

NATIONAL

MPCA issues latest revisions to proposed wild rice standards

By **STEVE KARNOWSKI** Associated Press | JULY 19, 2016 — 6:10PM

MINNEAPOLIS — Minnesota regulators on Tuesday unveiled the latest refinements to their proposal for revising the state's water quality standards for protecting wild rice from sulfate pollution.

The draft document released Tuesday by the Minnesota Pollution Control Agency builds on more than 600 comments submitted last fall about the agency's original proposal.

The state's existing standard limits sulfate discharges into wild rice waters to a flat 10 parts per million. The 1970s-era rule went largely unenforced until recently when the debate heated up over proposed copper-nickel mining and pollution from existing iron mines. Mining interests and their legislative allies then complained that the standard was too restrictive. So the MPCA is developing a new approach, using a complicated formula for setting limits for individual waters.

That approach is based on the interplay among sulfates, sulfides, iron and organic carbon in sediments where wild rice grows. Research shows that sulfates in the water aren't directly toxic to wild rice, but they become toxic when bacteria convert them to sulfides in the sediments where the plants take root. Carbon in sediment provides food for the bacteria and boosts sulfide production.

The MPCA is taking feedback through Sept. 6, and citizens can formally comment on the updated proposal during the rulemaking process next year.

"This isn't a decision yet. It's the next step in the process," said Shannon Lotthammer, director of the MPCA's unit that develops water quality standards.

The revisions announced Tuesday fall into four main areas, Lotthammer told reporters. They lower the original proposed limit for sulfide concentrations in sediment. MPCA scientists also refined their equation for determining how this happens. The agency also added more specifics about how data will be collected from individual waters. The fourth area affects how wild rice waters are defined.

Lotthammer acknowledged that the changes are "very technical," but said that the MPCA wanted to be transparent and "show our work" to people who are interested in wild rice. That includes American Indian tribes that consider wild rice to be a sacred food source and an integral part of their culture.

The revisions drew criticism from John Pastor, an expert on wild rice biology at the University of Minnesota Duluth. He said his research undercuts the MPCA's theory that higher concentrations of iron in water protect wild rice because they reduce sulfides. He said he's found that much of the iron sulfide that precipitates out of the water forms plaques on the roots of wild rice plants that hamper their ability to produce seeds.

Pastor said the MPCA's data on the relationships among sulfides, iron and organic matter don't completely match what his researchers are seeing in their experiments. So he said it's premature for the MPCA to conclude that its model for the role of iron is correct. Established science shows that the existing 10 parts-per-million sulfate standard protects wild rice, he said, so the safest course is to stick with that.

The federal Environmental Protection Agency must approve any change to the standard. Paula Maccabee, an attorney for the environmental group WaterLegacy, said she hopes the EPA's review will focus on science, not political pressures. And she said the MPCA needs to take a closer look at Pastor's research.

Lotthammer said her agency is aware of Pastor's work. But she said the MPCA is confident its approach is grounded in sound science.