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May 24, 2023

The Honorable Paul Gosar
Chairman
House Natural Resources Subcommittee on
Oversight and Investigations
1324 Longworth House Office Building
Washington, D.C. 20515

Re: May 24, 2003 oversight hearing titled *“Examining the Biden Administration’s Efforts to Limit Access to Public Lands”*

Dear Chairman Gosar,

The American Exploration & Mining Association (AEMA) submits the following statement for the record for the above-referenced hearing.

Who We Are and the Importance of the U.S. Minerals Mining Industry

AEMA is a 128-year-old, 1,400-member national trade association representing the mineral development and mining industry, with members residing across 46 states, 7 Canadian provinces or territories and 10 other countries. AEMA is the recognized national representative for the exploration sector, the junior mining sector, as well as mineral developers interested in maintaining access to public lands. Thus, AEMA represents the entire mining life cycle, from exploration to mineral extraction and then to reclamation and closure. More than 80 percent of our members are small businesses or work directly for small businesses.

American miners continue to play an indispensable role in building and defending our Nation. From foundations to roofs, power plants to wind farms, roads and bridges to communication grids and data storage centers, America’s infrastructure begins and ends with minerals and mining. As just one example, steel resulting from mining operations directly supplies the construction and development of roads, railways, appliances, buildings, stadiums, bridges, airports, conventional and renewable energy facilities, and other structures. Steel is used to reinforce concrete and other construction materials and 6 billion tons of steel are used across the U.S. National Highway System. Steel requires iron ore for its production, and 65 percent of the global zinc consumption is used to coat steel, for purposes of making it resistant to corrosion. Other metals important to steel alloys, including manganese, chromium, nickel, aluminum, vanadium, tungsten, titanium, cobalt, and niobium, are specifically identified on the U.S. Geological Survey’s (USGS’) final 2022 list of critical minerals.¹

¹ <https://www.federalregister.gov/documents/2022/02/24/2022-04027/2022-final-list-of-critical-minerals>

Another example is copper, with its flexibility, conformity, conductivity, and resistance to corrosion, that make it an ideal and essential clean energy metal.² Forty-three percent of U.S. copper demand comes from the construction industry, as the average American home contains 439 pounds of copper. An electric vehicle (EV) uses approximately four times as much copper as a conventional car.

Infrastructure improvement and development at all levels depends on metals and mining. Beyond hard-rock mining, AEMA also represents the industrial minerals industry. Industrial minerals include any rock or mineral with economic value that is not used as a source for metals, gemstones, or energy production. Industrial minerals are classified as non-fuel minerals and differ from construction aggregates like sand, gravel, and crushed stone. Many different types of industrial minerals serve multiple uses, some of which are considered critical minerals and many of which are essential to our nation's economic and national security. The most widely used industrial minerals include limestone, clays, diatomite, kaolin, bentonite, silica, barite, gypsum, potash, pumice, and talc.

Similarly, there is no substitute for phosphorus in agriculture and in the development of our Nation's food supply. Phosphorus is essential for plant nutrition and plays a vital role in photosynthesis, energy transfer, root formation, seed formation, plant growth and improvement of the quality of fruits and vegetables. China has been the leading producer of phosphates, followed by the United States. The Society for Mining, Metallurgy & Exploration's (SME) website³ provides a deeper introduction to industrial minerals and explains why securing domestic production is essential to America's future.

There is no question that the minerals we produce are indispensable to modern society. They are also essential to fighting climate change, and for zero-emission technologies such as wind turbines, solar panels, storage batteries and EVs. As these technologies are deployed in ever-greater numbers, the demand for minerals is skyrocketing, and our Nation must do more to keep up. The International Energy Agency (IEA) published a report at the end of July 2022 titled "Global Supply Chains of EV Batteries," and noted that demand for EV batteries will increase from 340 GWh today to about 3500 GWh by the year 2030. To meet that demand, 50 new lithium mines, 60 more nickel mines and 17 more cobalt mines would need to come into production.⁴

Congress has taken note of this surge in demand, and through the Infrastructure Investment and Jobs Act of 2021 and the Inflation Reduction Act of 2022, has decided – and we agree – that it is inappropriate, unwise and dangerous to rely on hostile, untrustworthy or unstable countries to supply our country's minerals. Congress has sent a clear message – **Now is the time to get serious about building a reliable mineral supply chain** (emphasis supplied). AEMA and its members stand ready to help build that supply chain right here in America.

Our members take great pride in producing the metals and other important minerals America needs for national and economic security, as well as the materials people use in their everyday lives. We are proud of our members' contributions across the communities and regions where

² According to the World Bank, copper is used in ten low-carbon energy technologies.
<https://pubdocs.worldbank.org/en/961711588875536384/Minerals-for-Climate-Action-The-Mineral-Intensity-of-the-Clean-Energy-Transition.pdf>

³ <https://www.smenet.org>

⁴ <https://iea.blob.core.windows.net/assets/4eb8c252-76b1-4710-8f5e-867e751c8dda/GlobalSupplyChainsOfEVBatteries.pdf>

they operate, many of which are rural areas facing significant economic and social development challenges. Notably, the U.S. mining industry is the safest, most environmentally responsible mining industry in the world. Our members have repeatedly demonstrated that mining and protecting the environment are compatible, as mineral producers make possible the development of society's basic needs and consistently minimize modern society's impacts on the environment.

We Need a Reliable Domestic Mineral Supply Chain

Recent global events have exposed the United States' supply chain vulnerabilities, highlighting the importance of an abundant and affordable supply of domestic minerals for America's future.

The fact is, global mineral demand is skyrocketing. As noted in a report from the International Energy Agency, keeping global temperature rise to below 2 degrees Celsius above preindustrial levels will quadruple the demand by 2040 for the minerals needed to build wind turbines, solar panels, and electric vehicles. A faster energy transition — reaching net zero globally by 2050 as the Biden Administration has called for— would require critical mineral inputs to increase sixfold by 2040.

Solar panels require silver, tin, copper, and lead; wind turbines use rare earths, copper, aluminum, and zinc; electric vehicles are built with copper, aluminum, iron, molybdenum; and rechargeable storage batteries use lithium, vanadium, nickel, cobalt, and manganese. Approximately 40 percent of the gold now produced is used in electronics and computer chips that are needed for clean energy technologies to meet carbon emission reduction objectives to address climate change.

President Biden has promised to convert the entire U.S. government fleet – about 640,000 vehicles by 2030 – to EVs. That plan alone could require a 12-fold increase in U.S. lithium production to manufacture the lithium-ion batteries that power EVs, according to Benchmark Minerals Intelligence, as well as increases in output of domestic copper, nickel, and cobalt - and that's just for the U.S. government vehicle fleet. The magnitude of the minerals needed for a 100 percent EV market is even more staggering, and simply cannot be ignored.

Unfortunately, a lack of access to economically viable mineral deposits and a lengthy, inefficient federal permitting system has resulted in the United States being increasingly dependent on foreign sources of strategic and critical minerals. It's time that we, as a Nation, recognize this vulnerability and the vital importance of minerals to our national security, our economy, and our everyday lives. We have heard a lot over the years about the importance of energy independence, but it is equally as important, if not more so, that we are minerals independent.

The Department of Interior's recent mineral withdrawal on the Superior National Forest is a painful example of a lack of coherence in the Biden administration's strategy in establishing robust, secure mineral supply chains that could contribute to their goals of ramping up deployment of low- or zero-carbon energy technologies to fight climate change. Projects such as Twin Metals, located within the boundaries of the Superior National Forest withdrawal, and now in serious jeopardy because of the withdrawal, could supply more than 90 percent of the United States' nickel, 88 percent of our cobalt, and roughly 33 percent of the Nation's copper. Renewable energy technologies simply do not function without these metals, especially copper.

Made in America must include “mined in America” and sourcing minerals from U.S. mines that use state-of-the-art environmental protection measures, put a premium on worker health and safety, and have financial assurances that guarantee reclamation when mining is complete.

Recycling will play an important role in meeting increasing metal demand, but it will not be enough. The IEA’s report estimates that by 2040, recycling metals from spent batteries could only supply about ten percent of the minerals that will be needed.

The United States and our economy simply need more mines. According to the USGS’ Mineral Commodity Summaries 2023, our country’s import dependence for key mineral commodities has doubled over the past two decades, with the United States now 100 percent import-reliant for 15 of its key minerals and more than 50 percent import-reliant for an additional 36 key mineral commodities. This foreign reliance continues despite the existence of significant mineral deposits of many of these commodities within our borders. Moreover, U.S. mineral import reliance continues to increase as mineral demand from essential industries, such as energy and transportation, soars. Notably, the World Bank sees mineral demand for advanced energy technologies jumping by nearly 500 percent by the year 2050.⁵ Copper demand alone may rise as much as 350 percent by 2050, according to one estimate.⁶

Mineral Withdrawals Must be Limited

In the United States, most hardrock mining takes place on federal land, after a lengthy and rigorous permitting process that involves local, state and federal regulatory agencies and many diverse stakeholders. Even after the mine begins operation, it must adhere to a myriad of environmental laws and regulations, and financial assurance instruments ensure that cleanup and restoration will take place when mining activities cease. However, mineral deposits are unique and rare. Unlike other economic development or infrastructure projects that have some flexibility in choosing where they are sited and can move accordingly - mineral deposits are where they are.

Almost every year, the federal lands available for mineral entry shrinks. According to the GAO, the federal government manages about 650 million acres, or 29 percent, of the 2.27 billion acres of land in the United States.⁷ Former Department of Interior Solicitor, John Leshy (now a professor at the University of California Hastings College of Law), estimated in 2021 that of the approximate 650 million acres of public lands, roughly 400 million acres are set aside for conservation and preservation purposes and are functionally off-limits to mining.⁸ He also calculated that during the period from 1980 to 2020, the acres of conservation and preservation lands grew from 250 million acres to 400 million acres.⁹ Federal lands have been withdrawn from mineral entry to protect a variety of “special places,” from national monuments and wilderness areas to military bases. For example, the National Conservation Lands System already includes 35 million acres of pristine, culturally diverse and scientifically important sites that have been withdrawn from mineral entry, including: 122 national monuments, 28 of which are managed by BLM; 23 national conservation areas; 30 National Scenic and Historic Trails;

⁵ <https://pubdocs.worldbank.org/en/961711588875536384/Minerals-for-Climate-Action-The-Mineral-Intensity-of-the-Clean-Energy-Transition.pdf>

⁶ (<https://www.sciencedirect.com/science/article/abs/pii/S0959378016300802>)

⁷ GAO Letter report to Senator Tom Udall entitled “*Hardrock Mining: Availability of Selected Data Related to Mining on Federal Lands*,” May 16, 2019, available at: <https://www.gao.gov/assets/gao-19-435r.pdf>.

⁸ John D. Leshy, *America’s Public Lands – A Look Back and Ahead*, 67th Annual Rocky Mountain Mineral Law Institute, July 19, 2021.

⁹ *Id.*

200 designated Wild and Scenic Rivers; 260 congressionally designated Wilderness areas; and 491 wilderness study areas.¹⁰ Congress has closed or withdrawn areas to mineral exploration in favor of other uses, including for the following:

- National Parks;
- National Monuments;
- Indian reservations;
- Various types of Bureau of Reclamation projects;
- Military reservations;
- Scientific testing areas;
- Wildlife protection areas;
- National Wilderness Preservation System and Wilderness study lands; and
- Wild and Scenic River designated and study areas.¹¹

After Executive Order 14008 in which President Biden set a goal of preserving and restoring 30 percent of U.S. lands and waters by 2030,¹² AEMA grew concerned that more withdrawals were on the way. That has proven to be true, as three withdrawals have been finalized in the first half of 2023 already.

Shrinking the available land base where mineral exploration and mining are allowed reduces the number of future mineral discoveries that can become mines. This ultimately increases the Nation's reliance on foreign minerals and thwarts the country's goals to increase domestic production and become more mineral independent. A 1999 report by the National Research Council of the National Academy of Sciences notes that "Only a very small portion of the earth's continental crust (less than 0.01%) contains economically viable mineral deposits."¹³ The Academy further noted that, on average, 1,000 mineral targets must be examined before discovering the deposit capable of becoming a mine. Every time we declare land off-limits to mining, we shrink the playing field and stack the odds higher against discovery.

Rather than asking whether additional lands need to be withdrawn, it would be more appropriate to ask whether some previously withdrawn lands with high mineral potential should become available for mineral exploration and development to address current critical minerals availability challenges. In light of our untenable and dangerous reliance on foreign minerals, it would be in the public's best interests to determine whether certain withdrawn lands that are not part of the National Park System or congressionally designated Wilderness are more valuable for their mineral resources compared to scenic, cultural, recreational or other land uses. This evaluation should consider how the modern environmental protection standards that would apply to potential mineral development would minimize environmental impacts, maximize protection of cultural resources and scenic landscapes, require reclamation when mining is complete, and enable multiple uses on these lands for mining and nearby recreational uses both during and after mining.

¹⁰ BLM website: <https://www.blm.gov/programs/national-conservation-lands>.

¹¹ See BLM website: <https://www.blm.gov/programs/energy-and-minerals/mining-and-minerals/locatable-minerals/mining-claims/locating-a-claim>; see also Attachment 5, "List of Select Federal Laws Amending or Affecting the Mining Law of 1872," identifying principal laws under which federal lands have been withdrawn from mineral entry.

¹² See Executive Order 14008 "Tackling the Climate Crisis at Home and Abroad" (January 27, 2021) and the "America the Beautiful Initiative."

¹³ National Academy of Sciences/National Research Council, "Hardrock Mining on Federal Lands" (1999), P. 23-24, available at <https://nap.nationalacademies.org/catalog/9682/hardrock-mining-on-federal-lands>

As one example of how mineral withdrawals play out to this nation's detriment, in 2012, then-Secretary of Interior, Ken Salazar, finalized the withdrawal of 1 million acres of land well outside Grand Canyon National Park in Arizona. Although there was already a buffer around the park boundary in which many activities, including mining, were prohibited, advocates of the withdrawal successfully argued that an additional "buffer beyond the buffer" was necessary.

As AEMA noted in our comments on the Arizona withdrawal at the time,¹⁴ the United States was already importing 90 percent of its uranium in 2009, and northern Arizona holds "42% of the nation's estimated undiscovered uranium endowment... To withdraw this critical resource from location and entry under the Mining Law, with no environmental benefit or necessity, is short-sighted and dangerous." In the wake of Russia's invasion of Ukraine on February 24, 2022, the United States has found the will to ban the import of all manner of Russian goods and commodities, but it is unable to wean itself off of Russian uranium imports – a troubling situation for domestic power generation and national security.

The Grand Canyon withdrawal is a real-world example of a problem AEMA has frequently raised in theory, and that is now playing out before us. The federal government placed federal lands off-limits to mineral entry that could have provided the uranium needed for power generation and national security purposes from highly regulated, state-of-the-art mining operations. The United States has often withdrawn federal public lands from mineral entry before fully understanding the mineral potential of the withdrawn lands. Although the United States had a considerable understanding of the deposits in northern Arizona, policy makers failed to fully weigh the long-term ramifications of the withdrawal, which are now coming into clearer focus. At a time when the need for carbon-free, baseload power is ramping up, some of the nuclear power industry's best domestic sources of uranium are inaccessible. This is a self-inflicted wound. Uranium is not currently listed as a "critical mineral," but has been designated as such in the past and given its strategic importance, should be returned to the list in the future.

Instead of learning the lesson of the Arizona withdrawal, we see history repeating itself, with the Department of Interior withdrawing world class deposits of copper, nickel, cobalt and platinum group metals, and with other withdrawals in South Dakota and Nevada this year, it seems the train is picking up speed. All this in the immediate aftermath of massive supply chain disruptions of a pandemic and a war in Europe.

As you understand by now, AEMA and our members oppose removing lands from mineral entry, but at the very least, every time a withdrawal or land use restriction is proposed to remove federal land from mineral entry, the decision makers should develop a full understanding of the land's mineral endowment.

BLM Proposed Rule on Conservation and Landscape Health

The Bureau of Land Management's recently proposed rule on Conservation and Landscape Health would significantly change the way BLM manages the 245 million acres of public land it oversees, most of it in western states. In this conservation rule, BLM asserts that the Federal Land Policy Management Act of 1976 (FLPMA) authorizes them to "put conservation on an

¹⁴ Northwest Mining Association (now AEMA), Comment Letter on Notice of Proposed Withdrawal, 74 Fed. Reg. 35887, October 19, 2009.

equal footing with other uses.” After nearly 50 years of responding to FLPMA’s directives for administering the public lands, BLM has apparently had an epiphany that adds conservation to the multiple uses enumerated in Section 102(a) of the statute.

The proposed rule focuses on three conservation measures: 1) an expanded use of the highly restrictive Areas of Critical Environmental Concern (ACECs) designation; 2) creating conservation leases; and 3) preserving intact landscapes. These measures are fundamentally incompatible with many of the Section 102(a) multiple uses and will functionally withdraw millions of acres of public lands from mining, logging, ranching, renewable energy development, and other important uses.

AEMA’s concerns with BLM’s proposed rule include, but are not limited to:

- **The proposed rule violates the law.** Despite BLM’s claims to the contrary, the “plain language” of FLPMA includes a list of “principal or major uses,” including mineral exploration or development, domestic livestock grazing, timber production, and a few others. The law specifies that its mandate “includes and is limited to” these uses. Notably, conservation or “nonuse” was not listed.
 - **If Congress intended for conservation to be a use “on equal footing,” they would have included it in the statutory list. BLM cannot change that.** FLPMA Section 102(b) explicitly states: “The policies of this Act shall become effective only as specific statutory authority for their implementation is enacted by this Act or by subsequent legislation.” Creating conservation leases and elevating conservation to a major or principal use is a substantial change, not a “clarification,” as BLM asserts.
 - **BLM acknowledges the novelty of the conservation lease concept** when it says “FLPMA’s declaration of policy and definitions of ‘multiple use’ and ‘sustained yield’ *reveal* [emphasis added] that conservation is a use on par with other uses under FLPMA.” The idea that this concept is just now being “revealed” 50 years after the passage of FLPMA is absurd and unlawful.
 - **The rule bears many similarities to the Planning Rule 2.0 for landscape-scale planning**, which Congress repealed in 2017 through the Congressional Review Act. This proposal gives landscape-level planning a facelift by saying it is necessary to address climate change. This new justification for landscape-scale cannot be used to resurrect a concept that Congress has already rejected.
- **Conservation leases, ACECs, and preserving intact landscapes are *de facto* land withdrawals that undermine “multiple-use” standards outlined in FLPMA.**
 - The proposal would allow leases for conservation or compensatory mitigation. As worded, BLM could extend mitigation leases **indefinitely**, precluding the balance intended under FLPMA.
 - Future uses under the proposed rule must be consistent with the purpose of the conservation lease. In testimony before the House Natural Resources Committee on May 17, 2023, BLM Director Tracy Stone-Manning acknowledged that “energy development and mining would likely not be deemed compatible with a conservation lease...”
 - As such, conservation would not just be “on equal footing,” it would be elevated above other uses.
- **Use of Areas of Critical Environmental Concern (ACECs) greatly expanded.**

- Frequently abused to prevent development, the rule would allow ACEC's to be larger and easier to designate. Areas nominated are to be managed as an ACEC until the planning process completed.
- No consideration of impacts to multiple use or mineral resources within the nominated area required.
- **The rule will exacerbate permitting delays.**
 - Under the proposal, all lands will require a "Fundamentals of Land Health" review prior to authorization for use, a process currently applied only to grazing lands. BLM already struggles with large backlogs in grazing permit renewals because of this review requirement. Applying it to all uses would only serve to increase permitting backlogs for all productive uses.
- **Creates a New Zero-Impact Standard that Ignores How FLPMA's Unnecessary and Undue Degradation Mandate Effectively Protects the Environment While Allowing Multiple Use.**
 - The rule's unnecessary or undue degradation definition restates what BLM has implemented for nearly five decades to prevent excessive or disproportionate impacts.
 - However, the new conservation measures demand zero impact in ACECs, conservation leases, and intact landscapes, which is contrary to FLPMA's acknowledgement that some degradation is necessary for multiple use to occur and the requirement to minimize that degradation.
- **The rule ignores more than 50 years of Congressional intent and direction.**
 - The Mining and Minerals Policy Act of 1970 (MMPA); FLPMA (1976); National Materials and Minerals Research Policy Act of 1980 (MMPRDA); Infrastructure, Investment and Jobs Act (2021); and the Inflation Reduction Act (2022) all direct the Executive Branch agencies to respond to the Nation's growing need for minerals. Instead, they are devising more ways to put land off-limits to exploration and development.
 - This will likely exacerbate our dependence on foreign sources of minerals at a time when mineral demand is skyrocketing. The Biden administration's own goals of fighting climate change and reducing carbon emissions require more domestic mining – not less. The rule fails to acknowledge any potential effects on our ability to develop minerals in the United States.
- **BLM's rule is incomplete, deficient, flawed and rushed.**
 - The Regulatory Flexibility Act requires federal agencies to prepare a regulatory flexibility analysis, subject to notice and comment under the Administrative Procedure Act, if the rule would have a significant economic impact on a substantial number of small businesses. BLM did not conduct a regulatory flexibility analysis prior to its arbitrary declaration that the rule "will not have a significant economic effect on a substantial number of small entities..."
 - BLM also admits that, while they believe this rule will not have an annual effect on the economy of \$100 million or more, nor cause a major increase in costs or prices for consumers, they "did not estimate the annual benefits that this proposed rule would provide to the economy," a requirement under the Congressional Review Act.

- BLM arbitrarily determined there were no federalism implications, so it did not prepare a federalism summary statement of the effects on the States, such as potential loss of economic activity or revenue.
- BLM plans to use a Departmental Categorical Exclusion under NEPA, because the rule is “too broad, speculative or conjectural” to lend itself to “meaningful analysis.” This reasoning is flawed. The rule should be subject to an EIS containing an analysis of the significant socio-economic impacts, and the environmental effects of foregoing critical and strategic mineral development.

BLM should withdraw this proposed rule.

Conclusion

Since 1970, Congress has consistently and repeatedly recognized that minerals and mining are essential to all facets of our economy, society, and national defense. For example, the Mineral and Mining Policy Act (1970), FLPMA (1976), the National Minerals, Materials Policy Research and Development Act (1980), the Energy Act (2020), the IJJA (2021), and most recently the IRA (2022) all direct the Executive Branch agencies to respond to the Nation’s need for domestic minerals.

Unfortunately, these Congressional directives have gone largely unheeded as more lands continue to be withdrawn from mineral entry and permitting timelines, costs, and risks have become intolerable. Our risky reliance on imported minerals is a direct result of five decades of ignoring Congress’ clear directives that minerals should be mined from public lands to help satisfy the Nation’s need for minerals. Despite the urgent need to increase domestic mining and reduce our dependency on foreign minerals, today it can take 10 years or more to permit a mine.

The Departments of the Interior and Agriculture must start complying with the law; compliance is not discretionary. Through their land management agencies, BLM and the Forest Service, these departments must reverse the trend of the last 50 years during which it has become increasingly difficult to access potentially mineralized public lands and to secure the necessary permits to explore for minerals and build mines.

The findings in the IJJA that “critical minerals are fundamental to the economy, competitiveness, and security of the United States” and that “the Federal permitting process has been identified as an impediment to mineral production and the mineral security of the United States” must result in constructive action to streamline permitting and eliminate permitting impediments.

We look forward to continuing to work with you to ensure America has a secure and affordable supply of the minerals and metals needed for our modern society.

Sincerely,



Mark Compton
Executive Director