



The Eagle Mine Project

Northern Marquette County contains one of Michigan's largest wild area, a vast expanse of forests and wetlands, crisscrossed by scenic rivers and spring-fed streams, and dotted with stands of old-growth white pine. Roads are few and power lines are no where in sight, leaving plenty of space for wildlife, including moose and wolves, as well as backcountry adventure-seekers and sportsmen.¹

At the heart of this landscape, locally known as Yellow Dog Plains, the Kennecott Minerals Company wants to carve a new nickel and copper mine from a sulfide rock formation underneath the Salmon Trout River and the aquifer that feeds it.² Called the "Eagle Project," the mine would convert roughly 30 acres of woods and wetlands at the river's headwaters into an industrial zone, the impacts of which could extend well beyond the mining site.

The Eagle Project is expected to be an underground mine that would extract about five million tons of sulfide ore containing high-value nickel and copper from bedrock approximately 200 feet to 1,200 feet below the surface.³ Because the metals are embedded in rock that contains acid-generating sulfides, concerns have been raised about potential surface and groundwater pollution.⁴ The mine's

southern boundary would be directly underneath the middle branch of the Salmon Trout River,⁵ which supports the only known breeding population of native coaster brook trout on Lake Superior's south shore.⁶

Kennecott, a wholly owned subsidiary of London-based Rio Tinto, owns 1,640 acres including and surrounding the Eagle Project site.⁷ The company expects to operate the mine for six to eight years and to spend another two years restoring the site to its previous natural condition as required by law.⁸ Waste rock would be kept on site, eventually crushed into a slurry, mixed with cement or limestone, and poured back into the mine, according to the company.⁹

According to a new Michigan law regulating sulfide-ore mining, Kennecott must receive a permit from the Michigan Department of Environmental Quality before breaking ground on the Eagle Project. The permit process requires the company to submit detailed plans to the agency describing the mine's potential environmental impacts, how the company will mitigate them, and how it will restore the surrounding areas to their previous natural condition. A public hearing on the application is held, and the company must supply financial assurance that its obligations to restore and monitor the site are met.

Kennecott has not submitted a permit application to the state. The company is in the final stages of completing its economic, environmental, and engineering evaluations, and Kennecott representatives have met with local citizens and regulators and set up a community advisory group.⁴

Other Kennecott Mines

Kennecott has several operating mines in the United States, some of which have serious, ongoing environmental problems. In 2003, Kennecott was responsible for two of the top five most polluting mines in America.¹¹



Photo: Yellow Dog Watershed Preserve

Flambeau Mine

Kennecott's Flambeau Mine in Wisconsin operated from 1993 until 1997. The open pit copper mine, which unearthed acid-producing rock, is located less than 150 feet from the Flambeau River. Punctures in the liners underneath waste piles at the mine site have been reported, one in 1997 and another in 1993. Also in 1993, a section of a dike surrounding a waste storage area washed out during a rainstorm.¹² Repairs were made in all three cases, but that does not detract from

the point that human error and accidents are inescapable.¹³

Since monitoring began after the mine closed in 1997, several well tests have shown higher than predicted levels of copper and manganese in the sealed waste rock pit, and contaminated pit water is slowly flowing into the Flambeau River.¹⁴ Monitoring to date has not revealed damage to aquatic life or impairment of river water quality since the Flambeau River is large enough to effectively dilute pollution trickling in from the waste rock pit.¹⁵ According to the Wisconsin Department of Natural Resources, monitoring at the site will continue for at least 40 years.

Greens Creek Mine

Kennecott's Greens Creek Mine is located outside of Juneau, Alaska. The underground mine, which is extracting silver, zinc, lead, and gold from sulfide ores, is releasing heavy metals and acids that are contaminating the waters of Alaska's Inside Passage and polluting Admiralty Island National Monument.¹⁶ The mine is jointly owned by Kennecott Minerals Company, Rio Tinto, and Hecla

Mining Company with Kennecott responsible for day-to-day mine operations.¹⁷

Greens Creek Mine is the second-largest polluter of toxic waste in Alaska.¹⁸ According to the Environmental Protection Agency, the mine released 59 million pounds of toxic chemicals in 2000.¹⁹ In 2002, the mine produced 2.7 million tons of waste, eight times the amount generated by the city of Anchorage.²⁰ Greens Creek has violated the Clean Water Act 391 times, by releasing illegal levels of copper, zinc, cyanide, and acids.²¹ In February of 2003, the Alaska Department of Environmental Conservation clearly documented acid mine drainage at Greens Creek for the first time.²² Monitoring conducted by Greens Creek in 2001 and 2002 shows that sulfate and heavy metals leaching from waste rock piles into surface and ground water is increasing.²³

There is no way to know for certain whether Kennecott's Eagle Project would more closely resemble the company's Flambeau Mine, its highly polluting Greens Creek Mine, or something else altogether.



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¹⁴ "Company's mining project stirs fears for sensitive watershed," John Fleisher, Associated Press, March 27, 2004.

² <http://www.kennecottminerals.com/Eagle-Project/WelcomeToEagleProject.htm>

³ <http://www.kennecottminerals.com/Eagle-Project/WelcomeToEagleProject.htm> and

personal communication, Jon Cherry, Kennecott Minerals Company, project manager, June 15, 2005.

⁴ <http://www.ydeaglescry.com/AquiferInfo.html>

⁵ Personal communication, Jon Cherry, Kennecott Minerals Company, project manager, June 15, 2005.

⁶ Newman, Lee E., and Dubois, Robert B., editors. Status of Coaster Brook Trout. A report by the Lake Superior Technical Committee (Brook Trout Subcommittee), March 1996.

⁷ Ibid and personal communication, Jon Cherry, Kennecott Minerals Company, project manager, June 15, 2005.

⁸ <http://www.kennecottminerals.com/Eagle-Project/WelcomeToEagleProject.htm>

⁹ Ibid and personal communication, Jon Cherry, Kennecott Minerals Company, project manager, June 15, 2005.

¹⁰ <http://www.kennecottminerals.com/Eagle-Project/WelcomeToEagleProject.htm>

¹¹ <http://www.epa.gov/triexplorer/facility.htm>

¹² Letter dated October 6, 1993, from David A. DeVet, STS Consultants Ltd. Green Bay, Wisconsin, to Ms. Jana Murphy, Flambeau Mining Company, Ladysmith, Wisconsin, Letter dated July 24, 1997, from Craig Walkey, Cooper

Engineering Company, Inc. Rice Lake, Wisconsin, to Jana Murphy, Flambeau Mining Company, Ladysmith, Wisconsin.

¹³ Ibid.

¹⁴ Personal communication, Lawrence J. Lynch, Wisconsin Department of Natural Resources, Bureau of Waste Management, Mining Team Leader, June 7, 2005.

¹⁵ Ibid.

¹⁶ <http://www.seacc.org/index.php?section=13>

¹⁷ Ibid.

¹⁸ <http://www.epa.gov/tri/tridata/tri00/state/Alaska.pdf>

¹⁹ Ibid.

²⁰ http://www.juneauempire.com/stories/050803/opi_mytum1.shtml

²¹ EPA Fact Sheet for Permit No: AK-004320-6. February 9, 1998.

²² Greens Creek Solid Waste Permit Annual Report, Alaska Department of Environmental Conservation, 2002.

²³ Ibid.