

Tracking Progress Towards Our Hypoxia Task Force Goal

Katie Flahive, US EPA

Hypoxia Task Force Coordinating Committee Federal Co-Chair

202-566-1206, Flahive.Katie@epa.gov

epa.gov/ms-htf

Hypoxia Task Force Background

- Formed in the late 1990s 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 Reassessment
 - 2004 white paper → Is phosphorus a co-driver of the hypoxic zone?
 - Convened four science symposia
 - EPA Science Advisory Board formed a panel, took symposia outcomes
- 2008 Action Plan
 - Calls for need for state strategies and dual N and P nutrient reduction effort
- 2015 reiterated the goal, adopted an interim target

Hypoxia Task Force Members

5 Federal Agencies and Tribes:

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

12 State Agencies:

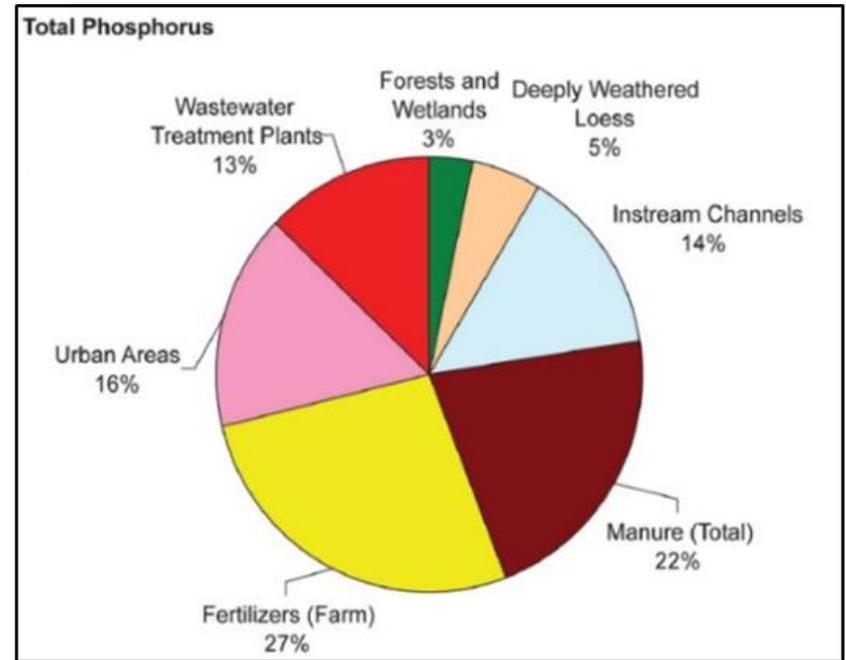
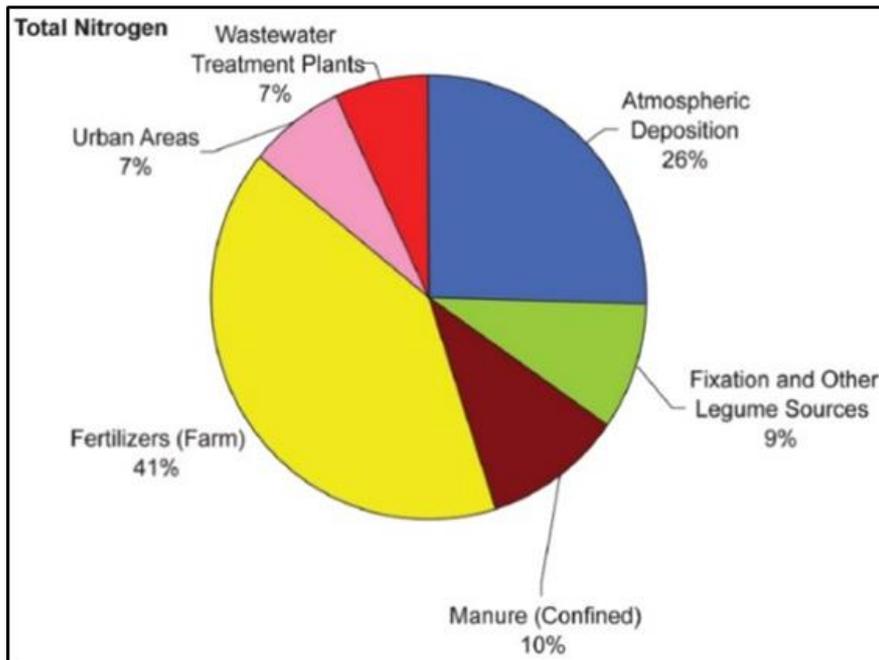
- Arkansas
- Missouri
- Iowa
- Tennessee
- Minnesota
- Indiana
- Ohio
- Louisiana
- Illinois
- Mississippi
- Kentucky
- Wisconsin



Each state is represented by one of

Agriculture agency, Environmental Quality agency, or Natural Resources agency

Nitrogen and Phosphorus Loading Sources in the Mississippi and Atchafalaya River Basin (MARB)



USGS SPARROW model estimates of sources of TN and TP transported from Mississippi River Basin to the Gulf of Mexico ([Robertson and Saad 2013](#))

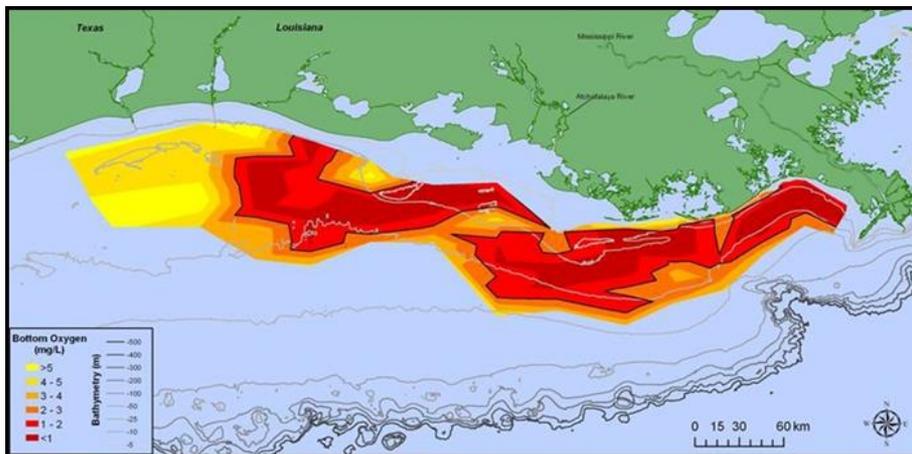
Science Based Goal

Coastal Goal:

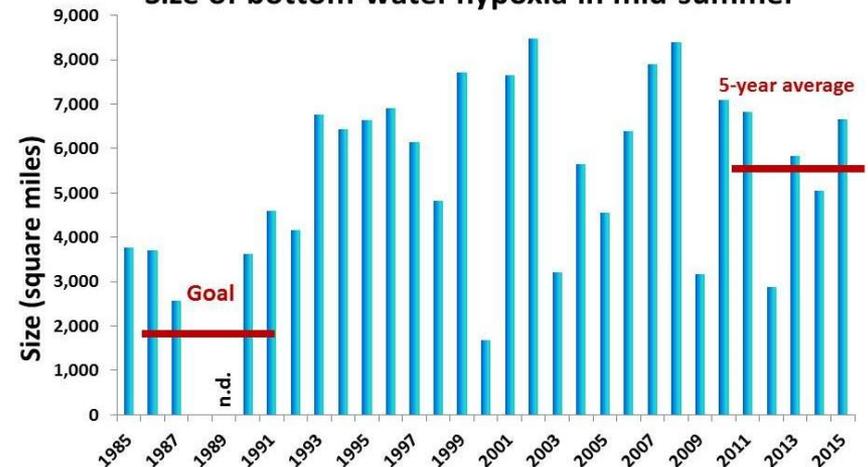
By 2035, reduce 5-year running average size of the Gulf hypoxic zone to 5,000 km²

Interim Target:

20% reduction of nitrogen and phosphorus loading by 2025



Size of bottom-water hypoxia in mid-summer



Data source: Nancy N. Rabalais, LUMCON, and R. Eugene Turner, LSU
Funding sources: NOAA Center for Sponsored Coastal Ocean Research and U.S. EPA Gulf of Mexico Program



HTF Focus

Nutrient Reduction Strategies

- All twelve states have developed [strategies](#)
- Implementation on the ground in state priority watersheds

Tracking progress towards the goal

- [Point Source Measures Report](#)
- NPS Measures Report
- Federal Accomplishments and revised [Federal Strategy](#), 2016

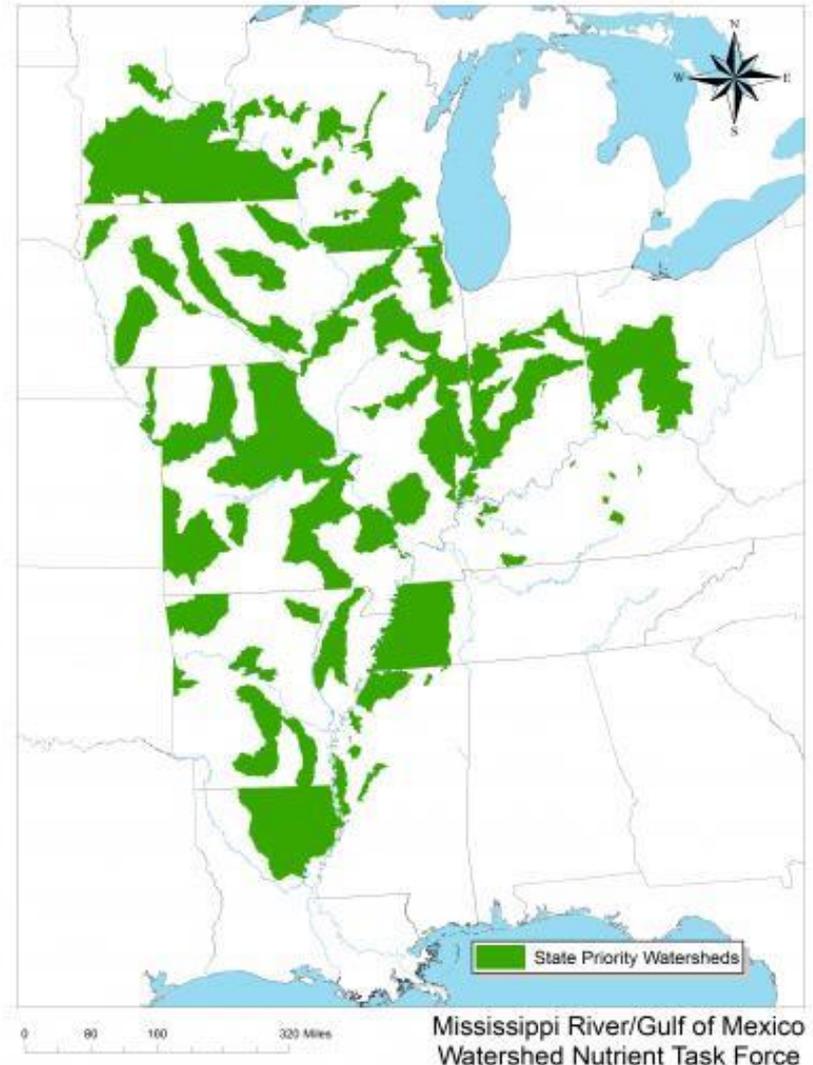
Continue to build and leverage partnerships

- [SERA-46 Priorities for Collaboration](#)

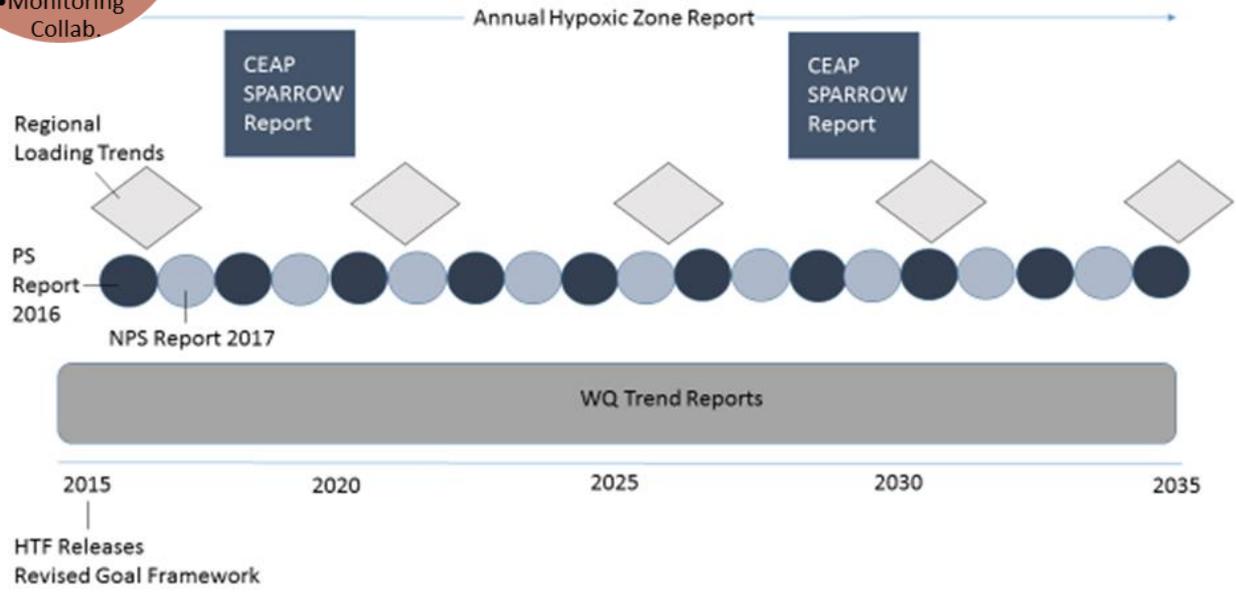
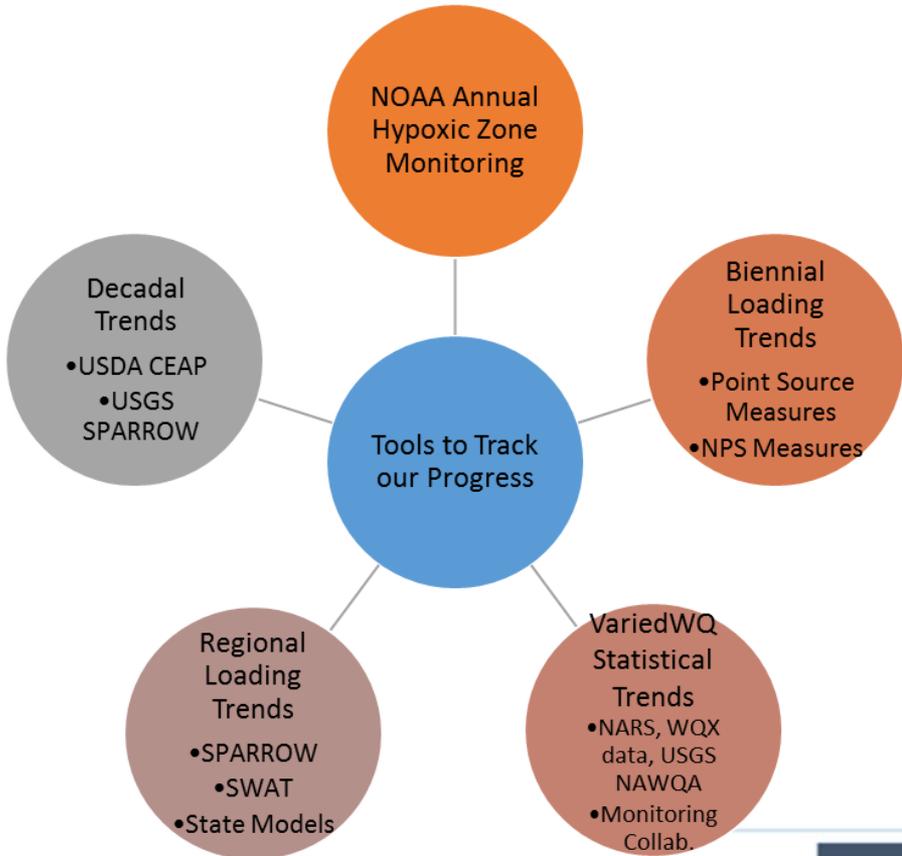
Communicating Success

- [2017 Report to Congress](#)

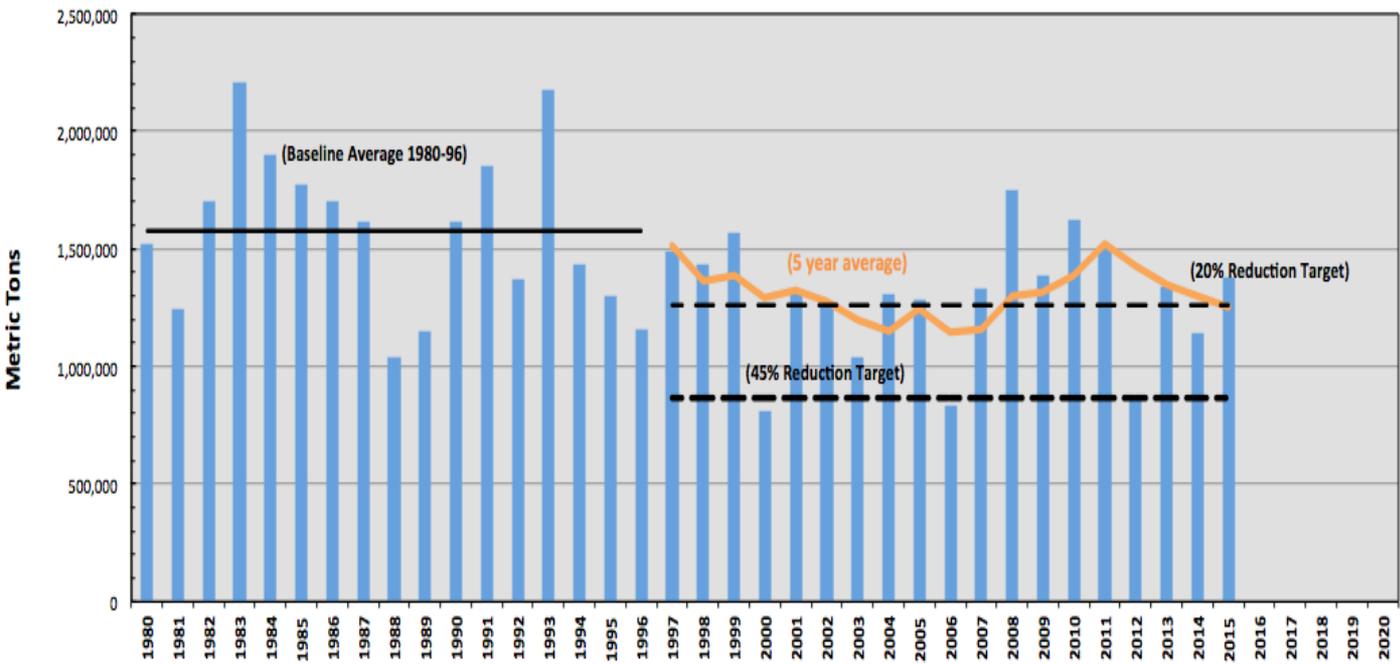
Priority Watersheds of the Hypoxia Task Force States



Tracking Progress Towards Our Goal

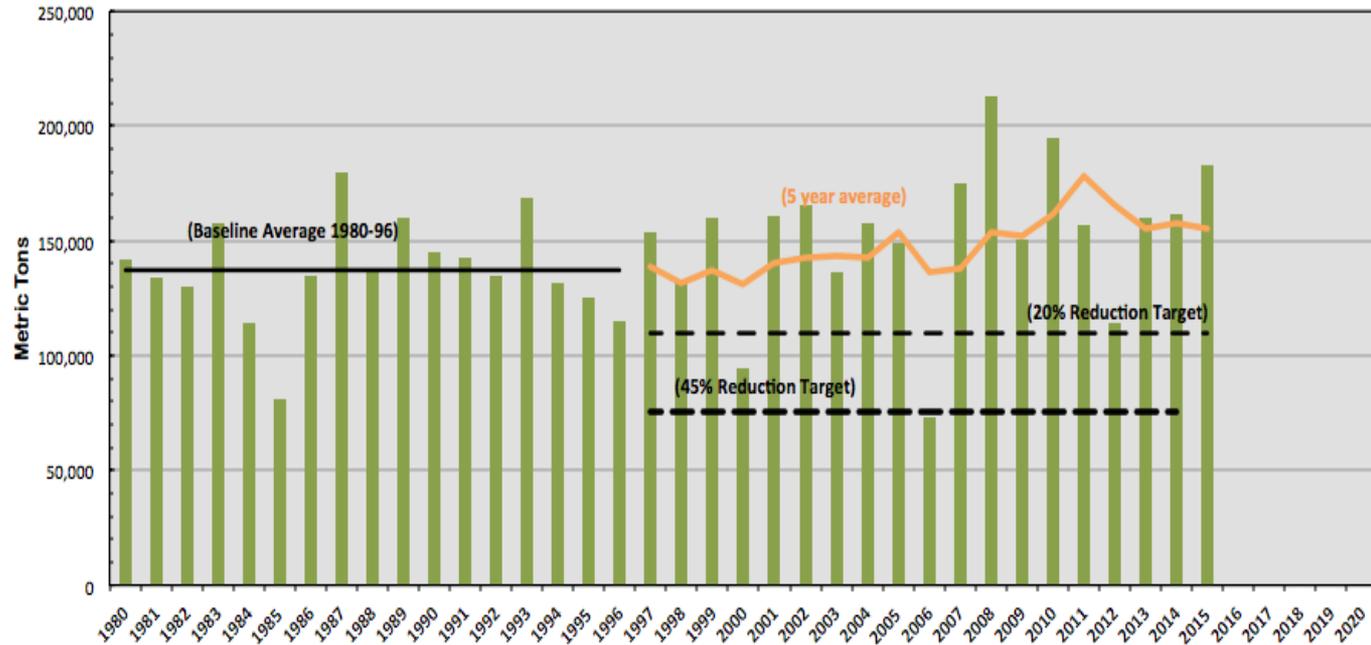


Annual Total Nitrogen Flux



Annual TN and TP loads in the MARB transported to the Gulf of Mexico from 1980 to 2015 ([USGS 2017](#))

Annual Total Phosphorus Flux



Forging State and Basinwide Partnerships to Implement Nutrient Reduction Strategies

- Universities, specifically through SERA-46
- Farmers and Agricultural Organizations: HTF members seek to promote and stimulate markets for farmer-led actions that improve water quality and enhance ecological benefits and services
- Businesses, e.g., alongside the Midwest Row Crop Collaborative, a coalition of ag/food industry and environmental NGOs supporting and accelerating sustainable agricultural practices while meeting production goals
- Cities and Communities, e.g., municipal wastewater agencies and the communities they serve
- Other Nongovernmental Organizations, e.g., private conservation organizations such as The Nature Conservancy ⁹

Priorities for Collaboration with SERA-46

- USDA-NIFA-supported multi-state [Southern Extension and Research Activities Committee number 46](#)
- The 12 Land Grant Universities are represented by one research scientist and one extension specialist
- [HTF LGU Partnership](#)

**Hypoxia Task Force and LGU SERA-46
Priorities for Collaborative Work
Working DRAFT
May 2015**

This document outlines emergent opportunities for potential short- and long-term collaborative work between the Hypoxia Task Force and LGU SERA-46. It is a work in progress, reflecting the most recent thinking of HTF and SERA-46 members about where collaboration will contribute most to state-level nutrient strategies and reducing the hypoxic zone in the Gulf of Mexico.

Each item in this summary can be tied to the three broad, proposed objectives:

- Objective 1: Establish and strengthen relationships that can serve the missions of multiple organizations addressing nutrient movement and environmental quality.
- Objective 2: Expand the knowledge base through the discovery of new tools and practices as well as the continual validation of recommended practices.
- Objective 3: Improve the coordination and delivering of educational programming and increase the implementation effectiveness of nutrient management strategies that reduce nutrient movement for agricultural and non-agricultural audiences.

Additional information will be necessary to operationalize these ideas, such as:

- How will SERA-46 and HFT integrate these ideas with existing efforts?
- How will these ideas be resourced (e.g. funded, staffed)?

Answering these questions will be important next steps in moving priorities for land-grant HTF collaboration forward.

What is SERA-46 Doing For the HTF?

- [Refining and developing social and civic engagement indicators](#) to advance nutrient reduction efforts through an inclusive and consistent expansion of the use of [SIPES/SIDMA](#) tools throughout the MARB and to assess and encourage non-government stewardship of nutrient reduction strategies
- Building capacity for watershed leadership and management in HTF states through assessing existing watershed training programs that include farmers, hosting leadership summits of watershed practitioners, farmers, and farm advisors from MARB states, and developing training
- [Transforming drainage](#) (bringing in an additional state to an ongoing project) to educate the next generation of engineers and scientists to design drainage systems that include storage in the landscape
- Cross-MARB communication of science directly to state agencies for translation to policy
- Develop a Nonpoint Source Reduction Measurement Framework for tracking progress in the MARB



Mississippi River/Gulf of Mexico Watershed Nutrient Task Force 2017 Report to Congress

[2017 Report to Congress](#)

