HABHRCA: Interagency Progress, Collaboration, and Next Steps

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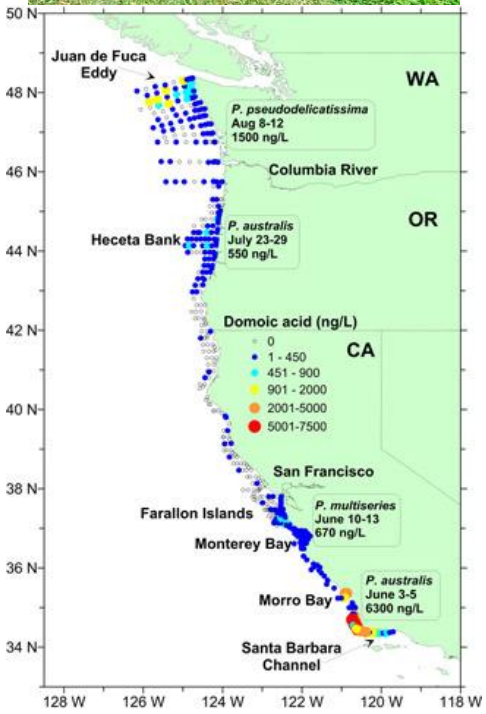
HABs and Hypoxia: Critical, Nationwide Issues

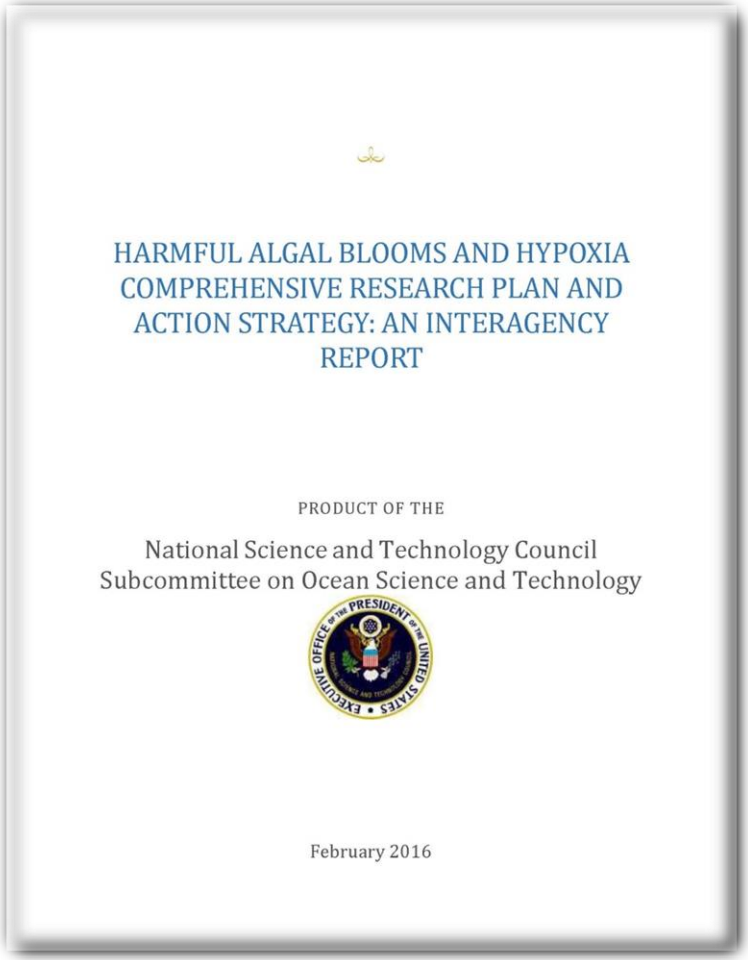
What is at stake? *Consider the numbers*:

- ***$2.8B/ year*** – Est. annual value of fisheries in the Gulf of Mexico
- ***$82M*** – Est. annual cost of coastal HAB events in the United States
- ***$22.7M*** – Loss in 2015 tourism-related spending in WA due to closure of recreational razor clam harvest alone because of *Pseudo-nitzschia* bloom
- ***11M*** – Number of people who get drinking water from Lake Erie
- ***$70,000*** – Approx. daily cost to surrounding counties of closing Huntington State Beach, CA



HABs and Hypoxia Comprehensive Research Plan & Action Strategy: Highlights

- Increasing intensity, frequency of HABs & hypoxia events
- Progress made since the last reports
- Increased demand for information by managers, public


HARMFUL ALGAL BLOOMS AND HYPOXIA COMPREHENSIVE RESEARCH PLAN AND ACTION STRATEGY: AN INTERAGENCY REPORT

PRODUCT OF THE

National Science and Technology Council
Subcommittee on Ocean Science and Technology

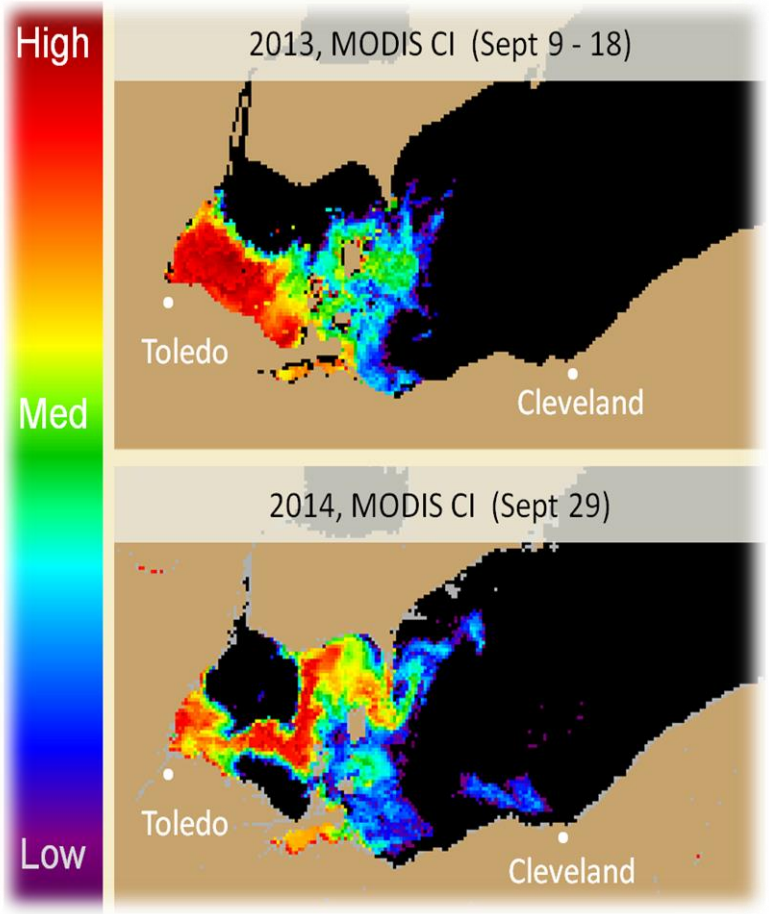
February 2016

Interagency Working Group-HABHRCA

- Implementation arm to advise and assist the SOST
- Develop recommendations, reports, assessments, plans
- Interagency coordination
- Co-chaired by NOAA and EPA
- 13 member agencies

Preventing, Controlling, Mitigating HAB and Hypoxia Impacts: Federal Accomplishments

- Guidelines for freshwater toxins, health advisories
- HAB and hypoxia forecast products
- Lower-cost, easy-to-use, real-time sensors
- Understanding effects of HAB toxins on human, animal health

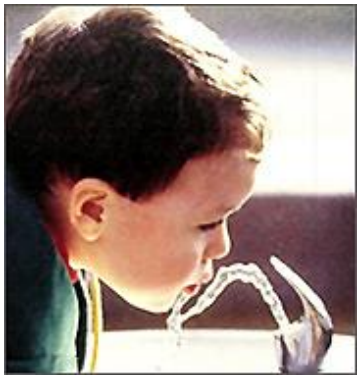


EPA Drinking Water Health Advisories

Cyanotoxins	10-day Advisory	
	Bottle-fed infants and pre-school children	School-age children and adults
Microcystins	0.3 µg/L	1.6 µg/L
Cylindrospermopsin	0.7 µg/L	3 µg/L

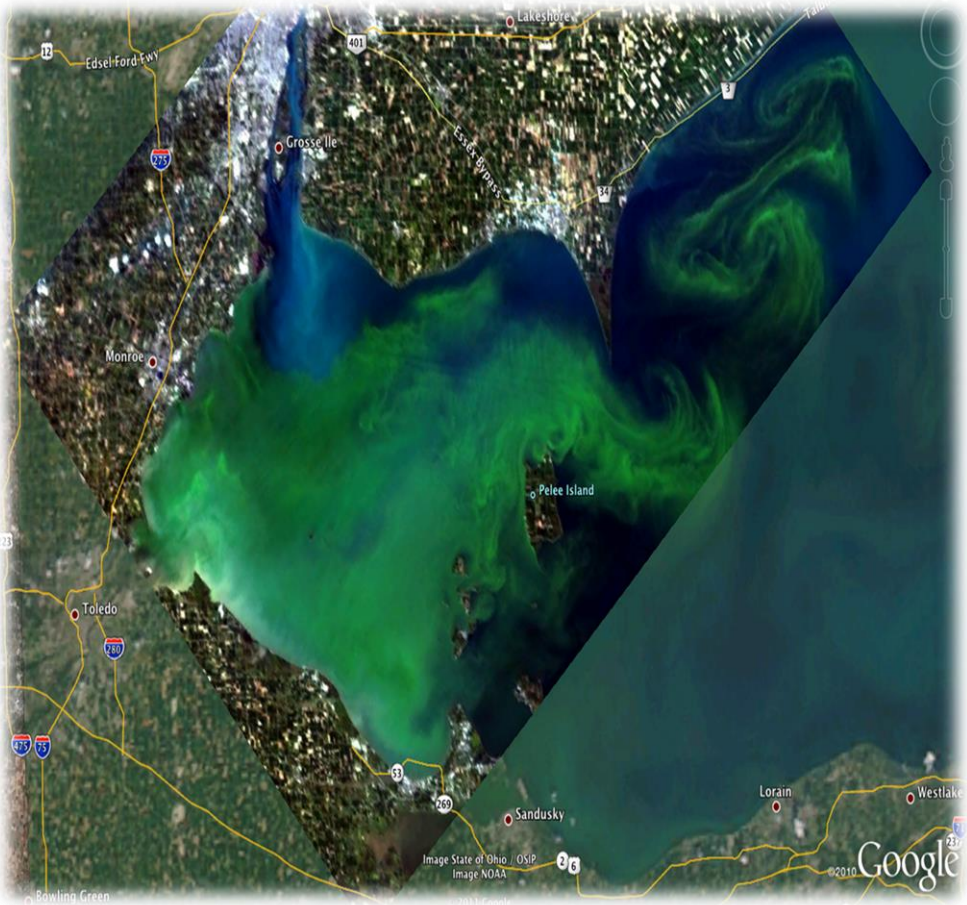
Georges Bank: A HABHRCA Success Story

- Closed in 1990 due to PSP toxins; worsened in 2005
- Led to development of test kit for fishermen
- Resulted in the reopening of a large portion to the harvest of surf clams and ocean quahogs in 2013
  - Allowed harvesting of billions of dollars' worth of clams, with control strategies implemented to ensure seafood safety
- FDA, NOAA, and non-Federal partners collaborated



Research and Management Needs

- Faster prediction of toxicity onset in drinking water, food
- Roles of climate, nutrients, other drivers
- Better understanding of socioeconomic impacts
- Improved communications



Action Strategy - Recommendations

- Research to:
  - Predict the onset of toxicity
  - Rapidly ID HABs
  - Understand roles of climate, nutrients in HAB and hypoxia distribution
- Methods for HAB suppression, control
- Study toxins in foods

Action Strategy – Recommendations, Cont.

- Long-term records of environmental conditions and disease surveillance
  - Incorporate new technologies into monitoring
- Improve public understanding of risks of HABs, hypoxia
- Continue, expand collaborations in research, management, policy

Engagement

Webinar series, in-person workshop at BGSU

- Over 1000 participants
- Over 10% followed up with additional input
- Wide variety of stakeholders

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What did we hear from stakeholders?

- Better communication
- Certified reference materials, analytical methods
  - Faster detection methods
- Examples of what's worked

IWG Next Steps

- Interagency implementation plan
- Great Lakes Plan
- Continued interagency collaboration

HABHRCA Great Lakes Plan

- Scientific Understanding
- Monitoring
- Modeling
- Impacts and Assessments

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Thank you!

https://www.whitehouse.gov/administration/eop/ostp/nstc/docsreports

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