



CRITICAL MINERAL MINING ON U.S. PRIVATE LANDS: ENVIRONMENTAL IMPACT ASSESSMENTS

FACT SHEET

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Domestic critical mineral extraction is likely to increase to meet the demands of the clean energy transition and the policy goals of the Trump Administration. Environmental Impact Assessments are a tool to predict and mitigate negative environmental impacts associated with extractive activities such as mining. International standards such as the Initiative for Responsible Mining Assurance (IRMA), which identifies best practices for responsible mining, are far more stringent than U.S. regulations. Further, the National Environmental Protection Act (NEPA), the U.S. Federal law governing Environmental Impact Assessments, has been highly criticized for creating a lengthy and ineffective environmental review process. As such, the Trump Administration and the Supreme Court have taken to modifying NEPA's requirements recently, making it even less stringent.

What Are Environmental Impact Assessments?

Environmental Impact Assessments are a tool to predict and mitigate negative environmental impacts associated with extractive activities such as mining. Frequently, these assessments are understood as a way to require a company or government agency to look at possible environmental impacts before it leaps into a project. These assessments may require consideration of alternative designs and locations, mitigation measures, remediation plans, and social and human health impacts. However, frequent and extensive environmental reviews are administratively burdensome and highly criticized for slowing down development and inviting litigation. Thus, a good

environmental review policy strikes a balance between comprehensive coverage and administrative efficiency and certainty.

Striking this balance is essential in the face of the energy transition. For example, mining operations pose significant environmental risks and social costs. Still, they are necessary to obtain the minerals needed for clean energy technologies, which will have a hugely beneficial impact on the climate. Therefore, an efficient and comprehensive environmental review policy for proposed mining operations is essential for meeting critical mineral demand at the lowest social and ecological cost.¹

Major stakeholders include federal agencies implementing NEPA, state environmental agencies, mining companies seeking permits, local communities near proposed mining sites, and environmental organizations monitoring compliance and impacts.

Why Environmental Impact Assessments Matter for Private Land Mining

- **Regulatory gaps cause uneven protections.** NEPA requirements are triggered when there is a major federal action or federal nexus, such as mining operations on federal land. Mining on private land can also trigger NEPA if the operator has received federal funds or is subject to other federal permitting requirements. However, mines on purely private land may escape federal environmental review entirely.
- **The Supreme Court recently narrowed the scope of environmental review required by federal law.** On May 29, 2025, the Supreme Court of the United States (SCOTUS) clarified the scope of NEPA review in *Seven County Infrastructure Coalition v. Eagle County, Co.* In this case, the court unanimously held that NEPA does not require agencies to consider environmental impacts of upstream and downstream projects that are separate in time or place from the project under review. This holding majorly limits the extent to which downstream greenhouse gas emissions made possible by a proposed project can be considered in federal environmental assessments.²
- **Federal environmental review is a procedural exercise without substantive requirements.** NEPA is understood as procedural and does not require the agency to take the least environmentally damaging actions. Further, while NEPA's implementing regulations used to require consideration of possible mitigation measures, NEPA does not require the implementation of any specific mitigation plan.
- **The regulations implementing federal environmental review are in flux.** NEPA implementation and compliance rules are currently in flux. In February 2025, the Council of Environmental Quality (CEQ) issued an interim final rule revoking all its rules in response to President Trump's EO 14154. This executive order, titled

"Unleashing American Energy," directed CEQ to propose rescinding the NEPA regulations and provide new guidance on NEPA implementation. Now, each federal agency will have to set its own rules for implementing NEPA.

Current Policy and Gaps

Federal Framework

The National Environmental Policy Act (NEPA) requires a full environmental impact statement (EIS) where an action's impacts will be 'significant.' Prior to the second Trump administration, all federal agencies followed a uniform set of rules issued by the Council on Environmental Quality (CEQ) for implementing NEPA. CEQ first issued these rules in 1978 in response to President Carter's EO 11991, and they remained relatively consistent with updates in 1984, 2020, and 2024 by the Reagan, Trump, and Biden Administrations.³

However, CEQ's authority to issue rules binding other agencies is not clear from the text of the NEPA statute. In November 2024, the U.S. Court of Appeals for the District of Columbia issued an opinion stating that CEQ did not have the authority to issue such binding regulations. While this opinion was ultimately overturned, shortly after, another federal court in North Dakota invalidated the CEQ rules. Finally, in February 2025, CEQ itself issued an interim final rule revoking all its rules in response to President Trump's EO 14154.⁴

Stakeholder engagement in environmental review varies depending on what major federal action triggers NEPA review. Environmental review in the context of an agency rulemaking is generally subject to the Notice and Comment requirements of the Administrative Procedure Act (APA) § 553. Agencies are only required to respond to material comments. Individual permitting procedures will typically prescribe the minimum stakeholder engagement required under the respective permitting program.⁵

State Variations and Private Land Gaps

Twenty states and local jurisdictions have their own environmental review requirements, often called State Environmental Policy Acts (SEPA). There is generally a tension between comprehensiveness, predictability, and efficiency. Mines may also straddle different land designations and jurisdictions, creating overlapping environmental review requirements that may be duplicative.⁶

- **California** - The California Environmental Quality Act (CEQA) has a low threshold for triggering the review process, applying to projects that "may significantly" affect the environment. This results in uncertainty and a high administrative burden but is generally considered very comprehensive.⁷

- **Massachusetts** - The Massachusetts Environmental Protection Act (MEPA) has specific review thresholds for categories of projects based on nature, size, or location. This creates certainty for industry and reduces administrative burden.⁸
- **New York** - The New York State Environmental Quality and Review Act (SEQR) applies legal presumptions to three "types" of actions, creating some certainty while building in flexibility.⁹

Voluntary Standards

IRMA's best practice for Environmental and Social Impact Assessments (ESIAs) requires a comprehensive ESIA for all new mines and major changes to existing mines. IRMA also suggests that mine operators analyze all direct, indirect, and cumulative impacts and provide timely and effective stakeholder consultation. IRMA requires mine operators to have a robust risk management system which outlines specific mitigation actions.¹⁰

Four Critical Policy Gaps

Gap 1: Narrow Scope of Review

- The U.S. Supreme Court recently narrowed the scope of NEPA review significantly. Environmental assessment is only required for federal actions 'significantly' affecting the environment.
- NEPA no longer requires analysis of downstream impacts made possible by the activity, thus limiting the cumulative impacts NEPA requires to be considered.

Gap 2: Lack of Meaningful and Effective Public Engagement

- NEPA has long been criticized as creating a lengthy review process that does not meaningfully improve environmental outcomes.
- Dissatisfaction with effectiveness of public participation has led to the narrowing of the scope of review required under NEPA.

Gap 3: Inadequate Long-term Mitigation Requirements

- NEPA is understood as only procedural and does not have a substantive requirement that the agency take the least environmentally damaging actions.
- Since NEPA has been narrowed to a box checking exercise, it is unlikely that it will be effective at mitigating environmental harms as intended.

Gap 4: Fragmented Implementation Authority

- With CEQ's rules revoked, each federal agency will have to set its own rules for implementing NEPA.
- This creates potential for inconsistent environmental review standards across different agencies, complicating compliance for mining operators.

NWF Policy Recommendations for Responsible Private Land Mining

Recommendation 1: Require Single Comprehensive Environmental Assessment

- Congress should mandate a single comprehensive environmental assessment for all new or modified mining operations regardless of location on federal or private lands.
- This would eliminate gaps where private land operations escape federal review and reduce redundancy where mines straddle multiple jurisdictions.
- Establish clear thresholds for when assessments are required based on project size, environmental sensitivity, and cumulative regional impacts.

Recommendation 2: Require Implementation of Specific Mitigation Plans

- Federal agencies should require implementation of specific mitigation plans for environmental and social harms identified in the EIS as a condition of permit approval.
- Establish enforceable mitigation standards with clear metrics for success and penalties for non-compliance.
- Create bonding requirements that reflect the full cost of implementing mitigation measures over the life of the mine.

Recommendation 3: Modernize Community Engagement

- Modernize community engagement to promote efficient and effective environmental review while ensuring meaningful participation.
- Implement digital platforms for public comment that increase accessibility while maintaining substantive review requirements.
- Require responses to all substantive comments, not just material ones, following IRMA's best practices.

Recommendation 4: Establish Uniform Federal Standards

- Congress should clarify CEQ's authority to issue binding NEPA regulations or create a new coordinating body with clear statutory authority.
- Develop uniform standards that align with international best practices like IRMA while addressing U.S.-specific regulatory contexts.
- Create mechanisms for regular updates to environmental assessment requirements based on scientific advances and lessons learned.

Conclusion

America can be a leader in the clean energy transition while responsibly assessing and mitigating the impacts of critical mineral extraction. Comprehensive and expedient environmental assessment is necessary to achieve both these ends. Currently, U.S. law

governing environmental assessments falls short of international best practices for mining. U.S. policy could be improved by requiring a single comprehensive EIS for all new and modified mining projects regardless of location, requiring implementation of specific mitigation plans as a condition of completing an environmental assessment, modernizing the community engagement element to ensure timely and effective environmental review, and establishing uniform federal standards for NEPA implementation.

This paper was written with the assistance of the 2025 Fellows of the Dow Sustainability Program, University of Michigan. For more information, please contact Dr. Simone H. Stewart, Senior Industrial Policy Specialist StewartS@nwf.org

Endnotes

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