LOWER MINNESOTA RIVER
WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, February 21, 2024

Agenda Item
Item 9. B. – Letter to the Editor in response to AP article re: "Latest EPA assessment shows almost no improvement in river and stream nitrogen pollution"

Prepared By
Linda Loomis, Administrator

Summary
President Barisonzi prepared a letter to the editor in response to the Associated Press article regarding the EPA report on nutrient levels in the Mississippi River. The article and the letter sent by President Barisonzi are attached for the Boards information. The letter was published in the Minneapolis Star Tribune, on February 1, 2024, electronic version.

This letter was written and submitted before the Board was able to approve and authorize the letter. President Barisonzi has asked for this item to be placed on the agenda for discussion.

Attachments
AP Article "Latest EPA assessment shows almost no improvement in river and stream nitrogen pollution"
"Minnesota River needs urgent, basin-wide protection" Star Tribune – February 1, 2024

Recommended Action
No action recommended

CLIMATE

Latest EPA assessment shows almost no improvement in river and stream nitrogen pollution

FILE - Ships travel along the Mississippi River in LaPlace, La., as the sun sets on Oct. 20, 2023. The nation's rivers and streams remain stubbornly polluted with nutrients that can contaminate drinking water, degrade aquatic life and feed the so-called "dead zone" in the Gulf of Mexico, according to a recently released Environmental Protection Agency assessment. (AP Photo/Gerald Herbert, File)

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BY MELINA WALLING AND MICHAEL PHILLIS

Updated 8:40 AM CST, January 21, 2024

ST. LOUIS (AP) — The nation's rivers and streams remain stubbornly polluted with nutrients that contaminate drinking water and fuel a gigantic dead zone for aquatic life in the Gulf of Mexico, according to a recently released Environmental Protection Agency assessment.

It's a difficult problem that's concentrated in agricultural regions that drain into the Mississippi River. More than half of the basin's miles of rivers and streams were in poor condition for nitrogen and phosphorus from fertilizer that drains into waterways, the agency found. For decades, federal and state officials have struggled to control farm runoff, the biggest source of nutrient pollution that is not typically federally regulated.

It's a problem only expected to get harder to control as climate change produces more intense storms that dump rain on the Midwest and South. Those heavy rains flood farm fields, pick up commercial fertilizers and carry them into nearby rivers.

“It’s really worrying that we are clearly not meeting the goals that we’ve set for ourselves,” said Olivia Dorothy, director of river restoration with the conservation group American Rivers.

The assessment is based on samples collected in 2018 and 2019 and it allows experts to compare river conditions from previous rounds of sampling, although different sampling sites were used. It takes years for the agency to compile the results and release the report, which is the most comprehensive assessment of the nation’s river and stream health. Phosphorus levels dipped slightly while nitrogen levels remained almost exactly the same.

About half of all river miles were found to be in poor condition for snails, worms, beetles and other bottom dwelling species that are an important indicator of biological health of the river. About a third were also rated as having poor conditions for fish based on species diversity.

“Controlling pollution is a big job. It is hard work,” said Tom Wall, director of watershed restoration, assessment and protection division at EPA. “Things are not getting worse, despite the tremendous pressures on our waterways. And we would like to see more progress.”

Water pollution from factories and industry is typically federally regulated. The Biden administration recently proposed toughening regulations on meat and poultry processing plants to reduce pollution, Wall said.

When nutrient pollution flows into the Gulf of Mexico, it spurs growth of bacteria that consume oxygen. That creates a so-called “dead zone,” a vast area where it’s difficult or impossible for marine animals to survive, fluctuating from about the size of Rhode Island to the size of New Jersey, according to Nancy Rabalais, professor of oceanography and wetland studies at Louisiana State University.

That affects the productivity of commercial fisheries and marine life in general, but nutrient pollution is also damaging upstream. Too much nitrate in drinking water can affect how blood carries oxygen, causing human health problems like headaches, nausea and abdominal cramps. It can especially affect infants, sometimes inducing “blue baby syndrome,” which causes the skin to take on a bluish hue.

The EPA established the hypoxia task force in the late 1990s to reduce nutrient pollution and shrink the dead zone, but it relies on voluntary efforts to reduce farm runoff and hasn’t significantly reduced the dead zone.

Anne Schechinger, Midwest director with the Environmental Working Group, said new regulations are needed, not voluntary efforts. She said the Biden administration has done a lot to improve drinking water, but not enough to reduce agricultural runoff.

Methods to prevent runoff include building buffers between farmland and waterways, creating new wetlands to filter pollutants and applying less fertilizer.

It’s a politically fraught issue, especially in major Midwest farming states that significantly contribute to the problem. Many of those states cite their voluntary conservation programs as evidence they’re taking on the problem, yet the new EPA data shows little progress.

Minnesota is one of the few states that has a so-called “buffer law” that requires vegetation to be planted along rivers, streams and public drainage ditches. But because groundwater and surface water are closely connected in much of the Upper Midwest, nutrient pollution can end up leaching underground through farm

fields and eventually bypass those buffers, ending up in streams anyway, said Gregory Klinger, who works for the Olmsted County, Minnesota soil and water conservation district.

There should also be a focus on preventing over-fertilizing – about 30% of farmers are still using more than the recommended amounts of fertilizer on their fields, said Brad Carlson, an extension educator with the University of Minnesota who communicates with farmers about nutrient pollution issues.

Martin Larsen, a farmer and conservation technician in southeast Minnesota, said he and other farmers are interested in practices that reduce their nutrient pollution. He's broken up his typical corn and soybean rotation with oats and medium red clover, the latter a kind of plant that can increase nitrogen levels in the soil naturally. He's been able to get by with about half as much fertilizer for a corn crop that follows a clover planting as compared to a corn-corn rotation.

Growing oats and red clover as cover crops improves soil, too. But Larsen said it's difficult for many farmers to plant them when they often rely on an immediate payback for anything they grow. Cover crops are planted on just 5.1% of harvested farmland, according to 2017 data from the U.S. Department of Agriculture.

Larsen said since regulations are so unpopular, more should be done to incentivize better practices. For example, he said that could include companies shifting the makeup of feed they use for animals, giving farmers an opening to plant some crops that use less fertilizer. Or government programs that do more to subsidize things like cover crops.

He said that many farmers in his community acknowledge the need to do things differently. "But we also feel very trapped in the system," he said.

Walling reported from Chicago.

Follow Melina Walling on X: @MelinaWalling.

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OPINION EXCHANGE

Minnesota River needs urgent, basin-wide protection

We need to work together to ensure that no one community disproportionately bears the burden of mitigating damages.

By Joseph Barisonzi | FEBRUARY 1, 2024 — 5:30PM

Opinion editor's note: *Star Tribune Opinion publishes a mix of national and local commentaries (https://www.startribune.com/a-guide-to-editorial-and-commentary/394172491/) online and in print each day. To contribute, click here.*

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An EPA assessment (https://www.startribune.com/latest-epa-assessment-shows-almost-no-improvement-in-river-and-stream-nitrogen-pollution/600337410/) released last month showed that despite years of efforts to address nutrient contamination in the Upper Mississippi River Basin, including the Minnesota River, things are not getting better (Associated Press, Jan. 22). We can and must do better.

Striking the right balance between environmental responsibility and sustainable development is paramount for the well-being of our communities and the Minnesota River.

The EPA findings highlight a troubling reality for the Minnesota River. Urgent attention is required to address high nutrient levels from urban, suburban and agricultural runoff. The increased runoff not only impacts our local water quality but also imposes a significant financial burden on taxpayers. Costs associated with habitat degradation, dredging to maintain crucial ports in Savage and the downstream navigation channel, fortifying eroding riverbanks and enhancing levees to protect our communities from floods create a pressing financial strain on our community.

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Using tap water as a basis for comparison, far left, Minnesota River basin samples.

As stewards of the Minnesota River, the Lower Minnesota River Watershed District, on whose board I serve, participates in federal and state efforts to reduce nutrient pollution. However, the voluntary approach, while essential, is not sufficient. A blend of more fully enforcing current law, adding strategic regulations and increasing incentives for the agriculture industry to adopt best practices is essential. Comprehensive measures are needed to ensure that no one community disproportionately bears the burden of mitigating damages caused by past land management practices encouraged by state and federal agricultural policies.

State-level initiatives, such as Minnesota's "buffer law," represent commendable attempts to mitigate river pollution. Stronger measures, guided by a basin-wide perspective, are essential. A basin-wide strategy is crucial, ensuring that actions taken by each water management authority consider the cumulative impact on downstream homeowners, businesses and ecosystems.

Upstream drainage projects which do not consider flow volumes, flow rates and cumulative impacts to the downstream reaches, constitute a significant threat to the Minnesota River. This facilitates the conveyance of elevated water, sediment and nutrients into the river environment. Measures such as restoring natural storage in wetlands, creating innovative storage solutions, improving soil health, and implementing regenerative agricultural farming and suburban landscape practices are pivotal to managing excessive water, nutrients and sediment runoff.

Proactive measures within the Minnesota River Watershed can enhance natural water storage, ensuring responsible development that contributes to the overall health of the river. Cover crops and perennials, like Kernza and Camelina, are vital to enhance soil health. Widespread adoption requires tailored incentives, acknowledging the diversity within the farming community and offering financially viable solutions.

The critical state of the Minnesota River demands immediate attention. Addressing agriculture and municipal runoff, implementing stringent regulations, fostering public awareness and proactively managing upstream issues are imperative. Urgency is paramount in our collective responsibility to safeguard the Minnesota River.

Joseph Barisonzi is president of the Lower Minnesota River Watershed District. The opinions expressed here are solely his own