

2022-2027 Fairbanks North Star Borough Comprehensive Economic Development Strategy

Mining Summary

Strengths *Internal attributes that contribute to success*

Natural Resources & Environment

- Fort Knox partnership with Trout Unlimited
- Interior Alaska has world-class mineral deposits

Businesses, Organizations, & Government

- Fort Knox contributes millions in property taxes annually to the FNSB (\$11.1 million in 2020), the FNSB's 2nd largest taxpayer (1st is the Trans-Alaska Pipeline)
- Mining company contributions to the community, including event sponsorships and University of Alaska Fairbanks (UAF) programs
- Three of Alaska's largest mining operations (Usibelli, Fort Knox, and Pogo) are within 150 miles of Fairbanks

Education & Workforce

- Mining employment offers high wage jobs
- UAF supports industry workforce needs and provides research capabilities

Weaknesses *Internal barriers to success*

Businesses, Organizations, & Government

- Active mining at Fort Knox is permitted until 2027
- Complex land ownership patterns and limited understanding of land ownership and status by the public
- Limited land status mapping
- Mining companies often end community outreach after permitting; lack of communications with the public

Funding & Markets

- Exploration and production costs higher than the Lower 48
- High costs of energy
- Length of time between exploration and actual production

Infrastructure

- There is a lack of infrastructure for potential mines

Other

- Mining conflicts with other user groups including recreation users, subsistence users, homeowners
- Poor public perception of mining and lack of understanding of what modern mining looks like
- Land with subsurface mineral rights was allowed to be developed into residential uses, creating land use conflicts

Opportunities *External forces that contribute to success*

Natural Resources & Environment

- Alaska's reputation as a mineral source is increasing
- Potential future mining extraction projects in region

Education & Workforce

- Increasing understanding of modern mining practices

Funding & Markets

- Federal funding opportunities for new infrastructure
- Green technology's mineral and metal needs
- Increasing global demand for rare earth minerals, precious metals

Infrastructure

- Road systems through the Brooks Range and Ambler Mining District in planning phases

Threats *External forces that could be barriers to success*

Natural Resources & Environment

- Environmental impacts from mining
- Land use conflicts between neighborhoods and mining activities, with complex patterns of ownership, jurisdiction, and status that are challenging to understand and resolve

Businesses, Organizations, & Government

- Changes to local, state, and federal regulations and taxation policies create uncertainty for mining developers
- Federal policies that restrict new resource development

Education & Workforce

- Increasing skilled labor shortage

Funding & Markets

- Pricing uncertainty for minerals and metals

Other

- Lack of public trust in regulatory agencies, companies
- Land use conflicts with mining

Where We Are	What measurements can we use to track progress? Where do we want to be in 5 years?	2027 Targets
\$1.9 billion (2020)	Mineral Value – Export value of minerals being extracted in Alaska <i>Alaska recently surpassed Florida to be the sixth most-productive mining state</i>	\$2.1 billion (10% increase)
3 Mines (2020)	Producing Mines – How many major deposits are moving from exploration and permitting to operation in Interior Alaska. <i>The Interior has three large active mines (Fort Knox, Northern Star Pogo, Usibelli Coal) and two large mines in exploration (Livengood, Tetlin); this does not count smaller mining operations</i>	4 mines
1,293 Jobs (2019)	Employment – FNSB residents employed full or part time in mining, quarrying, and oil and gas jobs. <i>This number has decreased by almost half over the past 5 years (2,322 in 2014)</i>	1,420 (10% increase)

Sources for export value comes from Alaska Miners Association; employment numbers from the Bureau of Economic Analysis



“Interior Alaska is home to world-class mineralization.”

“There is a perception that Alaska is a pristine land, so that drives some of the resistance to resource extraction.”

“Mining is important here. There are not as many jobs as some industries, but the wages are much higher. Fort Knox is also an important part of the tax base. We also do it well – it is heavily regulated and safe.”



Mining Objectives – Long term improvements and changes we want to see in five years or more



1. Interior Alaska’s abundant mineral resources are a mechanism supporting a thriving, responsible, modern mining industry and local communities.



2. FNSB residents and local and regional leaders have an understanding of mining, including the industry’s economic importance, environmental stewardship, and employment opportunities.

“State law has a provision for how oil properties are taxed; the mining industry would like to see a similar provision. Without that, there is a lot of uncertainty for investors about the future tax environment, which makes it hard to do long term planning.”

“The Port of Alaska in Anchorage is really important to Interior Alaska. Whether freight comes to FNSB on barge or truck or rail, it often passes through the Port of Alaska first.”

“With the high cost of energy and lack of economies of scale, I don’t see processing happening here anytime soon. Energy costs are a big issue for the viability of mining operations.”

“A big accomplishment that we are starting to see is making the connection between green technology and mineral development. Everyone wants wind turbines and solar panels but they don’t want mining, and they don’t realize you can’t have one without the other.”

Strategies & Actions – Activities we will implement over the next five years to accomplish objectives & targets.

See Chapter 3 for a detailed action plan.

Icon Key:  Capital Project  Military-related

1. Ensure Fair Policies – Ensure local, regional, and state policies balance environmental, economic, and community needs while supporting a competitive environment for exploration and investment. (Objectives 1, 2)

- a. Review regional and state taxation policies to ensure mining is taxed at rates that benefit communities without placing an uneven burden on the industry, and that creates stability and certainty for mining investors.
- b. Encourage local, state, and federal agencies to create and follow consistent, predictable timelines for project permitting.
- c. Ensure adequate environmental protections and regulations are in place and consistently followed, including mining reclamation.
- d. Use land use planning tools to mitigate conflict.
- e. Update FNSB Comprehensive Plan for mining and actively notice non-compatible use.
- f. Incentivize mining practices that minimize impacts on the natural environment and adjacent communities.

2. **Expand Outreach Efforts** – Increase communications and education with the public on modern mining practices and implement long-term engagement with communities around active and potential deposits. *(Objective 2)*
 - a. Increase public education on modern mining practices and how minerals are used today.
 - b. Educate mining operators on the benefits of engagement beyond the permitting phase.
 - c. Increase tours to active mines.
3. **Prioritize Workforce Development** – Create and maintain a highly trained workforce that supports mining and geology needs across the spectrum, from exploration through permitting and production. *(Objectives 1, 2)*
 - a. Create natural resources curriculum in public schools and universities.
 - b. Support and expand mining and geology related degree programs in Alaska, including expanding the UAF Mining and Geologic Engineering program.
 - c. Expand vocational training programs that address workforce needs, such as millwright education and internships, through public private partnerships.
 - d. Expand the availability of commercial driver’s license training and licensing.
 - e. Increase awareness of career opportunities and job skill requirements in the mining industry, including opportunities for professional growth and advancement.
4. **Increase Production and Value-Added Processing** – Support responsible exploration, permitting, remediation, and restoration for potential new mines in Interior Alaska. *(Objective 1)*
 - a. Engage in exploration and permitting phases for large projects in Interior Alaska. 🔑
 - b. Address potential transportation concerns associated with the Tetlin (Manh Choh) Project and other similar projects. 🔑
 - c. Encourage robust public outreach and opportunities for public input during permitting phases.
 - d. Explore and develop innovative methods to assist in reclamation and rehabilitation of former mining sites.

“We sit around and tell each other in the mining industry about how good of a job we are doing with environmental stewardship, but we are not good at telling the public.”

“There are a host of organizations, along with the state, that are working hard to engage with the public and educate them on the benefits of the industry and the need on furthering the green economy. You need minerals to produce everything. Tesla needs much more copper than an internal combustion engine.”

Other Relevant Resources

- **The Economic Benefits of Alaska’s Mining Industry.** Alaska Miners Association. 2021. [View here.](#)
- **Major Mines in Alaska.** Alaska Miners Association. 2022. [View here.](#)
- **Mineral Industry Annual Reports.** Alaska Department of Natural Resources, Division of Geological & Geophysical Surveys. [View here.](#)
- **The Economic Potential of Alaska’s Mining Industry.** UAA Institute of Social and Economic Research. 2022. [View here.](#)

Mining Action Plan

See Appendix A for a list of acronyms.

Strategy #1: Ensure Fair Policies – Ensure local, regional, and state policies balance environmental, economic, and community needs while supporting a competitive environment for exploration and investment.

Capital Project?	Action	Lead	Support	Estimated Resources	Target Completion
	a. Review regional and state taxation policies to ensure mining is taxed at rates that benefit communities without placing an uneven burden on the industry, and that creates stability and certainty for mining investors.	Alaska Department of Revenue, FNSB	ISER	TBD	TBD
	b. Encourage local, state, and federal agencies to create and follow consistent, predictable timelines for project permitting.	DNR, FNSB	Alaska Mining Association (AMA), FEDC	Varies	Varies
	c. Ensure adequate environmental protections and regulations are in place and consistently followed, including mining reclamation.	DNR, FNSB	Environmental organizations	Varies	Varies
	d. Use land use planning tools to mitigate conflict.	FNSB		Varies	Ongoing
	e. Update FNSB Comprehensive Plan for mining and actively notice non-compatible use.	FNSB		TBD	TBD
	f. Incentivize mining practices that minimize impacts on the natural environment and adjacent communities.	FNSB		TBD	TBD

Strategy #2: Expand Outreach Efforts – Increase communications and education with the public on modern mining practices and implement long-term engagement with communities around active and potential deposits.

Capital Project?	Action	Lead	Support	Estimated Resources	Target Completion
	a. Increase public education on modern mining practices and how minerals are used today.	GFCC	U.S. Geological Survey (USGS), AMA, FEDC	TBD	TBD
	b. Educate mining operators on the benefits of engagement beyond the permitting phase.	AMA	FEDC	Varies	Ongoing
	c. Increase tours to active mines.	Mining companies		Varies	Ongoing

Strategy #3: Prioritize Workforce Development – Create and maintain a highly trained workforce that supports mining and geology needs across the spectrum, from exploration through permitting and production.

Capital Project?	Action	Lead	Support	Estimated Resources	Target Completion
	a. Create natural resources curriculum in public schools and universities.	Alaska Resource Education	FNSB School District, UAF	Varies	Ongoing
	b. Support and expand mining and geology related degree programs in Alaska, including expanding the UAF Mining and Geologic Engineering program.	UAF	Mining companies	Varies	Ongoing
	c. Expand vocational training programs that address workforce needs, such as millwright education and internships, through public private partnerships.	Mining and Petroleum Training Service	Hutchinson High School, Alaska MEP, Alaska Works Partnership, Doyon, UAF	Varies	Ongoing
	d. Expand the availability of commercial driver’s license training and licensing.	Alaska Department of Transportation & Public Facilities (DOT&PF)	FEDC, Teamsters	TBD	TBD
	e. Increase awareness of career opportunities and job skill requirements in the mining industry, including opportunities for professional growth and advancement.	Alaska Resource Education	Alaska Works Partnership, Alaska Job Center Network, Doyon, Doyon Foundation, FNSB School District, FEDC	Varies	Ongoing

Strategy #4: Increase Production and Value-Added Processing – Support responsible exploration, permitting, remediation, and restoration for potential new mines in Interior Alaska.

Capital Project?	Action	Lead	Support	Estimated Resources	Target Completion
✓	a. Engage in exploration and permitting phases for large projects in Interior Alaska.	Mining companies	FNSB	Varies	Varies
✓	b. Address potential transportation concerns associated with the Tetlin (Manh Choc) Project and other similar projects.	DOT&PF	Kinross, FNSB, DNR	TBD	TBD
	c. Encourage robust public outreach and opportunities for public input during permitting phases.	DNR	Mining companies, FNSB, Doyon, FEDC	Varies	Varies
	d. Explore and develop innovative methods to assist in reclamation and rehabilitation of former mining sites.	UAF	Mining companies	Varies	Ongoing