TAMARACK WATER ALLIANCE

Tamarack Water Alliance Community Zoom Meeting
Wednesday, March 11, 2026 10am CT

TOPIC: Everyone Cares About Light Pollution - They Just Don't Know It Yet
PRESENTER: Todd Burlet, Starry Skies North President

Learn about the myriad of ways light pollution impacts everyone and everything - from amphibians and budgets to walleyes and ZZZs. You'll learn the compelling reasons why everyone cares about light pollution, even if they don't know that they care ... yet. Then learn the simple things we can do in our homes and communities to drive real change and create win-win solutions where everyone - and everything - comes out ahead.

Todd Burlet is a Delegate of DarkSky International and is a Co-Founder, Board Member, and President of Starry Skies North. Todd is a retired Staff Engineer and Engineering Manager whose 37-year career in the aerospace industry spanned commercial, military, and space programs. He holds a BA in Physics from St. Olaf College, is a lifelong amateur astronomer and photographer, and when he's not advocating for dark skies he enjoys canoeing, biking, and scuba diving.

Register for the meeting and receive the Zoom link
here. (https://tamarackwateralliance.org/php/eventreg.php?eid=16).

Action Required

ACTION ALERT: ONCE IN A GENERATION OPPORTUNITY TO STRENGTHEN AITKIN COUNTY STREAMS AND WETLANDS

Listing these waters on the Public Waters Inventory will require environmental review and safeguards against pollution and destruction.

Send your comment to the Minnesota DNR today:
https://waterlegacy.org/public-waters-comment/

The Minnesota Legislature has given us a one-time opportunity to correct the Public Waters Inventory (PWI) to add missing waters, starting with Aitkin County. PWI listing is an important way to recognize the presence and value of streams and wetlands even as Aitkin County is threatened by sulfide ore mining, draining, development, and other activities that could pollute and degrade wetlands and streams.

Working in collaboration with tribal staff, we have found an altered stream previously listed as a "ditch" and 14 wetlands in Aitkin County that meet Minnesota's requirements to be listed as "public waters." Listing waters on the PWI can matter for environmental review of projects, whether they involve residential developments or industrial use. PWI listing can also limit construction, alteration, or drainage of waters.

Get Involved

- **You can donate on our website anytime at tamarackwateralliance.org/donate.html**.
- **OR make tax deductible contributions by donating through our 501c3 Fiscal Sponsor** at the **Grand Rapids Area Community Foundation.** For Qualified Charitable Distributions (QCDs) from an IRA, the EIN for the Grand Rapids Area Commuity Foundation is 41-1761590, Tamarack Water Alliance Fund.

We invite your donations now and throughout the year. Tamarack Water Alliance is all volunteer Minnesota non-profit with no paid staff. Every penny you donate goes to support our hard work educating the public about the risks of sulfide mining to our water, environment, fish, wild rice, and ecosystems.

Your donation goes to support our community educational activities which include tabling at community festivals and parades, participation in other community events, targeted speaking engagements with interested local organizations, monthly informational public zoom calls and an associated email newsletter, website and social media, letter writing campaigns and articles in local news outlets, interviews with media, and other community outreach and canvasing.

Our current focus is on providing education about the risks of sulfide mining, narratives to counter the greenwashing and divisiveness that some mining companies promote, as well as forging connections to other communities concerned about sulfide mines in Minnesota, across the Midwest, and around the world. Thank you for your contributions to our work.

REQUEST Presentation On Risks of Sulfide Mining for your group, Rotary Club, church or community club. Send us an email at waters@tamarackwateralliance.org.

DOWNLOAD Tamarack Water Alliance fact sheets/flyers here (https://tamarackwateralliance.org/resources.html#flyers).

SIGN-UP To Receive Updates from the DNR on Talon Metals Environmental Impact Statement here **here** (https://www.dnr.state.mn.us/input/environmentalreview/tamarack-nickel-project.html).

VOLUNTEER with the Tamarack Water Alliance. Send us an email at waters@tamarackwateralliance.org.

SIGN-UP FOR THIS NEWSLETTER: Encourage your friends, family and neighbors to sign up for the monthly Tamarack Water Alliance email newsletter at **tamarackwateralliance.org/php/articlereg.php**.

Everyone Cares About Light Pollution - They Just Don't Realize It Yet

by Todd Burlet, Starry Skies North President

Photo credit Todd Burlet

Everyone cares about light pollution - they just don't know it yet. More precisely, they're unaware of the connections between light pollution and the things that matter to them. Let's change that by showing them the strong connections between their lighting choices and the things that are important to them.

It's a 3-step process. First, learn what your audience values. Second, show how those are connected to light pollution. Third, show them the changes they can make that will protect what they value, preserve our night skies, and still give them the light they need.

STEP 1: Find What Matters

In the case of a friend or family member you likely already know what they value. In the case of a neighbor or other community member strike up a conversation. Fishing? Kids or grandkids? Health and wellness? Businesses and governments may care about public safety, economic opportunities, sustainability, or taxes.

STEP 2: Look For Connections

As you learn what's important to them, start thinking about how those connect to light pollution. Here are some general categories to help get you started.

HUMAN HEALTH
All life evolved with a natural day-night cycle, and good physical and mental health rely on

that cycle. The blue skies of daytime signal us to be active, and the absence of blue light signals that it's time for rest and repair. Blue light disrupts that cycle. While a single night of blue screens may only result in a groggy day, a lifetime of disruption can raise our risk of cancer and metabolic diseases such as obesity, diabetes, and cardiovascular disease.

HUMAN WELLNESS
Our mental health also needs a day/night cycle. Circadian disruption increases our risk of anxiety, depression, and bi-polar disorder, and can even worsen PTSD symptoms.

CLIMATE CHANGE & WASTE
35% of our outdoor lighting is wasted, because it shines directly into the sky. That costs our country $3 billion annually. That's $10 per person. Wasted light is wasted energy, which contributes to climate change. Eliminating wasted light can help us achieve our climate change goals and save money.

ECOSYSTEMS
The impacts to our ecosystems are countless -affecting microbes, plants, fish, amphibians, reptiles, mammals, and birds. Virtually every species ever studied is negatively impacted by light pollution. It disrupts hormones, courtship and mating, food chains, orientation and navigation, creates novel predator-prey relationships, and more. It contributes to algae blooms are disrupts food chains. Walleye have a tough time hunting prey that can now see them, and bass stay awake at night in a fight-or-flight state that burns calories and reduces their fitness. Song birds struggle to navigate and migrate, and pollinators stay away from crops.

SOCIAL JUSTICE
Socially and economically marginalized residents often live near brightly lit transportation corridors, commercial districts, and industrial areas, exposing them to more light pollution than more affluent residents. Marginalized persons are also more likely to work 2nd or 3rd shift jobs, which further increases their exposure.

SAFETY
Safety is the number one reason people say they want light at night. However, despite decades of study, there's no scientific consensus that adding light increases safety. Thinking brighter means safer can backfire: if we're in the light we feel safer, and we lower our guard, potentially putting ourselves at more risk.

Criminals can use that same light to identify targets, and then use that light to help them commit their crime. Bright lights also take away our ability to see into the shadows, making it easier for criminals to stay hidden.

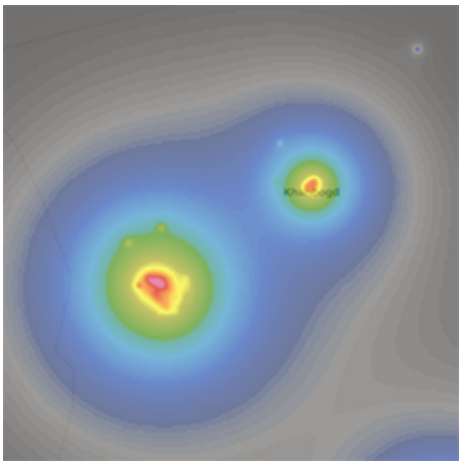
CULTURAL HERITAGE
Throughout time, and across the world, cultures have developed close relations with the sky. It's used to tell time, mark seasons, and hold the stories and lessons that inform and enrich their culture. Poets, composers, artists, dancers, young lovers, and more have all drawn inspiration from the night sky, and still do.

Where will they turn for inspiration when the last stars fade from view?

MINING IMPACT ON DARK SKIES
The proposed Twin Metals high sulfide mine is near the BWCA, America's most visited wilderness and treasured for it's dark skies. Paddlers, campers, anglers and tourists experience awe as an integral part of their trip and the dark skies are a vital part of their vacation. Atikin Cty, is also a dark sky destination, as astronomers/public meet to view starry skies at Long Lake Conservation Center in Palisade

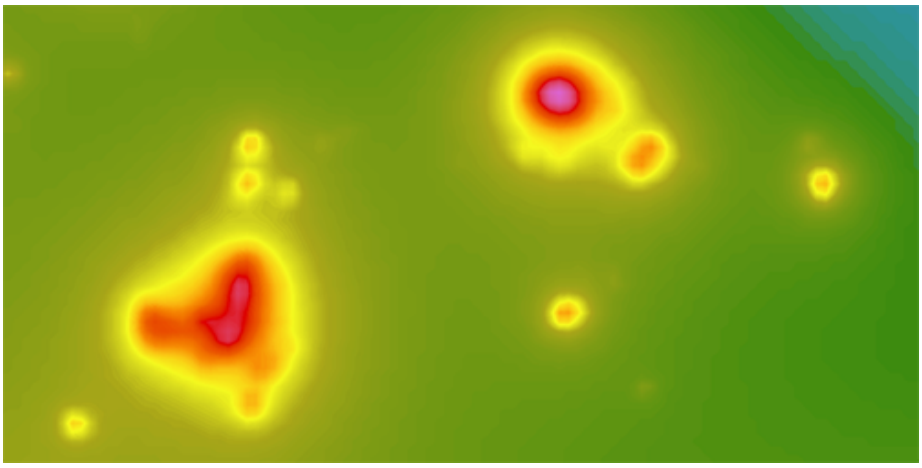
The proposed high sulfide mines in both the BWCA and in Tamarack, Minnesota will create light pollution with 24/7 mining traffic that can inhibit night sky viewing.

Example #1: Gold and Copper Mine, Mongolia.



Lower left: - Rio Tinto Oyu Tolgoi mine, Mongolia. Brightness: Bortle 7 - as bright as an inner-ring suburb.
Upper Right: the town of Khanbogd. Population 3,100 in 2009.

Example 2: Borax Mine, Boron CA.



Lower-left: Edwards Air Force Base, California
Upper Right: Rio Tinto Borax Mine, California. Bortle 8 -as bright as a typical urban core.

ECONOMIC OPPORTUNITY

Astro-tourism is growing in popularity-it's been featured by National Geographic, Lonely Planet, Road Scholar, AARP, Trip Advisor, The New York Times, and many more. Aurora-watching Facebook groups have 100's of thousands of followers, and astro-tourists spend $580 Million each year in the national parks on the Colorado Plateau.

At the same time, the number of places for astro-tourists to go is getting smaller, as light pollution grows. Only 20% of Americans can still see the Milky Way. Growing demand plus shrinking availability equals economic opportunity for still-dark locales. Plus, shoulder seasons that leave tourist towns with empty hotels and restaurants are the best time to do astro-tourism. On top of all that, getting started as an astrotourism provider costs little or nothing. So it's no wonder that businesses and communities are wanting to hop on the bandwagon.

In summary, if your audience cares about any of these then they already care about light pollution-they just don't know it yet.

STEP 3: Win-Win Solutions

Now show them the win-win changes they can make to protect what's important to them while still having quality lighting. Use these 5 Principles of Responsible Outdoor Lighting:

1. USEFUL: Light should serve a purpose. If it doesn't, turn it off.
2. TARGETED: Use shielding and aiming to put light only where it's needed.
3. LOW LEVEL: Use only as much light as needed.
4. CONTROLLED: Use timers and motion detectors to provide on-demand lighting -there when you need it, and off when you don't.
5. COLOR: Use warm colors. No higher than 3000K, but the lower the better

Now your audience cares about light pollution, and they know how to reduce it.

Hull Rust Mahoning Open Pit Iron mine, Hibbing, MN. by Chipcity, CC BY-SA 3.0, via Wikimedia Commons

Dispelling the myth ... existing taconite tailings piles and basins are leaking tens of thousands of tons of sulfates into the enviornment.

"... Minnesota has been subjected to industry lobbying from mining and logging since white settlers first laid sights on the northwoods. *The persistent narrative used by these companies to characterize the Iron Range, in their favor, has led to a generally accepted view, that is more or less a mythology now.* What the majority believes about the range misses more important pollution problems that have been present since modern mining's inception with the 1965 with the Minnesota taconite tax act..."

"... when hydrolic pressure of the water is increased, which is the case with all the tailings basins made with steep earthen dykes...the higher you put water the more it will push down...What we have here is a design that probably should have been reconsidered before it was ever introduced - unlined tailings reservoirs."

These tailings basins were designed to leak... While they are called dykes, ponds or basins, it is almost misinformation, as there is nothing tiny about them..."

Sulfate Seepage and Solutions - Views Are Mine, March 2, 2026
https://www.youtube.com/watch?v=ifzJZVVRAxo/
https://www.youtube.com/watch?v=ifzJZVVRAxo/

Iron Range Project Targets Supply of Critical Metals
Project Links Enviornmental Responsibility and Iron Range Employment

".A proposal for a new Iron Range company called Reclaiming Critical Metals, or RCM is developing plans for a modern metals recovery facility that would reclaim critical and industrial metals from shredded electronic waste using advanced mechanical separation technology already operating in multiple facilities overseas...It's done without heat and done without chemicals..."

"...Under the proposed model, suppliers could ship regionally to Reclaiming Critical Metals, have material processed within days, and receive payment within weeks..."

Iron Range Project Targets Supply of Critical Metal, Colburn,Wes, Feb. 26 , 2026, TimberJay
https://www.timberjay.com/stories/iron-range-project-targets-supply-of-critical-metals,24055
https://www.timberjay.com/stories/iron-range-project-targets-supply-of-critical-metals,24055

Who We Are

Tamarack Water Alliance is a group of local residents and landowners working together with others from across Minnesota to protect water and community health from the dangers of sulfide mining near our beloved lakes and wild rice beds, at the headwaters of the Kettle River and in the Mississippi River watershed. Visit our website **here** (https://tamarackwateralliance.org/index.html).

A proposal by a foreign owned mining company, Talon Metals/Rio Tinto to mine nickel and other metals near Tamarack in Aitkin County threatens the health of our communities. This kind of sulfide mining, especially in water-rich environments, has never been done without severe impacts to water and the health of those downstream. Mining here is also a threat to environmental justice and the long-term economic security of nearby native and rural communities.

Review our **community slide presentation** (tamarackwateralliance.org/docs/TamarackMineConcerns-Consolidated.pdf) and download **informative flyers** (tamarackwateralliance.org/resources.html):

- Talon Mine Risks
- Geology of Aitkin County
- Talon Dumping Toxic Drilling Waste,
- Minnesota Declares Round Lake Impaired
- High Sulfide Mines Create Acid Mine Drainage
- Nickel Not Needed for Future EV Batteries
- Minnesota's Prime Wild Rice Lakes Under Threat,
- Difference Between High Sulfide Mining and Taconite Mining
- Minnesota Regulators Poor Record In Protecting The Environment
- Eagle Mine Environmental Report & Saving Our Meager Nickel Reserves
- Is There Really A Talon Tesla Supply Agreement? (no)
- Rio Tinto: A History of Corruption

- Green Bridge Metals -Canadian proposed sulfide mine near Duluth seeks to acquire battery rich mineral assets
- Copper and The Green Economy
- Prove It First!

We will send this monthly newsletter to keep you informed about this project, to share information and opportunities to act to protect clean water and community health.

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