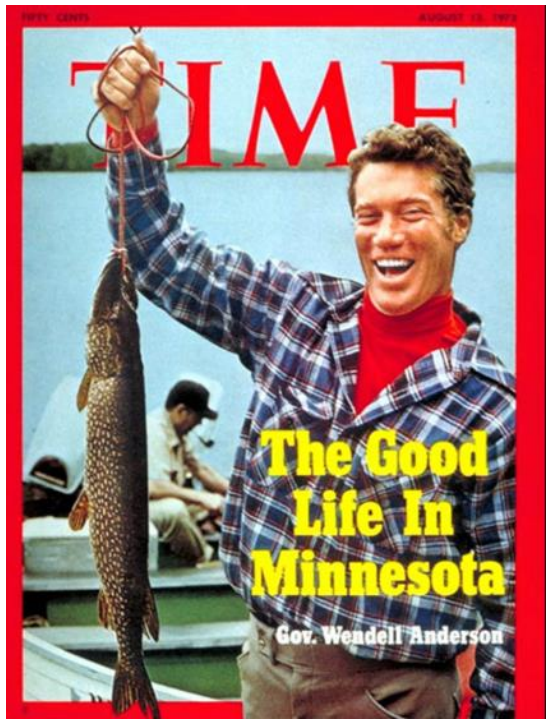
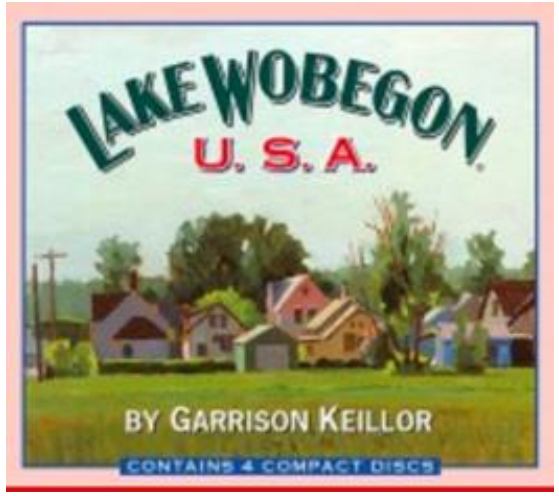
Talon Metals Proposed Tamarack Nickel Mine: Public Meetings and Comments Workshop

Presented on August 9, 2026 by Paula Maccabee
WaterLegacy Executive Director & Counsel


R. Levine/Mississippi River Flowage


L. Anderson/Round Lake at Sunrise





Tamarack Mine is NOT a "Good Place" to Experiment with Sulfide Ore Mining

- Minnesota sulfide ore geology creates an inherent risk of sulfate and toxic metals release. Talon deposit, uniquely, is a "massive sulfide mineralization."
- Minnesota is a weak regulator, and Minnesota mines are proposed by international corporate bad actors.
- Rio Tinto bulldozed a 45,000-year-old Indigenous sacred site at an Australian iron mine and has settled cases for bribery, political favors. Talon sumps for drilling wastes are unlined and no state agency has required testing or pollution control.
- Talon Metals initial greenwashing; but mine is not a "climate change" project. No carbon neutrality, stated "purpose" is no longer EV vehicle metals, just extraction of ore.
- Minnesota proposed sulfide ore mines are all in wetlands, peatlands, and headwaters of major watersheds—Boundary Waters, Lake Superior, Mississippi River. Talon is wettest site.

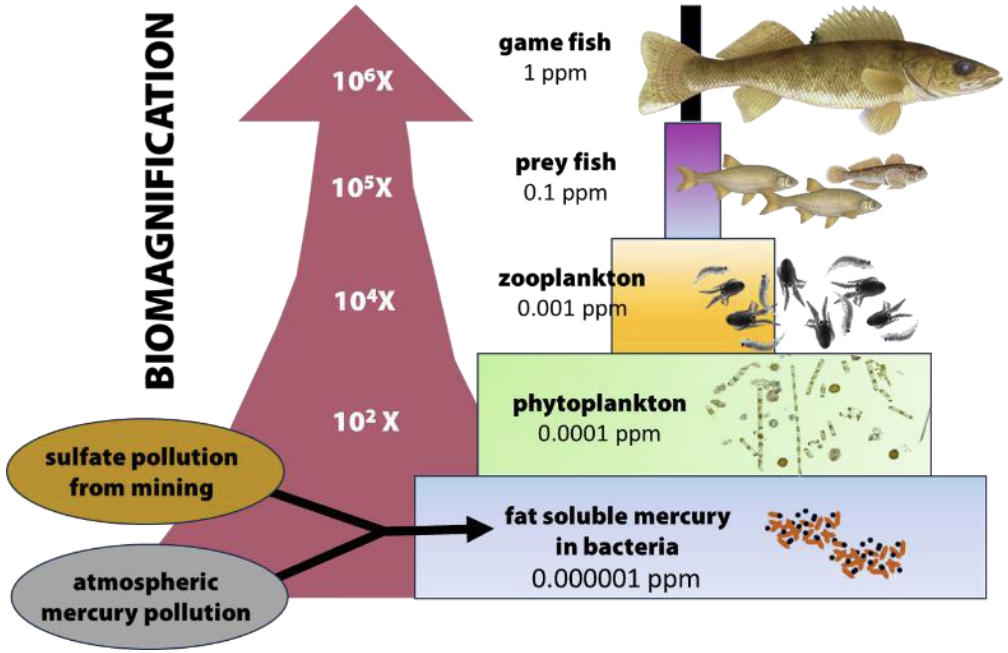
No "Model" Sulfide Mine and Not a Climate Change Solution

Every sulfide ore mine (100%) in a water-rich environment has polluted surface and/or groundwater with acid mine drainage and/or toxic metals.

Eagle Mine. Arsenic and nitrate at mine site; sulfate, manganese, and aquatic toxicity at processing and tailings site (Humboldt Mill). Started "8-year" mining in 2014. Began tunneling to second deposit in 2016, continuing expansion of "Eagle East" mine today.

- **Recycling**. Copper and nickel can be recycled over and over, **saving 85-90% of fossil fuel energy** used for mining and processing new ore.
- Minnesota recycles only **24%** of its e-waste, though this waste contains **$3 billion per year** of valuable metals.
- Since 2020, **EV batteries with less-toxic iron and phosphate (LFP), not nickel and cobalt,** have increased from 10% to over 55% of the global market.

Sulfide Ore Mining Threats to Water and Health



Research: High sulfate **doubles** mercury & nutrient release, increases methylmercury by **600%**. In low sulfate waters, any addition of sulfate will increase mercury methylation.

Methylmercury in fish: bioaccumulates, concentrates up to **1,000,000 times** in fish at top of food chain.

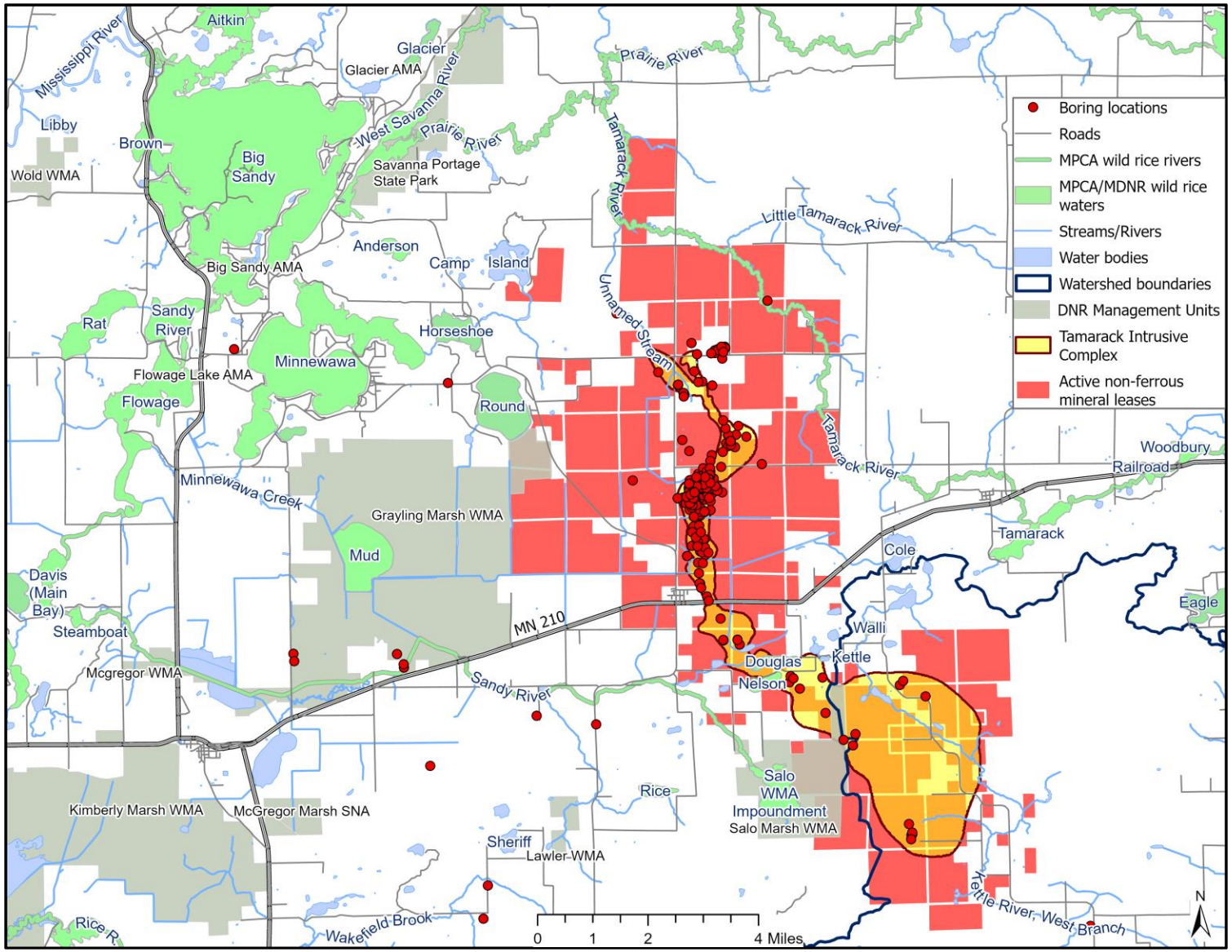
Methylmercury is neurotoxic, harming developing brains of fetuses, infants, children. **1 in 10 newborns** in Minnesota's Lake Superior Region already have unsafe mercury levels in blood.

Manganese and lead in drinking water are also neurotoxins.

Arsenic in water is a carcinogen.

Nickel, elongate particles, diesel in air from mine dust and vehicles affect workers and residents; result in lung disease and cancer.

Talon Metals/Rio Tinto Mineral Leases and Mineral Deposit Proposed Tamarack Nickel Mine

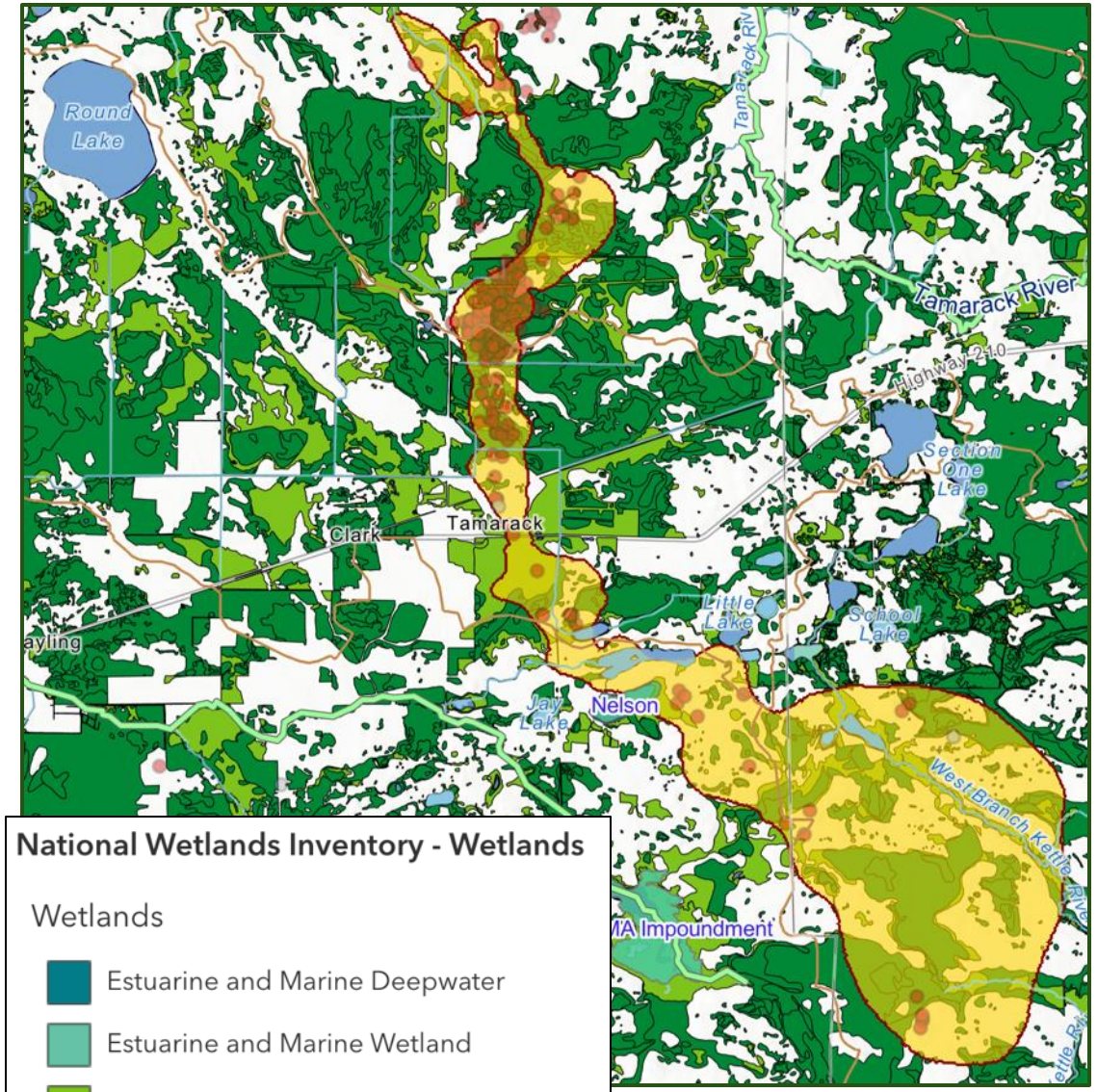


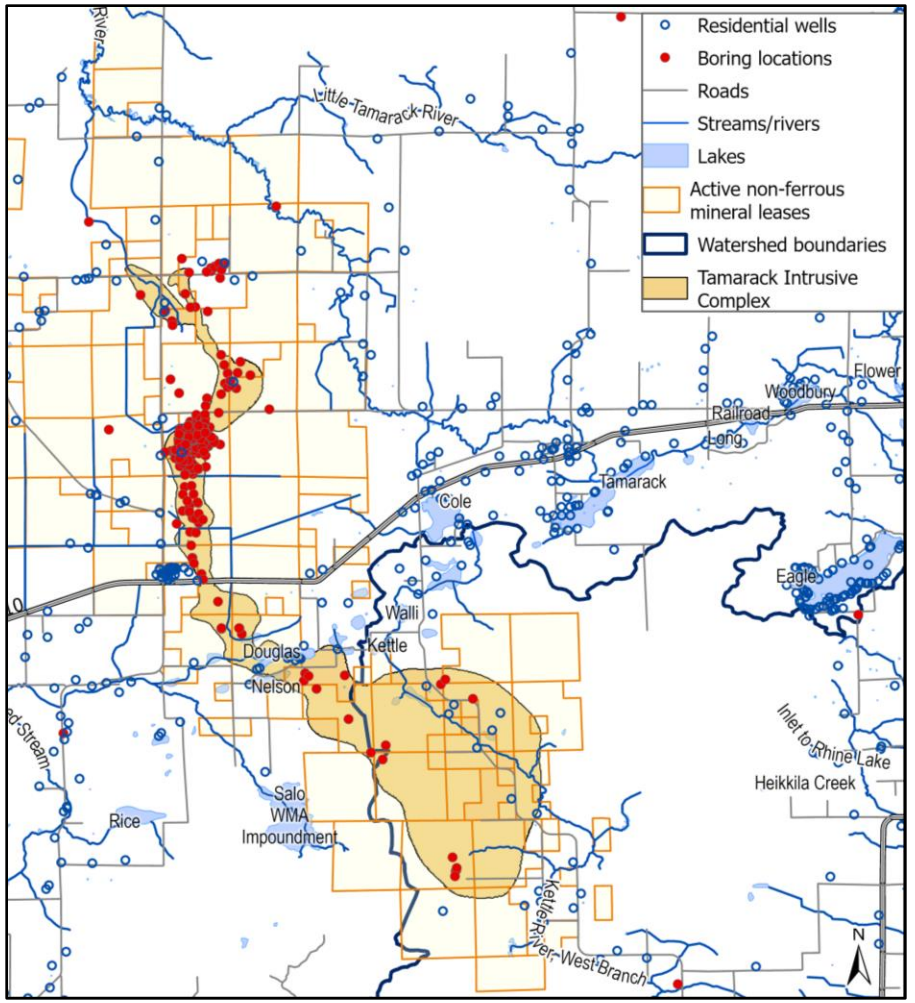
"[T]he Tamarack Intrusive Complex has district-scale potential." Talon chief exploration and operations officer Brian Goldner (Jan. 2023)

Location of Proposed Nickel Mine:

- Proximity to Tribal lands and waters (Big Sandy, Minnewawa).
- Proximity to important and abundant wild rice waters.
- Proximity to residences, drinking water wells.
- Treaty-reserved rights under 1854 and 1855 Treaties.
- Impacts to both Mississippi River and St. Croix River watersheds.

Tamarack Location: Wetlands & Drinking Water Wells

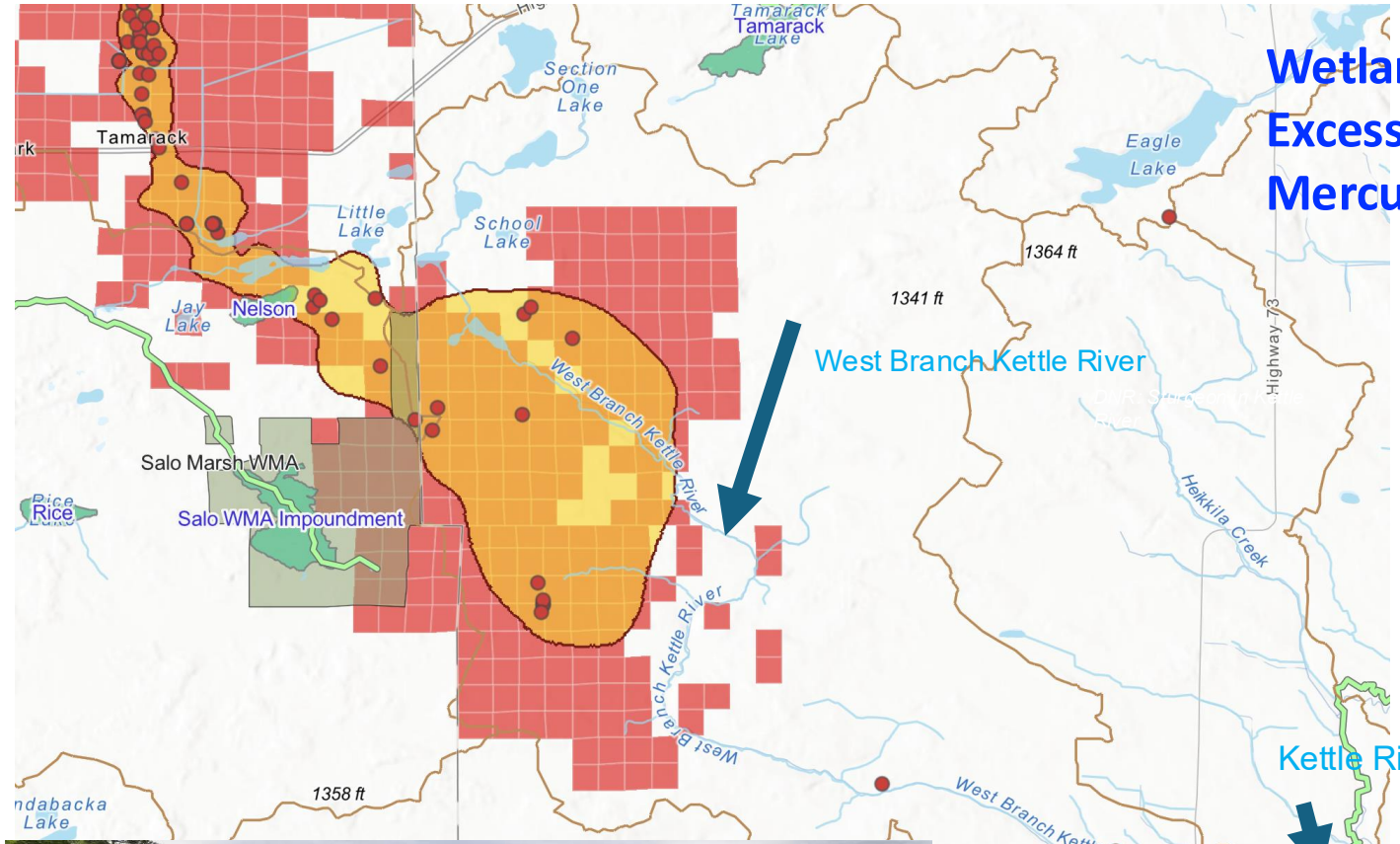




Talon: "The Project Area is primarily classified as **wetlands**." 77% of this project area depth to water is less than 1 foot.

Exploratory borings and proposed nickel mine near **residential drinking water wells** (hollow blue circles).

Downstream Mississippi and St Croix River Watersheds



Wetlands – kidneys for the watershed.

Excessive Nutrients carried downstream.

Mercury fate and transport – not diluted.

Mercury Impaired Waters:

Kettle River

Impaired for mercury in fish tissue (upstream and downstream).

Impaired for fish assessment (upstream).

Impaired for E. coli (downstream).

St. Croix River

Impaired for mercury in fish tissue.

Lower stretches also impaired for PCBs and PFOS in fish.

Endangered Mussels

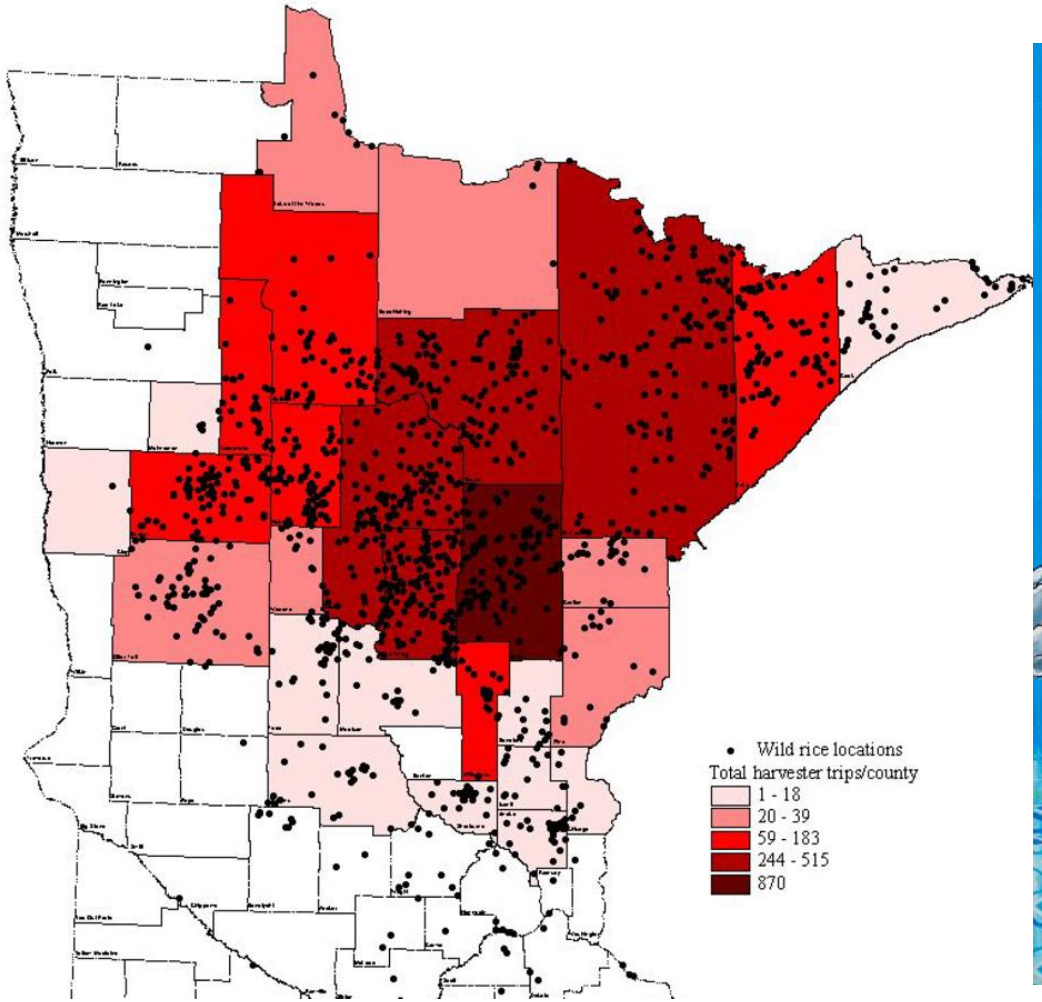
St. Croix River

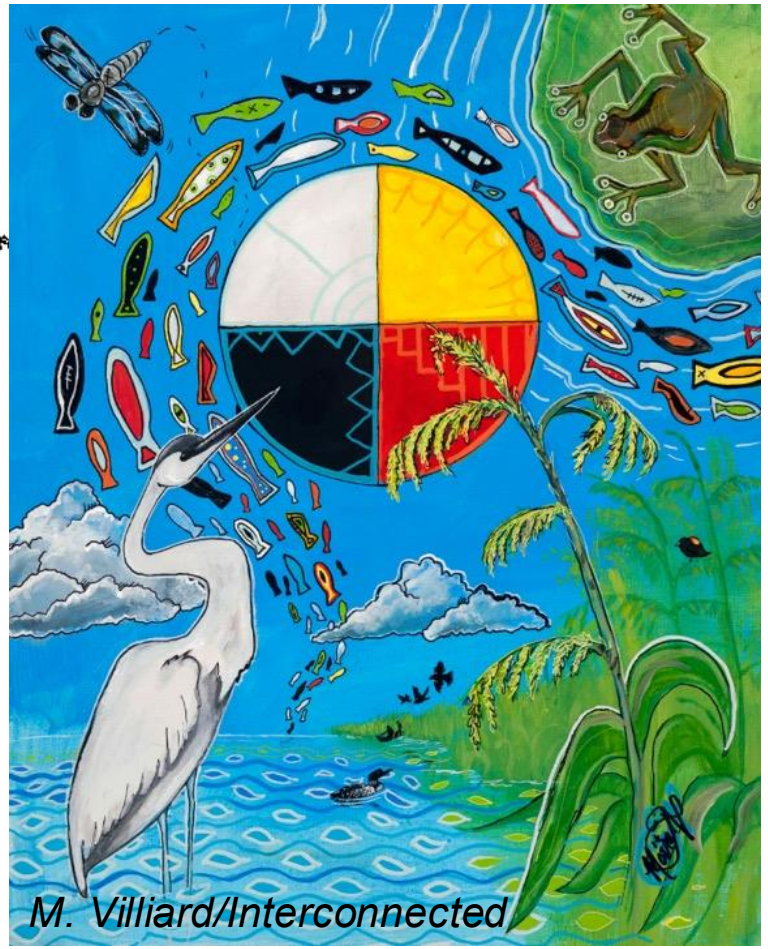
Critical habitat for endangered mussels impacted by nutrient loading and pollution.

Snuffbox (left) and spectaclecase (right) mussels (NPS photos).


Craig Blacklock: St. Croix River Bluff north of Stillwater

Tamarack Region Wild Rice, Sulfate, Mercury, Nutrients





- **Aitkin County has more wild rice harvesting trips than any other Minnesota county.**
- **Treaty-reserved rights for Tribes and nutritious food for Native and non-Native harvesters.**
- **Food for migrating waterfowl, nurseries for young fish, mammals.**

Vulnerable Waters

Big Sandy Lake: impaired for excessive nutrients (phosphorus, nitrogen), mercury in fish tissue.

Lake Minnewawa: Impaired for nutrients, mercury in fish tissue.

Low sulfate waters: Big Sandy @ 1.1 ppm sulfate, Minnewawa @ 1.4 ppm sulfate.

Even small increases in sulfate could increase impairments.

St. Croix River: Impaired for mercury in fish tissue.

Mississippi River: Millions of people live downstream.

Talon Metals/Rio Tinto Drilling: Unlined Sumps, Rutting in Wetlands, Improperly Sealed Wells

Wildflower Group Media Photo 2023

DNR Inspection Photos

Talon Mine Comment: Mercury and Methylmercury

"Perfect storm" to increase mercury contamination of fish. Talon Mine would. . .

- Excavate and dewater peatlands and wetlands (releasing mercury).
- Discharge sulfate and mercury to water.
- Emit dust containing sulfide (which reacts with water to form sulfate).
- Burn propane containing mercury.

EIS environmental review must analyze:

- Baseline information on mercury, sulfate, sulfide in wetlands near and downstream of the proposed Talon Mine.
- Data on how wetlands hydrology would be changed, including dewatering for mine construction and operations.
- Information on all releases to air or water of mercury, sulfur, and sulfate.
- How rewetting and sulfate pollution of wetlands would be affected by drought, floods, and extreme rains related to climate change.

Talon Mine Comment: Sulfide, Pyrrhotite, and Wild Rice

Effects on Wild Rice & Community

- Talon sulfate pollution and mine dewatering would degrade and contaminate wild rice.
- Tribal and Non-Native harvesters from across Minnesota would be affected.

EIS environmental review must analyze

- Baseline conditions of Tamarack area wild rice, including abundance, water and sediment chemistry.
- Effects of mine pollution (sulfate, conductance, arsenic) and dewatering on wild rice.
- Harm to harvesters, including Tribes, across Minnesota

Effects of Mining a High Sulfide Deposit

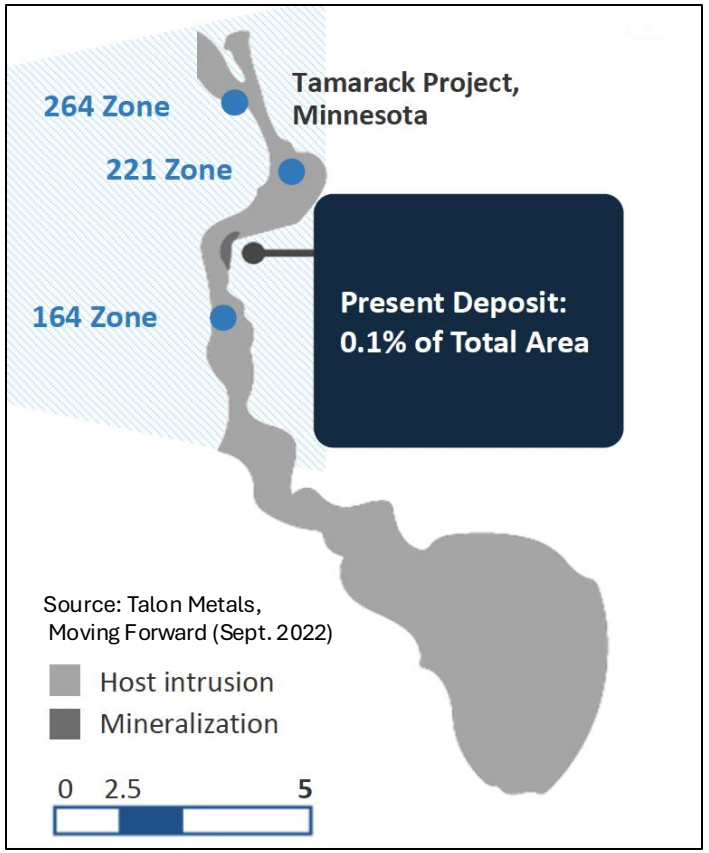
- Talon mine is a “massive sulfide mineralization,” with a high level of pyrrhotite.
- Sulfide in dust and sulfate in mine contact water are likely to result in Acid Mine Drainage.
- Pyrrhotite is highly reactive: can spontaneously combust, dissolve concrete backfill in mines.

EIS environmental review must analyze:

- Levels of sulfide minerals, including pyrrhotite.
- Acid mine drainage and effects on leaching of toxic metals, groundwater and surface water.
- Risks of combustion in mine and surface building.
- Risks of mine collapse if backfill fails.

Talon Mine Concern: Incomplete and Unsupported Plan

- Talon controls 31,000 acres of mineral leases, but its proposal for EIS review includes less than one-tenth of 1% of the lease area it controls.
- The Talon EIS proposal claims that ore and waste rock will be sent to North Dakota and Michigan for processing and tailings storage. Neither plan will be studied.
- Talon's announced this June: "The Tamarack Nickel Project does not contain reserves, and no production decision has been made . . . It is uncertain if the project will be built."
- **Minnesota's DNR has taken Talon's "proposal" at face value to limit EIS environmental review**. DNR has allowed many mine expansions and never required a new mine EIS.
- Talon ore and mine waste could be stranded in Minnesota.



"[W]e can push forward this mine in the permitting process and hopefully get a permit while we're also exploring for additional nickel resources in Minnesota." Talon chief external affairs officer Todd Malan (June 2023)

Requests for the EIS process:

- Delay EIS scoping until after Talon releases a new prefeasibility/feasibility report.
- At least, reopen EIS scoping process for public comment on all issues after Talon releases its new prefeasibility/feasibility report.
- The EIS should be based on a project scope that reflects the full geographic location of Talon's mineral reserves and plans, not an artificially small project.
- The EIS should evaluate the concepts for Talon's ore processing and tailings disposal in North Dakota and Michigan as alternatives.

There are Many Reasons for Concern about the Talon Mine

24/7 Operations. Drilling, blasting, traffic, noise, and bright lights would operate 24/7, affecting nearby residents and wildlife, including the Northern Long-Eared Bat, an endangered species.

Toxic Air Emissions. Air pollution from the Talon Mine including nickel, particulates, elongate mineral particles, and diesel, could increase cancer and lung disease for workers and residents.

Limited Health Analysis. DNR's draft EIS scope rejected the process of independent Health Impact Assessment recommended by 1000s of doctors in Minnesota and adopted by the National Council of American Indians as a result of Mille Lacs Band of Ojibwe leadership.

Bad Precedent. **The PolyMet/NewRange mine could revive at any time, and the leasing ban protecting the Boundary Waters watershed from Twin Metals was lifted by Congress.**

If the Talon EIS limits analysis to an artificially small mine and moves forward with an incomplete plan unsupported by feasibility or engineering reports, it sets precedent that could allow skimpy EIS review, bait-and-switch, and harm across all Minnesota watersheds where sulfide ore mines are now proposed—Mississippi River, Lake Superior, and Boundary Waters.

Talon Mine EIS Environmental Review and "Scoping"

What is an "EIS"?

An EIS, short for "environmental impact statement," is the document in which an agency is supposed to analyze the proposed project seeking permits, its potential for significant environmental effects, and alternatives to avoid, minimize, and mitigate them.

What is "scoping"?

Scoping is the decision by an agency, here the Minnesota Department of Natural Resources (DNR), on what will be studied in EIS environmental review: baseline data, details (or not) about project, analysis (rigorous or not) of potential impacts and alternatives.

Why does scoping matter?

Every subsequent decision by agencies and courts will depend on the data in the EIS. Errors and omissions could result in weak permits and hinder judicial review.

PUBLIC MEETING:

Blaine Sports Center:
Aug. 12 from 5-9 pm

COMMENT DEADLINE:

Sept. 14 by 4:30 pm

Effective Public Action on Talon Mine EIS Scoping

YOUR WRITTEN COMMENTS BY SEPT. 14:

Quality and quantity of your comments both matter.

Best quality comments will contain:

- Your personal statement about where you live, your interests, why you are concerned about the Talon mine.
- Statement about an issue or issues of concern.
- Request for what DNR should do or require in the EIS.
- Send comments directly to DNR comment site. You can upload a comment in Word or pdf.

Quantity also matters: Sign a form comment. You can choose more than one or send a personal comment later.

WATERLEGACY SUPPORT FOR YOU:

- Link to DNR comment page, with step-by-step instructions on using DNR's form.
- Talking points you can use in drafting your comments. Online now: mercury, wild rice, incomplete plan.
- Comment letters on issues that you can sign and we will send to DNR and Whole Truth Petition.

YOUR PRESENCE, COMMENTS AT MEETING AUG. 12 (Blaine 5-9 pm):

You can attend either or both DNR Public Meetings. Your presence is vital to uplift other commenters.

- Come to the public meeting early and sign up with DNR as well as checking in with WaterLegacy.
- We will be "tailgating" before the meeting and you can check in with us and get last minute help or support.
- Names for comments will be drawn by DNR at random.
- If your name is called and you don't want to comment, you can share your turn. We will help facilitate a comment from an ally.
- Commenters will have 3 minutes, which is about 300 words.
- Please write and read your comments so you don't run out of time for your important points.
- **We're here to answer your questions and support your participation!**

What Is Your Next Step to Protect Water and Communities?

www.WaterLegacy.org

Scan & Comment on Talon Mine

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Comment on Talon Mine Scoping, Share with Others, Comment or Be Present at a Public Meeting!