

December 7, 2022

To: Hypoxia Task Force

From: Mississippi River Collaborative

Re: Written Testimony for December 2022 Hypoxia Task Force Meeting

The Mississippi River Collaborative (MRC) consists of ten state organizations – as well as other regional and national partners – working to protect water quality in the Mississippi River Basin and the Gulf of Mexico. The MRC has worked to address Gulf hypoxia issues since its founding over a decade ago.

We will not belabor the slippage in the progress and time schedule for reducing loadings of nitrogen and phosphorus to the Mississippi River and the Gulf that have occurred except to note that all of our December 14, 2021 comments (attached) are still relevant.

We do wish to list certain steps that the Task Force can take to promote - in the federal Farm Bill, under existing provisions of the Clean Water Act and at the state level – that would address nutrient pollution and Gulf hypoxia.

1. The Task Force should identify the level of increased funding needed to meaningfully improve control of nutrient pollution from agriculture contributing to Gulf hypoxia.

Plainly increased funding is needed for projects to control non-point pollution both under the next Farm Bill and Section 319 of the Clean Water Act.

2. The Task Force should examine how conservation programs and funding through the Farm Bill could enable necessary progress towards nutrient pollution reduction goals.

Programs to prevent disturbance of highly erodible soil and wetlands are essential to prevent increased flooding as well as nutrient pollution. Increased funding for wetlands acquisition is also vital particularly given the current inadequate regulation of activities that destroy wetlands.

The Task Force should identify needs for strengthened federal conservation programs and funding. State funding should also be increased for non-point programs.

Further, the Task Force should actively promote basic standards of care requirements for farmers and landowners that receive federal funds through Farm Bill programs on working lands, such as crop insurance and other subsidies. Basic standards of care include (1) keeping 50 feet of vegetation between cropland and waterways to filter polluted runoff, (2) healing or preventing temporary gullies, which are direct pipelines delivering polluted runoff to streams and lakes, (3) managing access of livestock to streams to prevent battered stream banks that collapse, fouling waterways and (4) stopping the spread of manure on frozen or snow-covered fields.

3. U.S. EPA and basin states should more actively monitor CAFOs and undertake research on the amount of Nitrogen and Phosphorus coming from CAFOs

A number of studies have indicated that concentrated animal feeding operations are a much larger source of nutrient pollution than has been thought as was detailed in the recently-filed "Petition to Adopt a Rebuttable Presumption that Large CAFO's Using Wet Manure Management Systems Actually Discharge Pollutants under the Clean Water Act."

In addition to granting the new petition and the 2017 Food & Water Watch CAFO petition, U.S. EPA should increase monitoring of watersheds known to include CAFOs and the manure spreading fields of CAFOs to accurately determine the extent and source of CAFO nutrient pollution. States, as part of the 305b/303(d) and proper CWA enforcement, should also determine water bodies that may be affected by CAFOs using modern scientific methods.

4. U.S. EPA should quickly adopt slaughterhouse effluent guidelines and review slaughterhouse permits under existing NPDES rules

U.S. EPA should also establish new effluent guidelines for slaughterhouses as soon as possible. Substantial and unnecessary discharges of nitrate that enters the Gulf will continue until this is done.

The states and U.S. EPA should also assure that slaughterhouse NPDES permits include limits to assure that discharges of ammonia, nitrate and phosphorus do not cause or contribute to numeric or narrative water quality standards of the state into which they discharge or to downstream waters.

5. The states should establish numeric nutrient standards for at least nitrogen and phosphorus and place numeric nutrient limits in NPDES permits

It is important that numeric nutrient standards for nitrogen and phosphorus be established in Mississippi Basin states as soon as possible. It has proven to be extremely difficult to get the writers of NPDES permits and TMDL implementation plans to address nitrogen and phosphorus pollution without numeric water quality standards.

U.S. EPA and the states should also assure that numeric NPDES permit limits are established under the existing narrative standards even in the absence of numeric water quality standards. *American Paper Institute v. U.S. EPA*, 996 F.2d 346, 350 (D.C. Cir. 1992); *Prairie Rivers Network v. Illinois Pollution Control Bd.*, 2016 IL App (1st) 15071. Indeed, were U.S. EPA and states to follow 40 CFR 122.44(d) diligently in writing permits to limit nutrient pollution that may cause or contribute to impairment of narrative standards, in addition to establishing controls on individual dischargers, the science and the political will to develop numeric nutrient water quality standards would be greatly enhanced.

6. U.S. EPA should develop nitrate criteria for protection of drinking water and aquatic life and states should recognize that 10 mg/L is not protective in writing permits and planning for drinking water supplies.

It is a scandal that the nitrate drinking water standards used by most of the states, 10 mg/L, is largely based on 70+ year old science regarding methemoglobinemia (blue baby syndrome) while many recent studies indicate that nitrate causes cancer in humans and harms aquatic life at much lower concentrations. See e.g., <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6068531/pdf/ijerph-15-01557.pdf>

U.S. EPA should expedite development of protective nitrate standards to protect human health and wildlife.

7. TMDLs Should be reconsidered where appropriate and used to write NPDES permits until they are properly revised.

Unfortunately, a state in the basin appears to be using old TMDLs that have been proven to be ineffective as a reason not to place nutrient limits in NPDES permits. Conversely, at least one state in the basin has discussed annulling a U.S. EPA-approved TMDL because it may restrict permit limits on a discharger in the way TMDLs were expressly intended to do.

States and U.S. EPA should use TMDLs to require necessary permit limits and actively reconsider TMDLs that have not worked effectively to prevent violations of state narrative or dissolved oxygen water quality standard.

8. The new Ammonia criteria should be adopted by the states and used by states to write protective NPDES permits.

Ammonia has an immediate toxic and deoxygenating effect on receiving waters before nitrifying to add to the nitrate loading that is also toxic and adds to Gulf hypoxia. States should adopt the criteria, and U.S. EPA should make sure states consider the ammonia criteria during their next triennial review.

It should be noted that Louisiana recently adopted the new criteria. However the Louisiana Department of Environmental Quality quickly attempted to remove these criteria due to industry pressure. U.S. EPA has not approved this removal of criteria, and if it did, it would be detrimental to the goals of the Action Plan and Task Force,

9. The Task Force must inform the public regarding the progress towards the interim loading goal.

The revised goal included the following in the Coastal Goal: "An Interim Target of a 20% reduction of nitrogen and phosphorus loading by 2025 is a milestone for immediate planning and implementation actions, while continuing to develop future action strategies to achieve the final goal through 2035." Given the lack of reduction demonstrated, it is likely this milestone will not be met

What are the reasons for not meeting this milestone? What will the Task Force promote in order to reach the 2025 goals?

The members of the Mississippi River Collaborative look forward to continuing to work with the Task Force.

Sincerely,



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MISSISSIPPI RIVER COLLABORATIVE
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Date: December 14, 2021

To: Mississippi River/Gulf of Mexico Hypoxia Task Force

From: Mississippi River Collaborative

RE: Written Testimony for December 2021 Hypoxia Task Force Meeting

Members of the Mississippi River Collaborative (MRC) look forward to continuing to work with the Task Force. The Mississippi River Collaborative consists of ten state organizations – as well as regional and national partners – working to protect water quality in the Mississippi River Basin and the Gulf of Mexico. MRC has worked to address Gulf hypoxia issues since its funding over a decade ago, and many organizations and individuals within MRC have worked on nutrient pollution and hypoxia issues for over 30 years.

The public presentation given yesterday was extremely useful, although it is very difficult to reconcile much of the data that was presented. MRC presented oral testimony yesterday but wish here to present some background information and elaborate on our comments.

General Background

The public has a strong interest in seeing nitrogen and phosphorus reductions in the Mississippi River Basin, and EPA's stated mission is to protect human health and the environment. To that end, MRC petitioned EPA in 2008 to take significant steps in the development of numeric nutrient criteria and to develop a TMDL for the Mississippi River. We recognized then that these were not easy steps to take, but they would help set the necessary framework to achieve the Mississippi River/Gulf of Mexico Hypoxia Task Force's (HTF) goals. Our petition was denied, and our subsequent action under the Administrative Procedure Act to require further consideration of the petition ultimately failed. However, the District Court in *Gulf Restoration Network v. Jackson* (E.D. La 2016) made clear that EPA did not have unlimited discretion to do little or nothing itself while encouraging states to act. The District Court wrote:

EPA's assessment that the best approach at this time is to continue in its comprehensive strategy of bringing the States along without the use of federal rule making is subject to the highly deferential and limited review that that the Fifth Circuit described in its opinion. *Presumably, there is a point in time at which the agency will have abused its great discretion by refusing to concede that the current approach — albeit the one of first choice under the CWA — is simply not going to work.* But for now, Plaintiffs have not demonstrated that EPA's assessment was arbitrary, capricious, or contrary to law. 224 F. Supp. 3d 470, 477. (*emphasis added*)

Much of the basis for EPA's denial of MRC's petition and the court's decision to uphold EPA's denial was set forth in a memo by Acting Assistant Administrator Nancy Stoner in 2011, entitled "Working in Partnership with States to Address Phosphorus and Nitrogen Pollution through Use of a Framework for State Nutrient Reductions." This memo outlines eight elements for a "state framework for managing nitrogen and phosphorus pollution:"

1. Prioritize watersheds on a statewide basis for nitrogen and phosphorus loading reduction,
2. Set watershed load reduction goals based upon best available information,
3. Ensure effectiveness of point source permits in targeted/priority sub-watersheds,

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4. In partnership with federal and state agricultural partners, NGOs, private sector partners, landowners, and other stakeholders, develop watershed-scale plans that target the most effective practices where they are needed most,
5. Identify how the State will use state, county and local government tools to assure N and P reductions from developed communities not covered by the Municipal Separate Storm Sewer Systems (MS4) program, including an evaluation of minimum criteria for septic systems, use of low impact development/ green infrastructure approaches, and/or limits on phosphorus in detergents and lawn fertilizers,
6. Include accountability verification measures,
7. Provide annual public reporting of implementation activities and biannual reporting of load reductions and environmental impacts associated with each management activity in targeted watersheds, and
8. Develop a work plan and schedule for numeric criteria development.

While some of the above elements were incorporated into some state Nutrient Reduction Strategies, other elements are glaringly absent from most, such as nutrient criteria development (EPA said that numeric N and P criteria for at least one class of waters by 2014-16 would be a reasonable start) and specific load reduction goals.

Our petition was based on facts known as of 2008. Since 2008, the issuance of Stoner's Memo, and the 2016 District Court decision in *Gulf Restoration Network*, the problem has only become more dire, as shown by numerous examples including the following.

- The Gulf of Mexico Dead Zone was the largest measured in 2017 and apparently was unexpectedly large this last year.
- Hundreds of miles of the Ohio River were affected by a cyano-bacteria outbreak in 2015.
- Toxic algae outbreaks were identified in lakes in Ohio, Iowa and Louisiana in 2018.
- Toxic algae outbreaks have been found on numerous occasions in the Illinois River in areas popular for water skiing and above drinking water intakes other recreational areas.

Wisconsin DNR scientists have found highly toxic levels of microcystin in numerous Mississippi River backwaters, and there is no reason to doubt that such toxic levels of microcystin would be found in other Upper Mississippi River backwaters if they were studied. In light of these facts, MRC joined with Sierra Club and other organizations to file on December 16, 2020 a petition for rulemaking regarding nutrient pollution in the Ohio River.

The Hypoxia Task Force Meeting and Presentations

Much was presented and learned at the virtual HTF meeting yesterday. It is impossible to fault the meeting format given the fact that COVID-19 has greatly reduced the possibility for normal interactions. However, we hope that future meetings will allow the public to ask questions effectively of presenters, and that the opportunity for public input will be greatly expanded from the 45 minutes that was allowed yesterday.

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We recognize, of course, that no public official likes to be put on the spot, but without allowing chaos, there has to be a way for the public to ask hard questions that are unlikely to be asked by Task Force members of each other in a public forum. Had we had more time and opportunity, many members of the public might have probed and sought to reconcile data and reports. Taken as a whole, these reports indicate that much good local work in controlling nutrient pollution has been done but that little progress has been made in reducing the size of the Dead Zone, and that in many places the problem appears to have gotten worse.

As mentioned yesterday, in Illinois it appears that nitrogen and phosphorus loadings have substantially increased over the 1990s baseline despite documented large reductions in phosphorus loads from publicly owned treatment works (POTWs). Undoubtedly, increased rainfall from the baseline period is partly responsible as is the fact that field and stream banks have large amounts of stored phosphorus. However, much of the data indicate increases that cannot be easily explained or can be explained only in part.

Moving Forward

MRC has the following suggestions so that goals and deadlines do not have to be set back yet again.

1. Sources of nitrogen and phosphorus loadings must be re-studied.

It was believed by many in the 1990s that the major sources of nitrogen to the basin were fertilizer applications to row crops and that the major sources of phosphorus were fertilizer applications to row crops and discharges from sewage treatment plants. Those beliefs were certainly in large part correct, and reductions in loadings originating in fertilizer application to row crops and POTW discharges must certainly be reduced further. However, it appears that concentrated animal feedings operations (CAFOs) may be a source of nutrient pollution that have not been adequately analyzed. Studies conducted of Wisconsin waters and in the Maumee River in Ohio indicated clearly that CAFOs are a major cause of the problem.

2. The 2011 "Working in Partnership with States to Address Phosphorus and Nitrogen Pollution through Use of a Framework for State Nutrient Reductions" should be fully implemented.

It was encouraging to hear numerous presenters endorse the recommendations of the 2011 Stoner letter but also somewhat surprising given how poorly much of it has been implemented. Some of the provisions of the memo have been almost entirely ignored by the states, most notably the goal of adopting numeric water quality standards, which was also part of the 1998 Clean Water Action Plan. None of it has been fully implemented.

3. All Major POTWs should be required to meet at least the 1 mg/L total phosphorus limit that was adopted for the Great Lakes in the 1970s.

There is no excuse for not requiring POTWs to meet at least the limit of 1 mg/L total phosphorus that was found to be practicable for sewage treatment plants almost a half century ago. Of course, in most cases, limits well below 1 mg/L TP are needed to protect water quality.

4. The Ohio River Petition should be granted.

To protect the Ohio River, the Lower Mississippi and the Gulf, the Ohio River Petition should be granted immediately.

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MRC members welcome any opportunity to work more closely with the HTF and its members to achieve the HTFs objectives.

Sincerely,



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