March 19, 2018

Draft Critical Minerals List
MS-1621
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240


I. Introduction

The Women’s Mining Coalition (WMC) very much appreciates this opportunity to submit these comments on the Department of the Interior’s (“DOI’s”) draft critical minerals list and the U.S. Geological Survey (“USGS”) Open File Report 2018–1021 (“the OFR”). This letter responds to DOI’s request for comments (FR Vol. 83, No. 33, Page 7065-68) seeking input on the make-up of the draft list and offers a rationale for expanding this list.

We applaud President Trump and Secretary Zinke for their vision and leadership in recognizing the importance of developing domestic sources of the minerals that are essential to the nation’s technology, manufacturing sector, the economy, and national defense. However, for the reasons discussed herein, WMC believes the draft critical minerals list was developed using a shortsighted methodology that does not consider all aspects of the critical mineral definition in President Trump’s December 2017 Critical Minerals Executive Order (“EO”) No. 13817. Consequently, the resulting list does not conform to President Trump’s definition and does not comply with this EO because the list omits many important minerals, including but not limited to precious and base metals, that are used in the manufacturing and technology sectors and are the building blocks needed to support President Trump’s infrastructure agenda.

President Trump’s EO and Secretary Zinke’s Secretarial Order (“SO”) 3359 clearly establish this Administration’s policy directives to increase the supply of domestic minerals. Unfortunately, in developing the draft critical minerals list and the OFR, the USGS has not completed the assignment it was given in EO 13817. Neither the draft list nor the OFR adequately respond to the Administration’s mandate to reduce the nation’s reliance on foreign minerals by increasing the exploration for and development of domestic minerals resources.
Additionally, WMC is concerned that the draft critical minerals list is not consistent with the requirements of the National Materials and Minerals Policy, Research and Development Act of 1980 (“1980 Act”). (30 U.S.C. §§ 1602 – 1605). The 1980 Act requires the President and the Secretary of the Interior to develop comprehensive programs that address the nation’s needs for reliable supplies of domestic minerals. As noted in SO 3359, this law provides the statutory authority for the critical minerals policies articulated in EO 13817 and SO 3359.

This Administration’s domestic mineral policies are a much-welcomed change from the past and are extremely important to WMC’s members working in the hardrock mining sector. We completely support President Trump’s and Secretary Zinke’s efforts to streamline the mineral exploration and development permitting process. We believe that measures to reduce permitting timelines, costs, risks, and uncertainties will stimulate domestic exploration and development and help reduce the nation’s reliance on foreign minerals.

About WMC

WMC is a grassroots organization with members nationwide. Our members work in all sectors of the mining industry including hardrock, industrial minerals, and coal; energy generation and mining-related distribution, manufacturing, transportation, and service industries. We hold annual Washington, DC Fly-Ins to meet with members of Congress and their staff, and federal land management and regulatory agencies to discuss issues of importance to both the hardrock and coal mining sectors.

For many years, WMC has been concerned about the country’s steadily increasing reliance on foreign minerals. During the last several Fly-In’s we have presented the charts shown in Exhibit I from the 1996 and 2017 USGS’ Mineral Commodity Summaries. These charts document a shocking increase in the net mineral import reliance in the 21-year period from 1995 to 2016. Given our focus on this important issue, we fully support this Administration’s initiatives to take the necessary steps to reverse this alarming trend.

A number of WMC members are exploration geologists who have firsthand knowledge of the country’s mineral endowment. Many other WMC members are environmental professionals who help companies get the permits needed to explore for minerals and build mines. Based on this collective expertise, we know that our increasing reliance on imported minerals is not due to a lack of domestic mineral targets warranting exploration and potential development. Rather, WMC believes that the increase in the nation’s foreign mineral reliance is due in large part to unfavorable federal policies – regulatory barriers, permitting delays, land withdrawals, and land use restrictions that impede, and in some cases prohibit, mineral exploration and development. As described below, the USGS must consider these policy impediments in a revised OFR and in an expanded critical minerals list.

II. The Draft Critical Minerals List and the OFR Do Not Adequately Respond to EO 13817

There are two fundamental problems with USGS’s work products. First, the draft critical minerals list does not comply with President Trump’s critical minerals definition. Secondly, the OFR is unresponsive to the directives in EO 13817 to reduce the country’s reliance on foreign minerals.

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Section 2 of EO 13817 defines a critical mineral as follows:

(i) a non-fuel mineral or mineral material essential to the economic and national security of the United States;
(ii) the supply chain of which is vulnerable to disruption; and
(iii) that serves an essential function in the manufacturing of a product, the absence of which would have significant consequences for our economy or our national security.

The USGS’ methodology largely ignores this definition and fails to respond to the key directives in this EO. The resulting draft critical minerals list is thus inconsistent with the definition in EO 13817. The OFR and the draft list do not consider all of the minerals that are “essential to the economic and national security of the United States,” as the first clause in President Trump’s critical minerals definition requires.

The OFR fails to analyze the reasons the U.S. is so dependent on foreign minerals. WMC strongly recommends that DOI’s response to the directives in EO 13817 requires a careful evaluation of how the unfavorable federal policies discussed in Sections III and IV restrict development of the domestic supply chain for critical minerals. The narrowly focused OFR does not properly consider the essential role that increasing domestic production of the nation’s mineral resources would play in reducing the nation’s reliance on foreign sources of minerals and reduce supply chain vulnerabilities. Consequently, the OFR does not satisfy the main purpose of EO 13817, which is to reduce the vulnerability of the critical mineral supply chain and the nation’s reliance on foreign minerals.

The third element of the critical minerals definition in EO 13817 explicitly defines minerals essential to the manufacturing of products as critical minerals. The draft critical minerals list ignores this component of the critical minerals definition and omits many essential minerals like gold, silver, copper, lead, zinc, nickel, etc. that are essential to many manufacturing sectors, technology, and infrastructure. The USGS needs to expand the critical minerals list to include all minerals that are essential to the manufacturing sector in order to satisfy the third clause of President Trump’s critical minerals definition.

Minerals deposits of gold, silver, copper, lead, zinc, nickel and others typically serve as the hosts for critical minerals that are produced as byproducts of the host minerals. As discussed in Section V, this host-byproduct relationship is another reason why the USGS must expand the critical minerals list to include host minerals.

Section 3 of EO 13817 establishes the following policy:

“It shall be the policy of the Federal Government to reduce the Nation’s vulnerability to disruptions in the supply of critical minerals, which constitutes a strategic vulnerability for the security and prosperity of the United States. The United States will further this policy for the benefit of the American people and in a safe and environmentally responsible manner, by:

(a) identifying new sources of critical minerals;

(b) increasing activity at all levels of the supply chain, including exploration, mining, concentration, separation, alloying, recycling, and reprocessing critical minerals;
(c) ensuring that our miners and producers have electronic access to the most advanced topographic, geologic, and geophysical data within U.S. territory to the extent permitted by law and subject to appropriate limitations for purposes of privacy and security, including appropriate limitations to protect critical infrastructure data such as those related to national security areas; and

(d) streamlining leasing and permitting processes to expedite exploration, production, processing, reprocessing, recycling, and domestic refining of critical minerals.

To satisfy each element of the policy objectives in EO 13817 and President Trump’s critical minerals definition, USGS must revise and expand the critical minerals list to include all minerals essential to our economy and national security. Similarly, a revised OFR must discuss the factors currently constraining domestic mineral exploration, development, and production.

WMC would like to express its strong support for President Trump’s directive to develop better topographic, geologic, and geophysical data. We are confident that improvements in technology and better access to fundamental mapping and geophysical data will lead to new discoveries of domestic mineral deposits that can be developed into mines that produce minerals and reduce our reliance on mineral imports.

III The Protracted and Costly Federal Permitting Process Impedes Domestic Mineral Production and Increases the Nation’s Net Minerals Import Reliance

Section 1 of EO 13817 states:

“Despite the presence of significant deposits of some of these [key] minerals across the United States, our miners and producers are currently limited by a lack of comprehensive, machine-readable data concerning topographical, geological, and geophysical surveys; permitting delays; and the potential for protracted litigation regarding permits that are issued. An increase in private-sector domestic exploration, production, recycling, and reprocessing of critical minerals, and support for efforts to identify more commonly available technological alternatives to these minerals, will reduce our dependence on imports, preserve our leadership in technological innovation, support job creation, improve our national security and balance of trade, and enhance the technological superiority and readiness of our Armed Forces, which are among the Nation’s most significant consumers of critical minerals.” (EO 13817 Findings at 1)

WMC members have direct experience with the time-consuming and costly permitting process for domestic mineral exploration and development – especially for mineral deposits on public lands. We believe that the arduous permitting process, which is fraught with risks and uncertainties, is one of the key reasons for the country’s reliance on foreign minerals. We thus welcome and support the permit streamlining directives in EO 13817 and SO 3359 to reduce permitting delays, costs, risks, and uncertainties. WMC believes that streamlining the permitting process would stimulate investment in the exploration and development of U.S. mineral deposits, capitalize upon our nation’s rich mineral endowment, and enable the country to become less reliant in the future on imports of foreign minerals.
The U.S. currently suffers from a bad reputation as having a very slow and risky permitting process. This reputation discourages mineral investment. For example, in a 2013 survey of favorable countries for mineral investment, the U.S. was tied with Papua New Guinea for last place as having the slowest permitting process – taking from seven to 10 years. Investors’ impressions that the U.S. permitting process is risky significantly limits investment in the U.S. mineral exploration and mining sectors. Our reputation as a difficult place to secure permits for mineral exploration and development puts the U.S. mineral industry at a competitive disadvantage, leaving many worthwhile mineral projects underfunded – or not funded at all. The permit streamlining directives in EO 13817 and SO 3359 will help de-risk project development and stimulate investor interest in financing U.S. mineral exploration and development projects.

We note that the OFR does not attribute the country’s net import reliance on an inadequate domestic mineral endowment or a lack of viable domestic mineral deposits. This is a very significant point that cannot be overlooked in assessing the reasons for our import reliance. WMC believes that the challenges in attracting investment and financial support due in large measure to the country’s reputation as having a costly, time-consuming, and risky permitting process is one of the key reasons we import so many of the minerals we need.

The lack of adequate investment has significantly slowed down the rate of discovery of new domestic mineral deposits. Consequently, the number of new domestic mineral discoveries that can be developed into mines in the foreseeable future is small. This shortage of new discoveries has produced a steady decline in U.S. mineral production and a concurrent increase in our reliance on mineral imports.

WMC believes the OFR is incomplete and of limited application because it does not evaluate the steps the country needs to take to reduce our reliance on foreign minerals. As part of this analysis, the USGS should revise the OFR to identify policies that would promote timely exploration and development of the country’s mineral wealth in order to reduce our reliance on foreign minerals.

IV. Land Use Policies Reduce Mineral Production and Increase the Country’s Net Import Reliance

The USGS should also examine how federal land use policies that withdraw lands from mineral entry and impose problematic land use restrictions that impede mineral exploration and development are another reason for the country’s reliance on foreign minerals. For example, there are over 109 million acres of Congressionally-designated Wilderness Areas which are off-limits to mineral activities. Although some WSAs have mineral potential, these federally protected areas will be forever unexplored and undeveloped unless Congress changes the status of these lands.

Another 12.6 million acres are Wilderness Study Areas (“WSAs”), which BLM manages “to preserve wilderness characteristics so as not to impair the suitability of such areas for designation by Congress as wilderness regardless of their suitability for wilderness designation in a manner to prevent impairment of wilderness characteristics.” This non-impairment criterion, which applies to all WSAs – including those that BLM has recommended as non-suitable for wilderness – severely limits mineral activities.

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4 https://www.fs.fed.us/managing-land/wilderness
5 BLM Manual 6330 at 1-2.
In September 1999, BLM recommended to Congress that roughly 8.8 million WSA acres were “non-suitable” for wilderness designation. Unfortunately nearly 20 years later, Congress has not decided whether to confer wilderness status on those WSAs that BLM identified as suitable for wilderness designation and to release the non-suitable WSAs back to a multiple use management status. Congressional action on the WSAs is relevant to the issue of the nation’s reliance on foreign minerals because some WSAs have mineral potential. Restoring these lands to multiple use where exploration and mining can take place could lead to discoveries of mineral deposits that could become sources of critical minerals.

The 2015 Greater Sage-Grouse management plans are an example of an administrative policy that imposes serious land use restrictions that severely impact mineral activities. The travel restrictions, seasonal constraints, buffer zones, and noise limits, are examples of the restrictions in these plans that are problematic for mineral exploration and development. The Sagebrush Focal Areas and the proposed withdrawal of roughly 10 million acres of lands from operation of the Mining Law was especially troubling. WMC is pleased that this proposed withdrawal is no longer under consideration and hopes that the ongoing effort to reevaluate these plans will lift or minimize some of the barriers to mineral activities and other multiple uses.

We raise the Sage-Grouse land management plans as an example of how administrative actions chill investment in U.S. mineral projects by sending the signal that the western U.S. is a difficult and unfriendly place for mineral exploration and development. In response to EO 13817, the DOI should evaluate how policies that withdraw lands from mineral entry, limit access to public lands, or impose land use restrictions that make mineral exploration and development difficult if not impossible are inconsistent with the Trump Administration’s objectives to increase domestic mineral production and reduce the country’s net import reliance.

V. The Critical Minerals List Must be Expanded to Include Host Minerals

The OFR’s distinction between critical minerals and their mineral hosts is not relevant to EO 13817. Although WMC recognizes that this distinction is useful in a geologic context, it is not consistent with the definition of critical minerals in EO 13817 and should not be used in USGS’ response to EO 13817.

The OFR explicitly states that many of the minerals on the draft critical minerals lists are not typically produced on their own; they are byproducts from the production of other “host” minerals like gold, copper, nickel, zinc, and others:

“Many commodities are not mined directly, but are instead recovered during the processing, smelting, or refining of a host mineral and are, therefore, deemed “byproducts.” … Byproducts are almost never independently economically viable to mine, thus relying on the economics of the material being mined, which may then yield an economically recoverable concentration of the byproduct…” (OFR at 9-10).

Despite USGS’ admission that byproduct critical mineral production is inseparable from producing the host minerals, the OFR curiously omits the host minerals from the draft critical minerals list. Consequently, the draft list is incomplete and does not fulfill the directives in EO 13817. The following statement in the OFR makes it obvious that host minerals are critically important and should not be excluded from the critical minerals list:

“…strategies to increase the domestic supply of these [critical mineral byproduct] commodities also should consider the mining and processing of the host materials because enhanced recovery of byproducts alone may be insufficient to meet U.S. consumption” (OFR at 10)

Because host minerals are a significant – and in some cases the only – source of many of the critical minerals already on the draft list, the USGS must add the host minerals to the critical minerals list in order to respond to EO13817.

Another reason why EO 13817 requires the USGS to add host minerals to the critical minerals list is that host minerals are essential to the manufacturing of products critical to our economy and national security. The third clause of President Trump’s critical minerals definition explicitly sweeps in all minerals that “serve[s] an essential function in the manufacturing of a product, the absence of which would have significant consequences for our economy or our national security.”

WMC members who are geologists are greatly troubled by the mischaracterization of host mineral deposits like copper, gold, and silver as “ubiquitous” (OFR at 8). USGS appears to imply that deposits of copper, gold, silver and other important minerals currently excluded from the critical minerals list are not critical because they are so commonplace (i.e., “ubiquitous”). Deposits of gold, silver, copper, zinc, nickel, etc. are geologic rarities that are difficult and expensive to discover and develop. We hope this misstatement is simply an editing error that will be corrected in a revised OFR. However, WMC is concerned that the omission of host minerals from the critical minerals list is premised on the geologically absurd notion that host minerals are everywhere and easy to find.

VI. The Critical Minerals List and the OFR Do Not Comply with the National Materials and Minerals Policy, Research and Development Act of 1980

In the National Materials and Minerals Policy, Research and Development Act of 1980 (“the 1980 Act”) at 30 U.S.C. §§ 1602 – 1605 Congress found the following:

“a need for a coordinated program to ensure the availability of materials critical for national economic well-being, defense, and industrial production.” The definitions and directives in EO 13817 and SO 3359 respond to the findings in the 1980 Act and implement its mandates.

“the United States lacks a coherent national materials policy and a coordinated program to assure the availability of materials critical for national economic well-being, national defense, and industrial production, including interstate commerce and foreign trade.” (30 U.S.C. § 1601(7).

“…it is the continuing policy of the United States to promote an adequate and stable supply of materials necessary to maintain national security, economic well-being and industrial production with appropriate attention to a long-term balance between resource production, energy use, a healthy environment, natural resource conservation, and social needs.” (30 U.S.C. § 1602)

7 Secretarial Order 3359 cites the 1980 Act as statutory authority for the order.
WMC very much appreciates President Trump’s and Secretary Zinke’s efforts to develop policies to implement the 1980 Act, which previous administrations ignored for over three decades. This administration’s policies to respond to the directives in the 1980 Act by could help stimulate domestic mineral exploration and mine development because it sends a clarion signal that once again, the U.S. is open for responsible mineral exploration and development.

EO 13817 and SO 3359 respond to the following directives in the 1980 Act:

- Identify materials needs and assist in the pursuit of measures that would assure the availability of materials critical to commerce, the economy, and national security. (30 U.S.C. § 1602(1));

- Direct that the responsible departments and agencies identify, assist, and make recommendations for carrying out appropriate policies and programs to ensure adequate, stable, and economical materials supplies essential to national security, economic well-being, and industrial production; (30 U.S.C. § 1603(1));

- Support basic and applied research and development to provide for…advanced science and technology for the exploration, discovery, and recovery of nonfuel materials, (30 U.S.C. § 1603(2)(A))

- Assess Federal policies which adversely or positively affect all stages for the materials cycle, from exploration to final product recycling and disposal (30 U.S.C. § 1603(8));

- Promote and encourage private enterprise in the development of economically sound and stable domestic materials industries (30 U.S.C. § 1602(6)); and

- [Make] recommendations for the collection, analysis, and dissemination of information concerning domestic and international long-range materials demand, supply and needs. (30 U.S.C. § 1604(2)).

The directives in EO 13817 will implement the key elements of the 1980 Act and take significant steps to reduce the country’s reliance on mineral imports.

It is important to note that both the 1980 Act and EO 13817 seek to reduce the nation’s reliance on imported minerals from all countries – not just countries that are or may become hostile to the U.S. The OFR inappropriately excludes imports from friendly countries like Canada from the scope of the problem, stating: “…high net import reliance should not be construed to always pose a potential supply risk. For example, three of the commodities deemed critical or near critical are primarily imported from Canada, a nation that is integrated with the United States defense industrial base.” (OFR at 9). This position is inconsistent with the directives in both the 1980 Act and EO 13817 to increase domestic production of minerals in order to reduce the country’s reliance on mineral imports from all countries. Neither the 1980 Act nor EO 13817 include special dispensation for mineral imports from our allies – especially for those minerals with which the U.S. is endowed and that could be produced from U.S. mines.

VII. Conclusions

WMC very much appreciates this opportunity to provide comments on the draft critical minerals list and the OFR. We would like to thank the Trump Administration for focusing on the importance of improving
our supply of domestic minerals and reducing the nation’s reliance on foreign minerals. WMC believes this Administration’s efforts to eliminate the regulatory barriers and permitting delays that stand in the way of the responsible and timely development of domestic mineral deposits will help stimulate investment in America’s mineral sector.

Given WMC’s longstanding concerns about the country’s increasing reliance on imported minerals, we would very much appreciate the opportunity to discuss critical minerals in more detail with USGS and DOI officials during our April 23-26, 2018 Washington, DC Fly-In. We will be contacting you soon to try to schedule meetings on this important matter.

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EXHIBIT 1
1995 and 2016 U.S. Net Import Reliance Charts
Sources: 1996 and 2017 USGS Mineral Commodity Surveys