

William Newman

I previously submitted comments but did not see a confirmation that they had been received. I have over 38 years of experience with both surface water and groundwater remediation and I am the President and founder of RNAS Remediation products a company that formulates and sells products for groundwater remediation.

The site specific evaluation to determine how sensitive wild rice waters are to sulfate was never practical. The state does not have the resources to carefully evaluate thousands of sites.

The concept of iron protecting wild rice from sulfide is also flawed. Some forms of iron like small particles of zero valent iron are very reactive but oxidized iron with a minimal specific surface area are very slow to react with sulfides especially at neutral or alkaline pH.

Without a flux of reactive iron that matches sulfate inputs the reactive iron present in sediments will be consumed. Mine pit lakes often have over 1000 mg/l sulfate but little or no soluble iron. This is not surprising as even 50 ppb of dissolved oxygen at neutral pH will result in almost no soluble iron being present.

Sulfate inputs also release TOC, phosphate and mercury from sediments and sulfate reduction stimulates methyl mercury production.

Removing sulfur at the source before it impacts wild rice eaters is the only way to protect them.