



MEMBERSHIP MEETING SUMMARY

Wednesday, February 21, 2024 (9:30 AM – 12:00 PM)

1003 Discovery Drive | Chisholm, MN 55719

And via Zoom: <https://us02web.zoom.us/j/88401325345>

MEETING OBJECTIVE

VISION | Shaping evolving landscapes for future generations.

MISSION | A regional collaboration that invests in our diverse community by:

- Developing opportunities for dynamic minescapes,
- Preserving lands to sustain current and future mining, and
- Providing resources and education

STRATEGIC DIRECTIONS

1. Optimizing Organization & Communications
2. Investing in Mineland Communities
3. Enhancing Stakeholder Partnerships
4. Educating Partners & the Public

Check out the updated website: www.mvpmn.org

MEETING SUMMARY

- Welcome & Introductions
- Presentation: Mesabi Metallics Update (POSTPONED)
- Presentation: MN DNR Cliffs Nashwauk Environmental Review Update
- Presentation: Pulsar Helium Inc. – Topaz Project Update
- Presentation: NRRI Mineral Innovation Project Overview
- Presentation: Tamarack Nickel Project Update (POSTPONED)
- Presentation: Western Mesabi Mine Planning Board Update
- Presentation: East Range Joint Powers Board Update
- Upcoming Events
- Adjourn

WELCOME & INTRODUCTIONS

Welcome & Introductions

Karl Schuettler & Stefanie Sjelin, Facilitators

02.21.24 MVP Partnership Meeting

MVP Facilitator Karl Schuettler welcomed attendees and called the meeting to order at 10:05 AM. He began by briefly reviewing the MVP vision, mission, and meeting agenda. Schuettler and Co-Facilitator Stefanie Sjelin then led the group in a round of introductions.

P R E S E N T A T I O N

Minnesota Department of Natural Resources (MN DNR) Cliffs Nashwauk Environmental Review Update

Randall Doneen, MN DNR

Next, Randall Doneen, Conservation Assistant and Regulation Section Manager with the MN DNR, shared an update on the Cliffs Nashwauk environmental review process. See slides for more information.

Doneen began with a brief overview of the proposed project, which is currently undergoing environmental review. The project involves a new open pit mine for taconite ore and a new mine site rail loadout facility using an existing railroad to haul ore to a new unloading area at Hibbing Taconite. Doneen noted that the Cliffs Nashwauk project is subject to mandatory environmental review due to the potential environmental impact of the open pit mine. The environmental review and mandatory environmental impact statement (EIS) process begins with data submittal to give information on how the project interacts with the environment. Cliffs is at the beginning of this process and submitted substantial data on December 29, 2023.

There are three different phases to the EIS process. First, scoping determines what key aspects of the project will be analyzed in the EIS and be used to assess end results. It involves the preparation of an environmental assessment worksheet (EAW) and draft scoping decision document (DSDD), which is then subject to a 30-day minimum public scoping comment period and public meeting to obtain feedback that informs the final scoping decision. Next is the EIS phase, which is the “meat” of the project and takes the longest. The draft EIS is prepared and undergoes a 45-day minimum public review and public meeting for additional feedback to identify any necessary revisions and prepare the final EIS, which is also subject to a public comment period of at least two weeks. The third phase is assessing adequacy, which also involves a short public comment window and a fair amount of energy invested to ensure the final EIS covers the necessary topics, incorporates responses to public comments, and follows all applicable rules.

The end purpose of environmental review is to inform permitting decisions, although permit review can occur simultaneously with the EIS. The process involves an inter-governmental effort working closely together with regulatory parties such as the Pollution Control Agency (PCA), Mineland Reclamation, and Tribal agencies who weigh in on final permitting decisions. Doneen noted that the environmental review timeline varies and takes longer if a large number of public comments are received, but he expects roughly a 30- to 36-month process for the Cliffs Nashwauk project.

After the presentation, Doneen addressed questions from the group.

P R E S E N T A T I O N

Pulsar Helium Inc. – Topaz Project Update

Phil Larson, Pulsar Helium

Pulsar Helium Project Advisor Phil Larson then gave an update on the company’s flagship Topaz project. See slides for further details.

Prior to delving into the update, Larson displayed a legal disclaimer slide and noted a limited ability to comment on certain aspects of the project. He shared that Pulsar Helium is a publicly traded company supporting the Topaz project, which is highly capital intensive and attractive to a largely international investor base, being in the center of the largest economy on the planet and close to a ready and developing market. Should this come to a production scenario, the U.S. is a very safe jurisdiction and has historically been a significant supplier of helium; however, this has been changing dramatically in the last decade as the Persian Gulf, Russia, and other competitors are emerging as helium suppliers despite not being as

safe. Helium depends on a robust supply chain network and must go from the source to the end user in an abbreviated timeline as value degrades quickly. The Topaz project is in a well-developed area with existing infrastructure and was discovered in 2011, when a previous company was prospecting for platinum and palladium and drilled into a pocket of pressurized gas which came out of borehole at very high velocity. Normally, gas stops flowing after a few hours, but in this case it flowed for four days straight with no drop in pressure observed. Due to concerns it might have been methane, work stopped temporarily. Drillers eventually shut off the gas flow with a dense drilling mod and walked away because the previous company was not able to handle the scope of the discovery.

Prior to cutting off the gas flow, a sample was gathered and analyzed by two independent labs and indicated the gas had trace, safe levels of methane, but was mainly composed of carbon dioxide, followed by nitrogen and helium. The sample showed a 10.5% helium concentration, one of highest ever recorded in naturally occurring gas and a globally significant discovery that is unprecedented for rocks of this type and age. The high concentration was in part because, unlike other parts of the county, there is a near total absence of hydrocarbon gas, which dilutes helium concentration. The discovery was made 10-12 miles east of Babbitt in Lake County at base of the Bald Eagle Intrusion flat line. This location has many assets, including proximity and ample access to transportation and power networks. Helium is transported in 40-foot-long cryogenic containers with an outer shell of liquid nitrogen. As helium warms up, it vaporizes and begins to leak, so location and reliable transportation are key. These containers are not certified for rail and currently use truck transport only, with potential for shipping, placing the Topaz project in a position to deliver product to a large part of North American market.

Currently, Pulsar Helium is focused on drilling a proper evaluation hole to do economic analysis, determine feasibility and scale of the project, and determine the exact makeup of the gas. An exploratory borehole was spudded within 20 meters of the discovery site on February 2, 2024, with results expected by the end of the same month. Private mineral rights leases have been obtained for a total of 2,089 acres over the discovery site and areas of immediate interest. An exclusive option for an additional 2,092 net acres of private mineral leases is in place, and surface rights of discovery are privately held. Larson noted that the helium process is fast compared to mineral mining and that there is no existing regulatory framework due to the unprecedentedness of the discovery. He invited the group to visit Pulsar Helium's [Topaz Project webpage](#) to explore further information.

Larson fielded comments and questions from meeting participants following the presentation.

P R E S E N T A T I O N

Natural Resources Research Institute (NRRRI) Mineral Innovation Project Overview

Matt Mlinar, NRRRI

Interim Mineral Processing and Metallurgy Research Group Leader Matt Mlinar then provided an overview of NRRRI's Mineral Innovation Project. See slides for more detailed information.

Mlinar gave a brief background on NRRRI, which began in 1983 as an institute examining responsible use of resources for economic development and job growth. Since then, NRRRI's focus has grown into a mission to "deliver integrated research solutions that value our resource, environment, and economy for a sustainable and resilient future." The institute has three key strategic initiatives that are integrated across sectors and centered on innovation and impact: 1) Future Forest Industries, 2) Ecosystem Resilience, and 3) Iron and Minerals of the Future.

Mlinar then discussed mineral challenges that exist both in Minnesota and globally. These challenges include the recovery of materials from waste or byproducts and potential uses for water purification, with Mlinar stating that while Minnesota has 10% of freshwater in the world, water scarcity and quality will become increasingly prominent issues in the future. Additional challenges include using tailings and waste as resources, such as zero discharge taconite or iron ore processing, as well as maintaining a social license. Mlinar noted the potential of reusing waste as a resource and an increased demand for base metals and other critical minerals for a green economy. Additionally, ores are changing grades and becoming finer, and are increasingly subject to electric arc furnace (EAF) market dynamics. Instead of natural gas and sustainability alone, the focus is shifting toward how to best implement things like e-fuels, biofuels, decarbonization, and overall industry "greening." NRRRI's goal in this regard is to produce high-value mineral, metal, and material products safely and

economically while reducing environmental and social impact.

Next, Mlinar reviewed some of the challenges that the Minnesota iron industry is facing today. These include industry decarbonization and how to move from carbon fuels to sustainable production practices, as well as the role that iron sources play in energy and water conservation. Mlinar also discussed the changing nature of Minnesota iron ore, which is moving beyond just iron pellets and the challenges of creating a broader product portfolio. NRRI has several new processing capabilities that are either current or onboarding. These include equipment for fine grinding to improve the quality and grade of ore, flotation to separate and recover finer particles at a higher and more energy-efficient rate than traditional mechanisms, pellet quality improvements that support the direct EAF market, and electric smelting for creating value-added products beyond iron oxide. NRRI is also implementing a one-of-a-kind direct reduced iron (DRI) simulator constructed with partners that allows for a unique, high-resolution simulation of each distinct zone of a shaft furnace at once to determine best production methods and how to maximize performance.

In addition to the DRI simulator, Mlinar highlighted several current prominent NRRI projects. These include enhanced iron ore pellet chemistry to improve the high temperature properties of pellets and engineered biocarbon to demonstrate the use of carbon-neutral engineered biocarbon products as fossil fuel substitutes for EAF steel production. NRRI is also working with business and industry partners at US Steel-Keetac on direct reduced (DR) grade pellets conversion and fine grinding technologies, and at MagIron on production of low-silica iron concentrate from legacy mine waste piles and tailing ponds. Noting that NRRI's research goes beyond just iron and steel, Mlinar then displayed a table of the institute's innovation portfolio containing the abbreviated title, primary goal, lead, partner(s), budget, duration, and start date of several additional current and upcoming projects that they are involved in. These projects include Western Mesabi Iron Resources of the Future, Reduction of Iron with Hydrogen Plasma, Iron Battery Materials from Minnesota Iron Resources, Fossil Carbon Replacement in Lead Battery Recycling, and ASPEN LEAF (carbon looping).

In closing, Mlinar reiterated that the minerals industry faces significant challenges both in Minnesota and around the world relating to resources, technical challenges, and maintaining a social license to mine. He stated the necessity of new technology and innovations to achieve "green" iron products and to utilize existing waste resources, as well as future resources like tech waste. Mlinar emphasized the importance of collaboration between industry, federal and state agencies, and research for driving meaningful change, highlighting that NRRI is here to help with industry decarbonization, energy and water consumption reduction, finding alternative uses for byproducts and waste, and anticipating and addressing challenges of the future.

Following the presentation, Mlinar answered questions from the group.

P R E S E N T A T I O N

Western Mesabi Mine Planning Board (WMMPB) Update

Doug Learmont, WMMPB

Coordinator Doug Learmont provided an update on the Western Mesabi Mine Planning Board (WMMPB). See slides for some information.

Learmont opened by thanking the other presenters, MVP participants and MVP supporters, and shared appreciation for the access to information on technology, community, marketing, and other resources provided during MVP meetings. He then gave a brief overview of the WMMPB, which is a Minnesota joint powers board comprised of 13 members, local government units on the Western Mesabi Corridor from Cohasset to Keewatin at county, city, and township level. The WMMPB was formed more than 30 years ago and is among the longest-running mining-related community organizations in northeastern Minnesota. The group normally holds monthly public meetings and is funded by its members. As a local government entity they can also serve as a fiscal agent for special projects.

WMMPB has four main purposes: 1) To formulate a management plan and develop strategies for environmental protection and orderly development of public and private lands; 2) To protect said lands from uncontrolled and unplanned development, pollution or degradation through the preparation and adoption of comprehensive local plans and

ordinances; 3) To provide for the recreational use of said lands; and 4) To identify areas of high future mining potential and to preserve these lands for future mining opportunities. Learmont noted that the WMMPB joint powers agreement states that its purposes are shared management responsibilities with the county, cities, and townships within the western Mesabi corridor, with the core of its purpose is to ensure the region's iron ore resources are preserved for future mining opportunities.

Learmont provided several examples of past WMMPB progress and successes. These include developing a management plan and strategies for environmental protection and the orderly development of both public and private lands in the western Mesabi corridor, including mining-related objectives in the Itasca County Comprehensive Plan and establishment of an iron mining overlay zone by Itasca County. Additionally, WMMPB advocated for and achieved major improvements by the Minnesota Department of Transportation to several sections of Highway 169, which is a major transportation route and is critical infrastructure for support of mining and other local and regional activities. The group has taken major steps with the Minnesota Department of Natural Resources to successfully identify and address issues related to uncontrolled increases in pit water in idle or legacy open pits. WMMPB also organizes and facilitates periodic mining-related field trips and educational presentations, works toward keeping people informed about the iron ore and other mineral resources and preserving them for the future, and actively participates in activities such as MVP to provide information to others about its activities and to obtain information about other related and pertinent activities. Additionally, the group provides a forum where operating mining companies or developing projects can provide information about their operations and plans, where members can seek guidance when planning or when mining-related issues arise in their jurisdictions, and advocates for greater and more timely participation with state agencies and directly interfaces with federal and state legislators to support key issues in a positive context. WMMPB has also invited candidates for local and state office to meet the board to present their positions on related issues and to become better aware of WMMPB issues and priorities

The WMMPB has several current priorities, including with state agencies. These include continued improvements to support major improvement to the remaining two lane section of the cross range expressway, which now has another \$6 million appropriation to MN DOT by the state legislature and possibly another \$4.8 million in federally earmarked funds with bipartisan support in current federal budget bills. WMMPB also communicates with legislators and the state DNR to address and stabilize rising pit water in the Canisteo and Hill Annex-Arcturus pit complexes; strives to create long-term stability for the Hill Annex Mine State Park until active mining resumes; review Itasca County's zoning ordinance and iron mining overlay district to ensure the zone effectively maintains land available for iron ore mining; and identify ways to use the large resource of non-magnetic taconite, which is more abundant than magnetic taconite. Additionally, WMMPB is prioritizing continued educational opportunities, considering suggesting possible revisions of state laws and regulations to provide for better long term availability of low grade resources, identifying temporary uses of inactive mine land for temporary non-mining purposes, advocating for policy change to reduce permitting times, increasing the Board's participation in relevant state decisions, and continuing to engage with state and federal elected officials. These priorities support the WMMPB's broader goal to continue to plan and take action to preserve areas with mineral resources for current and future mining developments in the western Mesabi Corridor, including land needed for ancillary activities. The Board's policy has been a factor in having resources and lands available for the many current new project proposals and developments in the western Mesabi corridor.

Participants did not pose any questions after the presentation, although WMMPB welcomes feedback and constructive thoughts and suggestions.

P R E S E N T A T I O N

East Range Joint Powers Board (ERJPB) Update

Shaun Hainey, Northspan

In the final scheduled presentation of the day, Shaun Hainey, Northspan Consultant and Northland Connection Program Manager, shared an update on behalf of the ERJPB. See slides for further information.

Hainey began by briefly reviewing the background of the ERJPB. The Board was founded in 1984 and has four members representing Aurora, Blwabik, Hoyt Lakes, and Town of White, with a current annual budget of approximately \$110K. The

ERJPB embraces a unique model for joint powers boards that focuses on the broader, holistic community and economic development of the East Range area, not just one issue, utility, etc. In 2019, the ERJPB contracted consulting staff through Northspan, with whom the Board also develops three-year strategic action plans.

The ERJPB recently completed a new two-part strategic action plan for fiscal years 2024-2026. This included developing the Board's first official vision statement: "The region to live, work, and play", and first mission statement: "To improve the lives of our residents by fostering collaboration among East Range communities." Additionally, the ERJPB developed a set of four core values describing the group and its aims:

1. *Collaborative*: We build bridges across the four East Range communities and with local and regional partners to promote comprehensive solutions for us all.
2. *Supportive*: We share resources across our communities and acknowledge the success of one community brings benefits to the entire area.
3. *Trusting*: We build deep relationships with one another and believe our tight-knit networks are the foundations for the future of the East Range.
4. *Responsive*: We recognize the voices of community members and adapt our efforts to address our most urgent needs and challenges.

Noting that collaboration is a huge underrunning theme with the ERJPB and is a large part of what makes the organization effective and powerful, Hainey emphasized that when one of the East Range communities prospers, the others do as well. He then went through a brief overview of the ERJPB's 2024-2026 strategic action plan, which is comprised of four strategic directions:

- 1) Creating a Collaborative Culture;
- 2) Unifying Communities through Communication;
- 3) Addressing Community Resources; and
- 4) Targeting Financial Resources.

Each strategic direction has seven to ten corresponding actions. Hainey highlighted several of these key actions, including creating task forces to address business permitting and cannabis in each community, determining possible collaboration opportunities, continued cooperation regarding emergency services, creating a sense of continuity in shared resources between communities, and getting administrators together to encourage regular communication. Hainey also discussed plans to coordinate and rejuvenate marketing efforts, including highlighting signature events throughout the East Range communities and advertising events across the region in one consolidated resource.

Hainey also shared several action items related to improving access to necessities such as housing, childcare, and food, which are important resources that communities need. This includes participating in one of MN's Housing Finance Agency housing cohorts and plans for future development, determining the potential for additional childcare through the Mesabi East school district to address current gaps, and coordinating with the Regional Food Business Center (RFBC) program to promote activities on the East Range. Additionally, Hainey highlighted plans to relaunch the ERJPB loan program and noted the Board is in the process of recapitalizing it to support new or expanding businesses. He also emphasized the need for discussions and policy change advocacy, including property tax reforms that included repealing the "kids in cabins" law, changing homestead credit calculations, and reinstating Minnesota's former "This Old House" program.

There were no questions from the group following the update.

UPCOMING EVENTS

- Duluth & St. Louis County at the Capitol, 3/6/24 – 3/7/24
 - <https://duluthchamber.com/dslc/>
- PDAC Mineral Exploration & Mining Convention, 3/3/24 – 3/6/24
 - <https://www.pdac.ca/convention>

- 2024 SME Minnesota Conference, 4/15/24 – 4/17-24
 - <https://www.smemnconference.com>
- American Society of Reclamation Sciences (ASRS), 6/2/24 – 6/5/24
 - <https://www.asrs.us/2024-conference/>

A D J O U R N

The meeting was adjourned at 12:00 PM. Save the date of June 5, 2024, for our next MVP Partnership meeting.

B O N U S P R E S E N T A T I O N

Range Association of Municipalities and Schools (RAMS) Update

Paul Peltier, RAMS

Following the official meeting adjournment, RAMS Director Paul Peltier shared a brief update on behalf of the organization.

Peltier noted that Representative Dave Lislegard and Senator Grant Hauschild are seeking \$120M in gap funding to address current issues with rural emergency medical services throughout the region with the support of RAMS. He also shared that Senator Jason Rarick is introducing a concerning bill about possible expansion of the Taconite Assistance Area that RAMS plans to fight, as it would dilute the benefits of the taconite tax for Iron Range communities. Additionally, Peltier discussed a recent report published by the Minnesota Chamber of Commerce examining permitting timeframes. The report involves a calculated inventory of timelines across a ten-state region to provide comparisons on permit timelines and issue rates. Minnesota has a longer-than-average permitting timeline of about 600 days for projects. This lag is especially burdensome for permits that need construction, and lots of projects end up leaving before they get the green light and can see the light of day. Lastly, Peltier noted that school funding issues are always at the forefront for RAMS and that the organization is working with the legislature to address issues related to rural sparsity and transportation needs.

Mineland Vision Partnership thanks its financial contributors:

