Mississippi River/Gulf of Mexico Hypoxia Task Force Newsletter

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HTF HIGHLIGHTS	Hypoxia Task Force Highlights The 38th Hypoxia Task Force Public Meeting will be held in person the afternoon of December 6, 2023, in Fayetteville, Arkansas, and with a virtual live-stream. Registration is posted here.
STATE ACTIVITIES	
FEDERAL ACTIVITIES	
RESOURCES	

State Activities

Iowa's Updated Nutrient Reduction Strategy Dashboards Indicate Measurable Water Quality Progress

In May 2023, the three principals of the Iowa Nutrient Reduction Strategy—Iowa Department of Agriculture and Land Stewardship, Iowa State University, and the Iowa Department of Natural Resources—jointly announced that the online dashboards reporting the results of the Iowa Nutrient Reduction Strategy are updated to reflect the latest reporting period. This announcement coincided with the 10-year anniversary of the Nutrient Reduction Strategy; the dashboard indicates that adoption of conservation practices continues to increase, and that progress is expected to accelerate.

Read the Press Release

Minnesota Completes 80 Watershed Restoration & Protection Strategies

Minnesota uses comprehensive watershed monitoring (physical, chemical, and biological), modeling, and social science information to develop problem-solving strategies for local and downstream waters. By June 2023, all 80 watersheds in the state had completed reports on water quality conditions and Watershed Restoration and Protection Strategies or "WRAPS." Partnerships of local governments use the technical reports and strategies to develop prioritized, targeted, and measurable implementation plans within the watersheds (known as <u>One Watershed, One Plan</u>). The Minnesota Pollution Control Agency worked with many state and local partners to develop these strategies through focused efforts on relationship building, problem investigation monitoring, stressor identification, modeling, TMDLs, GIS, project management, report writing, contracting, and public participation.

Read the Strategies

Indiana Releases the Watersheds Web Tool with Trends of Sediment and Nutrient Loads

In June 2022, Indiana completed and released the report <u>Trends of Sediment and Nutrient</u> <u>Loads in Indiana Watersheds</u>. This is the Component 1 report of the Indiana Science Assessment; it determines historic and ongoing nutrients loads leaving and entering the state and by watershed basins used in the Indiana State Nutrient Reduction Strategy. The Indiana State Department of Agriculture has made the results of the water quality trends reports available to the public and partners through a new web-based tool. This tool visualizes data and water quality trends for nitrogen, phosphorus, and sediment loads (also known as flux) for Indiana's major river basins using the U.S. Geological Survey Weighted Regressions on Time, Discharge, and Season (WRTDS) Model.

Use the Tool

Indiana Announces their New Mississippi River Basins Soil Sampling Program

The Indiana State Department of Agriculture and partners throughout the state are using the Infrastructure Investment and Jobs Act Gulf Hypoxia Program through the U.S. Environmental Protection Agency (EPA) to develop a no-cost program for landowners, with a focus on increasing the knowledge and use of soil sampling as a nutrient management practice to benefit farm operations. The new program, Indiana's Mississippi River Basin Soil Sampling Program, is open now for applicants.

Read the Press Release

Lower Mississippi River Sub-Basin Committee Formed

The Lower Mississippi River Sub-Basin Committee was formalized in June 2023, with execution of a Memorandum of Agreement (MOA) amongst Hypoxia Task Force members of Arkansas, Louisiana, Mississippi, Missouri, and Tennessee. Key points of the MOA include:

- Supporting goals and actions of the 2001 and 2008 Gulf Hypoxia Action Plan and 2015 Framework;
- Sharing responsibilities for the reduction and management of nutrients to the Gulf of Mexico from the lower portion of the Mississippi River Basin; and
- Finding consensus amongst member states on how best to direct funding from the Gulf Hypoxia Program to the Lower Mississippi River Sub-Basin Committee for nutrient reduction strategies.

The MOA creates a five-person Technical Advisory Group (TAG) comprised of a representative from each state that will be chaired in rotation. The TAG Chairperson will serve as the Task Force Coordinating Committee representative.

Federal Activities

EPA and Army Amend "Waters of the United States" Rule

In August 2023, the EPA and the U.S. Department of the Army (the agencies) announced a final rule amending the 2023 definition of "waters of the United States" to conform with the recent Supreme Court decision in *Sackett v. EPA*. The agencies are committed to following the law and implementing the Clean Water Act to deliver the essential protections that safeguard the nation's waters from pollution and degradation. This action provides the clarity that is needed to advance these goals, while moving forward with infrastructure projects, economic opportunities, and agricultural activities.

The agencies will work with state, Tribal, and local partners to safeguard waters in need of protection following the *Sackett v. EPA* decision and will continue to use all available tools to protect public health and provide clarity for stakeholders.

Read the Press Release

EPA Publishes Nutrient Pollution Learning Module

EPA's Watershed Academy is a public educational platform that hosts quarterly webcasts and houses educational training modules on a variety of environmental topics. A new Watershed Academy module provides an overview of nutrient pollution and its sources; impacts of nutrient pollution on human health and the environment; the science of nitrogen and phosphorus in the environment including the impacts of climate change; and federal, state, Tribal, and territory actions underway to mitigate nutrient pollution impacts. The module also shares tools, opportunities, and activities available for the public to get involved in reducing the impact of nutrient pollution. This module is great resource for anyone looking to learn more about nutrient pollution and the various impacts it has on water quality or any water quality managers looking to learn more about federal laws and regulations applicable to nutrient pollution.

Check out the Nutrient Pollution Module

EPA Publishes New Science on Harmful Algal Blooms

Answering a pressing need of water resource managers and communities reliant on waterbodies that may be impacted by harmful algal blooms (HABs), EPA has recently published two articles that update the science and understanding of this issue.

"Identifying lakes at risk of toxic cyanobacterial blooms using satellite imagery and field surveys across the United States" details the development of a groundbreaking, remote sensing approach that relates satellite imagery with field survey data (EPA's National Lakes Assessments) to identify waterbodies that are most at-risk for the formation of cyanobacteria HABs. This approach overcomes challenges related to the collection of sufficient data, expands the ability to monitor cyanobacteria activity across a broader region of the contiguous U.S. than previously possible, and notes the importance of continuing the refinement of approaches to predict and monitor HABs.

"Wildfires in the western United States are mobilizing PM2.5-associated nutrients and may be contributing to downwind cyanobacteria blooms" studies nutrients associated with wildfire smoke in the Western U.S. over a period of 15 years and found that most macro- and micronutrients analyzed were significantly elevated in the air samples collected on smoke-impacted days. Additionally, the team investigated several cases of algal blooms that occurred in lakes downwind from wildfires with high nutrient emissions. By using satellite imagery, the team discovered an increase in cyanobacteria abundance two to seven days after the nutrient-dense wildfire smoke reached the lakes' surfaces. The findings suggest that nutrients carried in wildfire smoke may contribute to downwind cyanobacterial blooms, which is concerning as these blooms can negatively impact human health, drinking water supplies, aquatic ecosystems, local economies, and more. The results of this research further emphasize the impact of wildfires and how contamination from air particles carried in smoke can adversely impact our water resources. With climate change continuing to pave the way for longer, more intense wildfire seasons, it is essential to understand the link between wildfire emissions, HABs, and water quality for effective drinking water management.

New Booklet for Farmer Advisors: Financial Implications of Conservation Agriculture

A new booklet, *The Financial Implications of Conservation Agriculture: Insights from Analyses of Farms in the Upper Midwest*, aims to inform farmers' key partners—including farm business management educators, agricultural lenders, and conservation educators and professionals about the financial costs and benefits of conservation agriculture practices to assist their work with farmers. The booklet focuses on four of the most common conservation practices: cover crops, reduced tillage, nutrient management, and managed grazing. The sections for each of these practices can also be used as separate fact sheets. The information included in this booklet was gathered through a review of existing research on the financial impacts of conservation practices on production systems in the Upper Midwest region.

The booklet has been published through a North Central Sustainable Agriculture Research and Education, U.S. Department of Agriculture-National Institute of Food and Agriculture grant. The booklet is an outcome of a collaboration between the North Central Region Water Network, the University of Wisconsin–Madison Division of Extension, the University of Minnesota Water Resources Center, Environmental Defense Fund, Compeer Financial, and Croatan Institute.

Check out the Booklet and Practice Fact Sheets

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

Sign Up for the HTF Newsletter

Newsletter is a quarterly publication produced by 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.

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