

**Written Statement of Thomas Tidwell
United States Forest Service Chief (2009-2017)**

**Hearing on HR 2794, the Boundary Waters Wilderness Protection and Pollution
Prevention Act**

**Before the Subcommittee on Energy and Mineral Resources
Natural Resources Committee
U.S. House of Representatives**

May 24, 2022

I join you today to express my strong support for Representative McCollum's bill, HR 2794, the Boundary Waters Wilderness Protection and Pollution Prevention Act. My support for this legislation is informed by my direct experience with this issue during my time as the Chief of the Forest Service from 2009 to 2017, spanning the Obama Administration and the first eight months of the Trump Administration along with my experiences throughout my 41 year Forest Service career.

Permanent protection for the headwaters of the Boundary Waters Canoe Area Wilderness (Boundary Waters) is the right thing to do for both present and future generations and is in line with the science and decades of established law.

In December 2016, as Chief of the Forest Service, I exercised my legal authority to withhold consent to the renewal of hardrock mineral leases within the lands encompassed by HR 2794. My 2016 written decision describes in detail the reasons why sulfide-ore copper mining in the Boundary Waters watershed is incredibly risky and incompatible with the Wilderness Act and the 1978 Boundary Waters Wilderness Act and with the Forest Service's obligations to protect the Boundary Waters' unparalleled and irreplaceable wilderness values. My decision, attached to my written statement to this Committee, was based on an exhaustive review of the scientific record and engagement with the public.

Since 2016, the scientific record has only grown stronger. At least two dozen new scientific reports document the likelihood of harm if sulfide-ore copper mining were allowed on Superior National Forest lands in the watershed of the Boundary Waters. Attached with my testimony is a summary and collection of the relevant science, including additional scientific, economic, and human health reports developed since December 2016.

My decision to deny the renewal of the leases, was based on the inherent risk of sulfide-ore copper mining and the high potential for release of mine pollution, including but not limited to acid mine drainage, into the water rich environment of the Boundary Waters watershed. A 2012 review of water quality impacts from 14 operating U.S. sulfide-ore copper mines found that 100% of the mines experienced pipeline spills or accidental releases and 13 out of 14 mines experienced failures to control contaminated mine seepage, leading to harmful water quality impacts. In a 2019 update to the 2012 report, available records reflecting the performance of 15 U.S. copper mines were examined, the combined output of which represented essentially all (99%) of U.S. copper production in 2015 and found that 14 of the top 15 copper mines (93%) failed to capture and control wastewater, resulting in significant water quality impacts. Just this April, a report of five hardrock mines in Alaska documented 8,150 spills from 1995 to 2020. These risks are only further exacerbated in the wet environment and uniquely interconnected hydrogeology of the Superior National Forest and Boundary Waters.

Others share my concerns about what the science tells us is likely to happen to the Boundary Waters if sulfide-ore copper mining is allowed in the watershed. This scientific record is why a group of retired Forest Service scientists and former Superior National Forest resource managers and specialists wrote a letter to former Interior Secretary David Bernhardt and former Agriculture Secretary Sonny Perdue detailing the environmental risks of siting a sulfide-ore copper mine in the Boundary Waters watershed. Among the signatories is Brenda Halter, the former Superior National Forest Supervisor. Brenda's local experience and scientific expertise make her one of the most knowledgeable people on the likely impacts of sulfide-ore copper mining on the Boundary Waters. Brenda was joined by an impressive group of retired Forest Service scientists and previous Superior National Forest land managers in signing the joint letter attesting to the environmental risks of siting a sulfide-ore copper mine in the Boundary Waters watershed. These colleagues represent nearly 1,000 years of combined professional and scientific expertise AND direct experience working with Boundary Waters. They provide a unique and valuable perspective that should not be overlooked. This letter is included with my testimony.

In 2018, the Trump Administration reinstated and renewed the leases that I determined posed an unacceptable risk to the Boundary Waters. The Trump administration also abruptly terminated a scientific study by Forest Service scientists and resource experts of a proposed administrative mineral withdrawal. While claiming that their findings in the cancelled study justified the decision to cancel the proposed withdrawal, the Trump Administration refused to disclose the findings or any of the purported evidence with either Congress or the public. If this review had truly suggested that sulfide-ore copper mining does not threaten the Boundary Waters, then the Trump Administration would have simply completed and published the study.

Even though the current Administration has cancelled the leases and reinstated the process to recommend 225,378 acres of Superior National Forest lands to be withdrawn from mineral leasing program, the need for permanent protection is validated by the Trump Administration when it arbitrarily reinstated and renewed the leases that I determined, and current Forest Service Chief Moore has reaffirmed, posed an unacceptable risk to the Boundary Waters.

The Boundary Waters is both ecologically and culturally irreplaceable. The very characteristics that make it so valuable also make it extremely susceptible to degradation and impossible to remediate should pollution occur. The Duluth Complex is acid generating because it contains low-grade sulfide-bearing ore. Mine waste would be a source of water degradation for hundreds of years. Sound natural resource management means allowing acceptable uses in places where risks can be minimized, monitoring can be effective, and remediation can be quick and complete. NONE of these criteria can be met by sulfide-ore copper mining on National Forest lands in the watershed of the Boundary Waters.

Minnesota has a strong history of mining, and the passage of this bill will have little impact on that industry since the area withdrawn would be only a small part of the Duluth Complex and not affect the high-grade Mid-Continent Rift deposits located to the south. The mineral withdrawal area would remove from mineral development only four out of nineteen known deposits in the Duluth Complex. In addition, if federal lands and minerals in the watershed of the Boundary Waters was mined it would produce an insignificant quantity of metals relative to the United States' demand. It also would require the ore to be shipped outside of the United States, most likely to China, for processing and then sold on the world market.

I stand by my decision that sulfide-ore copper mining in the watershed of the Boundary Waters is unacceptable. The risks are high. The rewards are low. And our ability to fix anything when it goes wrong is non-existent without compromising the very wilderness characteristics that we are legally and ethically required to protect.

And even though the current Administration has reaffirmed my decision, it is obvious that a future Administration could arbitrarily change the decision and the DOI solicitor's opinion and subject the area to the risks of sulfide-ore mining.

Again I urge the committee to support this bill and ask that the House and Senate to move swiftly to enact it into law.

Scientific Evidence Supporting Withdrawal

Much of the scientific evidence documenting the irreplaceable values of the Boundary Waters as well as the risks posed by sulfide-ore copper mining in the watershed of the Boundary Waters are detailed in my decision letter from December 14, 2016 included as Attachment 1. The letter includes a 7-page bibliography of the scientific basis for my decision. Those cited materials and additional post-2016 scientific reports can be found at www.SavetheBoundaryWaters.org/resouce-library and are attached as Attachment 2. In addition, a map that depicts the pathway of the flowage of pollution is attached as Attachment 3. The map is based on a peer-reviewed and published hydrology study of the watershed of the Boundary Waters. The letter signed by a group of retired Forest Service scientists and former Superior National Forest resource managers and specialists is included with my testimony as Attachment 4.

The most visited Wilderness Area in the country, the Boundary Waters is the only large-scale protected sub-boreal forest in the lower 48 United States. The Superior National Forest, which includes the Boundary Waters, represents 1.6% of the National Forest System's total acreage, yet it holds 20 percent of the fresh water in the National Forest System. In addition to the existing high quality of the waters, the dramatic hydrogeology and interconnectedness of the Boundary Waters watershed's forests, lakes, streams, and wetlands make the region unique and highly susceptible to degradation. Scientific studies of the hydrogeology of the Boundary Waters show that contaminants released within the watershed will spread quickly into surface waters that flow through the Boundary Waters, Voyageurs National Park, and Canada's Quetico Provincial Park. Even if it were possible to capture and contain acid mine drainage before it travels deep into the Boundary Waters, common remediation techniques such as water diversions, water treatment plants, and containment basins, as well as the roads and infrastructure needed to construct and operate them for decades are incompatible with Wilderness, and inconceivable in this freshwater-rich landscape. A photo by National Geographic photographer Jim Brandenburg of the Boundary Waters is attached as Attachment 5. It shows the interconnected waterways and boreal forests of the Wilderness.

The Boundary Waters, while perhaps best known for its incredibly fishery, also holds abundant and diverse habitat for a wide array of wildlife species including three threatened or endangered species: Canada Lynx, northern long-eared bat, and gray wolf. Especially in the face of climate change, the Boundary Waters will be critical to the continued existence of these and other species in Minnesota.

The science regarding the ecological, recreational, and economic values of the Boundary Waters is clear, as is the science regarding the threats posed to these values by sulfide-ore copper mining. Acid mine drainage (AMD) generally occurs when sulfide minerals present in ore bodies and rock overburden are exposed to air and water. AMD includes sulfuric acid, which decreases water pH, and leaches sulfate and harmful heavy metals such as arsenic, cadmium, and lead into groundwater, lakes, wetlands, and rivers. Hardrock mines in sulfide-bearing ore bodies like those that underlay the lands in question are known worldwide for producing AMD.

The bedrock geochemistry in northeastern Minnesota makes the surface waters of this area, including those in the Boundary Waters, particularly sensitive to acid deposition and acid runoff. This is due to the lack of carbonate bedrock to provide buffering capacity – meaning in plain terms that the waters of the Boundary Waters, while incredibly pure, are also poorly equipped to handle an influx of AMD. The resulting decline in the pH of the water is extremely harmful to the aquatic ecosystem and food chain.

Mining would inevitably – indeed by definition – result in ore bodies being exposed to air and water. Given their composition, resulting drainage will be acidic. Further, all water draining from a sulfide-ore copper mine in the watershed would carry heavy metals pollution, sulfate, and other contaminants into the Boundary Waters and federally-protected waters around it.

The United States needs minerals, but not from the proposed withdrawal area. The risk is just too high. Copper is abundant throughout the world and the U.S. exports copper. Any new copper-nickel mines would have to send ore concentrates out of the United States, most likely to China, for final processing, and then sold on the world market. The United States does not have a significant amount of nickel ore and we will continue to rely on Canada and our other key trading partners, Norway, Australia, and Finland as our leading suppliers (USGS OFR-1127, p.5). Also the proposed Twin Metals mine would produce a very small quantity of cobalt as a by-product from smelting and refining nickel concentrates that would occur off-shore, most likely in China (Twin Metals Project 2014-10-06 Pre-Feasibility Study, p.1-25). In 2020 the United States exported 18 times as much cobalt as the proposed Twin Metals would produce each year.

Administrative Actions to Date

During the period leading up to my December 14, 2016 decision to withhold consent to renewal of the leases, the Forest Service conducted a thorough scientific review, provided a 30-day comment period, and held two public meetings and numerous meetings with stakeholders, elected officials, and others. In contrast, the process to reverse my decision and begin fast-tracking mining approvals has involved a complete lack of transparency and public input. Included as Attachment 6 with my testimony is a timeline of key Administrative and legal actions regarding the Boundary Waters to date.

In particular, I'd like to focus your attention on the consideration of the Forest Service's application for a 20-year mineral withdrawal for the lands encompassed in HR 2794, which was initiated in January 2017. The Forest Service based the request for withdrawal and a subsequent environmental study on the already documented scientific concerns with the impacts of sulfide-ore copper mining on the Boundary Waters. Over the course of the review, the Forest Service received more than 180,000 public comments, of which 98% support withdrawal. Additional science that was made publicly available underscored and deepened previous concerns. Yet, in September 2018 the Secretary of Agriculture Sonny Perdue, announced the termination of the study and cancellation of the withdrawal request. This announcement was made 20 months into a 24-month study. The Department of Agriculture failed to share the results of this taxpayer-funded effort with the public or Congress. Moreover, while the Secretary Perdue asserted that the study had uncovered no new scientific evidence, in fact new scientific reports were submitted during the study. Even if there had been no new science uncovered during the first 20 months of study, that would have substantiated – not undercut – the conclusion in my December 14, 2016 decision letter that sulfide-ore copper mining in the Boundary Waters watershed is fundamentally incompatible with the Forest Service's responsibility and legal obligations.

On October 20, 2021, the Department of Interior announced that once again the U.S. Forest Service had filed an application for a 20-year mineral withdrawal, this time for 225,378 acres of federal lands and minerals in the Superior National Forest and within the watershed of the Boundary Waters. The U.S. Forest Application for a Superior National Forest Mineral Withdrawal is attached to my testimony as Attachment 7. This commenced a 2-year

segregation of the 225,378 acres, along with a 90-day comment period on the application's proposed mineral withdrawal. And once again the vast majority of over 270,000 comments were in support of the mineral withdrawal.

In addition, in November 2021 the Minnesota Department of Natural Resources (DNR) held a 30 day comment period where the DNR received over 10,000 comments in favor of amending DNR rules to ban copper-nickel mining in the entirety of the Rainy River headwaters.

On January 25, 2022, Department of Interior Principal Deputy Solicitor Ann Bledsoe Downs issued a Memorandum Opinion finding that the two federal leases held by Twin Metals were improperly renewed and were subject to cancellation. Her letter is attached as [Attachment 8](#). The Principal Deputy Solicitor determined that the renewal of the two leases by the prior administration violated BLM mining regulations, violated NEPA, and violated laws that grant the US Forest Service the authority to consent or to withhold consent to all mining decisions (including lease renewals) in Minnesota's national forests. In 2016, the U.S. Forest Service issued its determination to withhold consent to the renewal of the two federal leases. The Trump administration renewed the Twin Metals leases in 2019 notwithstanding the Forest Service's consent denial. In a letter to the BLM dated January 24, 2022 the Forest Service confirmed that its 2016 decision to withhold consent was not withdrawn and continues to remain the position of the agency. Forest Service Chief Randy Moore's letter is attached as [Attachment 9](#).

On January 26, 2022, Interior Deputy Secretary Tommy Beaudreau signed the Department of Interior (DOI) decision cancelling the two Twin Metals leases. Deputy Interior Secretary Tommy Beaudreau's decision is attached as [Attachment 10](#). The cancellation decision notes that because of the ongoing federal mineral withdrawal process which segregates federal lands with Superior National Forest from the federal mining program, DOI will not issue Twin Metals any amended leases, will not reinstate any leases or reconsider Twin Metal's prior lease renewal applications, and will not reinstate any leases prior to 2004 (prior to the second 10-year renewal) and further noted that the DOI and the Bureau of Land Management are barred from issuing any new leases to re-lease the lands covered by these two cancelled leases.

Legal Basis for Boundary Waters Protection

The decisions made during my tenure as Forest Service Chief were entirely in line with the legal framework requiring our decisions to be made in the best interests of the public and to ensure protection of the unique resources of the Boundary Waters.

The Superior National Forest falls under a unique legal regime for hardrock mining that is designed to protect the outstanding recreational values of the National Forest and the Boundary Waters. Under a 1950 statute, mineral leasing and development can only occur with the consent of the Forest Service, which in turn is obligated under the 1978 Boundary Waters Canoe Area Wilderness Act to protect wilderness values and to protect the water quality of the Boundary Waters and a Mining Protection Area within the Superior National Forest from mining impacts to the maximum extent possible. These laws and the Forest Service's obligations under

them informed my 2016 decision to withhold consent to renewal of hardrock mineral leases that the science showed would create an unacceptable risk to the Boundary Waters.

Mining advocates have advanced a distorted interpretation of these laws – claiming that the 1978 Boundary Waters Act in particular somehow implicitly authorized mining outside the Boundary Waters and the Mining Protection Area. To the contrary, the Act requires protection of the Boundary Waters and the Mining Protection Area from mining located elsewhere on the Superior National Forest and is congruent with, and paves the way, for the additional protections included in HR 2794.

Nor does the 2004 Superior National Forest Plan mandate mining. The Plan did not contemplate, analyze, or anticipate sulfide-ore copper mining, and mining was identified as one of the “issues not addressed in detail” in the process. At the time of the 2004 Forest Plan revision no one was actively pursuing copper mining on the Superior National Forest. Forest plans do not mandate activities. The Superior National Forest Plan does, however, provide direction for protecting the Boundary Waters and recreational and ecological values on the Superior National Forest, all of which would be threatened by sulfide-ore copper mining.

I believe that passage of HR 2794 is essential. It would be another important chapter in the bipartisan history of working to ensure permanent protection for this irreplaceable national resource, the Boundary Waters Canoe Area Wilderness.

Attachments to Written Statement of Tom Tidwell

1. Letter dated December 14, 2016 from USFS Chief Tom Tidwell to BLM Director Neil Kornze re: withholding consent to two applications to renew Twin Metals federal mineral leases
2. Science Summary dated April 2022
3. Path of pollution map based on hydrological study by Dr. Tom Myers, "Acid mine drainage risks – A modeling approach to siting mine facilities in Northern Minnesota USA," J. Hydrology 533: 277-290
4. Letter dated May 1, 2019 from thirty-three retired U.S. Forest Service employees to Interior Secretary David Bernhardt and Agriculture Secretary Sonny Perdue re: grave concerns about sulfide-ore copper mining in the Rainy River Drainage Basin
5. Aerial photograph of the Boundary Waters "Prairie Portage," by Jim Brandenburg, photographer
6. Boundary Waters Timeline
7. 2021 Application for Mineral Withdrawal – Superior National Forest
8. Memorandum (M-37072) dated January 25, 2022 from the Principal Deputy Solicitor, Dept. of Interior, to Interior Secretary Deb Haaland re: Authority to Cancel Improperly Renewed Twin Metals Mineral Leases and Withdrawal of M-37049
9. Letter dated January 24, 2022 from USFS Chief Randy Moore to BLM Director Tracy Stone-Manning re: affirmation of 2016 consent denial by the USFS
10. Decision dated January 26, 2022 by Deputy Secretary of the Interior Tommy Beaudreau canceling Hardrock Mineral Leases MNEW-01352 and MNES-01353