Mississippi River Gulf of Mexico Watershed Nutrient Task Force

May 2019

Hypoxia Task Force Meeting

Accomplishments and Next Steps

The Mississippi River/Gulf of Mexico Watershed Nutrient Task Force (Hypoxia Task Force, HTF) is a partnership of 12 states, five federal agencies, and a tribal representative who work collaboratively to reduce the hypoxic zone in the northern Gulf of Mexico and to improve water quality throughout the Mississippi River/Atchafalaya River Basin (MARB). The HTF goal, subject to the availability of resources, is to reduce the 5-year average size of the hypoxic zone in the northern Gulf of Mexico to less than 5000 square kilometers by 2035, with an interim target of reducing nitrogen and phosphorus loads delivered to the gulf by 20 percent by 2025.

The HTF met in Baton Rouge, Louisiana on May 15-16, 2019 to hold a networking session with the public, a public meeting and an executive session. This document summarizes the main outcomes of the public meeting.

Tracking Progress Towards the Hypoxia Task Force Goal

Collaboration among HTF states, federal agencies, tribes, stakeholders and partners is driving progress which the HTF tracks using multiple metrics. No single tool alone is appropriate for measuring progress because of the wide variety of factors that influence this vast landscape and the Gulf of Mexico. The HTF and partners measure basin-wide water quality and nutrient reductions at multiple scales, including water quality and river flow monitoring and trend analyses[1]; state, regional and basin-wide nutrient load modeling (USDA-CEAP; USGS-SPARROW); tracking nonpoint and point source metrics and issuing HTF progress reports; ongoing work by states to quantify progress made in implementing their Nutrient Reduction Strategies (see Attachment 2); and NOAA's annual hypoxic zone model forecasts and measurement by ship cruise. The 2017 Report to Congress[2] describes these metrics in further detail.

In its public meeting, the Task Force heard an update by Dr. Steve Thur of NOAA on hypoxic zone model forecasts, the annual cruise measurement, and ongoing studies examining the impacts of hypoxia on living resources. The HTF also heard multiple presentations on new tools and approaches for tracking progress in the adoption and maintenance of conservation practices and systems. For example, Adam Schneiders of the Iowa Department of Natural Resources described Iowa's use of LIDAR and aerial imagery to document structural practices on Iowa's landscape that represents more than $6 billion in investment (in current dollars). This work can

[1] At this link, please click "Select water quality constituent" and click TN or TP, the HTF targets, the 5-year moving average, and Flow Normalized Load will be presented.
[2] The EPA is currently preparing the 2019 Report to Congress.

be used to target additional conservation investments. (Please see Attachment 1 for these and other meeting presentations.)

Renewal of the HTF–Land Grant University Memorandum of Understanding

Dr. Beth Baker of Mississippi State University updated the HTF on work by the Southern Extension and Research Committee number 46 (SERA-46), which is made up of research and extension specialists from the 12 HTF-state Land Grant Universities. This committee supports the HTF by providing collaborative opportunities for in-state and cross-state research and extension in the Mississippi River Basin.

During the meeting, HTF co-chairs David Ross, U.S. EPA Assistant Administrator for Water, and Mike Naig, Iowa Department of Agriculture and Land Stewardship Secretary, signed a Memorandum of Understanding (MOU), along with Land Grant University Agricultural Experiment Station and Extension Directors in the Mississippi Basin states of the North Central and Southern regions. This MOU renews for five years the collaboration between the HTF and the Land Grant Universities to advance the work of the HTF.

Communicating Best Practices in Implementing Nutrient Reduction Strategies

The HTF is committed to sharing information on successes, challenges, and lessons learned as we work with our partners and stakeholders. The HTF hosts networking sessions and public meetings once or twice each year to facilitate discussions with members of the public. HTF members invite engagement and feedback from partners and the public on an ongoing basis. States have public engagement opportunities at the local and state levels occuring throughout the year; please visit state websites for further information (see Attachment 2). Each of the HTF states maintains public websites for their Nutrient Strategies; many of the states release periodic progress reports and strategy updates (see Attachment 2).

The HTF takes opportunities to present on the work of the members at scientific conferences and meetings which are identified on the HTF's meetings and events website. As partners and members of the public have requests for presentations, further information, or other engagement opportunities, please be in touch with the HTF through OW-Hypoxia@epa.gov.

In Baton Rouge, the HTF heard several presentations about the work of our host state, Louisiana, to reduce in-state nutrient losses and implement large-scale river diversion projects to enrich marshes with needed sediments, with corollary nutrient capture. Tanner Johnson of the National Fish and Wildlife Foundation briefed the HTF on NFWF's extensive portfolio of projects, some with nutrient reduction cobenefits.

Given the enormity of the scale of nutrient reductions that will be needed to meet the HTF goal, the HTF recognizes the need to catalyze new investments by nontraditional approaches and funders. Steve Rowe of Newtrient briefed the HTF on lessons learned as the dairy industry engages with wastewater dischargers, drinking water system operators, corporate sustainability

programs and others to promote market-based efforts to expand support for on-the-farm projects that reduce nutrient losses and provide other environmental services.

In summary, the HTF continues to implement its 2008 Action Plan. The 12 HTF states continue to implement their Nutrient Reduction Strategies with strong federal agency support. While HTF members are working hard to accelerate and scale up their work, significantly reducing nutrient losses on a subcontinental scale is an enormous task. The HTF is committed to its work and to expanding its engagement with the public to communicate the progress that it and its members are making to reduce nutrient loads to the Gulf and improve water quality throughout the Basin.

Attachments

Attachment 1 - Public Meeting Presentation Materials

Meeting Materials are made available after each public meeting. Presentations from the most recent meeting are listed below and can be found in their complete forms at this link.

- Gulf Science Update and Summary of Hypoxia Zone in 2018 – Steven Thur, NOAA National Centers for Coastal Ocean Science

- Nonpoint Source Measurement Framework for Measuring Progress: Advancements, Next Steps, and Lessons Learned in Indiana and Arkansas that Can Inform Progress Tracking in All HTF States – Julie Harrold, Indiana State Department of Agriculture and J. Ryan Benefield, Arkansas Natural Resources Commission

- Brief Synopsys – Recent Developments in Using Satellite/Aerial Imagery to Track Landscape-Scale Adoption of Cover Crops, Reduced Tillage, and Water Retention/Structural Practices – Adam Schnieders, Iowa Department of Natural Resources and Mike Komp, CTIC

- National Fish and Wildlife Foundation Gulf of Mexico Work – Tanner Johnson, NFWF

- Outlook: Lessons Learned in Seeking "Nontraditional" Investments in Nonpoint Source Reductions – Steve Rowe, Newtrient

- SERA-46: Update on Research/Extension Outcomes in Support of HTF Goals – Beth Baker, Mississippi State University

Attachment 2 – Links to State Nutrient Reduction Strategies and Progress Reports

State Nutrient Reduction Strategies and related reports and information are hosted on member states' websites:

Arkansas
- Website: http://arkansaswaterplan.org/state%20nutrient%20reduction%20strategy.html

Indiana
- Website: https://www.in.gov/isda/2991.htm

Illinois
- Website: https://www2.illinois.gov/epa/topics/water-quality/watershed-management/excess-nutrients/Pages/nutrient-loss-reduction-strategy.aspx
- 2017 Biennial Report: https://www2.illinois.gov/epa/Documents/iepa/water-quality/watershed-management/excess-nutrients/NLRS-Biennial-Report/NLRS%20Biennial%20Report.pdf

Iowa
- Website: http://www.nutrientstrategy.iastate.edu/
- Current Annual Progress Report (2017-2018): http://www.nutrientstrategy.iastate.edu/documents
- Previous Annual Progress Reports: http://www.nutrientstrategy.iastate.edu/documents/annualreports

Kentucky
- Website: https://eec.ky.gov/Environmental-Protection/Water/Protection/Pages/Nutrient-Reduction-Strategy.aspx

Louisiana
- Website: https://deq.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=nutrient-management-strategy
- Annual Reports: https://deq.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=nutrient-management-strategy
- Nutrient Trends of Long-Term Ambient Water Quality Monitoring Sites: https://deq.louisiana.gov/assets/docs/Water/Nitrogen-Phosphorus-Long-term-Trends.pdf

Minnesota
- Website: https://www.pca.state.mn.us/water/nutrient-reduction-strategy
- Progress Report Development: https://www.pca.state.mn.us/sites/default/files/wq-s1-83.pdf

Mississippi
- Website: https://www.mdeq.ms.gov/water/surface-water/nonpoint-source-pollution-program/nutrient-reduction-in-mississippi/

Missouri

- Website: https://dnr.mo.gov/env/wpp/mnrsc/index.htm
- 2018 Update: https://dnr.mo.gov/env/wpp/mnrsc/docs/nlrs-2018-update.pdf

Ohio

- Website: https://www.epa.ohio.gov/dsw/wqs/NutrientReduction
- Addendum: https://epa.ohio.gov/Portals/35/wqs/ONRS_addendum.pdf
- 2018 Mass Balance Report: https://epa.ohio.gov/Portals/35/documents/Nutrient%20Mass%20Balance%20Study%202018_Final.pdf

Tennessee

- Website: https://www.tn.gov/environment/program-areas/wr-water-resources/watershed-stewardship/watershed-management-approach/tennessee-nutrient-reduction-framework.html

Wisconsin

- Website: https://dnr.wi.gov/topic/SurfaceWater/nutrientstrategy.html
- 2017 Progress Report: https://dnr.wi.gov/topic/SurfaceWater/nutrientstrategy.html