MISSISSIPPI RIVER COLLABORATIVE

Decades of Delay: EPA Leadership Still Lacking in Protecting America's Great River

For over 20 years, EPA has documented the devastating effects of nitrogen and phosphorus pollution on water quality and strongly encouraged states to take measures to combat it. In "Decades of Delay," the Mississippi River Collaborative examines what progress, if any, the main-stem states have made toward reducing nitrogen and phosphorus pollution and outlines specific steps EPA can and should take to protect public health, aquatic life, and local economies from its devastating effects.

Nutrient pollution from agriculture, municipalities, and industries causes drinking water contamination, harmful algae growth, fish kills, and the Gulf Dead Zone. Though EPA has consistently and emphatically urged states to take measures to combat nitrogen and phosphorus pollution, its encouragement has come without enforceable regulations, specific deadlines, or funding for implementation. Not surprisingly, the problem persists, especially in the Mississippi River, despite a variety of Clean Water Act tools and viable regulatory options available to states.

Source: Mississippi River Network

In this analysis, Mississippi River Collaborative (MRC) members looked at the 10 states bordering the Mississippi River (MN, WI, IA, IL, MO, KY, TN, AR, MS, and LA) to see how each handled nitrogen and phosphorus pollution in five areas: 1) numeric criteria, 2) assessment, 3) permits, 4) clean-up plans called TMDLs, and 5) nutrient reduction strategies.

1) NUMERIC CRITERIA. Has the state established numeric limits for nitrogen and phosphorus in its waters?

Numeric limits for nitrogen and phosphorus are fundamental to protecting aquatic life, recreation and human health. Since 2003, EPA has urged states to adopt numeric criteria for nutrients. To date, no state has numeric limits for nitrogen, and only two (MN and WI) have numeric limits for phosphorus.

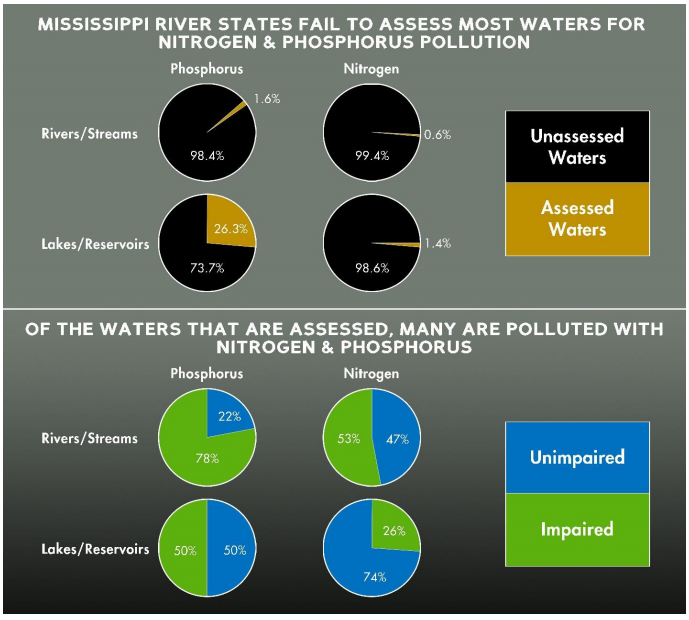
MRC Recommendation: EPA must adopt numeric phosphorus criteria for each of the eight states that have yet to do so, and numeric nitrogen criteria for all 10 states.

2) ASSESSMENT. Does the state assess its waters for nitrogen and phosphorus pollution?

Water quality assessment and monitoring are key to Clean Water Act implementation. Assessments allow states to determine which streams are impaired by pollution and where to set limits. Without adequate monitoring, it is impossible to determine whether water quality goals are being met.

Shockingly, only 1.6% of rivers and streams in the 10 states are assessed for phosphorus, 0.6% for nitrates (and then only for drinking water,) and 3.7% for dissolved oxygen (a solid indicator of nutrient pollution.) When it comes to lakes and reservoirs, the numbers are slightly better, but still low, at 26.3% for phosphorus, 1.4% for nitrogen, and 4.0% for dissolved oxygen. (See Figure below.)

MRC Recommendation: EPA should require states to assess their waters for nitrogen and phosphorus pollution and to prioritize pollution reduction plans accordingly.



3) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS. When the state issues a permit for nitrogen or phosphorus discharges, does that permit include limits sufficient to achieve the state's water quality standards? Does it check for adherence to those limits?

Sewage treatment plants and other industrial sources of pollution must get approval in the form of a NPDES permit before they can discharge into state waters.

Unfortunately Mississippi River states do not utilize the NPDES permitting system to ensure that nitrogen discharges are sufficiently limited to achieve the state's water quality standard, and 61.7% of all permits regulating phosphorus discharges have neither limits nor monitoring requirements.

Source: U.S. EPA

MRC Recommendation: EPA needs to strengthen the NPDES program by increasing federal oversight, ensuring adequate pollution limits are established, demanding proper reporting and monitoring of discharges, and assuming control of programs when states demonstrate they will not follow federal requirements.

4) TOTAL MAXIMUM DAILY LOADS (TMDLs). When a state shows that a waterbody is impaired, or polluted, is it preparing clean-up plans (TMDLs) according to EPA regulations? Are TMDLs monitored or reviewed to make sure pollution reduction is occurring?

States and EPA maintain a public list of impaired waters. For each, a state must prepare a TMDL stating how it plans to reduce the pollution causing that impairment. An effective TMDL needs to include provisions to track, reduce, and monitor pollution from direct discharges (point sources) and runoff (non-point sources.)

Source: USDA NRCS

This analysis found few TMDLs (none in six states; just 5% in the remaining four states) that contain provisions addressing both sources of pollution. Among those TMDLs that include reduction plans for nonpoint sources, 92% lacked any follow-up mechanism to see if reductions even occurred.

MRC Recommendation: EPA needs to make sure TMDL review and approval is consistent among its regions, all of which should ensure that TMDLs approved to address nitrogen and phosphorus pollution include implementation plans for both sources of pollution, timelines, monitoring, and review triggers.

5) NUTRIENT REDUCTION STRATEGIES. Have states developed nutrient reduction strategies in accordance with EPA's 2011 Framework?

In 2011, EPA developed a framework of eight policy guidelines that states should establish – *at a minimum* – to manage nitrogen and phosphorus pollution. EPA stressed the importance of developing these nutrient reduction strategies, but left participation and implementation up to the states.

As expected, the voluntary nature of the Framework rendered it ineffective in achieving any notable nitrogen or phosphorus pollution reductions. In over five years, no state has implemented more than two of the eight minimum plan elements.

MRC Recommendation: EPA should ensure that states develop nutrient reduction strategies containing implementation plans (including reduction goals, responsible parties, funding mechanisms, milestones, measurement metrics, and reasonable timelines) for each of the eight minimum elements.

Source: Minnesota Pollution Control Agency

EPA's mandate, as stated on its mission page, is "to protect human health and the environment." Both are being threatened by nitrogen and phosphorus pollution in the Mississippi River and elsewhere. Public beaches are frequently closed to protect people and pets from illness. Safe drinking water supplies are threatened, as in Toledo in 2014 (from algae blooms) and Des Moines in 2015 (from excess nitrates.) Algae blooms rob aquatic life of its oxygen, causing so-called dead zones where fish and other species cannot live. (The Gulf of Mexico Dead Zone, where the Mississippi River empties into the Gulf, is the second largest in the world.)

"Decades of Delay" clearly demonstrates that states are either unwilling or unable to solve this problem. It is time for EPA to step up and provide leadership and assistance to establish safe and viable pollution limits and provide the regulatory framework and enforcement to back them up. The protection of human health and the environment in the Mississippi River states demands it.

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The Mississippi River Collaborative *is a partnership of environmental organizations and legal centers from states bordering the Mississippi River as well as regional and national groups working on issues affecting the Mississippi River and its tributaries. This report was funded by the McKnight Foundation. The full report is available online at http://www.msrivercollab.org/wp-content/uploads/Decades-of-Delay-MRC-Nov-2016.pdf. For more information, email info@msrivercollab.org.*