

A satellite-style map showing the Mississippi River basin in green and brown, flowing into the Gulf of Mexico. The Gulf is shown in dark blue with a lighter blue area near the river's mouth. The text is overlaid on the map.

# Mississippi River Science Forum

## Mississippi River/Gulf of Mexico Watershed Nutrient Task Force or Hypoxia Task Force

February 15, 2023

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# HTF Members

## 5 Federal Agencies and Tribes

- US Environmental Protection Agency
- National Oceanic and Atmospheric Administration
- US Army Corps of Engineers
- US Department of Agriculture
- US Department of Interior
- National Tribal Water Council

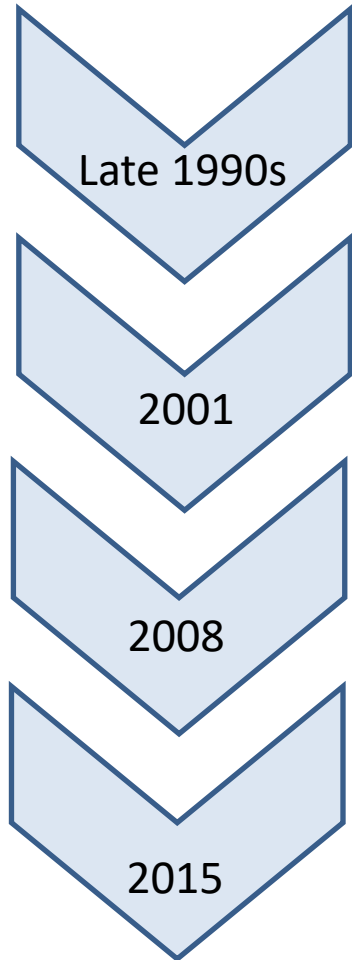
## 12 States

- |           |             |
|-----------|-------------|
| Arkansas  | Ohio        |
| Missouri  | Louisiana   |
| Iowa      | Illinois    |
| Tennessee | Mississippi |
| Minnesota | Kentucky    |
| Indiana   | Wisconsin   |



Each state member represents one of the following state agencies, with multiple agencies engaged with the Coordinating Committee:  
Agriculture, Environmental Quality, and/or  
Natural Resources agencies

# HTF Background



Late 1990s: Formed based on the White House Committee on Environment and Natural Resources' "[Integrated Assessment](#)"

- Scientific basis for [2001 Action Plan](#) with goal to reduce the size of the Hypoxic Zone
- Led to focus on reducing nitrogen loads to the gulf via the Mississippi River

2001 Action Plan called for periodic [Reassessments](#)

- 2004 → Is phosphorus a co-driver of the hypoxic zone?
- Convened [four science symposia](#)
- [EPA Science Advisory Board](#) formed a panel, took symposia outcomes, recommended dual nitrogen and phosphorus reduction strategy, 45% reduction

[2008 Action Plan](#)

- Agreement by states to implement their own strategies with a dual N and P nutrient reduction effort

[2015](#) reiterated the goal, adopted an interim target

Current status: all states implementing [Nutrient Reduction Strategies](#)

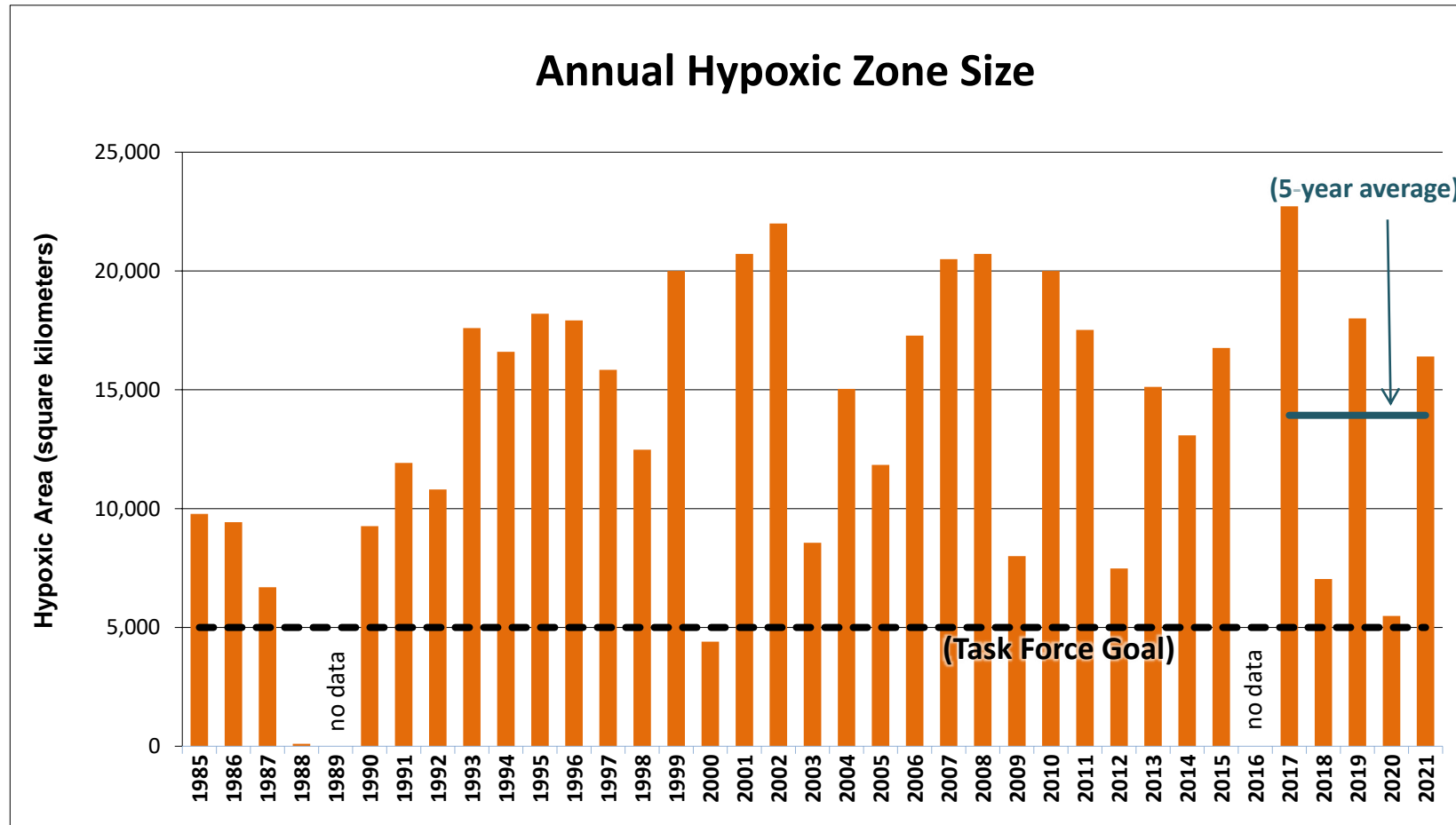


## Coastal Goal

By 2035, reduce 5-year running average size of the Gulf hypoxic zone to 5,000 km<sup>2</sup>

## Interim Target

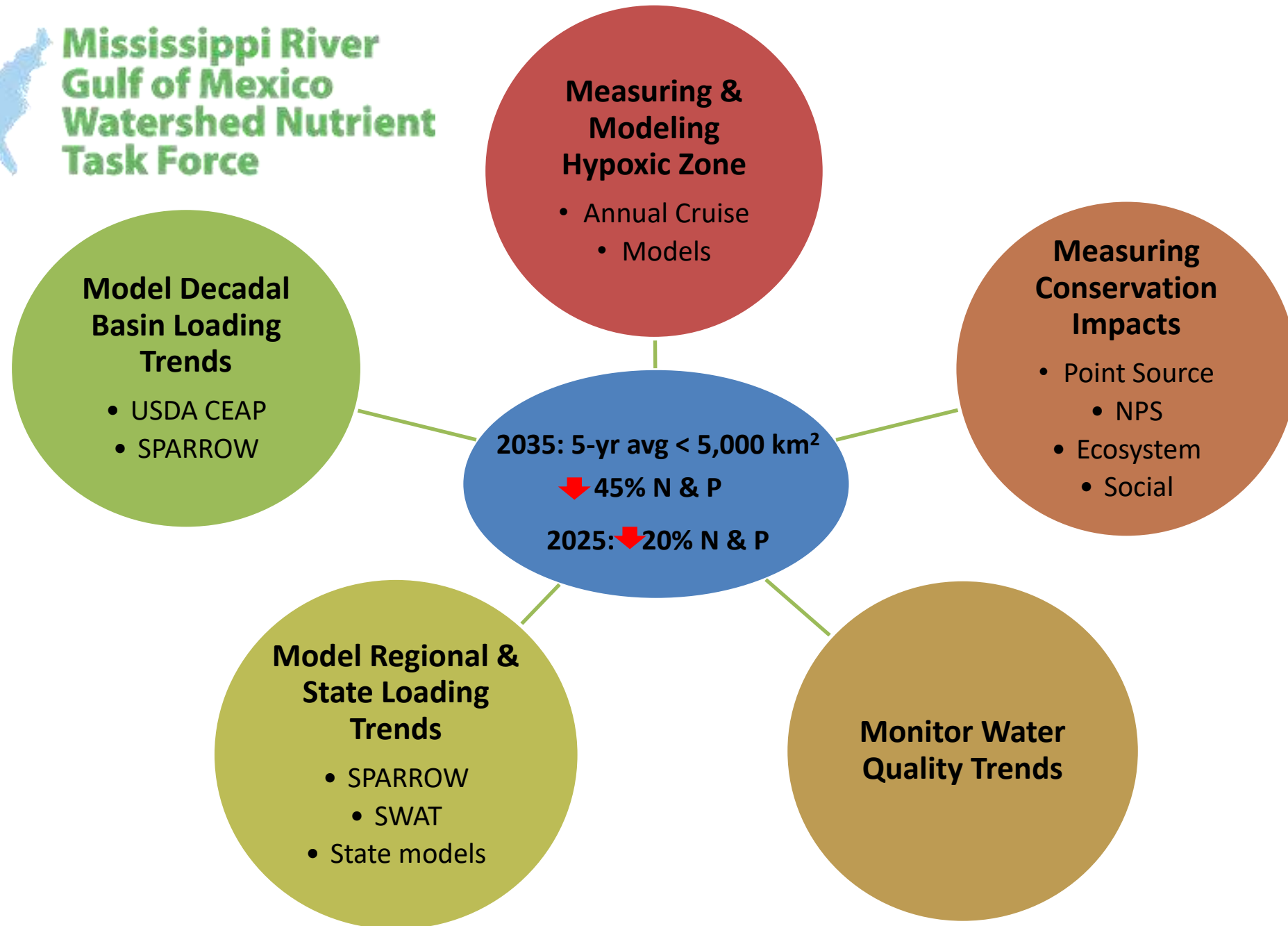
20% reduction of N & P loading from the Mississippi/Atchafalya River Basin (MARB) by 2025

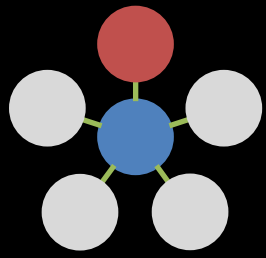


Historic size of hypoxia from 1985 to 2021. No data for 1989 and 2016. 1988 value is 100 sq. km.  
[\(N. Rabalais, LSU/LUMCON & R. Turner, LSU\)](#)



# Mississippi River Gulf of Mexico Watershed Nutrient Task Force





# State of Gulf Science

[Model results](#) offer guidance on watershed nutrient reduction levels to meet the goal and significantly advance our understanding

- Single (N) and/or dual (N & P) load reductions needed
- Expected effects of reaching the Interim Target on the zone

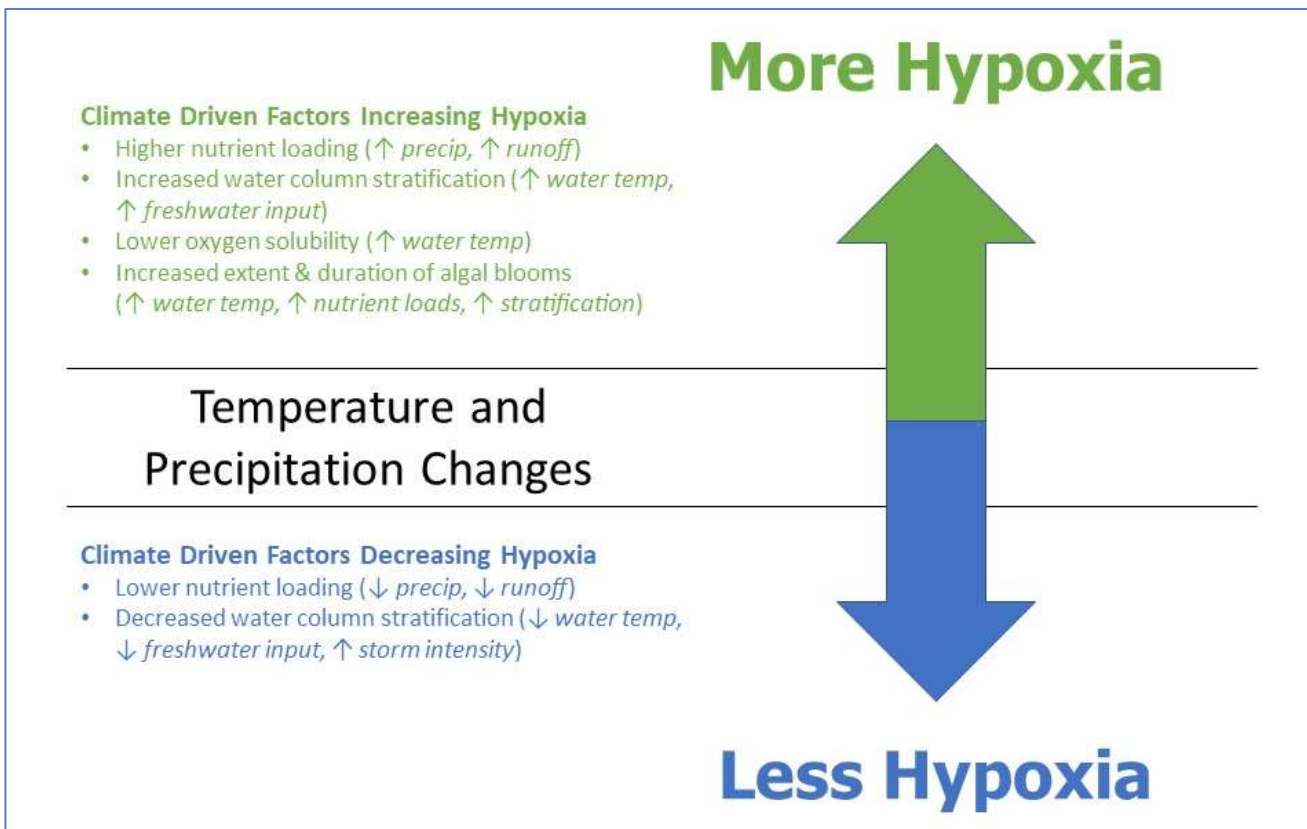
## [Coastal Goal](#)

- To achieve the goal, more effective to reduce both N and P simultaneously than to decrease N alone
- The present findings do not suggest a need to change targets, but emphasize the criticality of reducing both nutrients by 45% ([Fennel and Laurent 2018](#))

## [Interim Target](#)

- Though a large hypoxic zone is likely to persist, reaching the interim goal brings the system closer to an inflection point where measurable decreases in the hypoxic zone size can be expected with future load reductions.

# Climate Science



**Anticipated Changes in the MARB Suggested by the Literature**

Nutrient Loading: Increased  
Stratification: Increased  
Oxygen Solubility: Decreased  
Algal Blooms: Increased extent and duration

Increased extent and duration of the hypoxic zone

The HTF continues to use the best available science as members implement nutrient reductions strategies and will aggregate climate co-benefits where known.

# A Transformational Opportunity: Gulf Hypoxia Program

- The BIL provides \$50 billion to EPA - the single largest investment in clean water the federal government has ever made.
- For the first time EPA has \$60 million in dedicated resources to support critically needed strategies to improve water quality in the MARB and Gulf of Mexico.
- This historic investment in addressing nutrient pollution provides tangible benefits to communities and ecosystems across the region that depend on clean water.
- All communities across the MARB will benefit from safer drinking water, protected fisheries, and a more stable economy.
- Support for the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force's (Hypoxia Task Force or HTF) Gulf Hypoxia Action Plan at \$12 M/yr for fiscal years 2022–2026.
- EPA is awarding most of the funding in equal portions to states through cooperative agreements.
- EPA is providing modest support to other entities (e.g., eligible tribes, sub-basin committees, and an LGU consortium).



## Gulf Hypoxia Program Priorities

Support states as they scale up implementation of their nutrient reduction strategies

Support tribes in leveraging existing nutrient reduction strategies or developing new ones to advance HTF goals

Advance multi-state collaboration through support for organizations that will help to achieve the goals of the Gulf Hypoxia Action Plan

Document and communicate progress towards HTF goals at the Basin scale

Advance research in support of nutrient reduction strategies

Leverage resources and coordinate with other federal, foundation, state, and tribal programs

## EPA BIL Cross-Cutting Priorities

Ensure that GHP benefits are realized by disadvantaged communities

Advance water quality actions that have climate adaptation or mitigation co-benefits

Fully enforce civil rights

Support the American worker and build a strong conservation workforce

Support domestic manufacturing

# Progress on State Nutrient Reduction Strategies

Sign up for [quarterly HTF Newsletters](#)

## January 2022

Ohio Announces \$5 Million for H2Ohio Projects in the Ohio River Basin

Arkansas Develops Septic Remediation Pilot Project

Minnesota Uses CWSRF to Provide Reliable and Sustainable Funding for AgBMP Loan Program



## May 2022

Newly Hired Watershed Managers Will Collaborate with H2Ohio Initiative

The Indiana Science Assessment will Support the State Nutrient Reduction Strategy

## June 2022

EPA Announces \$60 Million Over the Next Five Years to Fund Nutrient Reduction Efforts through the Gulf Hypoxia Program

## October 2022

Kentucky Publishes Two New Hypoxia Task Force Success Stories

Environmental Review of Louisiana's Mid-Barataria Sediment Diversion Moves Forward

Illinois Invests in Agricultural Conservation and Nutrient Management

Ohio Renews CREP Agreement for the Scioto River Watershed