



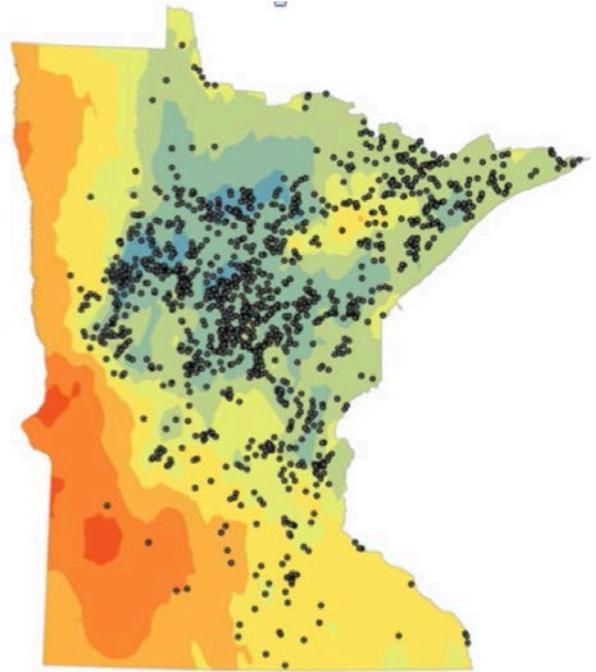
Issues Brief: Protecting Minnesota Clean Water & Wild Rice from Sulfate Pollution

KEY POINTS:

- Sulfate pollution from copper-nickel sulfide mining threatens Minnesota's Boundary Waters, Lake Superior and Mississippi River watersheds.
- **Sulfate pollution decimates wild rice, causes algae blooms in once-clear lakes, kills aquatic life, and increases toxic mercury contamination of fish.**
- Sulfate pollution unfairly burdens low-income and tribal communities that rely on wild rice and fish for food.
- Minnesota established a water quality standard of 10 parts per million (ppm) for sulfate in wild rice waters in 1973, which was approved by the U.S. Environmental Protection Agency under the Clean Water Act.
- For years, mining interests challenged this sulfate standard, and state agencies were reluctant to enforce it.
- **This year, the Minnesota Legislature proposed bills to eliminate our existing wild rice sulfate standard. Governor Dayton vetoed these bills. But, it is uncertain whether the standard will be enforced to prevent and reduce sulfate pollution.**

WHAT CAN YOU DO?

- Ask the Governor and the Minnesota Pollution Control Agency Commissioner to **PRESERVE AND ENFORCE MINNESOTA'S WILD RICE SULFATE STANDARD** and reduce sulfate pollution.
- Sign up at www.WaterLegacy.org so you can receive updates and action alerts to help protect wild rice and clean water.



Basis for Minnesota's Wild Rice Sulfate Standard

- John B. Moyle, *Minnesota Department of Natural Resources*, decades of field study, 2,000 water bodies: "No large stands of rice occur in waters having a SO_4 [sulfate] content greater than 10 ppm, and rice generally is absent from water with more than 50 ppm." (*J. Wildlife Mgmt.* 1944)
- Recent Minnesota DNR and MPCA data on wild rice confirms these results. Blue and green areas on the above map of wild rice waters are less than 4.9 ppm sulfate, based on 3,230 samples.



Science & Clean Water Act Support Wild Rice Sulfate Standard (Despite Special Interest Opposition)

- In 2009, the U.S. EPA told Minnesota Pollution Control Agency (MPCA) they *must* enforce the wild rice sulfate rule.
- Mining interests sued in 2010 to block enforcement. WaterLegacy intervened in the case, and the standard was preserved.
- Politicians passed a bill in 2011 funding studies of wild rice and sulfate thinking they'd overturn the existing sulfate limit.
- But, based on science, MPCA originally found in 2014: **“The 10 mg/L sulfate standard is needed and reasonable to protect wild rice production from sulfate -- driven sulfide toxicity.”**
- Internal memos show just before the MPCA planned to release these findings, a (non-public) meeting with Iron Range politicians “went poorly” and “the plug got pulled.”
- MPCA then proposed a rule to allow more sulfate in waters with high levels of iron and a restricted list of waters in which any limit would apply.
- **In January 2018, the Administrative Law Judge found the MPCA’s proposed rule, the restriction on wild rice waters, and the proposed repeal of the existing 10 ppm sulfate standard failed to protect wild rice and conflicted with the Clean Water Act. This ruling was affirmed in April 2018.**



Sulfate Pollution & Mercury

- Legislation to nullify Minnesota’s standard limiting sulfate pollution in wild rice waters would increase toxic mercury contamination of fish.
- Recent U of M experiments found that in tanks where sulfate was added methylmercury increased 5.9 times as compared to controls.
- Methylmercury crosses the placenta; and fetuses, infants and young children are 4-5 times more sensitive to its toxic effects on the brain as are adults.
- The Minnesota Health Department has found that in Minnesota’s Lake Superior Region 1 in 10 infants are born with unsafe mercury blood levels.



Sulfate Pollution & Sulfide Mining

Copper-nickel mining in the Lake Superior and Boundary Waters watersheds would result in sulfate pollution. Now, more than ever, the wild rice sulfate standard must be enforced!

To learn more, see www.WaterLegacy.org or contact paula@waterlegacy.org