Mississippi River/Gulf of Mexico Hypoxia Task Force Newsletter

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Hypoxia Task Force Highlights

In February 2021, the 12 HTF member states, under the leadership of Iowa Secretary of Agriculture Mike Naig, sent a letter to the U.S. Environmental Protection Agency and the U.S. Department of Agriculture asking the new federal leadership team for their partnership to continue the work of the HTF. More on this below.

State Activities

Arkansas Launches Septic Tank Remediation Pilot Program

The Arkansas Department of Agriculture's Natural Resources Division has launched the Arkansas Septic Tank Remediation Pilot Program. This program aims to assist homeowners in targeted watersheds with costs to repair or replace failing septic systems. The Arkansas Natural Resources Commission approved more than \$2.5 million in funding to begin these efforts in Northwest Arkansas, with \$2.0 million of this funding coming from the Clean Water State Revolving Loan Fund. The funding has been allocated to the Illinois River Watershed Partnership and the Ozarks Water Watch to administer this program in the Illinois River Watershed and the Upper White River/Beaver Lake Watershed. It will provide septic remediation grants and no-interest loans to residents of eight Arkansas counties. Expansion of this program to the Buffalo River Watershed is anticipated to be approved this summer. If successful in these three pilot watersheds, this program will spread to other nutrient reduction priority watersheds within the State.

Read More

Indiana Announces Updates to State Nutrient Reduction Strategy

The Indiana State Nutrient Reduction Strategy (SNRS) is the product of an inclusive effort of the Indiana Conservation Partnership (ICP) under the leadership of the Indiana State Department of Agriculture (ISDA) and the Indiana Department of Environmental Management (IDEM) to capture statewide the present and future endeavors that positively impact the State's waters, as well as gauge the progress of conservation, water quality improvement and soil health practice adoption in Indiana. The state has just updated the strategy with Version 6.

Learn More

Ohio Releases 2020 Nutrient Mass Balance Study for its Major Rivers

The biannual state-mandated study examines nutrients from nonpoint sources (NPS) and encompasses 11 watersheds across the state, which drain 66 percent of Ohio's land area.

Highlights from the 2020 report include:

- Averaged over the last five years, the largest annual NPS sources of phosphorus were in the Maumee and Scioto river watersheds.
- Nutrient loads from point sources were higher in the Ohio River basin than the Lake Erie basin.
- The watersheds with the highest NPS contribution of phosphorus and nitrogen had the highest proportion of land area in agricultural production. The highest NPS yields were in Northwest Ohio where nearly 80 percent of the land area is used for agriculture.
- The increased NPS loads for both total phosphorous and total nitrogen in 2019 further document that hydrology – especially due to higher precipitation – drives a large share of the nutrient loads.

Substantial state and federal dollars, including Governor DeWine's H2Ohio Plan, continue to be allocated to nutrient reduction efforts to address both point and nonpoint sources in many of the state's watersheds. Launched in 2019, H2Ohio is a collaborative water quality effort to provide clean and safe water to Ohio. This plan gives the Ohio Department of Natural Resources, Ohio Department of Agriculture, Ohio Environmental Protection Agency, and Ohio Lake Erie Commission each a significant role in H2Ohio through the natural infrastructure of wetlands, the reduction in nutrient runoff, and increasing access to clean drinking water and quality sewer systems.

Read 2020 and past year reports

Federal Activities

12 Hypoxia Task Force States Seek Continued Support from New Leadership at EPA, USDA

Iowa Secretary of Agriculture Mike Naig, who serves as the co-chair of the Gulf of Mexico Hypoxia Task Force (HTF), and representatives from 11 other member states, submitted a letter to the new leadership teams at the Environmental Protection Agency (EPA) Office of Water and the United States Department of Agriculture (USDA) Farm Production and Conservation Business Center. In the letter, the states' representatives asked the new leadership teams, nominated by President Biden, for their continued partnership on the work of the HTF.

Read the letters

Updated SPARROW Model Results: Homing in on Sources of Nitrogen and Phosphorus in the Mississippi/Atchafalaya River Basin

A new USGS study uses SPARROW (SPAtially Referenced Regression On Watershed attributes) models to estimate total nitrogen (N) and total phosphorus (P) yields from catchments throughout the Mississippi/Atchafalaya River Basin (MARB), which drains about 41% of the conterminous United States. SPARROW modeling and mapping tools assist researchers estimating the amount of contaminant transported from inland watersheds to larger water bodies by linking monitoring data with information on watershed characteristics and contaminant sources. The recent USGS study describes where within the MARB nutrients originate and identifies the relative importance of different nutrient sources—e.g., fertilizers, manure, wastewater treatment plants, or atmospheric deposition—throughout the Basin. Nutrients exported from the Basin contribute to hypoxia in the Gulf of Mexico.

Results of this study are based on catchment activities updated to reflect 2012 (the most recent data available) and a much finer spatial scale than previous studies—the mean catchment size now is ~2 km² as opposed to ~300 km² in earlier models. An associated online mapping tool can be used by water-quality mangers to identify where the largest sources of nutrients are throughout the MARB and to guide actions to reduce nutrient loading to the Gulf of Mexico.

Read the study

USDA Invests \$28M to Restore Wetlands Functions to Agricultural Landscapes

USDA recently announced a \$28 million investment in 10 Wetland Reserve Enhancement Partnership projects – six new and four ongoing – to support work that will return essential wetland functions to agricultural landscapes in the Mississippi River and/or Gulf of Mexico watersheds. USDA's investment will be bolstered by an additional \$2.82 million partner contribution. New projects supported by this funding include restoring forested wetlands in the Mississippi Alluvial Valley, increasing habitats for a myriad of plants and animals in floodplain wetlands and grasslands, and landscaping floodplains to reduce nutrient runoff into the Mississippi River. Through this initiative, USDA will partner with several well-established organizations to protect, restore, and enhance wildlife habitat on eligible lands.

Read the article

Resources

Purdue Extension Launches Fact Sheet on Phosphorus Removal Structures

Phosphorus removal structures are a conservation practice for reducing surface water eutrophication by filtering dissolved phosphorus before it reaches a water body. This document briefly describes how, why, where, and when to use phosphorus removal structures.

Read the Fact Sheet

New Survey Shows the Value of Investing in Watershed Professionals

Sand County Foundation and partners organized an in-depth survey of over 100 watershed leaders in Illinois, Iowa, Minnesota, and Wisconsin and the findings of this survey can guide needed investment in a workforce of watershed coordinators across the Midwest. Those surveyed are paid professionals focused on agricultural lands within watershed or county boundaries, often employed by county conservation districts or departments, non-profits, or state agencies. A majority have a background in environmental science, and some have expertise in agronomy, engineering, or social science. One-fifth have less than two years' experience in their role, and nearly half have worked or grew up on a farm. Findings indicate:

- Watershed professionals want to lead
- · Communication is a key skill
- Watershed professionals learn from their peers
- Confidence varies by topic and background
- Agriculture has a seat at the table
- Stable funding for watershed professionals is needed

Read More

FEWscapes seeks to expand horizons for food, energy, water, and ecosystem security

FEWscapes is a research and engagement project to expand horizons for food, energy, water, and ecosystem security in the Upper Mississippi River Basin. It is led by a multidisciplinary team of researchers and extension specialists from the University of Wisconsin-Madison and funded by the National Science Foundation. The project combines ecosystem and economic modeling, policy and social research, and co-learning with stakeholders to discover new insights that can inform decisions for a desirable future with resilient food, energy, water, and natural systems. In January, members of the FEWscapes team presented to the Hypoxia Task Force Coordinating Committee, one of the groups they are inviting to co-learn with them. The team invites you to read this blog post on reasons they hope you'll engage in the co-learning process over the coming few years. Details on specific engagement opportunities are forthcoming. Learn more about FEWscapes on the project's new website and subscribe to its mailing list to receive news and insights.

Learn more about FEWscapes

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

The *Mississippi River/Gulf of Mexico Hypoxia Task Force 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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