federal government upon discovery of deposits of designated minerals. This process is also called "location."[21] The federal government recognizes multiple different types of claims that can be located on land under its purview. These include *lode claims* (claims on mineral lodes or deposits with well-defined boundaries) and *placer claims* (claims on mineral deposits that do not qualify as lode claims).[22] The party pursuing the claim must file a *notice of location* of a claim with the applicable district office and any state or local offices that require it.[23] The Mining Act provides that there is no limit on the number of claims a person can locate[24] or how long one may hold a particular claim.[25] In addition, the production of locatable (or hardrock) minerals can take place

[15] Melissa Barbanell, *Overcoming Critical Mineral Shortages Is Key to Achieving US Climate Goals*, World Resources Institute (May 3, 2023), https://www.wri.org/insights/critical-minerals-us-climate-goals.

[16] U.S. Department of the Interior, *Interior Department Launches Interagency Working Group on Mining Reform* (Feb. 22, 2022), https://www.doi.gov/pressreleases/interior-department-launches-interagency-working-group-mining-reform.

[17] INTERAGENCY WORKING GRP. ON MINING LAWS, REGULS. & PERMITTING, RECOMMENDATIONS TO IMPROVE MINING ON PUBLIC LANDS (2023), https://www.doi.gov/sites/doi.gov/files/mriwg-report-final-508.pdf (hereinafter INTERAGENCY RECOMMENDATIONS).

[18] 30 U.S.C. § 22.

[19] See BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, MINING CLAIMS AND SITES ON FEDERAL LANDS 12 (2011), https://www.blm.gov/sites/blm.gov/files/MiningClaims.pdf (hereinafter MINING CLAIMS AND SITES ON FEDERAL LANDS).

[20] *Id.*

[21] 30 U.S.C. § 26.

[22] 43 C.F.R. §§ 3832.20–3832.22 (2024).

[23] *Id.* §§ 3832.11, 3832.21.

[24] *Id.*

[25] INTERAGENCY RECOMMENDATIONS, *supra* note 17, at 37.

without royalty payments to the federal government.[26] Under the Mining Act, companies may use federal land for mining so long as they pay the nominal fees to record and maintain mining claims.[27] According to the U.S. Government Accountability Office (GAO), while there are no royalties for locatable minerals on federal lands, states may impose royalties on locatable minerals on federal lands within their borders.[28]

Not all lands owned by the federal government are available for location and claims under the Mining Act. Certain federal lands have been withdrawn from operation of the mining laws by legislation or administrative actions and therefore are ineligible for location under the Mining Act.[29] Two federal agencies generally administer the lands that are available for claims under the Mining Act: the Department of the Interior (DOI) via the Bureau of Land Management (BLM) and the Department of Agriculture via the U.S. Forest Service (FS).[30] Among other things, these two agencies are charged with managing the federal lands upon which parties may pursue mining claims under the Mining Act.[31] In the case of *Rosemont*, the copper mine in question is located on FS land.[32]

Mining claims may be *patented* or *unpatented*. In the case of a patented claim, full title for both surface and minerals rights are transferred to the claimant upon payment of the appropriate fee.[33] This process allows for federal land to be transferred to private ownership. However, each year since FY1995, Congress has imposed a general moratorium in Interior appropriations laws on spending funds to accept and process applications for mineral patents under the general mining laws.[34] A claimant with an unpatented claim has rights to explore and extract minerals within the claim but has no ownership right to the land itself.[35] Unpatented claims under the Mining Act do not require federal approval.[36] An unpatented claim may also be the basis for a "valid existing right" that would generally be protected against future legislative or administrative withdrawals of the land from mineral location and leasing. Whether an unpatented claim would constitute a valid existing right is determined on a case-by-case basis.[37]

---

[26] *Id.* at 39.

[27] 30 U.S.C. §§ 28–28e; 43 U.S.C. § 1744(a), (c). In 2024, BLM issued a final rule to adjust the location and maintenance fees. Under this rule, the location fee is $49 and the maintenance fee is $200 per lode mining claim or site and $200 for each 20 acres or portion thereof for placer mining claims. This reflects a 22.1% increase over the fees established in the previous 2019 rulemaking. *See* 89 Fed. Reg. 54364; 43 CFR 3830.

[28] Government Accountability Office, Hardrock Mining: Updated Information on State Royalties and Taxes, B-330854, 2019 WL 3252186 (Comp. Gen. July 16, 2019).

[29] CRS Report R42346, *Federal Land Ownership: Overview and Data*, by Carol Hardy Vincent and Laura A. Hanson.

[30] *Id.*

[31] INTERAGENCY RECOMMENDATIONS, *supra* note 17, at 37.

[32] *Rosemont*, 33 F.4th at 1207.

[33] 30 U.S.C. § 29.

[34] *See, e.g.*, Department of the Interior and Related Agencies Appropriations Act of 1995, Pub. L. No. 103-332, § 112, 108 Stat. 2499, 2519 (1994); Consolidated Appropriations Act, 2024, Pub. L. No. 118-42, div. E, tit. IV, § 404.

[35] 30 U.S.C. § 26.

[36] In a statement to the House Natural Resources Committee Subcommittee on Energy and Mineral Resources, Steve Feldgus, Deputy Assistant Secretary for Land and Minerals Management at DOI, stated that "the BLM is responsible for recording and adjudicating mining claims made on Federal lands. The BLM is also responsible for conducting mineral examinations to determine if the mining claim is a valid existing right under the Mining Law." U.S. Congress, House Natural Resources, Subcommittee on Energy and Mineral Resources, *Reforming the Mining Law of 1872*, Written Statement, 117th Cong., 2nd sess., May 12, 2022.

[37] For information on legislative withdrawals of federal land from mineral entry and protections for "valid existing rights," *see* CRS Report R46657, *Withdrawal of Federal Lands: Analysis of a Common Legislated Withdrawal Provision*, by Carol Hardy Vincent and Erin H. Ward (2021).

BLM regulations also authorize parties to stake out "mill sites" and "tunnel sites."[38] A *mill site* is a "location of nonmineral land not contiguous to a vein or lode that [parties holding a claim] can use for activities reasonably incident to mineral development on, or production from, the unpatented or patented lode or placer claim with which it is associated."[39] A *tunnel site* is a "subsurface right-of-way under Federal land open to mineral entry" that can be used to access lode mining claims and to explore for blind or undiscovered deposits.[40]

Mining on Federal Lands: Policy and Practice

While the provisions of the Mining Act have not substantively changed since it was enacted, their application to the mining industry and how they are implemented has evolved over time through agency regulations and policies and industry practice. Federal agencies—primarily BLM and FS—implement and oversee the regulation of mining on federal lands. Both BLM and FS approval processes for hardrock mining activities begin with assessment of a company's mine plan of operation (MPO) for a claimed site.[41] The process of approving an MPO and evaluating environmental impacts allows the agency and the mining company to consider the logistics of the planned mining operations and the long-term impacts of the proposed activity.

Agency Approval and Oversight

BLM and FS oversee the approval of MPOs for claims on lands they administer. MPOs, and agency approval of them, must comply with any relevant laws and agency regulations. While BLM is responsible for managing the subsurface minerals on both public and FS lands, by interdepartmental agreement, FS shares in the administration of mining laws on National Forest System lands.[42] FS also implements its own regulations for surface-level activities. The *Rosemont* mine was located on FS land and so must comply with applicable FS and BLM regulations.[43] In *Rosemont*, the mining company's MPO proposed unpatented lode mining claims to dispose of the waste from the copper mine.

For a lode or placer claim to be valid—thus giving the claimant rights against the United States and protecting the claim from future withdrawals—it must contain mineral deposits.[44] Claims found by BLM or federal courts to lack discovery of valuable mineral deposits are generally declared to be null and void.[45] Claims may be evaluated by BLM through a validity determination or challenged by BLM or, under certain conditions, by private parties through mineral contests.[46]

---

[38] 43 C.F.R. §§ 3832.30–3832.45.

[39] *Id.* § 3832.31.

[40] *Id.* § 3832.41.

[41] For more information on the process of agency approval of mining, *see* INTERAGENCY RECOMMENDATIONS, *supra* note 17, at 48.

[42] Reorganization Plan No. 3 of 1946, P.L. 79-263, 60 Stat. 1097; Forest Service Manual, § 2810.4 – "Responsibility."

[43] INTERAGENCY RECOMMENDATIONS, *supra* note 17, at 12.

[44] 43 C.F.R. § 3832.21; BLM, *Mining Claims*, https://www.blm.gov/programs/energy-and-minerals/mining-and-minerals/locatable-minerals/mining-claims (last visited Aug. 1, 2024); MINING CLAIMS AND SITES ON FEDERAL LANDS, at 7.

[45] *See* 43 C.F.R. § 6304.12; 43 C.F.R. § 3809.100; 43 C.F.R. part 4; BLM, *MS-3870, Adverse Claims, Protests, Contest, and Appeals*, BLM MANUAL (https://www.blm.gov/sites/blm.gov/files/uploads/mediacenter_blmpolicymanual3870.pdf; Forest Service Manual, § 2819 – "Mining Claim Contests."

[46] *See* 43 C.F.R. § 6304.12; 43 C.F.R. § 3809.100; 43 C.F.R. part 4; BLM, *MS-3870, Adverse Claims, Protests,* (continued...)

A 2023 DOI Solicitor Opinion stated that BLM "has discretion to undertake a 'validity determination'—a comprehensive investigation of a mining claim to verify discovery of valuable minerals—at any time, including when reviewing a proposed plan of operations. But neither the Mining Law nor related regulations *require* BLM to conduct such a determination prior to approving a plan of operation on open lands."[47] Instead, "it is enough for plan approval that there is some evidence of discovery."[48]

Unlike BLM, FS does not have adjudicative authority over validity determinations. It may express a "statement of belief" regarding mineral validity, but such statements are not formal determinations.[49] Claimants are expected to "[b]e prepared to show evidence of mineral discovery,"[50] and FS is obligated to prevent the "unlawful use of buildings and other structures and the taking of common varieties of mineral materials."[51]

The 2023 Opinion noted that questions have been raised regarding how BLM has interpreted the mineral validity requirement for mining claims, how mining claims may be used for ancillary purposes such as waste disposal, and when agencies such as BLM should conduct "validity determinations."[52] This 2023 Opinion, issued after *Rosemont*, recognized that the agency's practice has been called into question. The 2023 Opinion observed that, "when evaluating a plan of operations on open lands, therefore, BLM generally has not required evidence demonstrating that mining claims used for ancillary activities contain valuable minerals, nor has the agency generally verified the presence of those minerals."[53] The 2023 Opinion acknowledged that "this practice has raised questions regarding whether and how BLM may approve plans or portions thereof on open lands where the discovery of valuable minerals is in doubt *and* the planned use will lead to permanent occupation of the claim."[54]

The 2023 Opinion withdrew a previous Opinion,[55] issued in 2005, which had determined that "although the Department may determine claim validity at any time until a patent is issued, the Department is under no legal obligation to determine mining claim or mill site validity before approving a proposed plan of operations to explore or develop minerals on lands open to the

Contest, and Appeals, BLM MANUAL (https://www.blm.gov/sites/blm.gov/files/uploads/mediacenter_blmpolicymanual3870.pdf); Forest Service Manual, § 2819 – "Mining Claim Contests."

[47] BLM regulations require the agency to prepare a mineral examination report before approving an MPO or allowing notice-level operations if the land where the claim is located has subsequently been withdrawn from appropriation under the mining laws. 43 C.F.R. § 3809.100(a); *see also id.* § 6304.12. If this report concludes that the claim is not valid, BLM regulations require the agency to initiate a mining contest "promptly." 43 C.F.R. § 3809.100(a); *see also id.* § 6304.12. These requirements do not apply to public lands that remain available to appropriation under the mining laws.

[48] Memorandum from Robert T. Anderson, Solic., U.S. Dep't of the Interior, to Sec'y of the Interior and Director, Bureau of Land Mgmt., Use of Mining Claims for Mine Waste Deposition, and Rescission of M-37012 and M-37057, DOI, M-37077, at 1-2 (May 16, 2023), https://www.doi.gov/media/document/m-37077-use-mining-claims-mine-waste-deposition-and-rescission-m-37012-and-m-37057-5 [hereinafter 2023 OPINION].

[49] Forest Service Manual, § 2819 – "Mining Claim Contests."

[50] *Id.*

[51] *Id.* § 2814.23 – "Prevent Violations of Laws and Regulations."

[52] 2023 OPINION, *supra* note 48.

[53] *Id.*

[54] *Id.*

[55] The 2023 Opinion also withdrew a 2020 Opinion, which discussed the 2005 Opinion and related issues to mining uses under the Mining Act. Memorandum from Daniel H. Jorjani, Solic., U.S. Dep't of the Interior, to Sec'y of the Interior and Director, Bureau of Land Mgmt, Authorization of Reasonably Incident Mining Uses on Lands Open to the Operation of the Mining Law of 1872 (Aug. 17, 2020), https://www.doi.gov/sites/default/files/m-37057.pdf.

Mining Law's Operation."[56] This 2005 Opinion had revised and clarified the agency's interpretation after the Solicitor rescinded a 2001 Opinion.[57] The 2001 Opinion had concluded that BLM should make an "initial inquiry into the validity of [a] mining claim" when a claimant proposed to use a claim for ancillary operations such that there were "legitimate questions about whether the claim is valid."[58] If that initial inquiry indicated that there might be grounds for questioning the claim's validity, the 2001 Opinion directed BLM not to approve an MPO until (1) it had conducted a validity determination and found valuable mineral deposits, (2) the claim was relocated as mill sites, or (3) BLM authorized use of the claim for such ancillary purposes pursuant to the agency's discretionary authority over public lands, "not influenced by any claim of right under the Mining Law."[59]

This series of DOI Opinions highlights how BLM has modified its interpretation of its obligations under the Mining Act over time to reach varying conclusions about when it may be required to undertake validity determinations before approving MPOs proposing to use mining claims for ancillary activities—such as depositing mining waste. The Mining Act's silence on when and whether BLM conducts mineral validity determinations affords the agency discretion as to when it conducts such proceedings. The *Rosemont* decision, however, provided judicial scrutiny of the use of lode claims for ancillary uses once it is determined that no mineral deposit exists.

Environmental Impact

The National Environmental Policy Act (NEPA) requires federal agencies, such as BLM and FS, to review and document the anticipated effects on the human environment of certain proposed actions.[60] BLM and FS frequently classify their decisions on any formal planning action related to mining—including issuing any permit or lease or approving a mining plan of operations or other activity on federal lands—as "major federal actions" requiring analysis under NEPA.[61] Section 102(2)(C) of NEPA and implementing regulations adopted by the Council on Environmental Quality[62] require federal agencies to prepare an environmental impact statement (EIS) for discretionary major federal agency actions that would significantly affect the quality of the human environment.[63] In the EIS, the agency is expected to fully consider the environmental impacts of their actions in their decision-making and discuss the significant effects that a project may have on the environment.[64]

---

[56] Memorandum from Sue Ellen Wooldridge, Solic., U.S. Dep't of the Interior, to Sec'y of the Interior and Director, Bureau of Land Mgmt, Legal Requirements for Determining Mining Claim Validity Before Approving a Mining Plan of Operations, at (Nov. 14, 2005), https://www.doi.gov/sites/doi.opengov.ibmcloud.com/files/uploads/M-37012.pdf.

[57] The 2001 Opinion was rescinded in a separate memorandum. Memorandum from Sue Ellen Wooldridge, Solic., U.S. Dep't of the Interior, to Sec'y of the Interior and Director, Bureau of Land Mgmt, Recission of 2001 Ancillary Use Opinion, (Nov. 14, 2005), https://www.doi.gov/sites/doi.opengov.ibmcloud.com/files/uploads/M-37011.pdf.

[58] Memorandum from John D. Leshy, Solic., U.S. Dep't of the Interior, to Sec'y of the Interior and Director, Bureau of Land Mgmt, Use of Mining Claims for Purposes Ancillary to Mineral Extraction (Jan. 18, 2001), https://www.doi.gov/sites/doi.opengov.ibmcloud.com/files/uploads/M-37004.pdf.

[59] *Id.*

[60] 42 U.S.C. § 4332.

[61] *Major federal action* is defined as "an action that the agency carrying out such action determines is subject to substantial Federal control and responsibility." 40 CFR 1508.1(w).

[62] 40 C.F.R. § 1501.6(a)(3).

[63] Council on Environmental Quality regulations that establish procedures for the preparation of EISs and other elements of the National Environmental Policy Act (NEPA) process are codified at 40 C.F.R. Chapter V, Subchapter A, Parts 1500-1508.

[64] 40 C.F.R. § 1508.1(j), (l). 40 C.F.R. § 1502.

BLM and FS have promulgated additional regulations specifying when an EIS is required for mining-related activities. For example, BLM considers "approval of any mining operation where the area to be mined, including any area of disturbance, over the life the mining plan is 640 acres or larger in size" to be an action that normally requires the preparation of an EIS.[65] FS regulations consider "approving a plan of operations for a mine that would cause considerable surface disturbance in a potential wilderness area" to be an action normally requiring an EIS.[66]

Rosemont Operations and Litigation

In 2007, Rosemont submitted an MPO for a proposed open-pit copper mine to be located partially within the Coronado National Forest, which is managed by FS.[67] The proposed project included, among other things, a plan to deposit approximately 1.9 billion tons of waste from a 955-acre copper pit onto approximately 2,247 acres of land at a nearby site in Coronado National Forest, where Rosemont has located an unpatented mining claim (see **Figure 2**).[68] Several parties brought legal challenges to FS's approval of the plan, and a number of these challenges were consolidated and litigated before the U.S. District Court for the District of Arizona.

In *Rosemont*, the district court heard a consolidated group of legal challenges to FS's decision to approve the mining plan.[69] The court found that FS erred in accepting Rosemont's proposal to use unpatented mining claims in the Coronado National Forest as the location for the waste generated at the nearby copper mine site.[70] The court described this as "a crucial error as it tainted the Forest Service's evaluation of the Rosemont Mine from the start,"[71] resulting in a failure to protect the Coronado National Forest as required by FS's Organic Act[72] and a "flawed" decision-making process in violation of FS's own land use regulations.[73]

[65] BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, NATIONAL ENVIRONMENTAL POLICY HANDBOOK H-1790-1 § 7.2 (2008).

[66] 36 C.F.R. § 220.5 (2008).

[67] Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv., 409 F. Supp. 3d 738, 747–48 (D. Ariz. 2019), *aff'd*, 33 F.4th 1202 (9th Cir. 2022). "The BLM is responsible for the subsurface minerals on both its public lands and National Forest System lands." See BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, MINING CLAIMS AND SITES ON FEDERAL LANDS 12 (2011), https://www.blm.gov/sites/blm.gov/files/MiningClaims.pdf.

[68] Although the parties challenged the approval of the plan by the U.S. Forest Service rather than the Bureau of Land Management, the 1872 Mining Act still applied to the mining claims in dispute.

[69] *Ctr. for Biological Diversity*, 409 F. Supp. 3d at 742–43.

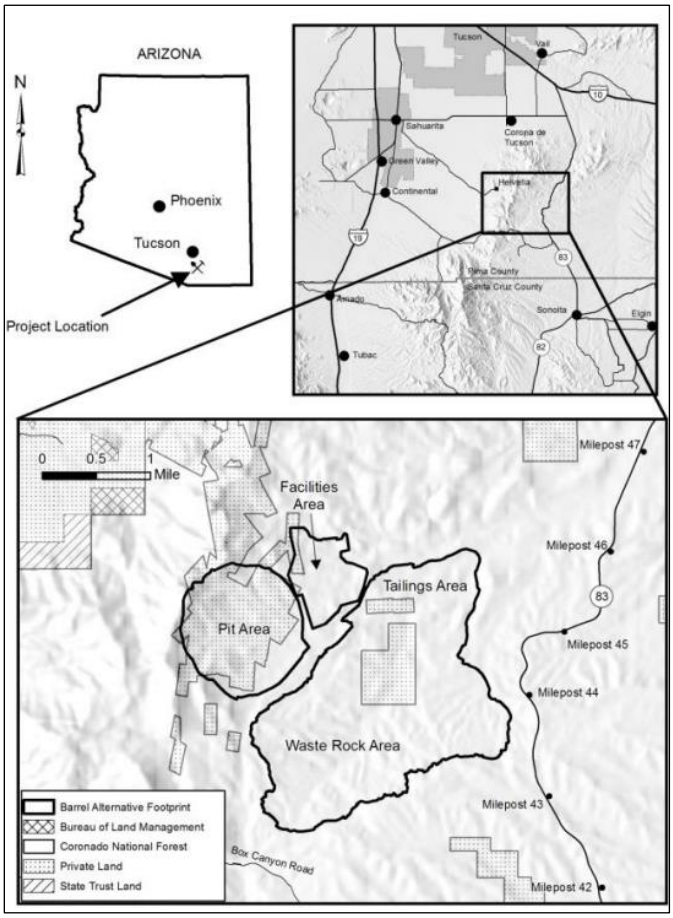
[70] *Id.* at 747.

[71] *Id.* The court also rejected FS's argument that Section 4 of the Surface Resources and Multiple Use Act of 1955, ch. 375, 69 Stat. 367, 368 (codified at 30 U.S.C. § 612), authorizes mining claimants to use surface rights for other purposes. The court held that the 1955 statute did not expand mining claim authority but instead is limited to valid claims under the 1872 Mining Act. *Ctr. for Biological Diversity*, 409 F. Supp. 3d at 749.

[72] *Id.* at 757–58 (citing 16 U.S.C. § 551).

[73] Id. at 763–66. Because these issues were dispositive, the court declined to address other challenges, including those under the Endangered Species Act. *Id.* at 766 n.16.

Figure 2. Location of the Proposed Rosemont Copper Mine



Source: U.S. FOREST SERV., MB-R3-05-6, 1 FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE ROSEMONT COPPER PROJECT: A PROPOSED MINING OPERATION, CORONADO NATIONAL FOREST, PIMA COUNTY, ARIZONA viii fig. ES1 (2013).

Notes: The shown "Barrel Alternative" is the option that was selected for further review by FS. Mining processes create multiple types of waste products, including tailings and waste rock. *Tailings* refers to the materials left over after the ore has been separated from the extracted materials. *Waste rock* refers to the rock removed during the mining process that does not contain valuable mineral deposits.

The court acknowledged that, "as a practical matter, the process of obtaining unpatented mining claims has been a historically low bar; a miner could simply enter upon federal land, put up some stakes marking the land above a purported valuable mineral deposit ... and record a notice with local authorities."[74] However, the court noted that

> having a piece of paper reflecting that one has unpatented mining claims does not show that one actually has valid unpatented mining claims. If there is no valuable mineral deposit beneath the purported unpatented mining claims, the unpatented mining claims are completely invalid under the Mining Law of 1872, and no property rights attach to those invalid unpatented mining claims.[75]

Because the administrative record did not show any located valuable minerals underneath the 2,447 acres that Rosemont was using for mining waste, the court found that Rosemont's

[74] *Id.*

[75] *Id.* at 747–48.

unpatented mining claims to that acreage were invalid.[76] The court held that the Mining Act authorizes claimant activity only in the area directly underneath properly claimed acreage and not beyond those boundaries.[77] The court observed that the law further authorizes parties to "locate and patent five acres of 'nonmineral land not contiguous to the vein or lode ... for mining or milling purposes,'" but it clarified that the law authorizes no other "extralimital activities" beyond the area directly above the valuable mineral deposit.[78] The court acknowledged that modern mining operations may need more expansive rights to deal with their waste than those afforded by the Mining Act, but it determined that "[d]efendants' remedy lies with Congress, not the courts."[79]

The Ninth Circuit affirmed the district court's ruling.[80] On appeal, the government argued that "Section 22 of the Mining Law gives Rosemont the right to occupy 'open' Forest Service land with its waste rock, whether or not it has valid mining claims on that land," and that Rosemont is within its rights under Section 22 to "occupy" its mining claims "whether or not the claims are valid" because that occupation is not permanent in nature.[81] Disagreeing, the court reasoned:

> The Government is wrong on two counts. First, discovery of valuable minerals is essential to the right to *any* occupancy—temporary or permanent—beyond the occupancy necessary for exploration. As soon as exploration on a claim is finished, the right to continue to occupy that claim is contingent on the discovery of valuable minerals, whether or not the occupation will be permanent.... Second, Rosemont's occupancy with its waste rock would, in any event, be permanent. The Government and Rosemont both acknowledge that Rosemont's 1.9 billion tons of waste rock would always remain on the land.[82]

The Ninth Circuit reasoned that the Mining Act established mill sites to address the "the very problem Rosemont faces."[83] While disposing of the quantity of waste rock created by modern mining operations may exceed the space allowed on mill site land, the court determined that using mineral claim land instead under the presumption that the waste rock would not be permanently deposited there was invalid. The court concluded that "the argument that the proposed occupation would not be permanent does violence to the English language."[84]

Response and Potential Implications of *Rosemont*

Following the Ninth Circuit's affirmation of the *Rosemont* decision, which clarified that waste rock may be disposed of on mill sites but that lode claims cannot be used for mining waste absent the discovery of valuable minerals, mining companies may confront a need to revise their MPOs to either use mill sites for mining waste or identify new potential solutions for mine waste disposal. Each mining company faces decisions on how to account for a variety of factors to determine the best solutions for their MPOs, such as mine location, type of minerals extracted, surrounding land formations, and other aspects of their operations. As the Ninth Circuit decision is recent and the permitting process—including the approval of revised MPOs—takes time, the

[76] *Id.* at 748.

[77] *Id.* at 759.

[78] *Id.*

[79] *Id.*

[80] Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv., 33 F.4th 1202 (9th Cir. 2022).

[81] *Id.* at 1209.

[82] *Id.* at 1220.

[83] *Id.* at 1217.

[84] *Id.* at 1221.

long-term impact of *Rosemont* in practice on the permitting process may not be fully apparent for some time.

Stakeholder responses to *Rosemont* have been mixed. Some environmental organizations have applauded the decision as protecting the environment, local communities, and sacred tribal sites by limiting waste disposal on federal lands.[85] The mining industry generally claims that the decision will slow down the process for mining on federal lands by adding more requirements to an already lengthy permitting process.[86] In addition, some mining companies assert that this decision may lead to cooling investment in domestic mining operations, including investment potentially shifting offshore.[87]

The Biden Administration has considered a variety of potential reforms regarding the mining industry.[88] In 2022, the Biden Administration formed an interagency working group (IWG) to discuss reforms to the Mining Act and the current system.[89] In September 2023, the IWG's report stated:

> Due to the rapidly evolving nature of the issue and the active litigation involving similar facts, the IWG is not making regulatory or policy recommendations on mill sites or ancillary uses. The IWG believes these kinds of disputes highlight some of the difficulties in relying on a 150-year-old access law for modern mining operations. Congressional action on these questions would be helpful.[90]

The report offered a number of suggestions for how to improve the existing system, including ending the patent system in favor of a leasing system and a joint DOI–U.S. Department of Agriculture programmatic EIS under NEPA to allow for a broader scope in planning of mining operations.[91] The Biden Administration has evaluated reforms for federal agencies and Congress to consider.[92]

Issues for Congress

The issues at stake in the *Rosemont* decision highlight some of the challenges that can arise in administering the 150-year-old Mining Act for modern mining operations and managing the

[85] *See, e.g.*, Press Release, Ctr. for Biological Diversity, Federal Appeals Court Upholds Decision to Halt Rosemont Mine in Arizona (May 12, 2022), https://biologicaldiversity.org/w/news/press-releases/federal-appeals-court-upholds-decision-to-halt-rosemont-mine-in-arizona-2022-05-12/; Press Release, Earthjustice, 9th U.S. Circuit Court of Appeals Upholds Landmark Ruling Blocking Arizona Copper Mine (May 12, 2022), https://earthjustice.org/press/2022/9th-u-s-circuit-court-of-appeals-upholds-landmark-ruling-blocking-arizona-copper-mine.

[86] National Mining Association, *NMA Statement on 9th Circuit Decision Regarding Proposed Rosemont Mine* (May 12, 2022), https://nma.org/2022/05/12/nma-statement-on-9th-circuit-decision-regarding-proposed-rosemont-mine/.

[87] Tony Davis, *'Shocking,' 'Blockbuster' Rosemont Mine Ruling Has National Implications, Experts Say*, TUCSON.COM (May 12, 2022), https://tucson.com/news/local/shocking-blockbuster-rosemont-mine-ruling-has-national-implications-experts-say/article_55dd98cc-128b-5105-9590-186f8c2c1e8f.html; *U.S. DOJ, Hudbay Get Split Decision on Rosemont*, N. AM MINING (June 10, 2022), https://northamericanmining.com/index.php/2022/06/10/u-s-doj-hudbay-get-split-decision-on-rosemont/.

[88] INTERAGENCY RECOMMENDATIONS, *supra* note 17, at 38.

[89] Press Release, Exec. Off. of the President, Readout of the White House's First Stakeholder Meeting on Mining Reform (May 11, 2022), https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/11/readout-of-the-white-houses-first-stakeholder-convening-on-mining-reform/.

[90] *Id.*

[91] *Id.* at 96–99.

[92] Press Release, U.S. Dep't of the Interior, Biden-Harris Administration Report Outlines Reforms Needed to Promote Responsible Mining on Public Lands (Sept. 12, 2023), https://www.doi.gov/pressreleases/biden-harris-administration-report-outlines-reforms-needed-promote-responsible-mining.

shared resource of federal lands. While a number of stakeholders advocate for amendments to the Mining Act to address these and other issues they have raised, opinions diverge among stakeholders on the best approach for modernization. Some critics have long contended that the practices contemplated by the Mining Act are obsolete and inconsistent with more modern natural resource policies.[93] Others assert that the lack of royalties for mining on federal land has encouraged exploration of mining interests in the United States and that changing these policies would stifle industry growth.[94]

As demand for critical minerals for new technologies grows, interest in domestic production of these valuable minerals has increased as well.[95] Some observers have contended that the Mining Act reflects the priorities of the 19th century and have proposed updating the "claim and patent" system.[96] In this context, there are a variety of interconnected issues that Congress could consider, such as addressing the domestic critical minerals industry, permitting processes on federal lands, land exchanges and withdrawals, and potential royalty rates on federal lands.

The Domestic Critical Minerals and Mining Industry

The critical minerals and materials industry has received increased attention from both the federal government and stakeholders in recent years due to their importance for an energy transition.[97] There has been an increase in demand for materials that are used in technologies that do not emit greenhouse gases (e.g., batteries).[98] Minerals such as lithium, cobalt, graphite, nickel, and manganese are all mineral inputs that the U.S. Geological Survey (USGS) deems "critical."[99] The Mining Act authorizes extraction of these minerals from federal lands.[100]

The Hudbay mine at issue in *Rosemont* is intended to extract copper from the Coronado National Forest.[101] Currently, copper is considered a critical material by DOE[102] but is not considered a critical mineral by the USGS.[103] While copper has long been used in manufacturing and

[93] Richard L. Gordon, *Reforming the 1872 Mining Law*, CATO INST. (Aug. 3, 1999), https://www.cato.org/testimony/reforming-1872-mining-law; Carol Ann Woody et al., *The Mining Law of 1872: Change Is Overdue*, 35 FISHERIES 321–31 (2011); Raúl M. Grijalva, *Our Mining Laws Are More Than a Century Old—Time to Update Them*, SIERRA (May 15, 2018), https://www.sierraclub.org/sierra/our-mining-laws-are-more-century-old-time-update-them.

[94] National Mining Association, *IWG Recommendations on Mining Unworkable and Unreasonable* (Sept. 12, 2023), https://nma.org/2023/09/12/iwg-recommendations-on-mining-unworkable-and-unreasonable/.

[95] *Supra* note 14.

[96] *Supra* note 5.

[97] CRS Report R48149, *Critical Minerals and Materials for Selected Energy Technologies*, by Emma Kaboli.

[98] U.S. DEP'T OF ENERGY, CRITICAL MATERIALS ASSESSMENT, at 76 (2023), https://www.energy.gov/sites/default/files/2023-07/doe-critical-material-assessment_07312023.pdf.

[99] U.S. Geological Survey, "2022 Final List of Critical Minerals," 87 *Federal Register* 10381-10382, February 24, 2022.

[100] Some critical minerals such as lithium may also take the form of brines. Brine extraction may help meet the demand for certain critical minerals, but it has its own technological and environmental considerations. For more information, see María L. Vera et al., *Environmental Impact of Direct Lithium Extraction from Brines*, 4 NATURE REVS. EARTH & ENV'T 149, 149–65 (2023).

[101] Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv., 409 F. Supp. 3d 738, 747–48 (D. Ariz. 2019), *aff'd*, 33 F.4th 1202 (9th Cir. 2022).

[102] "Critical materials," as determined by DOE, are commodities needed for the manufacturing and installation of energy transition technologies including, but not limited to, solar, wind, batteries, and electric vehicles. Notice of Final Determination on 2023 DOE Critical Materials List, 88 Fed. Reg. 51792, 51795 (Aug. 4, 2023).

[103] "Critical minerals," as determined by the USGS, are commodities needed across the U.S. economy, including in (continued...)

technology applications across industry sectors, projected demand for copper may increase as countries adopt policies that transition away from fossil fuels to lower-carbon energy technologies such as wind turbines, electric vehicles, and expansions to the electric grid.[104] As demand for these technologies increases, demand for electrical components and associated raw materials such as copper may increase as well.

While a push to add copper to the critical minerals list has received some broad support,[105] USGS analysis determined that, although copper is an essential mineral, mitigating factors make it accessible enough that it does not warrant critical mineral classification.[106] In letters to Senator Kyrsten Sinema and Representative Bob Latta, USGS Director David Applegate wrote:

> While copper is clearly an essential mineral commodity, its supply chain vulnerabilities are mitigated by domestic capacity, trade with reliable partners, and significant secondary capacity. As a result, the USGS does not believe that the available information on copper supply and demand justifies an out-of-cycle addition to the list at this time.[107]

Several bills introduced in the 118th Congress would have the effect of including copper on the critical minerals list.[108]

Permitting on Federal Lands

Staking the claims discussed in *Rosemont* is one step in a process for those pursuing mining operations on federal lands. The *Rosemont* decision has drawn attention to the permitting process for mining on federal lands, including the time it may take to complete the permitting process and get approval to begin mining operations. In addition to the Mining Act, mining activities on federal lands are subject to other general federal laws related to environmental impacts, including NEPA, the Endangered Species Act of 1973, the Clean Air Act, the Clean Water Act, and more, as well as state and local laws governing resource use and protection.[109] These laws require federal agencies to account for various effects of their actions on the environment, human health, certain types of natural resources such as endangered and threatened species, and historical and cultural artifacts before approving certain types of actions. These assessments take time to address various aspects of these laws. In a 2015 study, mining industry stakeholders asserted that the permitting

sectors such as national security, infrastructure, and energy development. 2022 Final List of Critical Materials, 87 Fed. Reg. 10381, 10381 (Feb. 24, 2022) ("The comments included 91 requests to include specific minerals, including copper . . . . USGS determined that the minerals requested for inclusion did not meet the criteria for inclusion on the final list.").

[104] U.S. DEP'T OF ENERGY, *supra* note 98, at 76.

[105] Letter from David Applegate, Dir., USGS, to Sen. Kyrsten Sinema (Apr. 13, 2023), https://subscriber.politicopro.com/eenews/f/eenews/?id=00000188-4953-d998-ab8f-fb5f223b0000. Letter from David Applegate, Dir., USGS, to Rep. Bob Latta (May 1, 2023), https://subscriber.politicopro.com/eenews/f/eenews/?id=00000188-4952-d998-ab8f-fb5f8eb00000.

[106] *Id.*

[107] *Id.*

[108] As examples, H.R. 8446 and H.R. 8450 would direct the Secretary of the Interior to expand, or consider expanding, the critical minerals list to include all designated critical materials, including copper. As another example, H.R. 3885 would amend the Energy Act of 2020 to explicitly include copper on the list.

[109] National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321 et seq.; the Endangered Species Act of 1973, 16 U.S.C. §§ 1531–1544); National Historic Preservation Act of 1966, 54 U.S.C. §§ 300101 et seq.); Clean Water Act, 33 U.S.C. §§ 1251–1387; Clean Air Act, 42 U.S.C. §§ 7401–7671; Federal Land Policy and Management Act, 43 U.S.C. ch. 35; National Forest Management Act, 16 U.S.C. §§1600 et seq.

process for mines may take seven to ten years on average.[110] The Biden Administration's IWG report recently found

> Including the entire process—from the first appearance of the example in BLM's records to the authorization of ground disturbing activities, which will include time needed to initiate NEPA and for the operator to provide the required financial assurance, among other steps—the average time was 4.6 years, and the median time was 4.2 years.[111]

S. 4753—a bill to reform leasing, permitting, and judicial review for certain energy and minerals projects and for other purposes—was introduced in the 118th Congress.[112] This broad energy permitting reform measure is described as containing multiple provisions that may impact mining on federal lands.[113] In particular, it covers hardrock mining mill sites—the type of claims at issue in the *Rosemont* case. The permitting bill has received support from some energy stakeholders and has also faced some opposition. On July 30, 2024, over 360 organizations signed onto a letter opposing the proposed legislation.

Land Sales and Exchanges

The *Rosemont* decision has fostered discussion within the federal government regarding the correct processes and procedures to use under the Mining Act to deal with mining waste on federal lands. The 2023 Solicitor's Opinion provided five options for a company whose proposed MPO "lacks evidence of a discovery of a valuable mineral deposit on mining claims that would be buried by a significant waste or tailings facility like that in *Rosemont*."[114] These options include (1) submitting additional evidence of discovery of minerals on mining claims, (2) relocating the mining claims as mill sites for lands that are non-mineral in character or relocating waste to other mill sites or private lands, (3) applying for a permit or lease under the Federal Land Policy and Management Act, (4) requesting BLM grant rights-of-way for the relevant land parcels, and (5) seeking to obtain title of the relevant federal lands through a land exchange or sale.[115]

For a mining company to gain title to the land through an exchange or sale, the federal agency administering the land would need authority to enter into a sale or exchange for that purpose.[116] Some federal agencies, including BLM and FS, have existing authority to enter into land sales and exchanges for various purposes.[117] According to FS, "land exchanges can be effective tools because the Forest Service has very limited authority to sell lands and limited funds for acquiring

---

[110] *New Study Finds U.S. Mine Permitting Delays Hinder U.S. Economy*, MINS. MAKE LIFE, at 7 (July 9, 2015), https://mineralsmakelife.org/blog/new-study-finds-u-s-mine-permitting-delays-hinder-u-s-economy/.

[111] INTERAGENCY RECOMMENDATIONS, p. 53.

[112] S. 4753, "A bill to reform leasing, permitting, and judicial review for certain energy and minerals projects, and for other purposes." *See* Senate Energy and Natural Resources, "Manchin, Barrasso Release Bipartisan Energy Permitting Reform Legislation," press release, July 22, 2024, https://www.energy.senate.gov/2024/7/manchin-barrasso-release-bipartisan-energy-permitting-reform-legislation. The Committee on Energy and Natural Resources approved the bill and ordered it reported on July 31, 2024.

[113] *Id.*

[114] 2023 OPINION, *supra* note 47, at 5.

[115] *Id.* at 5-6.

[116] U.S. CONST. art. IV, sec. 3, cl. 2.

[117] Information on authorities of federal land management agencies to sell and exchange land is contained in CRS Report RL34273, *Federal Land Ownership: Acquisition and Disposal Authorities*, coordinated by Carol Hardy Vincent.

key tracts."[118] At the same time, FS also stated that "exchanges have become more costly and take multiple years to complete due to increased regulatory requirements."[119] In addition, Congress may enact legislation providing authority for specific federal land sales or exchanges.

Royalty Rates on Federal Lands

The Mining Act, unlike other mineral extraction laws,[120] does not require royalties to be paid for minerals extracted on federal lands.[121] Copper, the mineral being mined in the *Rosemont* case, is one such mineral. The 118th Congress, like the past several Congresses, has seen bills proposing royalties on new and existing hardrock mines.[122] An earlier example was H.R. 2579 in the 116th Congress, the Hardrock Leasing and Reclamation Act of 2019. Among other provisions, H.R. 2579 proposed establishing a 12.5% royalty on new mining operations and an 8% royalty on existing operations, with an exception made for small miners. Congressional Budget Office analysis of this legislation estimated that in 10 years, once applicable operations had been established, an 8% royalty would bring in an average of $394 million per year.[123]

Additional agency analysis has been conducted on the potential revenue that may be generated from the potential implementation of royalty rates for mining on federal lands. The Biden Administration's IWG report estimated the gross value for gold, silver, copper, molybdenum, lead, and zinc on federal lands at approximately $4.9 billion.[124] The report estimated that gross revenue from that value would be $98 million, $245 million, or $392 million at royalty rates of 2%, 5%, or 8%, respectively.[125] If the critical minerals mining industry in the United States continues to grow, the potential revenue from a mining royalty would typically increase as well.

Mining Act Reform

Following the *Rosemont* decision, some Members of Congress introduced bills in the 118th Congress to reform the Mining Act. One example is a pair of bills—the Mining Regulatory Clarity Act, H.R. 2925 and S. 1281—that would amend the Mining Act to create a broad authorization allowing "claimants" to "use, occupy, and conduct operations on" federal land based solely on payment of certain fees and, for parties eligible for a partial waiver, performance of the "required assessment work under the general mining laws." The bills do not define

[118] U.S. Forest Service, *A Guide to Land Exchanges on National Forest Lands*, at 1https://www.ntc.blm.gov/krc/system/files?file=legacy/uploads/23110/The%20Guide%20to%20Land%20Exchanges.pdf.

[119] *Id.*; 43 CFR Part 2200; 36 CFR 254 Subpart A; for more information on land exchanges, see CRS Report R48079, *Land Disposal Authorities and Processes of the Bureau of Land Management*, coordinated by Carol Hardy Vincent.

[120] *Supra* note 7.

[121] Twelve western states—Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming—collect royalty payments on mineral extraction on public lands. Hardrock Mining: Updated information on State Royalties and Taxes, B-330854, 2019 WL 3252186 (Comp. Gen. July 16, 2019).

[122] *See*, for example, H.R. 3495, 118th Cong. (as introduced in the House, May 18, 2023) and S. 1742, 118th Cong. (as introduced in the Senate, May 18, 2023).

[123] Janani Shankaran and Lilia Ledezma, *CBO Cost Estimate: H.R. 2579, as ordered reported by the House Committee on Natural Resources*, Congressional Budget Office, Washington, DC, July 27, 2020, https://www.cbo.gov/system/files/2020-07/hr2579.pdf.

[124] Minerals listed based on a 2021 BLM estimate using 2019 USGS data. INTERAGENCY RECOMMENDATIONS, *supra* note 17, at 81–84.

[125] *Id.*

claimant, so it may be unclear whether a party would need to have a preexisting valid mining claim elsewhere on federal land based on the presence of valuable minerals.

In addition, another pair of bills—the Clean Energy Minerals Reform Act of 2023, H.R. 3495 and S. 1742—would enact extensive reforms to the Mining Act.[126] The bills would amend the process for mine planning, require industry to clean up abandoned mine lands, set new environmental and reclamation standards, establish royalty payments, require tribal consultation, and establish new provisions to protect natural resources. Congress may also consider other aspects of the mining process, such as the permitting, environmental assessment, or other mining-related processes.

Author Information

Emma Kaboli
Analyst in Energy Policy

Adam Vann
Legislative Attorney

Disclaimer

[126] As of July 28, 2024, H.R. 3495 was referred to the House Committee on Natural Resources. Also, the Senate Committee on Energy and Natural Resources, Subcommittee on Public Lands, Forests, and Mining, held a hearing on S. 1742 on December 12, 2023.