



American Exploration &
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May 16, 2023

The Honorable Bruce Westerman
Chairman
House Natural Resources Committee
1324 Longworth House Office Building
Washington, D.C. 20515

The Honorable Raúl Grijalva
Ranking Member
House Natural Resources Committee
1329 Longworth House Office Building
Washington, D.C. 20515

The Honorable John Pete Stauber
Chairman
House Natural Resources Subcommittee on
Energy and Mineral Resources
1324 Longworth House Office Building
Washington, D.C. 20515

The Honorable Alexandria Ocasio-Cortez
Ranking Member
House Natural Resources Subcommittee on
Energy and Mineral Resources
1329 Longworth House Office Building
Washington, D.C. 20515

Re: House Concurrent Resolution 34 and the Superior National Forest Restoration Act

Dear Chairman Westerman, Ranking Member Grijalva, Chairman Stauber and Ranking Member Ocasio-Cortez,

The American Exploration & Mining Association (AEMA) wishes to express our support for H. Con. Res. 34, conveying the House of Representatives disapproval of the withdrawal of 225,000 acres of the Superior National Forest (SNF) from mineral location and entry; and the Superior National Forest Restoration Act. Both pieces of legislation would restore the proper balance power between the Legislative and Executive branches of government, and help secure our mineral supply chains in the United States.

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

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

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

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>

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 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 massive 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

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>.

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; 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

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.*

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>

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.

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.

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

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.

FLPMA Section 204

While many acknowledge that the legislative veto included in Section 204 of FLPMA may be unconstitutional, there is still a debate about whether the Executive branch should retain its withdrawal authority granted by the law. In *NMA v. Zinke*, litigation to which AEMA was a party in 2017¹⁵, the mining industry argued that the Ninth U.S. Circuit Court of Appeals erred in severing the Legislative veto in Section 204 from the Executive Branch's power to withdraw federal lands, a power which Congress delegated to the Executive Branch when it approved the legislation in 1976. In fact, Congress would not have delegated withdrawal authority to the Executive without the ability to subsequently review and disapprove withdrawals if it so chose.

The Ninth Circuit deploys tortured logic in striking down the Legislative veto, arguing that "the ordinary process of legislation is an obvious substitute for the legislative veto." However, the ordinary process of legislation is subject to a presidential veto, which would then require two-thirds majorities of both houses of Congress to overcome. This is a significantly steeper hill to climb, a different animal altogether than the simple majority required to approve a resolution of disapproval as described in Section 204(c).

In addition to the severability argument, Congress has the recognized authority under Article IV, Section 3 (the Property Clause) of the Constitution to make rules and regulations governing federal property. The Ninth Circuit decision shifted that power to the Executive Branch in a way that Congress clearly never intended, and would never have delegated withdrawal authority to the Executive without the veto ability.

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 IIJA (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,

¹⁵ *National Mining Association v. Zinke*, Petition for Writ of Certiorari (March 9, 2018)

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 IJA 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.

For the aforementioned reasons, we wholeheartedly support H.Con.Res. 34 and the Superior National Forest Restoration Act. 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,

A handwritten signature in black ink that reads "Mark D. Compton". The signature is written in a cursive style with a large, stylized 'M' and 'C'.

Mark Compton
Executive Director