

2550 University Ave. W. St. Paul, MN 55114 612.332.9630

8 E. Sheridan St. Ely, MN 55731 218.235.3233 www.friends-bwca.org

May 17, 2024

Superior National Forest Thomas Hall, Forest Supervisor 8901 Grand Ave. Place Duluth, MN 55808 **Comments Submitted Electronically** 

**RE: BWCAW Forest Plan Amendment** 

Dear Forest Supervisor Hall:

Thank you for inviting Friends of the Boundary Waters Wilderness ("Friends") to submit prescoping comments to help shape the issues the Superior National Forest ("SNF" or "Forest") should consider as it amends the Wilderness Chapter of the 2004 Superior National Forest Land and Resource Management Plan ("Forest Plan").

Friends is a Minnesota nonprofit corporation founded in 1976. For almost 50 years, Friends has been the leading voice for the ongoing protection, preservation, and restoration of the Boundary Waters Canoe Area Wilderness ("BWCAW," "Wilderness" or "Boundary Waters"). Friends is composed of a broad array of almost 6,000 members and over 100,000 supporters across the country who share a belief in maintaining the wilderness character of the BWCAW.

Friends' pre-scoping comments were not developed in a vacuum. Instead, Friends crafted these comments collaboratively and in partnership with its members and supporters—those who use and love the Wilderness the most. These comments were formulated from feedback received during two interactive town-hall-style meetings hosted by Friends and after a thorough review of almost 1,000 proposed topics submitted by Friends' members and supporters.

Friends' pre-scoping comments provide substantive discussion and recommendations for major topics affecting the BWCAW that the Forest should consider as it enters into the scoping phase of its proposed amendment to Wilderness Chapter of the Forest Plan.

These issues include, but are not limited to:

#### Superior National Forest Thomas Hall, Forest Supervisor

(1) All-Lands Approach and Need for the Forest to Consider Actions Located Outside of the BWCAW;

- (2) Copper-Nickel Sulfide Mining;
- (3) Helium and Other Emerging Extraction Issues;
- (4) Climate Change;
- (5) Environmental Justice;
- (6) Rights of Native Nations and Native People;
- (7) Protection of Wilderness While Promoting Visitor Access;
- (8) Evolution of Technology and its Impacts on the Wilderness;
- (9) Land Conservation;
- (10) Monitoring and Research; and
- (11) Protecting Aquatic Resources.

While Friends' comments separately categorize and discuss each topic independently, the majority of these issues are interrelated and discussed in context with one another throughout this document.

# (1) <u>All-Lands Approach and Need for the Forest to Consider Actions Located Outside of the BWCAW</u>

The Forest acknowledges in its BWCAW Forest Plan Amendment Public Engagement Notice that it will "consider input on" and "address the topic of actions located outside the BWCAW that may affect the BWCAW." Friends agrees that this is of paramount concern and an important consideration.

Given the United States Forest Service's ("USFS") "all-lands approach"—which is embodied in the USFS's 2012 Planning Rule and requires the Forest to work with shareholders outside its jurisdiction and to take a comprehensive approach to land management—it is appropriate for the Forest to consider both land in the Boundary Waters and other SNF lands, especially those in the Rainy River and the Northwestern Lake Superior Watersheds, during its amendment process.

The all-lands approach is also in harmony with the Wilderness Chapter's articulation (p. 3-41) that wilderness areas should "[f]or present and future generations . . . provide[] protection of watersheds upon which many cities and rural communities depend for pure water."

#### Superior National Forest Thomas Hall, Forest Supervisor

The Forest should explore using the all-lands approach to amend the Wilderness Chapter to ensure that both state and local actions, as well as international actions in Canada and Quetico Provincial Park, do not negatively impact the BWCAW.



#### (2) Copper-Nickel Sulfide Mining

Undisputed scientific studies demonstrate that copper-nickel sulfide mining is an existential threat to the Boundary Waters and surrounding Rainy River Watershed. The USFS relied on and cited these studies in its <u>application</u> to the Bureau of Land Management to withdraw approximately 225,504 acres of these lands from mineral and geothermal exploration and development. In support of its withdrawal application, the USFS reasoned that:

The BWCAW is . . . an irreplaceable national treasure. . . . Water, especially water quality, is a focal point for this wilderness. . . . Potential impacts from [copper-nickel sulfide] mining could alter water quality and thus degrade key components of the wilderness ecosystem such as habitat for wildlife (lynx, moose, loons), fish (walleye, lake trout, and other game fish), and wild rice, and have negative impacts on the recreation economy and native culture and food systems.

In granting the USFS's withdrawal application and issuing <u>Public Land Order No. 7917</u>, the Secretary of the Interior reasoned that such action was necessary to protect and preserve the Boundary Waters and the National Forest System lands in the Rainy River Watershed from the adverse effects of mineral and geothermal exploration and development.

Friends applauds the USFS's efforts in securing the mineral withdrawal. In its Forest Plan amendment process, the Forest should incorporate by reference Public Land Order No. 7917's withdrawal mandate and any temporal extensions thereto.

#### Superior National Forest Thomas Hall, Forest Supervisor

But it is imperative that the Forest take a belt-and-suspenders approach in case Public Land Order No. 7917 is administratively or legislatively dissolved in the future. It can do so by applying Friends' proposed changes suggested below to all SNF lands that encompass the BWCAW—both in the Rainy River and the Northwestern Lake Superior Watersheds—even those that are currently subject to the mineral withdrawal. That way, the rationale underlying Public Land Order No. 7917 will live on through the Forest's Wilderness Chapter.

The Forest can amend and strengthen existing Forest Plan language. For example, the conditional approval process language in the Wilderness Chapter (p. 3-61: "for use of national forest land in conjunction with mining of non-federal minerals") should be much more stringent and applicable to all National Forest System lands in the Rainy River and the Northwestern Lake Superior Watersheds.

Instead of simply requiring that "[a] performance bond adequate to cover the proposed reclamation work must be in effect," the Forest should also require sufficient protection against the catastrophic damages too often associated with mining failures, evidenced most recently by a \$26 billion proposed settlement regarding damages from a 2015 Brazil tailings dam breach. Given the irreplaceability of the Boundary Waters and the scientifically demonstrated dangers associated with copper-nickel sulfide mining, the Wilderness Chapter amendment should mandate that mining projects proposed in the Rainy River and the Northwestern Lake Superior Watersheds require tens of billions of dollars up-front, in cash, to ensure that the mining companies—and not taxpayers—are on the hook for the potential multi-billion-dollar remediation and clean-up costs from a devastating environmental catastrophe.



#### Superior National Forest Thomas Hall, Forest Supervisor

This recommendation is similar to one that Friends has made at the state level in advocating that the Minnesota Legislature update the Minnesota Department of Natural Resources' ("DNR") financial assurance requirements by adopting the <u>Taxpayer Protection Act</u> (SF 1818 / HF 1961).

Similarly, the current Wilderness Chapter's vague language "that the proposed actions will not render the area incapable of reverting to its original condition or to a substantially equivalent condition" is not sufficiently protective of the Boundary Waters and the lands in the Rainy River and the Northwestern Lake Superior Watersheds. The Forest should instead include language requiring project proponents to introduce independent scientific proof that a copper-nickel sulfide mine has operated elsewhere in the United States in a similar ecosystem for at least ten years without causing pollution and that the mine has been closed for at least ten years without causing pollution.

This recommendation is similar to one that Friends has made at the state level in advocating that the Minnesota Legislature adopt the <u>Prove It First Law</u> (SF 1416 / HF 1618).

The Forest should also strongly advocate that Minnesota and its local governmental units make amendments to their land use plans and administrative regulations to likewise prohibit coppernickel sulfide mining or advocate that more stringent conditions be placed on that type of mining in the Rainy River and the Northwestern Lake Superior Watersheds. Similarly, the Forest should oppose any copper-nickel sulfide mining projects that fall outside the protections of Public Land Order No. 7917 via written comment or by participating directly in the environmental review process.

#### (3) Helium and Other Emerging Exaction Issues

As the Forest is undoubtedly aware, there is a <u>potential world-class helium deposit in Lake County</u>, near the Boundary Waters. In amending the Wilderness Chapter of the Forest Plan, the Forest should consider how helium and other emerging and novel extraction issues may impact the BWCAW and the Rainy River and the Northwestern Lake Superior Watersheds, both of which encompass the Boundary Waters.

#### (4) Climate Change

The Intergovernmental Panel on Climate Change's most recent <u>Assessment Report</u> concludes that "climate change is already affecting many weather and climate extremes in every region across the globe" and that such changes have led to "widespread adverse impacts and related losses and damages to nature." The USFS's 2022 <u>Climate Adaptation Plan</u> also notes that climate change has led to "changes in ecosystem productivity, distribution, and water availability" in a manner that has a direct effect on plant and "wildlife biodiversity, habitats, and abundance."

### **Superior National Forest Thomas Hall, Forest Supervisor**

As the Forest updates and amends the Wilderness Chapter of its Forest Plan, the Forest should incorporate a substantial body of academic research and scientific data relating to climate change's impact on terrestrial and aquatic wildlife native to the BWCAW. Over the last 30 years, <u>substantial research</u> has been conducted with respect to adaptation strategies for wildlife management and biodiversity conservation.

The USFS's <u>Climate Change</u> webpage also underscores the dire impact climate change is having, and will continue to have, on our National Forests. That webpage states that the USFS "is incorporating the best ecological and climate science into its management to ensure that National Forests continue to produce the benefits that the American people enjoy." Friends agrees with this approach. It is abundantly clear that the Forest must take a more active role in combating climate change in the Boundary Waters in the same way that it does in the SNF surrounding it.

The Forest's revisions to its Wilderness Chapter must include such strategies, including but not limited to:

- Expansion of Protected Areas: Provide for the identification of properties in close proximity to the SNF with high conservation value so that state or private actors may take steps to expand the geographic footprint of protection in and around the BWCAW.
- <u>Movement Corridors, Stepping Stones, and Refugia</u>: Maintain and regularly update data pertaining to movement corridors, stepping stones, and refugia for native species and take appropriate action to protect those geographic areas from human intervention and other threats.
- <u>Management and Restoration</u>: Develop ecological restoration projects designed to restore critical habitat, including but not limited to degraded or at-risk movement corridors, stepping stones, and refugia.
- Endangered and Threatened Species: Focus conservation resources on endangered and threatened species most likely to go extinct as a result of climate change, including the Canadian Lynx.
- <u>Monitoring Programs</u>: Establish and enhance monitoring programs for wildlife and ecosystems such that the Forest can maintain accurate data with respect to endangered, threatened, and rapidly dwindling native species.

The Forest should also assess and monitor potential climate change impacts on the currently existing boreal vegetation types, which are the basis for wildlife habitat and visitor experiences. This includes forests, wetlands and special habitats such as lakeshores and rock outcrops. The Forest's revisions to its Wilderness Chapter must include an assessment with the following parameters:

# **Superior National Forest Thomas Hall, Forest Supervisor**

• Climate change scenarios with low and high magnitudes of warming that bracket the reasonable range of possibilities for future climatic conditions.

- Effects of landscape diversity and how it affects local temperatures, allowing for refugial locations for boreal species, which would be more or less restrictive in landscape extent for high or low magnitudes of warming, respectively. Conversely, it is important to know which parts of the landscape will warm faster and have greater magnitudes of change in existing boreal vegetation.
- Interactions between invasive species and climate, since spread of many invasive species are restricted by climate. For example, the emerald ash borer is killed by very cold winter minimum temperatures that still occur in the BWCAW but might not occur in the future.
- Interactions of climate change with disturbances and extreme events such as wind, fire, insect outbreaks, floods and droughts.
- Potential management actions to address the issues mentioned above that are consistent with the wilderness laws of 1964 and 1978.

# (5) Environmental Justice

Environmental, social, and governance ("ESG") policies are long-term and detailed ways to ensure sustainable and responsible practices. Although ESG policies are traditionally associated with the private sector, the federal government has both historically and contemporarily promoted similar values through policy-and-law-making.

As the Forest amends the Wilderness Chapter of its Forest Plan, the Forest should adopt a comprehensive procurement policy for the BWCAW. This policy should prioritize ESG considerations in supplier evaluations and enforce stringent criteria for supplier selection.

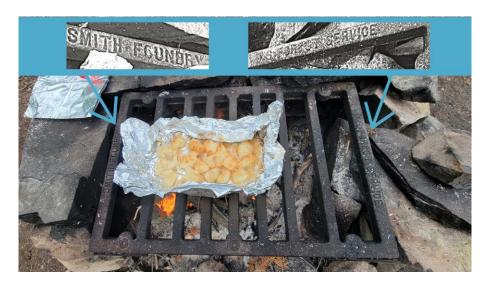
The Forest should adopt a policy that would exclude contractors scoring below the median in established ESG guidelines. The SNF should also be prohibited from engaging in contracts with any business under investigation or found guilty of violating local, state or federal civil or criminal environmental laws and regulations.

By implementing such a policy, the Forest can demonstrate its unwavering commitment to environmental sustainability while setting a precedent for suppliers to align with ESG guidelines. If such a policy were already in place, the Forest would not have procured fire grates from Smith Foundry (see image below), which has a troubling history of workplace safety issues and air pollution.

This proactive approach safeguards the integrity of the BWCAW and fosters a culture of responsibility and accountability among suppliers. By holding all parties to elevated standards, the

# Superior National Forest Thomas Hall, Forest Supervisor

Forest can pave the way for sustainable practices that preserve our natural resources for generations.



#### (6) Rights of Native Nations and Native People

Under the <u>1854 Treaty of La Pointe</u>, the Bois Forte Band of Chippewa, the Grand Portage Band of Lake Superior Chippewa, and the Fond du Lac Band of Lake Superior Chippewa (collectively, "Native Nations") have retained rights in northeastern Minnesota in the Ceded Territories, which encompasses 5.5 million acres and includes the BWCAW and nearly the entirety of the 3.9-million-acre SNF.

Native Americans were the original stewards of these lands and the resources on these lands remain essential to their identity and way of life. The USFS and SNF also share in the United States' trust obligations to the Native Nations. The current Wilderness Chapter does not recognize the treaty-reserved rights nor the trust obligations, which are glaring oversights that must be rectified when updating the Forest Plan.

On May 2, 2023, the USFS, SNF and the Native Nations entered into a <u>Memorandum of Understanding Regarding Tribal-USDA-Forest Service Relations, Co-Stewardship, and Protection of Treaty-Reserved Rights within Superior National Forest ("MOU")</u>. The Wilderness Chapter should incorporate the MOU, which, among other things, includes the following elements:

- Collaborative co-stewardship of the SNF between the USFS, Forest, and the Native Nations;
- Regular government-to-government communications between the USFS, SNF and the Native Nations:

#### Superior National Forest Thomas Hall, Forest Supervisor

• Ensuring that Native Nations and Native People are able to meaningfully exercise treaty-reserved rights to hunt, fish, trap, and gather;

- Promoting the resource management priorities of Native Nations;
- Protecting Native cultural properties within the Forest;
- Using Indigenous Traditional Ecological Knowledge when making management decisions; and
- Ensuring that land exchanges between the USFS, SNF and any other entity, public or private, do not negatively impact the treaty-reserved rights of Native Nations and Native People.

#### (7) Protection of Wilderness While Promoting Visitor Access

The BWCAW is one of the most loved and visited wilderness areas in the United States, and annually draws visitors of all ages from around the world. A visit to the Boundary Waters can be life changing. In recent years, especially during the pandemic, visitor use has increased and intensified. There are indications that compliance with Wilderness regulations has declined and detrimental impacts on campsites and portages have increased.

The Forest should adopt policies that promote visitor access while protecting the Wilderness. It is essential that efforts continue to broaden Wilderness participation to underrepresented communities. One barrier to achieving this parity in use is lack of data. Accordingly, the SNF should require mandating the disclosure of demographic information when one first obtains, or later amends, BWCAW permits. The Forest can then use this data to analyze usage trends by city, county, zip code and state and help inform future strategies to increase underrepresented communities' use and enjoyment of the Boundary Waters.



#### Superior National Forest Thomas Hall, Forest Supervisor

Reduction to visitor quota numbers should also be avoided at all costs. A combination of visitor education, monitoring and rule enforcement, and maintenance programs can allow current visitor levels while protecting Wilderness values and natural resources. Any changes to visitor quota numbers should carefully consider how to ensure opportunities for underrepresented communities are not disproportionately affected.

Visitor education should be updated to extend beyond traditional efforts, which are largely focused on viewing a video and a brief rules review with the permit issuer. The Forest should use social media, community outreach, and enhanced partnering with nonprofits and outfitter businesses to educate the public on best practices.

Visitors to the BWCAW today rarely see ranger patrols. Monitoring and enforcement efforts should be enhanced, including more ranger patrols to increase their presence and visibility. Increased patrols would both allow opportunities for education of visitors and provide a deterrence effect. Increased seasonal hires should be considered, as well as identification of new revenue streams as necessary to cover increased costs.

Maintenance and restoration efforts should be increased to offset both significant visitor impacts, especially in recent years, and overdue maintenance on some portages and campsites. The Forest should consider, for example, closing campsites that show extensive use to allow ecological recuperation, and explore the possibility of other sites being opened.

The Forest should also work at leveraging nonprofit-and-private-public cooperation to improve and increase the SNF volunteer program through which trained volunteers help maintain and restore the BWCAW and surrounding SNF lands. The Forest can do this by using Friends' efforts as a model for engagement with other entities.

Since 2014, Friends' "Superior Wilderness Volunteer Connection" Program—through which Friends pays daily stipends to volunteers who perform work to benefit the BWCAW and surrounding SNF lands—has provided 351 volunteers who have maintained 4,539 campsites, dug 593 latrines, and cleared 144,068 rods of portages. Similarly, since 2023, Friends' "Wilderness Crew Leader" Program has paid for crew leaders that have managed 82 USFS-and-Friends-sourced volunteers who have completed 4,760 hours of work across 19 different projects in the BWCAW and surrounding SNF lands and dug 38 latrines as well as cleared 2,950 rods of portage trails, 33.5 miles of hiking trails, and 4 miles of winter trail.

#### (8) Evolution of Technology and its Impacts on the Wilderness

Technology has drastically changed since the Forest last updated the Wilderness Chapter of the Forest Plan in 1993. And, undoubtedly, technology will continue to evolve and impact the BWCAW in myriad ways over the next 30 years.

In 2021, the first-ever "State of Conservation Technology" report identified the top three emerging technologies to advance conservation. Artificial intelligence (specifically machine learning and

#### Superior National Forest Thomas Hall, Forest Supervisor

computer vision), environmental DNA and genomics, and networked sensors were named the top three emerging conservation technologies in <u>A Global Community-Sourced Assessment of the State of Conservation Technology</u>, published in <u>Conservation Biology</u>. At a very minimum, the SNF should consider how the use of these technologies could help the BWCAW and its habitat.

The Forest should think broadly about emerging and evolving technology and how it may impact and protect the Wilderness. The Forest should explore the following broad emerging technology topics as it embarks on the scoping process of amending the Wilderness Chapter of the Forest Plan:

- Installing solar-powered EV chargers at entry points;
- Using sustainable aviation fuel use in conjunction with firefighting;
- Carbon footprint measurement and reduction; and
- Climate restoration technologies.

Evolving technology, however, should not impact users' Wilderness experience or visual and audio aesthetic.

#### (9) <u>Land Conservation</u>

At the present, the SNF lacks the capacity to buy and protect land at the edge of the BWCAW that is under threat of development and whose development would erode the Wilderness' character. This is unacceptable. The Forest Plan should identify key properties at the edge of the BWCAW that are in private ownership with high conservation value, and then establish and implement an acquisition strategy for these key properties. This strategy would include outreach to private landowners, informing them of the SNF's and USFS's interest in acquiring their properties should the landowners desire to sell. The SNF and USFS should also request that the landowners contact them before the properties are put up for sale.

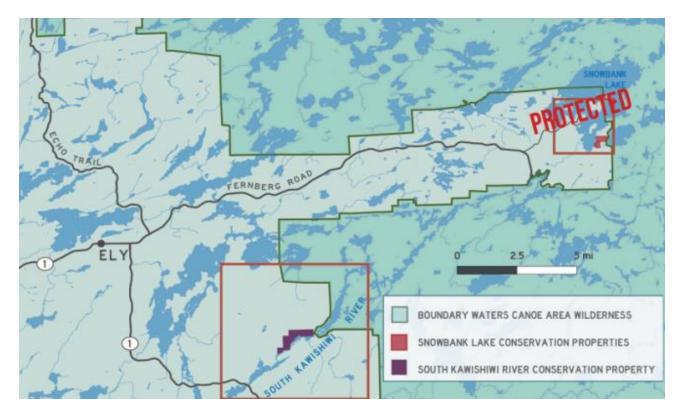
Friends has worked to protect land at the edge of the BWCAW for decades. Historically, Friends partnered with national conservation organizations to buy lands with high conservation value at the edge of the BWCAW. Friends and these other conservation partners subsequently sold these conservation properties to the SNF when it received federal appropriations to consummate the purchases. For example, more than fifteen years ago, Friends partnered with a national conservation organization to buy the Chainsaw Sisters Property near the Mudro Lake Entry Point and then sold the property to the SNF when federal appropriations became available.

For the last several years, this model of nonprofit-public cooperation to protect land at the edge of the BWCAW has been broken because of the lack of federal funds to complete the sale from the nonprofit organization to the SNF. The reason for the lack of funds is that all federal appropriations to the SNF for land conservation are allocated for the USFS buyout and land exchange of

#### Superior National Forest Thomas Hall, Forest Supervisor

Minnesota School Trust Lands that are within the borders of the BWCAW. The buyout-and-exchange process will continue for many years to come; thus, preventing the SNF from buying and protecting critical lands at the edge of the BWCAW. Furthermore, the SNF lacks the personnel to implement land transactions outside of the buyout-and-exchange process, including the acceptance of donations of high-value conservation properties.

In the wake of this challenge, Friends has stepped into the vacuum and raised private funds to buy and protect 80 acres on Snowbank Lake with 3,500 feet of shoreline at the edge of the BWCAW. Friends is in the process of raising additional private funds to buy and protect 360 acres of forestland with over two miles of undeveloped shoreline on the South Kawishiwi River at the edge of the BWCAW. Friends anticipates acquiring the South Kawishiwi River Conservation Property in the upcoming months. Friends will manage these properties to protect and enhance their conservation values and make these properties available for use by the general public. Friends anticipates that it will permanently own these properties.



#### Superior National Forest Thomas Hall, Forest Supervisor



In addition to buying and protecting high-value conservation properties at the edge of the BWCAW, the SNF and USFS should actively seek to acquire conservation properties and include these properties within the borders of an expanded designated Wilderness area. For example, north of the Mudro Lake Entry Point is an approximately 2,250-acre privately-owned property, commonly known as the "Bushmen Lake Property." The SNF should seek federal funds to acquire this property and then expand the border of the BWCAW to encompass this property.

#### (10) Monitoring and Research

The 1964 Wilderness Act and the 1978 Boundary Waters Canoe Area Wilderness Act highlight the importance of preserving the wilderness character of the BWCAW and protecting and managing its fish and wildlife, water quality, forests and aquatic habitats. As the Forest amends the Wilderness Chapter of its Forest Plan, the SNF should institute a comprehensive research, monitoring, and mitigation program for the BWCAW. The Forest can achieve this by amending and updating Appendices A and B (pp. 3-74, 3-75) to the Wilderness Chapter.

At a minimum, any Forest-led research and monitoring program should first establish a baseline at monitoring stations throughout the Wilderness for the below-listed categories. The Forest should then conduct ongoing monitoring and take affirmative action to mitigate any change to this baseline data that negatively impacts the BWCAW ecosystem.

The Forest's research, monitoring, and mitigation program should encompass a wide range of environmental factors, including but not limited to:

#### Superior National Forest Thomas Hall, Forest Supervisor

• <u>Climate Change</u>: Assessing the impacts of climate change on the BWCAW ecosystem, including temperature fluctuations, precipitation patterns, and extreme weather events.

- <u>Air and Water Quality</u>: Monitoring air and water quality within the BWCAW, focusing on pollutants and contaminants and their effects on aquatic and terrestrial life.
- <u>Fish and Wildlife</u>: Studying the population dynamics, habitats, and health of fish and wildlife species within the Wilderness.
- <u>Terrestrial Life</u>: Examining the diversity, distribution, and ecological interactions of plant species and other terrestrial organisms.
- <u>Eutrophication</u>: Investigating nutrient enrichment and its consequences on water bodies, including algal blooms and impacts on aquatic ecosystems.
- Mining and Industrial Activities: Assessing the environmental impacts of mining operations and other heavy industrial activities conducted within the Rainy River and the Northwestern Lake Superior Watersheds, including potential water and habitat contamination.
- <u>Human-Introduced Substances</u>: Evaluating the presence and effects of lead, mercury, perand polyfluoroalkyl substances ("PFAS"), and other contaminants introduced by human activities on the ecosystem. For example, the current Wilderness Chapter authorizes the use of firefighting foam (p. 3-64), a significant source of PFAS. At the bare minimum, the Forest should conduct comprehensive monitoring of historical locations at which firefighting foam was used to determine if there are any PFAS-related environmental or public health concerns.
- <u>Invasive Species</u>: Assessing the current extent to which invasive plant and aquatic species (e.g., earthworms, rusty crayfish, spiny waterflea, zebra mussels) have spread in the Boundary Waters, preventing further spread and working towards mitigating the impact invasive species have on the BWCAW ecosystem.

By addressing these critical components, the research and monitoring program will provide valuable insights into the state of the BWCAW ecosystem, enabling informed decision-making and proactive conservation efforts to safeguard this pristine Wilderness for generations to come.

#### (11) Protecting Aquatic Resources

The BWCAW encompasses unparalleled wild aquatic habitats ranging from pristine bogs to deep, clear trout lakes. These habitats support populations of fish, birds and mammals. Thousands of recreational users make fishing a core component of their visits. However, these aquatic habitats,

Superior National Forest Thomas Hall, Forest Supervisor

wildlife populations and angling activities are under threat from lead fishing tackle, introduced invasive species, and climate change.

The Forest should adopt policies that protect aquatic resources in the BWCAW. Consideration should be given to eliminating lead fishing tackle, limiting or eliminating the use of live bait, and protecting native fish stocks from climate change. As appropriate, the Forest should work with the DNR in accordance with the Memorandum of Understanding between the parties.

Lead fishing tackle is known to be a significant source of poisoning of birds and wildlife, including loons, eagles, and swans. Non-lead alternatives are now available. The Forest should adopt policies for reducing and potentially eliminating the use of lead fishing tackle in the BWCAW.

Live bait, including earthworms and minnows, can lead to established populations of invasive species. In large parts of the BWCAW, invasive earthworms are already present; continued use of live earthworms as bait further risks introducing additional non-native worm species as well as expanding the range of infestation. Similarly, some minnows can become invasive or vectors for disease. The Forest should adopt policies for reducing the potential impact of live bait.

The BWCAW contains various unique fish stocks, including numerous lakes that still contain native fish populations unaltered by stocking or invasive species. Notable among these lakes are a few dozen clear, cold-water lakes that contain native lake trout populations. These lakes are at risk of impacts from climate change, fishing pressure, and invasive species. The Forest should adopt policies, in cooperation with the DNR, that seek to protect these lakes and fish populations.

#### Conclusion

Friends again thanks the Forest for the opportunity to submit pre-scoping comments to help shape the issues the Forest should consider as it amends the Wilderness Chapter of the Forest Plan. We look forward to continuing to engage the Forest throughout the scoping and Wilderness Chapter amendment process.

Sincerely,

Christopher D. Knopf, Executive Director Friends of the Boundary Waters Wilderness

Christopher D. Knoff

Phone: (651) 999-9565

Email: Chris@friends-bwca.org