# Congress of the United States Washington, DC 20515

April 26, 2018

The Honorable Ryan Zinke Secretary U.S. Department of the Interior 1849 C Street NW Washington DC 20240 The Honorable Wilbur Ross Secretary U.S. Department of Commerce 1401 Constitution Avenue NW Washington, DC 20230

Ms. Mary Neumayr Acting Chair Council on Environmental Quality (CEQ) 730 Jackson Place NW Washington, DC 20503

Dear Secretary Ross, Secretary Zinke and Acting Chair Neumayr:

We would like to take this opportunity to congratulate you and the President for taking the initiative to curtail our Nation's dependence on foreign sources of critical minerals. The Executive Order signed on December 17<sup>th</sup>, 2017 by the President and designating you, as well as other federal agencies, to review the Nation's need to assess our national resources is an important first step in strengthening and growing our vast and rich domestic supplies.

Recently, the Department of the Interior (DOI) and (USGS) U.S. Geological Survey published a 2018 mineral commodities summary report that found the U.S. is 100 percent net import reliant on foreign countries, including China, for 21 different critical minerals. Our present reliance on foreign nations – particularly those of questionable stability and demonstrated hostile intentions towards the United States – for critical minerals constitutes a serious national security risk which increases by orders of magnitude the more import-reliant our country becomes.

This situation has come about even though the United States could readily procure the vast majority of the 21 minerals identified in the USGS report domestically, were we only to utilize our bounty of mineral resources. Arbitrary mineral withdrawals and a federal bureaucracy that is lethargic in authorizing qualified projects by design have brought us to this precarious juncture.

House Natural Resources Committee Chairman Rob Bishop made this point clear when he said, "A country blessed with abundant mineral resources shouldn't be mineral-dependent and vulnerable. This is an economic and security threat that's festered across administrations for too long."

But – as the Trump Administration has indicated – there is yet a way forward.

We once again applaud you all and President Trump for acting to advance American resources and strengthen our national security. However, we fundamentally agree with the American

Exploration & Mining Association and others that the draft list of 35 critical minerals should be viewed as a starting place, and concur with the assessment that "Critical minerals change with economics and circumstances and require an ongoing review as a basis for effective mineral resource policy."

Accordingly, we would also like that you expand the draft Critical Minerals list to include other materials which are integral to fortifying our Nation's military and domestic infrastructure and ensuring our economy and industries are not bound to the decisions and intentions of foreign actors. These include but are not limited to:

## **Aggregates**

Aggregates, which consist of stone, sand, and gravel, provide the literal foundation for our country's infrastructure system. Expedited permitting regimes for infrastructure projects will have little to no effect if the mines and quarries that supply materials to those projects do not share the same accelerated regulatory process. A reduction in our dependence on foreign resources of aggregates is imperative if we seek to strengthen the United States domestic aggregate resources and our own economy. Being dependent on foreign supplies of construction aggregate for the development and maintenance of our military installations is not only foolish but is dangerous.

We highly recommend that aggregates be included as part of the Critical Minerals list reported back to the President and departments. Such a designation is made all the more necessary due to the impending prioritization of our nation's infrastructure, which will inflate the domestic demand for aggregates far beyond current levels. It would also strengthen our military preparedness and national security.

### Copper

In its direct application as an industrial, commercial and military-use mineral, but also in its capacity as a host or gateway to at least four minerals on the draft list – including cobalt, rhenium, tellurium and potentially rare earths – copper is in dire need of designation as a critical mineral. We stress that the latter capacity of host mineral should not go unacknowledged in this process; a mineral the mining of which is necessary for the extraction of other critical minerals itself meets the definition of a critical mineral when any of the materials it is host to are vulnerable to disruption.

Copper itself is vulnerable to the same. The U.S. currently imports 34% of its copper requirements despite having undeveloped, world class deposits. As with many critical, strategic and essential minerals, China is directly seeking to tie up long term sources of copper production with acquisitions and transactions in Latin America, Africa and other mineral rich regions of the world.

Finally, as the American Exploration & Mining Association notes, copper is necessary in the production and delivery of electrical energy, providing clean water and rebuilding America's infrastructure. It also is critical to numerous defense technologies and weapons' platforms.

Copper is essential to making brass and bronze. This metal impacts every man, woman and child's life in the U.S. For example, the average car contains approximately 1 mile of copper wiring, even more in hybrid and luxury vehicles. To say that it serves an essential function in the manufacturing of a product with significant consequences for our economy and national security is in fact an understatement.

Copper's multivarious applications facilitate hugely growing demand for it and the minerals to which it is host in our country. It would be foolish in the least that we play into the hands of adversarial foreign powers by failing to designate copper as a critical mineral, thereby effectively ceding the satisfaction of much of our future demand for it and subsidiary minerals to non-friendly powers.

# **Molybdenum**

According to the United States Geological Survey, in 2015, 56,300 metric tons of molybdenum, valued at about \$500 million dollars was produced at five mines in Arizona. Molybdenum is important because there is little substitution for its significant application in steels and cast irons. In fact, industry has sought to develop new materials that benefit from molybdenum's alloying properties due to it wide availability and versatility.

Approximately 86% of molybdenum produced is used in metallurgy, with the rest used in chemical applications. Its most common use is for the production of structural steel and stainless steel as a steel alloy, for which there is little substitution for the majority of its applications. Molybdenum can withstand extreme temperatures without significantly expanding or softening, making it useful in environments of intense heat, including military armor, aircraft parts, electrical contacts, industrial motors, and filaments.

Molybdenum therefore plays a crucial underlying function for much of our military, industrial and construction-related supply chains – and yet China's production of molybdenum outpaces that of the United States at a rate of approximately 2-to-1. In recent years, the United States has imported almost as much molybdenum as it consumes. And in fact, molybdenum is produced as a primary product or byproduct at only a handful of mines in the United States – only two of which produced molybdenum in a primary capacity, and the continued operation of which are subject to various market and corporate factors. These facts combine to create a highly precarious situation for the supply chain of this vital ore as regards any shocks or deliberately harmful trade actions by foreign powers which provide molybdenum to the United States. Increased domestic production, on the other hand, is easily possible and especially in the case of what we submit as molybdenum's rightful designation as a critical mineral.

# Gold

Gold is essential for the production of current and new technologies such as computers, smart phones, GPS and satellite technologies, medical equipment, space travel and as an industrial catalyst. It is a superior conductor and does not corrode. It also is a crucial factor in currency and economic stability. Gold's production is closely associated with many critical minerals that are or should be on the draft list, including antimony, silver, arsenic and copper.

The ability of the U.S. to continue to meet its internal demand for gold is at least in part dependent on finding, accessing and permitting additional domestic sources within the United States which are not subject to the decisions of any unreliable foreign actors. The United States produced gold in quantities slightly greater than half of that of China in 2017 and was on par with Russia's production in the same year but imported almost as much gold as it produced domestically. This means that the continued use-security of gold – vital, as it is, to many domestic industries and national security applications – cannot be guaranteed at the level of abrupt fluctuation or hostile actions by exporting foreign powers. For these reasons we recommend that gold be designated as a critical mineral immediately.

## Zinc

Zinc is essential to galvanizing other metals such as iron to prevent rust when used in infrastructure like bridges, railroads, buildings and roads. Zinc is also a primary component in making brass and bronze which are critical infrastructure materials. Zinc is essential to numerous defense technologies and weapons' platforms. The U.S. is 82% import reliant on zinc, the primary producers of which include China and India, whose production dwarfs our own. Though the United States produces 730,000 tons in 2017, China led the pack at 5,100,000 tons, while India produced 1,300,000 tons. Our substantial import reliance coupled with the production and trade actions of several involved foreign powers entails that the United States recognize the vulnerability of our zinc supply chain and designate it as a critical mineral.

# **Nickel**

Nickel is essential to making stainless steel. It also is critical to numerous defense technologies and weapons' platforms. The U.S. is 25% import reliant for nickel despite world class undeveloped resources. Nickel also is closely associated with the production of platinum group metals, copper and other critical minerals. For so crucial a metal, domestic production of Nickel accounted for 1.01% of the world's total in 2017.

### Lead

Lead's application is integral both to the production of lead acid batteries as well as several defense technologies and weapons platforms. The U.S. is 30% import reliant on lead; this is notable given that <u>our country was responsible for only 313,000 tons</u> – compared to China's 2,400,000 tons – of the globally-extracted 4,700,000 tons in 2017. Finally it should be noted that lead extraction is closely associated with the production of zinc, silver, copper and other critical minerals.

#### Silver

Silver is indispensable in manufacturing electronics because of its unsurpassed thermal and electrical conductivity. It is a key component of numerous battery and solar energy technologies. Silver also has numerous medical uses. Often, silver is produced in association with lead, copper, gold and other minerals. The U.S. is currently 67% import reliant on silver despite having

undeveloped, world-class deposits. Permitting delays spanning more than 20 years are the primary reason two large deposits in western Montana are not in production.

## **Fertilizers**

Fertilizers are primarily important to the agricultural sector and our nation's domestic food supply security. The four key macronutrients: ammonia, phosphates, potash and sulfur are essential for plant growth. With respect to the minerals which make up fertilizer, total crop yield is determined by the availability of the element in the *lowest level of concentration*. Therefore, it is of no use to have one or two of the macro elements in abundance if one of the other elements is in scarce supply as concerns the continued health of the U.S. agricultural sector. In light of the above facts, we conclude that a single fertilizer component should not be privileged above any of the others at the level of total domestic availability; however, we also note that potash was in the draft critical minerals list, while phosphates, ammonia and sulfur were not.

The American Exploration & Mining Association makes note that phosphate should be added to the list for the following reasons: (1) the combined importance of nitrogen, potash and phosphate fertilizer availability for agriculture and food security; (2) the historical dominance of the US in the phosphate-based fertilizer sector disappearing driven by a collapse in domestic reserves; and (3) the growing importance of key countries such as China, Morocco and Saudi Arabia in the global phosphate trade which could weaken U.S. position in the sector. Variations of this argument apply to the remaining fertilizers mentioned above as well.

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We are honored to have the support of the following organizations and individuals that agree with our position and have endorsed this letter: American Exploration & Mining Association, Women's for Mining Coalition, Americans for Limited Government, Arizona Mining Association, Alaska Miners Association, American Resources Policy Network, APEX, Arizona Association of Conservation Districts, Arizona Cattlemen's Association, Arizona Pork Council, Arizona Rock Products Association, ASARCO LLC, AZ BASS Nation, Bass Federation-AZ, Hibbing Area Chamber of Commerce, Hudbay Rosemont Copper Project, Idaho Mining Association, Jobs For Minnesotans, MiningMinnesota, New Mexico Cattle Growers' Association, New Mexico Wool Growers Inc., SRT Outdoors, Sulphur Springs Valley Electric Cooperative, Utah Mining Association, Yavapai Cattle Growers Association, Arizona District 6 Senator Sylvia Allen, Apache County Supervisor Doyel Shamley and Yavapai County Supervisors Thomas Thurman and Rowle Simmons.

A robust extraction and use-policy towards American minerals will be essential to the success of the Make America Great Again agenda. As such it is of paramount importance that all substances which meet the definition of critical minerals be included in the eventual list of critical minerals, for as long as they meet such definition. Success in doing so will contribute to a renewed era of American production, innovation and manufacturing; failure will facilitate continued project delays, cancellations and growing overreliance on precarious foreign importation to the detriment of our own industries.

We appreciate your thoughtful consideration of these requests and appreciate your demonstrated commitment to an in-depth review of our Nation's critical minerals.

Sincerely,

Paul A. Gosar, D.D.S.

Member of Congress

Andy **Bi**ggs

Member of Congress

Ron Estes

Member of Congress

Steve Pearce

Member of Congress

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Member of Congress

Lamar Smith

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Ralph Normar

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Mark Amodei Member of Congress Jody Hice Member of Congress

Chris Stewart Member of Congress

Doug LaMalfa

Member of Congress

Tom Emmer

Member of Congress

Cc: President Donald Trump

Secretary Sonny Perdue, U.S. Department of Agriculture

Secretary James Mattis, U.S. Department of Defense

Secretary Rick Perry, U.S. Department of Energy

Acting Secretary John Sullivan, U.S. State Department