

Mississippi River/Gulf of Mexico Hypoxia Task Force Newsletter

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Hypoxia Task Force Highlights

The U.S. Environmental Protection Agency recently released [*Assessing Water Quality: Varied Approaches to Measure Change and Show Nutrient Reduction Progress*](#). This report provides an overview of varied approaches to measure water quality change and show nutrient reduction progress. It highlights recent Mississippi/Atchafalaya River Basin water quality findings and describes how report approaches can be tailored to authors needs and discusses what these findings may mean for resource managers.

State Activities

Arkansas Nutrient Reduction Viewer: Visualizing Watershed Nutrient Reduction and Conservation Impact

The Arkansas Nutrient Reduction Viewer is a GIS-based tool that enables users to visualize nutrient reductions achieved by BMPs across Arkansas, using estimates from the state's Best Management Practice tracking system. The Viewer is a key component of the [Arkansas Nutrient Reduction Strategy](#), which aims to reduce total nitrogen and total phosphorus loads, especially in priority watersheds. The Viewer provides data on nutrient reductions from ten commonly used BMPs and estimates nutrient reductions at both the watershed and state levels. Since 2019, Arkansas has increased its implemented conservation practices from approximately 15,000 to over 16,000 in 2023. The Viewer shows statewide reductions in total nitrogen (2.22%) and total phosphorus (3.85%) in 2019 due to BMPs, with Tier 1 watersheds achieving even greater reductions. All 58 of Arkansas's HUC-8 watersheds indicated a reduction of total phosphorus after BMP implementation with 51% of HUC-8 watersheds showing a reduction from the 1992 baseline. This tool supports Arkansas's efforts to improve water quality both locally and within the larger Mississippi River Basin.

[Explore the Viewer](#)

Kentucky Releases Study Presenting Flow-Normalized Loadings

The Kentucky Division of Water conducts ongoing water quality monitoring across the Commonwealth which provides the opportunity to analyze water quality trends, including insight into nutrient contributions to the Gulf of Mexico, and plays a key role in Kentucky's Nutrient Reduction Strategy. Analyzing loads at these and other monitoring stations measures progress towards meeting goals and identifies areas that may need more attention. A recent study aimed to align with U.S. Geological Survey methodology, make direct comparisons to regional and national data and track progress towards the Hypoxia Task Force interim goal of 20% reduction of nitrogen and phosphorus loads, and assess results for next steps. The primary goal of this study is to compare flow-normalized load trends for Kentucky against trends of loads delivered to the Gulf of Mexico from

the Mississippi River and Atchafalaya Basin. This study models individual station changes, aggregates trends, and explores contributing geographic and chemical factors.

[Read the Report](#)

Indiana and USDA Expand Their Successful Conservation Partnership

The U.S. Department of Agriculture and the state of Indiana recently announced the expansion of the Indiana Conservation Reserve Enhancement Program, or CREP, broadening the program from 65 counties to the state's entire 92 counties and increasing the acreage goal to 100,000 acres. The expansion will include 27 additional watersheds in the state.

The purpose of the Indiana CREP is to improve water quality by reducing sediment and nutrient runoff and enhance wildlife habitats. Currently, it has more than 22,000 acres of agricultural land enrolled in 11 designated watersheds in the Wabash and White River systems, including the Tippecanoe, Upper White River, Highland/Pigeon, Upper Wabash, Middle Wabash-Deer, Middle Wabash-Little Vermillion, Middle Wabash-Busseron, Lower Wabash, Lower White, Lower East Fork White and the Upper East Fork White watersheds.

"This expansion of the CREP program in Indiana is a direct reflection of its success and the conservation priorities that we and the state of Indiana hold so high," said Ducheneaux. "This program is an incredibly important resource, benefiting both agriculture and the environment throughout this state."

"We are thrilled that Indiana's CREP program will be expanded statewide," said Lamb. "This program is proven to enhance our watersheds and improve habitats. This funding will go a long way to economically support landowners while enhancing our watersheds. We are grateful that USDA has made expanding this program a priority."

[Read the Press Release](#)

Ohio H2Ohio Statewide Enrollment Exceeds Expectations

Ohio recently launched a statewide enrollment of H2Ohio, the water quality program focused on Voluntary Nutrient Management Planning, or VNMP. VNMPs can help assess and reduce the risks of agricultural nutrient runoff associated with nutrient application and nonpoint source pollution that causes poor water quality. In July with the close of enrollment, approximately 503,000 acres were enrolled with 535 producers participating, exceeding Ohio's enrollment goal. In addition to developing and implementing VNMPs, this expansion will allow Soil and Water conservation Districts to build capacity and experience at the district level, receive training in nutrient management, soil testing and fertility, and contract management. This effort will also provide a foundation for potential program expansion in the future.

[Read about H2Ohio](#)

Tennessee Releases the Nutrient Reduction Task Force's 2021-2023 Triennial Report

During 2021 through 2023, although slowed by the Covid pandemic, Tennessee's Nutrient Task Force continued to establish meaningful partnerships and engage in thoughtful conversations to develop strategic goals to reduce the state's contributions of nutrient pollution in the Mississippi River watershed. Over this period, the Task Force met a total of nine times, along with subcommittee meetings, to continue progressing toward their individual goals. Tennessee's Nutrient Reduction

Task Force has released a report that describes engagements that led to many highlighted accomplishments and offers a framework for next steps.

[Read the Report](#)

Federal Activities

USGS Releases Summary Report of the Mississippi River Science Forum

The USGS hosted a Mississippi River Science Forum with Federal agencies, Tribal, State and local governments located in States that border the Mississippi River, academia and other interested stakeholders in February 2023. The purpose of the forum was to share state of the art science, identify data gaps and areas of concern and to prioritize next steps needed to advance the goals of improving water quality, restoring habitat and natural systems, improving navigation, eliminating aquatic invasive species and building local resilience to natural disasters along the Mississippi River. The forum was a directive for the USGS in the Consolidated Appropriations Act of 2022 (Public Law 117—103, 136 Stat. 49).

USGS has released a report that highlights data gaps and areas of concern discussed during the forum and identifies needs to advance the goals of improving water quality, restoring habitat and natural systems, improving navigation, eliminating aquatic invasive species and building local resilience to natural disasters with specific emphasis on data collection and measurement and scientific investigation. The report also summarizes stakeholder input and feedback and outlines next steps identified by forum participants.

[Read the Report](#)

USGS Releases New Illinois River Basin Study

A new USGS report uses a dynamic SPARROW (Spatially Referenced Regressions on Watershed attributes) model that accounts for a lagged delivery of nutrients to streams to simulate seasonal and source-specific total nitrogen and total phosphorus loads in streams across the Illinois River basin. Dynamic load predictions from 2000 through 2020 revealed that a third of the TN and a quarter of the TP instream load originated from non-point sources that were lagged in their delivery from land-application to streams by more than a season. This lagged mass was the largest overall TN source—which was estimated as a lagged expression of previous seasonal non-point sources including fertilizer, manure, atmospheric deposition and fixation, and urban land use. Treated wastewater effluent was the largest TP source exported from the basin, contributing 39 % of the TP load and 15 % of the TN load, and dominated the load in the upper Illinois River near Chicago. Loads in the lower river during this period, conversely, were attributed primarily to a mix of agricultural sources and their lagged fractions from headwater tributaries. Instream processes removed 10 % of the TN load while only 4 % of the TP load was removed during instream transport. With appropriate datasets, the models could be extended to other basins or time periods and used to forecast future seasonal nutrient loads.

[Review the Report](#)

EPA Gulf of Mexico Division Releases Farmer to Farmer 2024 Notice of Funding Opportunity

The EPA anticipates awarding ten to twenty assistance agreements ranging from approximately \$1,000,000 to \$2,000,000 each, with a typical project period of three years. The application deadline is January 28, 2025.

This Notice of Funding Opportunity is seeking applications for the Gulf of Mexico Division's Farmer to Farmer program to improve water quality, habitat, resilience, and environmental education through the demonstration of innovative practices on working lands. This program is designed to support farmer-led or farm focused organizations in the Gulf of Mexico watershed within the Continental United States. Collaboration and outreach with farmers are required, while partnerships between organizations are encouraged. This funding is available to develop innovative practices within farming communities, measure the results of those practices, and identify how the practices will be incorporated into farming operations. For this Notice the term "farmer" refers to those individuals that make management decisions concerning agriculture lands, including cropland, forestland, and grazing lands.

All project activities must be within the Gulf of Mexico Watershed (see [Figure 1 on p. 6 of the Notice](#) for Gulf of Mexico watershed and see eligible Florida counties in Appendix D).

[Launch Read the Notice](#)

EPA Releases Searchable National Study of Nutrient Removal and Secondary Technologies Dashboard

The EPA has launched an interactive web dashboard based on data from the National Study of Nutrient Removal and Secondary Technologies. Hosted on the Searchable Clearinghouse of Wastewater Technology, or SCOWT, website, the dashboard quantifies results from a voluntary, online questionnaire from publicly owned treatment works, or POTWs, with different types of biological treatment, including both conventional and advanced treatment technologies. One of the most encouraging findings from the questionnaire demonstrated that improved nutrient removal is attainable by all types of POTWs through process modifications or upgrades.

The questionnaire was issued to 16,500 POTWs across the United States, and more than 2,200 responses were collected between 2019 and 2021. SCOWT users can view nutrient data for various types of POTWs, including effluent ammonia, total nitrogen, and total phosphorus, as well as filter results by EPA Region, state, territory, daily flow, design flow, and biological treatment.

SCOWT serves as a hub to assist communities in making informed decisions about wastewater solutions. The website provides resources on the cost-effectiveness and performance of wastewater technologies and fills a critical information gap for small, midsize and decentralized communities. Communities searching for ways to fund possible technologies will also find a technical assistance provider map in SCOWT.

[Explore the Searchable Clearinghouse of Wastewater Technology](#)

EPA Releases Fact Sheet on Clean Water State Revolving Fund Nonpoint Source Watershed Finance Partnerships

Through the Infrastructure Investment and Jobs Act and the EPA's annual appropriations, billions of dollars in investments are available to support nonpoint source nutrient reduction efforts via the Clean Water State Revolving Fund and the Water Infrastructure Finance and Innovation Act of 2014, otherwise known as WIFIA. The EPA's 2024 updated *Clean Water Act* Section 319 grant guidelines encourage states to use these opportunities to help scale up progress by working through watershed financing partnerships. In addition to the 2021 [Clean Water State Revolving Fund Best Practices Guide for Financing Nonpoint Source Solutions](#), the EPA recently published a Fact Sheet to provide support in this area of work.

[Read the Fact Sheet](#)

Resources

Agricultural Nutrient Policy Council Hosts Phosphorus Science and Emerging Research Workshop

On October 1, 2024, the Agricultural Nutrient Policy Council, or ANPC, hosted a Phosphorus Science and Emerging Research Workshop in Washington, DC. ANPC is a coalition of more than 40 state and national agriculture trade associations and agribusinesses focused on helping agriculture work together with state and federal agencies and members of the scientific community to protect water quality.

The workshop brought together approximately 150 individuals (in person and virtually) representing agriculture, the scientific community, state agency leaders, and federal agency leaders. The attendees discussed current and emerging science and the body of knowledge on phosphorus losses linked to nonpoint sources. The attendees also discussed how to better communicate the observed trends and what they mean for nutrient reduction efforts moving ahead. In addition to the Mississippi River Basin states, efforts were also discussed from the Chesapeake Bay and the Great Lakes region.

[Read about the Workshop](#)

Mississippi River Watershed Partnership Workshop Report

Over the past two years, America's Watershed Initiative, in partnership with The Nature Conservancy, engaged dozens of federal, regional, state, community, industry, and NGO leaders to explore ways to address these challenges at scale. From these discussions, the idea of a partnership was raised, and the Mississippi River Watershed Partnership Workshop was convened in St. Louis, Missouri, on June 25–27, 2024. The leaders have published a summary report, which presents next steps that the leaders will take in supporting the Partnership.

[Read about the Partnership and Review the Report](#)

Visit the EPA Hypoxia Task Force Website

To learn more about the work of the Hypoxia Task Force, visit our website, which features recent reports and measurements, important documents, upcoming actions and learning opportunities. The "In the Spotlight" section of the homepage provides a great introduction.

[Check out the HTF Homepage](#)

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The *Mississippi River/Gulf of Mexico Hypoxia Task Force Newsletter* is a quarterly publication produced by the EPA's Office of Water in partnership with the Hypoxia Task Force. The newsletter provides a snapshot of recent state activities, federal agency activities, publications, and resources.

The mention of trade names, products, or services does not convey and should not be interpreted as conveying official federal approval, endorsement, or recommendation for use.

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