

Congress of the United States
Washington, DC 20515

April 29, 2020

The Honorable Gene Dodaro
Comptroller General of the United States
U.S. Government Accountability Office (GAO)
441 G Street, NW
Washington, DC 20548

Dear Mr. Dodaro:

Harmful algae—overgrowths of algae that can create toxic “blooms” in marine or freshwater bodies—are an environmental challenge in all 50 states, and their prevalence, frequency, and severity are increasing. Likewise, hypoxic—or low-oxygen—conditions in water that are caused by harmful algal blooms or other causes, are becoming more widespread. In recent years, harmful algal blooms (HABs) and hypoxia have caused detrimental economic, health, and environmental consequences across the nation, from the mid-Atlantic coast to the Pacific Northwest and Gulf of Alaska, California and Florida coasts, Gulf of Mexico, and inland water bodies such as Lake Erie, Lake Hopatcong, and Lake Okeechobee. These HAB and hypoxia outbreaks have caused beach and lake closures and millions of dollars per year in economic losses, reducing tourism, recreational and commercial shellfish industries, and property values.

Federal agencies, along with states, international organizations, and others, play a significant role in researching, forecasting, monitoring, and responding to HABs and hypoxia. As GAO reported in 2016, 12 federal agencies expended approximately \$101 million between fiscal years 2013 and 2015 on activities related to HAB research, monitoring, and other areas.¹ An interagency working group (IWG), established by the Harmful Algal Bloom and Hypoxia Research and Control Act (HABHRCA) in 2014, serves as the federal government’s primary mechanism through which agencies coordinate their activities, develop future work plans, and identify gaps. The IWG is currently comprised of 14 agencies, including the National Oceanic and Atmospheric Administration (NOAA), National Science Foundation, Environmental Protection Agency (EPA), U.S. Geological Survey, and the National Institutes of Health’s National Institute of Environmental Health Sciences. NOAA and EPA are the IWG’s co-chairs and have primary responsibility for administering national HAB and hypoxia programs for marine and freshwater bodies, respectively; NOAA also has lead responsibility for the Great Lakes.

In 2018, the IWG issued a report assessing federal agencies’ progress and the status of implementation of recommendations made in the IWG’s comprehensive research plan and action

¹Government Accountability Office (GAO), *Environmental Protection: Information on Federal Agencies’ Expenditures and Coordination Related to Harmful Algae*, [GAO-17-119](#) (Washington, D.C.: Oct. 14, 2016).

strategy, released two years prior.² The 2018 report identified several achievements, such as increased understanding of human health risks from exposure to HABs, and improved surveillance for human and animal exposure, illnesses, and death. However, in that report the IWG also identified several challenges, including the need for (1) effective HAB prevention, suppression, and control methods; (2) a rapid-response strategy for assessing human and animal HAB exposure and related foodborne illnesses; (3) better understanding of the influence of climate variability and extreme weather events, atmospheric deposition of nutrients, and other contributing factors to the occurrence, frequency, and severity of HABs and hypoxia; (4) an evaluation of the economic and socioeconomic impacts of HABs and hypoxia, and the costs of mitigation; (5) national datasets on human exposure and toxin levels in water and food in order to improve forecasting and decision-making; and (6) improved conservation and management practices to reduce nutrient and sediment losses from agricultural and urban landscapes.

As federal agencies continue to conduct HAB and hypoxia-related activities to address these growing threats to our nation's public health, environment, and economy, Congress must ensure that taxpayer dollars are used effectively and efficiently. In this context, we would like GAO to examine:

- 1) To what extent are federal agencies addressing the challenges identified in the IWG's 2018 report?³ In particular, given the likelihood that HABs and hypoxia will increase in prevalence, frequency, and severity in the coming years, how are federal agencies planning to forecast, monitor, and respond to their environmental, health, and economic effects?
- 2) To what extent are federal agencies coordinating their efforts and leveraging resources effectively to minimize the short- and long-term detrimental effects of HABs and hypoxia, including on human and environmental health?
- 3) How are federal agencies helping state and local governments prepare for, respond to, and become more resilient to HABs and hypoxia?
- 4) To what extent has the IWG developed strategic goals, objectives, and performance measures and monitored progress related to federal HAB and hypoxia-related activities?
- 5) What, if any, federal agencies or local and state governments are employing adaptation methods that utilize natural infrastructure to minimize the spread of HAB and hypoxia events, and have they been successful?
- 6) To what extent are federal agencies addressing the impacts on property values from repeat HAB and hypoxia events?
- 7) To what extent are agencies studying and addressing the role of climate variability and extreme weather events in exacerbating HABs and hypoxia?
- 8) Have agency budgets for HABs and hypoxia since the first HABHRCA was passed in 1998⁴ adequately addressed gaps in the research to understand the underlying causes of HABs and hypoxia?

²Interagency Working Group on Harmful Algal Bloom and Hypoxia Research and Control Act, *Harmful Algal Blooms and Hypoxia: A Report on Interagency Progress and Implementation* (Washington, D.C.: Mar. 5, 2018) and *Harmful Algal Blooms and Hypoxia in the U.S. Comprehensive Research Plan and Action Strategy: An Interagency Report* (Washington, D.C.: Feb. 16, 2016).

³ *Ibid.*

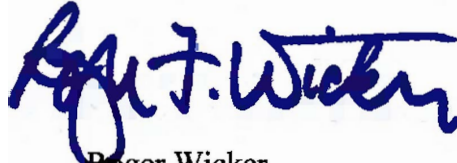
⁴ Harmful Algal Bloom and Hypoxia Research and Control Act of 1998, embedded in Public Law 105-383

We welcome recommendations from GAO based on their findings in accordance with this request. Your assistance with this matter is greatly appreciated. If you have any questions, please contact Lauren Linsmayer of the Majority House Committee on Science, Space, and Technology staff at (202) 225-6375.

Sincerely,



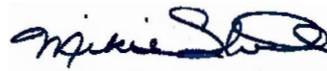
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Committee



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Frank Lucas
Ranking Member
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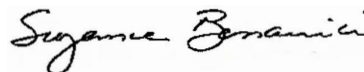
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