

Factsheet: Environmentally Responsible Mining Will Boost Minnesota's Economy

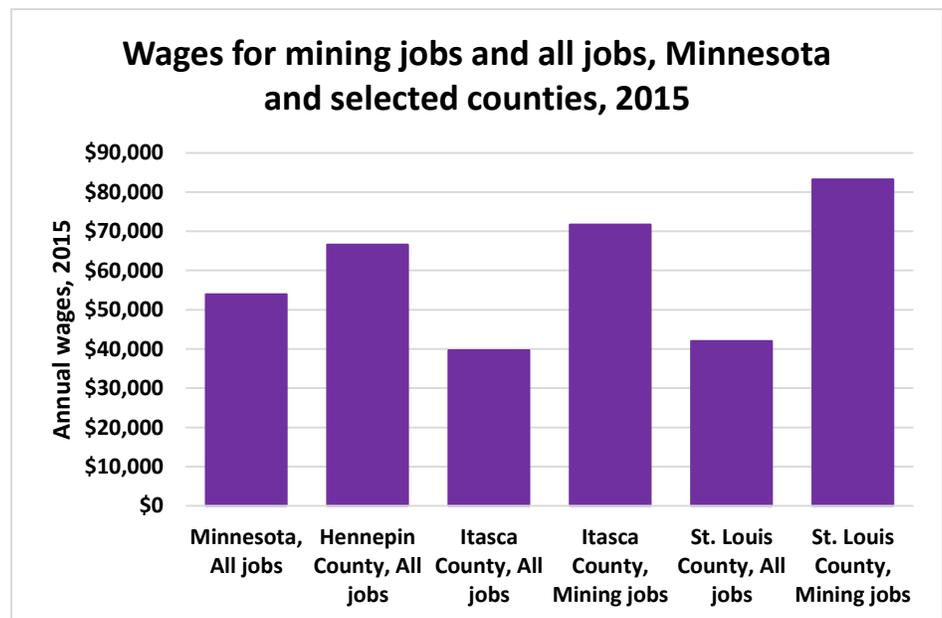
Daily life requires mining: Every American born in 2017 will require an average of 3.188 million pounds of minerals, metals, and fuels in their lifetime. For example, the average house built in the United States contains 400 pounds of copper, and the average car contains approximately 50 pounds of copper. Minnesota is well positioned to help meet America's demand for metals.

Minnesota's mineral deposits are massive: Northern Minnesota is home to one of the largest undeveloped deposits of copper, nickel, and platinum group elements in the world. Minnesota also has the largest deposits of ilmenite, the most important ore for titanium, in North America. These metals are worth more than \$187 billion at current prices, if they are developed.

The economic benefits of mining these resources would be tremendous: Mining these resources could add approximately \$3.7 billion to Minnesota's annual economic output, support more than 1,900 mining jobs and 6,566 indirect and induced jobs, with total wages of \$635 million, and generate nearly \$198 million in tax dollars for state and local governments.

Mining jobs are great jobs: Mining jobs pay an average of \$71,000 to \$83,000 per year.

Minnesota schools will benefit: Schools all over Minnesota will receive additional revenue in addition to the \$198 million in tax revenue generated for state and local governments.



These estimates are very conservative: Our calculations are based on publicly-available data from mining projects in the preliminary planning stages, but several of Minnesota's copper-nickel deposits—including the Mesaba deposit, which is the largest copper-nickel deposit in the state—do not have public resource calculation estimates available at this time. As a result, our numbers are a floor, not a ceiling.

Minnesota would have been the number-three state in terms of non-fuel mineral production if it had mined these resources in 2017. Minnesota has not ranked third since 2012, and it has been falling in the rankings ever since.

Modern mining is safe for the environment: Mining critics argue that developing Minnesota’s mineral wealth will endanger the environment, but strict environmental protections and advances in mining and environmental protection technologies have vastly reduced the environmental impact of modern mines, allowing mining and a healthy environment to coexist.

No mines permitted since 1990 by either the Bureau of Land Management (BLM) or the U.S. Forest Service have been added to the National Priorities List (NPL), a prerequisite to becoming a Superfund site:

BLM has approved 659 mining plans since 1990 and none had been added to the NPL and the Forest Service reported it has approved 2,685 plans since 1990 with no sites being placed on the NPL.¹

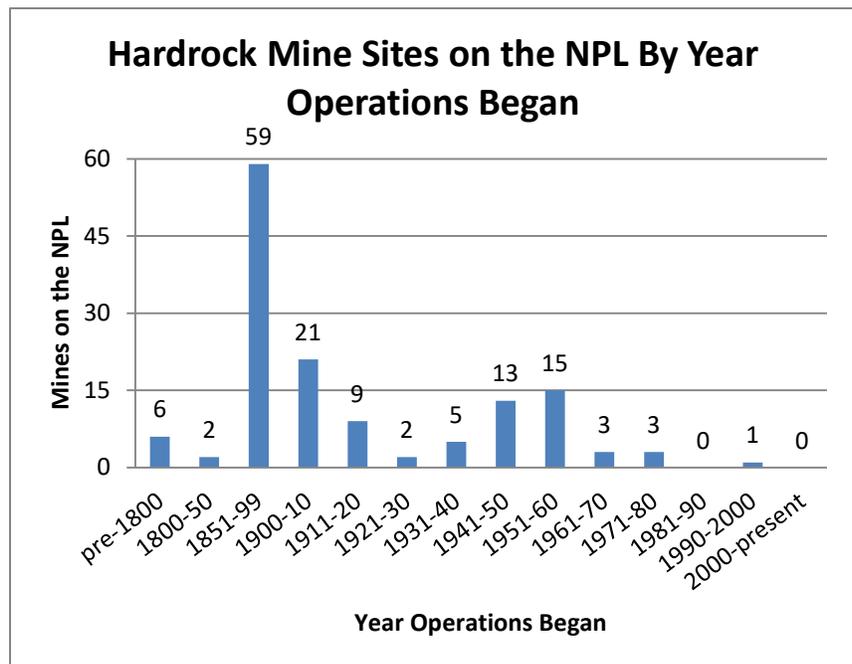
The Flambeau Mine and the Eagle Mine show mining can be done safely in the Midwest:

Two modern mines in neighboring states, the Flambeau Copper-Gold-Silver Mine in Wisconsin and the Eagle Nickel-Copper Mine in Michigan show how today’s mines are safe for the environment and

good for local communities. Modern environmental protection measures, including liners, covers, and water treatment systems, were used at the Flambeau Mine and are being used at the Eagle Mine to effectively manage acid mine drainage and protect the environment.

If these minerals are not mined in Minnesota, they will be mined somewhere else: Despite the fact that the United States is one of the largest consumers of metals and minerals in the world, Americans are heavily dependent upon imported resources to meet their mineral needs.

Oftentimes, this means mining occurs in countries with poor protections for mine workers and the environment: For example, 55 percent of the world’s cobalt is produced in the Democratic Republic of the Congo (DRC), where the United Nations Children’s Emergency Fund (UNICEF) estimates as many as 40,000 young boys and girls are working in cobalt mines.



¹ The Barite Hill Mine in South Carolina is the only site that has been added to the NPL since 1990. EPA does not consider the mine to be representative of modern mining practices and characterizes the mine as a legacy site.