

# GAO Highlights

Highlights of [GAO-22-104449](#), a report to congressional requesters

## Why GAO Did This Study

Harmful algal blooms—overgrowths of algae in water bodies—can produce toxins that harm humans and animals. These blooms are an environmental problem in all 50 states, according to EPA. Harmful algal blooms are also associated with some occurrences of hypoxia—depleted oxygen levels in a water body in which most animals cannot survive. Hypoxia can harm fisheries and disrupt ecosystems.

Under the act, the interagency working group, with NOAA and EPA leadership, is to maintain and enhance a national harmful algal bloom and hypoxia program, develop a comprehensive research plan and action strategy, and submit various reports to Congress.

GAO was asked to review federal efforts to manage harmful algal bloom and hypoxia risks. This report examines, among other things, (1) working group efforts to implement a national program; (2) agencies' actions to monitor and forecast harmful algal bloom and hypoxia events; and (3) agencies' actions to help state, local, and tribal governments respond to these events. GAO examined agency and working group documents and interviewed federal, state, local, and tribal officials with experience in responding to these events.

## What GAO Recommends

GAO is making six recommendations, including that NOAA and EPA define a national program and develop a national goal for prevention actions, and that EPA develop frameworks to expand freshwater monitoring and forecasting. NOAA and EPA agreed with GAO's recommendations.

View [GAO-22-104449](#). For more information, contact Alfredo Gómez at (202) 512-3841 or [gomezj@gao.gov](mailto:gomezj@gao.gov).

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## WATER QUALITY

### Agencies Should Take More Actions to Manage Risks from Harmful Algal Blooms and Hypoxia

## What GAO Found

The Harmful Algal Bloom and Hypoxia Research and Control Act of 1998, as amended, led to the establishment of a federal interagency working group to help address these environmental issues. The working group is co-chaired by the National Oceanic and Atmospheric Administration (NOAA) and the Environmental Protection Agency (EPA). The working group has developed a national research plan and action strategy, as well as subsequent progress reports and other planning documents to guide its efforts, but it has not implemented a national program under the act. Consistent with leading program management practices, an important next step will be to define what such a program would entail. By doing so, the group would be better positioned to implement the program and enhance federal efforts to manage the risks of harmful algal blooms and hypoxia.

Federal agencies in the working group have taken actions to monitor and forecast harmful algal bloom and hypoxia events in some coastal regions and marine waters of the U.S. but have done less for inland freshwater bodies. NOAA has developed a framework to expand monitoring and forecasting of events in marine waters and the Great Lakes. However, EPA has not done the same for other freshwater bodies, in part because of the large number of inland freshwater bodies that exist. By developing interagency frameworks to expand freshwater monitoring and forecasting, EPA and the working group would be better positioned to manage the risks of such events.

Federal agencies in the working group have taken actions to help state, local, and tribal governments respond to harmful algal bloom and hypoxia events (see fig.). In addition, the working group and others have identified a need for more actions aimed at preventing these events. However, the group does not have a national goal to help focus agencies' efforts on prevention. By developing such a goal, the working group, led by NOAA and EPA, could help to increase federal attention on actions to prevent these events.

#### Harmful Algal Bloom Advisories Posted by States

Providing guidance to inform decisions on posting public health advisories is one of the ways that federal agencies assist state, local, and tribal governments.



Sources: New Jersey Department of Environmental Protection (left) and Oregon Department of Agriculture (right). | GAO-22-104449