Update from NOAA - Brandon Krumwiede*

NOAA GLRI Focus Area 3 Projects:

- **Nutrient Runoff Risk Advisory Forecast Tool**
  - NOAA NWS is continuing to develop and implement, in collaboration with several states, an online decision support tool for farmers that is focused on voluntarily changing nutrient application behavior.
  - This runoff risk tool provides maps showing short-term runoff risks for manure and/or fertilizer application planning purposes, taking into account factors such as precipitation, temperature, soil moisture and landscape characteristics, and will alert producers of when not to apply nutrients to their fields.
  - Earlier this year, Michigan and Ohio released their public runoff risk beta websites. Minnesota and Wisconsin currently have internal beta websites.

- **Empowering Communities with Online Action Planning Tools: Tipping Points and Indicators for Improving Water Quality across the Great Lakes**
  - With earlier GLRI funding, a Tipping Points interactive decision support system was developed to help watershed leaders identify land-based activities that result in nutrient loading, increased runoff, nonpoint source pollution, and threaten the sustainability of ecosystems in their watershed. The tool provides a facilitated forum to explore policy and management interventions necessary to keep ecosystems from crossing a tipping point and moving to an unstable condition.
  - GLRI funding over the past year has enhanced the Tipping Point Planner with high resolution data for nutrient sources in selected Area of Concern watersheds and with models relating nutrient sources to multiple endpoints.

- **Decision support tools to link P reductions to harmful algal blooms and source water protection**
  - This project combines phosphorus and nutrient monitoring, remote sensing, and a nearshore modeling framework to provide information on HAB density, frequency, and toxicity in the western basin of Lake Erie and Saginaw Bay.
  - Data feeds into NOAA’s HAB Tracker and Lake Erie HAB Bulletin.
  - Recent GLRI funding has allowed for the purchase and deployment of the first Environmental Sample Processor (ESP) in a freshwater system. The ESP works as a “lab in a can” to collect and analyze water samples for algal toxins, allowing for near real-time detection of HABs.

NOAA’s Involvement in the Coastal Nonpoint Pollution Control Program:

What happens on the land is just as important as what happens in the water. The Coastal Nonpoint Pollution Control Program, established in 1990 by Section 6217 of the Coastal Zone Act Reauthorization Amendments, and administered jointly by NOAA and the Environmental Protection Agency (EPA).

The program is focuses on controlling runoff from agriculture, forestry, urban areas, marinas, hydromodifications, wetlands, and riparian and vegetated treatment systems. State authorities are responsible for implementation and all coastal and Great Lakes states that participate in the National Coastal Zone Management Program are required to develop coastal nonpoint pollution control programs. Additional information regarding Section 6217 and current state program decisions can be found at the following website: [https://coast.noaa.gov/czm/pollutioncontrol/](https://coast.noaa.gov/czm/pollutioncontrol/)

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