

## Harmful Algal Blooms in the Northeast U.S.

September 26, 2023 - All Interested Parties Congressional Briefing

## I. HABs in the Northeast U.S.

- HABs threaten marine resources that are essential to the economic and cultural well-being of communities across the Northeast.
- **Changing Climate:** HAB events are becoming larger, longer, and shifting seasonality, increasing risks to human and shellfish health.
- Human Health: High concentration blooms can produce toxins, such as paralytic shellfish poisoning (PSP) and amnesic shellfish poisoning (ASP) toxins. Consuming shellfish contaminated by these HAB toxins can cause human illness or death.
- Shellfish Aquaculture: States are increasing testing of commercial shellfish for toxins, but there are challenges with maintaining capacity for monitoring and expensive chemical analytical methods.





## II. Research, Monitoring, and Forecasting

- **Research:** Scientists are testing new methods to monitor paralytic shellfish toxins using <u>machine learning</u>.
- **Predictive Model:** NOAA's NCCOS developed the <u>Gulf of Maine HAB</u> <u>Forecast</u> to better predict and monitor *Alexandrium* blooms and shellfish toxicity to minimize impacts to public health and coastal economies.
- HAB Event Response Program: NCCOS granted <u>2016 award</u> to the Woods Hole Oceanographic Institution and Bigelow Laboratory for Ocean Sciences to assess the spatial extent, species composition, and toxicity of a HAB to support shellfish harvest closure decisions.
- Mitigation and Control: NOAA's <u>HAB Control Technologies Incubator</u> funds and accelerates the development of control strategies to eliminate and reduce levels of algae and toxins.

## **III. HABHRCA Reauthorization**

- Legislation: The <u>Harmful Algal Bloom and Hypoxia Research Control Act</u> (HABHRCA) mandates NOAA to advance the scientific understanding and ability to detect, monitor, assess, and predict HAB/hypoxia events.
- **Coordination:** NOAA is the lead federal agency for coastal HABs and works with EPA, USGS, Army Corps, and other federal agencies through the Interagency Working Group.
- **Reauthorization:** HABHRCA is up for reauthorization in 2023.

