

[Twin Metals](#)

- [Newsroom](#)
- [Careers](#)
- [FAQ](#)
- [Contact Us](#)
- [Get Involved!](#)

- [Who We Are](#)
 - [Executive Team](#)
 - [Our Partners](#)
- [About The Project](#)
 - [Strategic Metals Uses](#)
 - [Why Minnesota?](#)
 - [Project Schedule](#)
 - [Project Facts](#)
 - [Regulatory Process](#)
 - [Regulatory Documents](#)
- [Jobs For Generations](#)
 - [By the Numbers](#)
 - [Spurring Growth](#)
 - [Revenue for Schools](#)
- [In The Community](#)
 - [Connect](#)
 - [Community Outreach](#)
 - [Public Presentations](#)
- [Responsible Mining](#)
 - [Sustainability](#)
 - [Environmental Stewardship](#)
 - [New Technology](#)
 - [Safety](#)
- [Learn About Mining](#)
 - [Strategic Metals Mining](#)
 - [The Science of Mining](#)
 - [Drilling](#)
 - [Mine Reader](#)
 - [Materials](#)
 - [Resources](#)
- [Newsroom](#)
 - [News Stories](#)
 - [News Releases](#)
 - [Radio Broadcast](#)
 - [Videos](#)
 - [Photos](#)

Project Facts

- [Who We Are](#)
 - [Executive Team](#)
 - [Our Partners](#)
- [About The Project](#)
 - [Strategic Metals Uses](#)
 - [Why Minnesota?](#)
 - [Project Schedule](#)
 - [Project Facts](#)
 - [Regulatory Process](#)
 - [Regulatory Documents](#)
- [Jobs For Generations](#)
 - [By the Numbers](#)
 - [Spurring Growth](#)
 - [Revenue for Schools](#)
- [In The Community](#)
 - [Connect](#)
 - [Community Outreach](#)
 - [Public Presentations](#)
- [Responsible Mining](#)
 - [Sustainability](#)
 - [Environmental Stewardship](#)
 - [New Technology](#)
 - [Safety](#)
- [Learn About Mining](#)
 - [Strategic Metals Mining](#)
 - [The Science of Mining](#)
 - [Drilling](#)
 - [Mine Reader](#)
 - [Materials](#)
 - [Resources](#)
- [Newsroom](#)
 - [News Stories](#)
 - [News Releases](#)
 - [Radio Broadcast](#)
 - [Videos](#)
 - [Photos](#)



PROJECT DESCRIPTION

The TMM Project PFS is based on a 30-year underground mine plan focused on the development of the Maturi and Maturi SW mineral deposits, located approximately nine miles southeast of the city of Ely, Minnesota, and 11 miles northeast of the city of Babbitt, Minnesota. The PFS Technical Report estimates an average production rate of 50,000 tons of mineralized ore per day, generating marketable copper and nickel concentrates. The PFS Technical Report mine plan configuration consists of four major facilities: the underground mine site, the concentrator site, the tailings storage facility (TSF) and utility corridors.

STRATEGIC METALS

Copper, nickel, platinum, palladium, gold and silver – metals of strategic importance to the U.S. economy and national defense.

PREFEASIBILITY STUDY (PFS)

Twin Metal Minnesota completed the project's prefeasibility study (PFS) in June 2014. During the PFS, Twin Metals evaluated significant project details such as environmental protection strategies, proper mine processing technologies, potential facility locations, and estimated economic impacts such as job creation and tax revenues. These details will eventually form a Mine Plan of Operation (MPO) that will be submitted to state and federal regulatory agencies for environmental review.

In August 2014, Duluth Metals Limited, an original Twin Metals Minnesota joint venture partner, released highlights from a [draft National Instrument \(NI\) 43-101 Technical Report on the TMM Project PFS](#) (PFS Technical Report). The PFS Technical Report was prepared by a multi-company team led by AMEC E&C Services Inc. The PFS Technical Report confirms the TMM Project offers northeast Minnesota an extraordinary opportunity for long-term, environmentally-sound economic growth and job creation. The TMM Project is supported by financial fundamentals showing an internationally competitive cost position, high margins sustained over time, and capital efficiencies resulting from outstanding existing regional and local infrastructure.

PFS TECHNICAL REPORT HIGHLIGHTS

Location: The TMM Project PFS Technical Report is based on a 30-year underground mine plan focused on the development of the Maturi and Maturi SW mineral deposits, located approximately nine miles southeast of the city of Ely, Minnesota, and 11 miles northeast of the city of Babbitt, Minnesota.

Mining Rate: The PFS Technical Report estimates an average production rate of 50,000 tons of mineralized ore per day, generating marketable copper and nickel concentrates.

Jobs: The PFS Technical Report estimates the TMM Project will create approximately 850 full-time jobs when the mine is in operation, and will generate some 12 million labor hours during a roughly three-year construction period. According to a University of Minnesota Duluth study, the Project would generate approximately 1,700-1,900 additional indirect jobs in the region's economy.

Facility Locations: The PFS Technical Report mine plan configuration consists of four major facilities: the underground mine site, the concentrator site, the tailings storage facility (TSF) and utility corridors. The facility locations were identified based on sound environmental and economic principles, such as minimizing surface impacts, minimizing waste impacts, citing facilities near existing industrial areas and minimizing overall environmental impacts.

Underground Mine Site: The PFS Technical Report underground mine plan is focused on the development of the Maturi and Maturi SW mineral deposits, located approximately nine miles southeast of the city of Ely, Minnesota, and 11 miles northeast of the city of Babbitt, Minnesota. To support the underground mine operation and reduce surface impacts, a variety of fixed facilities will be constructed underground, including primary crushers, conveyors, pumping stations and electrical substations.

When in production, all waste rock generated from underground mining activity will be used as underground backfill. Similarly, approximately 50 percent of the tailings produced by the concentrator in the processing of mineralized ore will be returned to the underground mine as paste backfill.

Concentrator Site: The concentrator is the main facility for processing the mineralized ore mined from the underground mine and capturing the valuable metals. The TMM Project preliminary concentrator site

is proposed approximately 2.5 miles west of the underground mine site and south of the Ely airport. The site will include the concentrator plant, primary mine portal, temporary ore stockpiles and a process water pond.

Tailings Storage Facility (TSF): The TMM Project preliminary tailings storage facility (TSF) is proposed south of Babbitt, Minnesota, adjacent to the Peter Mitchell Mine. The TSF location is south of the Laurentian Divide, in the Great Lakes Watershed. The TSF will be used to store tailings not returned to the underground mine. The TSF will also include a concentrate filtration plant, intermediate pond, electrical substation and rail load-out facility.

Utility Corridors: The proposed utility corridors will connect the underground mine site to the concentrator site, and the concentrator site to the TSF. The utility corridors will serve multiple infrastructure needs, including transport of concentrate and tailings, water pipelines, service and contact roads, and a rail extension to an existing railroad.

ENVIRONMENTAL ASSESSMENTS

Twin Metals and its predecessor Duluth Metals Limited have been conducting environmental studies and assessments for more than five years – and those efforts will continue during development of the MPO. Environmental information from in and around Twin Metals Minnesota's land and mineral assets will feed into the formal, Draft Environmental Impact Study (DEIS) that will be conducted by state and federal agencies. Key environmental issues include: surface water quality and hydrology, threatened and endangered species, air quality, plant life, wetlands and socioeconomic factors.

ENVIRONMENTAL AND OPERATING PERMITS

Numerous state environmental permits will be required to plan, construct and operate the proposed underground mine. Multiple federal and state regulatory agencies and Native American tribes and bands will be part of the permitting process.

EMPLOYEES

Twin Metals Minnesota has more than 25 Minnesota-based employees across two offices. Through its project development activities, Twin Metals has supported as many as 200 consulting/contractor jobs.

JOBS FOR GENERATIONS

The Twin Metals Minnesota project will create thousands of construction jobs and hundreds – potentially thousands – of long-term mining jobs. The PFS Technical Report estimates the TMM Project will create approximately 850 full-time jobs when the mine is in operation, and will generate some 12 million labor hours during a roughly three-year construction period. According to a University of Minnesota Duluth study, the Project would generate approximately 1,700-1,900 additional indirect jobs in the region's economy.

MINING WAGES

Average mining wages and benefits significantly outpace other industries in Minnesota.

According to the U.S. Bureau of Labor Statistics, the average annual wage for a Minnesota mining job is \$83,359, more than \$30,000 above the all-industries average. Mining offers living wages that can support a family, sustain communities and drive economic growth.

CAPITAL INVESTMENT

More than \$250 million has been invested in exploration and project development to date.

TAX REVENUE AND ROYALTIES

The underground mine will generate significant tax and royalty revenue for state and local governments

as well as local school districts.



[Project Overview PDF](#)

- ○ [Who We Are](#)
 - [Executive Team](#)
 - [Our Partners](#)
- [About The Project](#)
 - [Strategic Metals Uses](#)
 - [Why Minnesota?](#)
 - [Project Schedule](#)
 - [Project Facts](#)
 - [Regulatory Process](#)
 - [Regulatory Documents](#)
- ○ [Jobs For Generations](#)
 - [By the Numbers](#)
 - [Spurring Growth](#)
 - [Revenue for Schools](#)
- [In The Community](#)
 - [Connect](#)
 - [Community Outreach](#)
 - [Public Presentations](#)
- ○ [Responsible Mining](#)
 - [Sustainability](#)
 - [Environmental Stewardship](#)
 - [New Technology](#)
 - [Safety](#)
- [Learn About Mining](#)
 - [Strategic Metals Mining](#)
 - [The Science of Mining](#)
 - [Drilling](#)
 - [Mine Reader](#)
 - [Materials](#)
 - [Resources](#)
- ○ [Newsroom](#)
 - [News Stories](#)
 - [News Releases](#)

- [Radio Broadcast](#)
- [Videos](#)
- [Photos](#)

- **Contact Us**

- Corporate Headquarters
- 380 St. Peter Street
- Suite 705
- St. Paul, MN 55102
- 651-842-6800
- Operational Headquarters
- 400 Miners Drive East
- P.O. Box 329
- Ely, MN 55731
- 218-365-3306

info@twin-metals.com

Connect:

- [Facebook](#)
- [Linked In](#)
- [YouTube](#)
- [RSS](#)

- **Subscribe to our E-Newsletter**

- *

EMAIL ADDRESS

»

- [Privacy Policy](#)
- [Terms of Use](#)
- © 2015 Twin Metals