

Harmful Algal Blooms/Hypoxia: U.S. Government Accountability Office Report



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The United States Government Accountability Office (“GAO”) issued a June 20, 2022, report titled:

Water Quality – Agency Should Take More Actions to Manage Risks from Harmful Blooms and Hypoxia (“Report”)

See GAO-22-104449.

GAO states it was asked to review federal efforts to manage harmful algal bloom and hypoxia risks.

The role of nitrogen and phosphorus in water pollution has been the subject of serious consideration by the United States Environmental Protection Agency (“EPA”), other federal agencies and the states for a number of years. Excess nutrients can stimulate excess growth of algae. This can impair the various designated uses for waterbodies and also increase the organic matter which (when decomposed) can depress dissolved oxygen concentrations harming aquatic life.

Excess nutrients can also produce harmful algal blooms. These are overgrowths of algae in water. Such blooms can produce toxins that can cause illness in people and animals. They can occur in warm, fresh, marine or branch water if abundant nutrients are present. They can also create issues such as:

- Dead zones in the water
- Increase of treatment costs for drinking water and industry facilities that need clean water

The Arkansas Department of Energy & Environment – Division of Environmental Quality previously developed a Harmful Algae Bloom Management Plan (“Plan”) to assist organizations, agencies, and the general public in responding to potentially toxic harmful algae blooms. The Plan includes steps for:

- Monitoring
- Treatment
- Communication

The June 22 GAO *Report* examines issues such as:

1. Federal working group efforts to implement a national program
2. Agency’s actions to monitor and forecast harmful algae bloom and hypoxia events
3. Agencies’ actions to help state, local and tribal governments respond to these events

The GAO *Report* noted the establishment of a federal interagency working group to address these and other issues. The working group is stated to be co-chaired by the National Oceanic and Atmospheric

Administration (“NOAA”) and EPA. The working group is further stated to have developed a national research plan and action strategy. While it has undertaken some activities, GAO determined that a national program required to have been undertaken under the Harmful Algal Bloom and Hypoxia research and Control Act of 1998 has not been implemented.

The *Report* also indicates that some actions have been taken to monitor and forecast these events in coastal regions and marine waters. However, less activity is noted for inland freshwater bodies. In addition, while the NOAA has developed a framework to expand monitoring/forecasting in marine waters, EPA is stated to have not undertaken similar activities for freshwater bodies. One reason for this is the large number of inland freshwater bodies.

GAO recommendations include:

- The Administrator of NOAA and the Administrator of EPA, in collaboration with the members of the working group, should document and define what a national HAB and hypoxia program would entail, including identifying the program's resource needs. (Recommendation 1)
- The Administrator of NOAA and the Administrator of EPA, in collaboration with the members of the working group, should develop performance measures to assess the working group's efforts, including the extent to which the recommended goals from the Research Plan and Action Strategy have been achieved. (Recommendation 2)
- The Administrator of EPA, working with the other members of the working group, should develop an interagency framework, including prioritizing water bodies and identifying resource needs, to expand monitoring of freshwater HABs and hypoxia. (Recommendation 3)
- The Administrator of EPA, working with the other members of the working group, should develop an interagency framework, including prioritizing water bodies and identifying resource needs, to expand forecasting of freshwater HABs and hypoxia. (Recommendation 4)
- The Administrator of NOAA and the Administrator of EPA, in collaboration with the members of the working group, should develop a national goal for the group focused on efforts to prevent HABs and hypoxia. (Recommendation 5)
- The Administrator of NOAA and the Administrator of EPA, in collaboration with the members of the working group, should coordinate the development of a more comprehensive body of information on the costs and benefits of mitigation, control, and prevention actions for use by state, local, and tribal governments. (Recommendation 6)

A copy of the *Report* can be downloaded [here](#).