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Fact Sheet: Kennecott U.P Sulfide Mining Proposal

Actions to date

In the spring of 2006, the Kennecott Minerals Corp. submitted to the Michigan DEQ an application to open an underground nickel mine in the U.P.'s Yellow Dog Plains. The mine, called the Eagle Project, would be blasted underneath the headwaters of the Salmon Trout River into acid-generating sulfide ore. Because this kind of sulfide mining is inherently more difficult to conduct without damaging local lands and rivers than typical Michigan mines, the response of both the state and the local community has been unusual. The state enacted a highly protective new statute governing non-ferrous mining and the DEQ promulgated implementing rules last year. Meanwhile, the local U.P. community, normally very supportive of the mining industry, has come out strongly against this proposed mine. Over 5,000 Marquette residents signed petitions opposing the mine; the vast majority (90 percent) of the closest township, Powell, have gone on record opposing it; and in public hearings held by the DEQ, hundreds of people testified against the mine and only a few for it. Nevertheless, in January, 2007, the DEQ issued a draft decision to permit the mine and then set a schedule of public hearings and comment ending in April, 2007.

That all changed on March 1, 2007. Earlier that week, the National Wildlife Federation notified DEQ Director Steve Chester that important reports critical of the mine had been developed by a DEQ consultant and then suppressed by DEQ staff working on the project. Director Chester investigated and then confirmed that the reports in fact existed, that they contained highly important information critical of the mining application, and that they had been excluded from the public record. The reports focused on the stability of the rock above the underground mine, the rock that would serve as the mine's roof, and concluded that the stability of the mine roof was uncertain based on the available data.

The integrity of the state's review of the project was compromised. In a rare and perhaps unprecedented action, Director Chester has ordered a third-party independent investigation of the DEQ's handling of the mining permit. In the meantime, the DEQ's mining review process has been suspended indefinitely, the previously suppressed reports have been placed in the public record, and the project's preliminary approval has been vacated.

Summary of substantive problems with the mining proposal

The new mining law and regulations require that the DEQ reject any sulfide mining request unless the mining applicant demonstrates clearly that it will not "pollute, impair or destroy" land, air, water, or groundwater. To that end, the law requires that any mining applicant conduct extensive and rigorous testing and analysis to show upfront that the mine will operate safely and

cleanly. If any pollution might migrate off the mine site, then the applicant must show upfront that the off-site "affected area" will be brought back to pre-mining conditions at the conclusion of the mining.

In its application and public materials, Kennecott states that its mine will be safe and clean and that no pollution will migrate off-site. But its own mining application contradicts this claim.

Subsidence (partial or full collapse of the mine): The roof of the mine, known as the "crown pillar," lies directly beneath the Salmon Trout River. Kennecott's plans to avoid collapse of the crown pillar are faulty and unfounded, according to Dr. David Sainsbury of Itasca Consulting, who is the DEQ's own crown pillar expert, in his suppressed report. The application's data and modeling are insufficient to determine the crown pillar's strength and stability. "Therefore, the conclusions made within the Eagle Project Mining Permit Application regarding crown pillar subsidence are not considered to be defensible." Sainsbury Report, Itasca Consulting, p. 15. Subsidence at any mine site is a massive failure of the mine. But at the proposed Kennecott site, subsidence would be even worse: it would likely drain dry the Salmon-Trout River.

Acid mine drainage: In most sulfide mines, the main source of pollution is the acid mine drainage which forms when water and air come into contact with the sulfide ores. The water and air create a chemical reaction with the ore that releases large quantities of acid water mixed with heavy metals. That polluted water contaminates nearby groundwater, rivers and lakes. Kennecott has proposed to minimize that problem by backfilling the holes it digs with cemented rock. The problem is that cemented rock is not impermeable; it is a loose mixture of cement and rock paste that will separate and be permeable. Worse, the rock Kennecott proposes to use is acid-generating waste sulfide rock excavated from the mine. The backfill itself would generate acid mine drainage as it oxidized over time.

Air pollution: A large source of air pollution will be a 50-foot tall stack that exhausts the entire mine and contains no air pollution controls. This mine vent would annually release at least 20 tons of dust containing sulfides and metals and is only 300 feet from the Salmon Trout River. These emissions would travel many miles, coating plants and water, as well as wildlife and people, with toxic dust. Bad enough in an urban area, the damage would be especially severe in the pristine McCormack Wilderness and Salmon Trout River. DEQ staff has failed to address warnings from the Michigan DNR about the impacts of this wide-spread pollution on wildlife and plants.

Noise: Although admitting that the mining and rock crushing at the site would cause loud noises, the Kennecott application conducted no analysis of the impacts of noise on wildlife, tourism, or recreation. The DEQ has not required any further investigation.

Transport: No analysis has been done of the impact 80 ore truck trips a day would have on the region's roads; there is no mention of the effect acid dust from the trucks would have on roadsides.

Subsidence, acid mine drainage, air pollution, noise, transport ….. any of these would be a major impediment to siting a mine that must show it will not pollute, impair or destroy the surrounding area. Taken together, these problems pose nearly insurmountable barriers to Kennecott overcoming the law's presumption that its application be denied.

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