



Copperwood Mine project in relation to Porcupine Mountains Wilderness State Park – Gogebic County

Sources: EGLE, Highland Copper, news reports

See: <https://Highlandcopper.com/Projects>

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Jan. 8, 2024

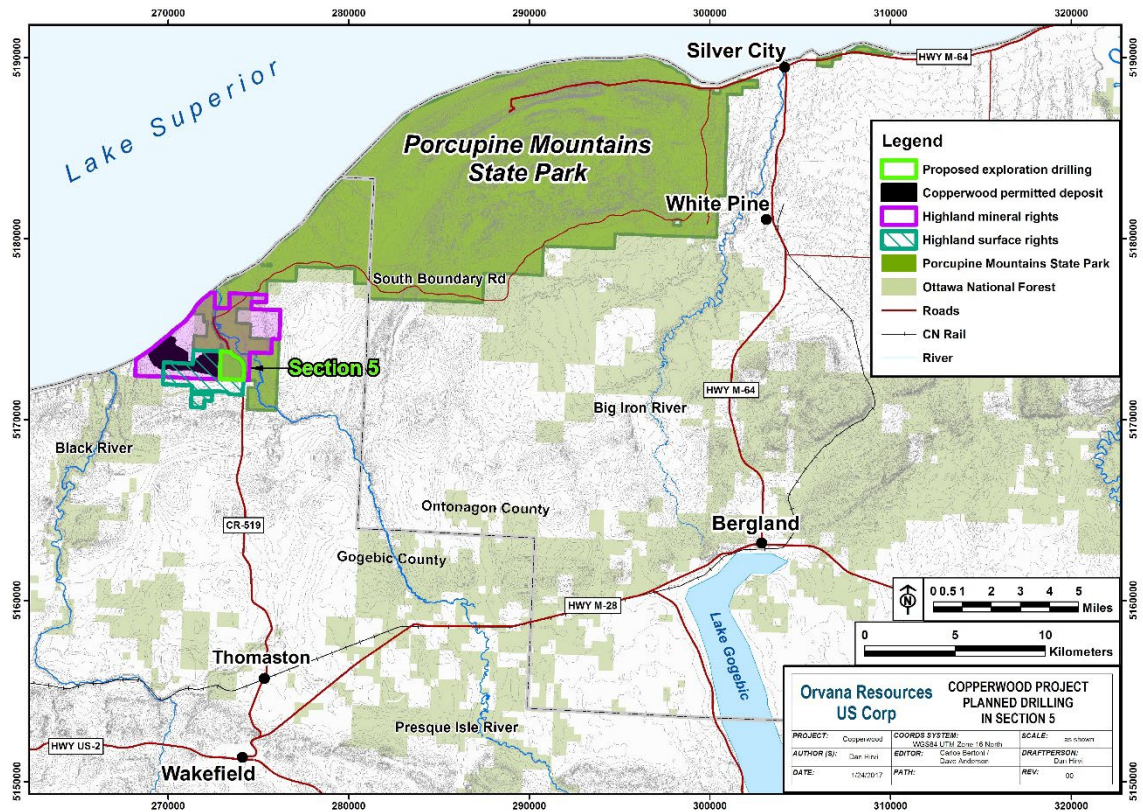
History and background

- In the mid-1950s, the Copperwood deposit was discovered in western Gogebic County boasting the highest-grade of all known sediment-hosted copper deposits in the Upper Peninsula.
- In 1959, AMAX, which controlled the private mineral leases, decided not to proceed with an underground mine. AMAX retained the leases until 1983 when they were discontinued.
- In 2008, Orvana Minerals Corp. began delineation drilling and environmental baseline studies that led to engineering studies and a proposed mining plan.
- From 2011-2013, Orvana Resources U.S. Corporation applied for and obtained necessary permits for mining the copper deposit.
- Highland Copper Co. – a Canadian company based in Quebec – acquired the project in 2014 and changed the name to Copperwood Resources Inc. Highland Copper is leasing the mineral rights from the Keweenaw Land Association, Limited.
- Highland Copper holds several permits required by the Michigan Department of Environment, Great Lakes, and Energy to conduct mining and associated activities, including a mining permit.
- The mine plan includes underground mining methods with the leased area of the project measuring roughly 3.6 square miles.
- In 2018, Highland applied for an amendment to the mine permit and other permits that had expired, with proposed changes based on an updated feasibility study. Summary changes included site building relocation, addition of an ore stockpile and modification of ventilation for the mine.
- Highland Copper has done environmental site preparation work for the Copperwood Mine, including diverting streams around its tailing basin, improving existing site roads and constructing a compensating wetland to offset wetland impacts.
- Highland Copper says the Copperwood Mine is anticipated to produce 64.6 million pounds of copper over its expected 10- to 14-year life.

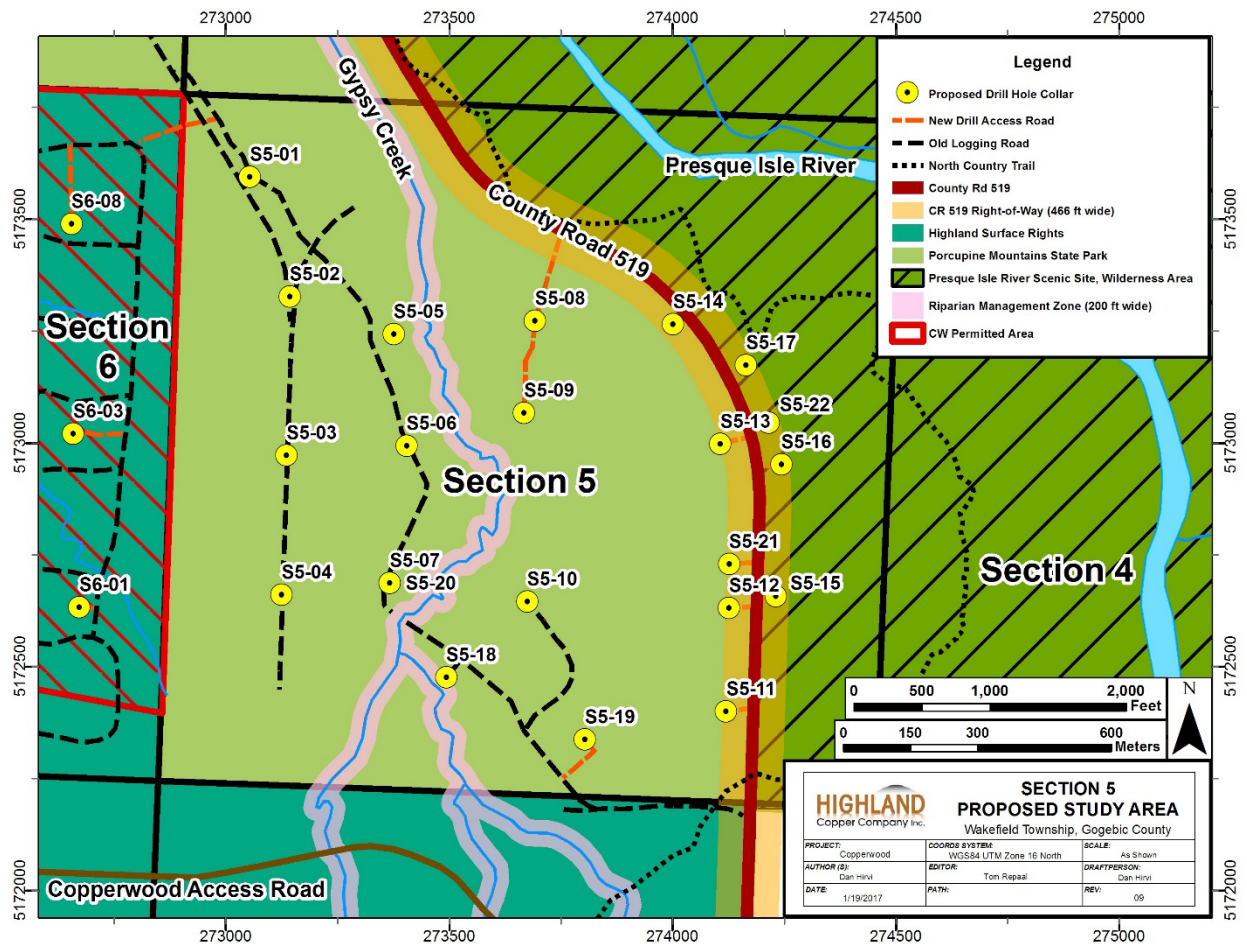
- An economic contribution analysis by Public Sector Consultants of Lansing detailed several benefits expected to be realized by the project, as reported by Highland Copper in late November 2023.
- Among the findings:
 - The Copperwood Mine would create 380 mining jobs. Spending from the mine, direct and indirect, would create an estimated 313 additional jobs.
 - Operational spending is projected to generate \$12 million in local, county and state tax revenue each year.
 - The mine is expected to cost \$425 million to build over a 3-year construction phase. Obtaining the funding and copper prices have slowed the progress of the project's startup.
 - The Copperwood project is slated to create 300 jobs over the construction period and 159 jobs with local vendors. Those activities would generate an estimated \$4.5 million in local, county and state tax revenue annually.
 - In addition, the project would be anticipated to add \$74 million to the state's gross state product in each of the three years during construction.
- Highland Copper has projected several construction start dates in the past that have not materialized. The latest information issued by the company indicates a June 2024 startup date, with opening in spring 2026.
- Estimated costs over the first five years included \$219 million for mining, \$140 million in processing and \$130 million in offsite costs, including transportation.
- From the Copperwood Mine, the copper would be trucked to Marquette County where it would be sent by rail to a smelter and refinery.
- Highland Copper said it has obtained resolutions of support for the Copperwood Mine from a range of local entities including Gogebic County, Ontonagon County, the cities of Ironwood and Bessemer and Ironwood, Bergland, Carp Lake and Erwin townships and the Western Upper Peninsula Planning and Development Region commission.

Porcupine Mountains Wilderness State Park

- The Copperwood deposit extends to the east under Section 5, T49N, R45W, a plot of land dissected by Gogebic County Road 519, which heads north from M-28 into Porcupine Mountains Wilderness State Park. (See map below)



- Within Section 5, Highland Copper leases private mineral rights and the state of Michigan owns the surface rights. This section of land is in the westernmost part of Porcupine Mountains Wilderness State Park.
- Section 5 is located outside the wilderness section of the park, in an area where several impacts have occurred previously, including logging and a narrow-gauge railroad.
- During land acquisitions to create Porcupine Mountains Wilderness State Park during the late-1940s, mineral rights that govern the ownership of minerals beneath the surface were retained by the Keweenaw Land Association.
- The Keweenaw Land Association, Limited owns and manages more than 401,837 acres of mineral rights across parts of all but two Upper Peninsula counties – Luce and Mackinac.
- The DNR has a program actively involved in mineral rights exchanges to secure the state owns the mineral and surface rights in as many places as possible across land administered by the DNR throughout Michigan.
- The state of Michigan manages the land surface features of Section 5. Under Michigan law, the DNR is required to allow “reasonable access” for Highland Copper to explore the minerals it is leasing.
- In 2017-2018, Highland Copper conducted core drilling on Section 5 to further delineate the extent of the Copperwood deposit. (See map below)



- The latter part of the Copperwood Mine project would include mine tunneling from outside the state park boundary to reach the mineral deposit underneath Section 5.
- The approved mine plan does not include Section 5 and a request to the Michigan Department of Environment, Great Lakes, and Energy for an amendment to the mine permit would be required for an expansion of the mining area, either on the surface or to mine additional ore in a new area underground.
- A permittee may submit a request to amend a mining permit to address anticipated changes in the mining operations. An amendment request application is required to include specifics of the proposed changes to the mining, reclamation, and environmental protection plans, as well as an update to the environmental impact assessment as necessary to identify and evaluate actual and potential impacts of the proposed changes.
- Reclamation cost estimates are also reviewed to determine if the proposed changes will require increased financial assurances. The amendment request is required to be publicly posted, and if determined to be a significant change from the conditions of the approved mining permit, the review process includes opportunities for public comment.

Other EGLE permits or modifications to existing permits may be required prior to extending a mining area depending on the foreseeable impacts of the proposed changes.

- Even if drilling were to eventually occur in this manner, mining company officials have said no impacts are anticipated to the surface of Section 5 or Porcupine Mountains Wilderness State Park.
- Mining beneath Lake Superior has not been proposed. The approved mine plan includes a setback of 100 feet from the Lake Superior shoreline for underground excavation.

Beyond Copperwood

- Highland Copper is also working to reopen the White Pine Mine in neighboring Ontonagon County in what would be a larger project than the Copperwood Mine.
- The White Pine North Project is in the historical copper range of the Upper Peninsula and is an extension of the White Pine Mine, which operated from the early 1950s to the mid-1990s.
- Highland Copper announced in July 2021 that it had completed acquisition of the White Pine North Project from Copper Range Company.
- Highland Copper recently sold a 66% ownership stake in the White Pine North project to Kinterra Copper USA, expecting to use the \$30 million proceeds to help fund start-up of the Copperwood Mine.
- According to Highland Copper, the life of the White Pine North project would be expected to last 21.8 years. Highland Copper will need to pursue state permitting for the project.