



# Office of Inspector General U.S. Environmental Protection Agency **At a Glance**

21-E-0264  
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## Why We Did This Evaluation

The U.S. Environmental Protection Agency's Office of Inspector General conducted this evaluation to determine how the EPA is exercising its authority under the Clean Water and Safe Drinking Water Acts to address harmful algal blooms and protect human health and the environment.

Harmful algal blooms impact our nation's recreational and drinking waters. They occur when, among other conditions, high levels of nutrients—nitrogen and phosphorus—pollute rivers, lakes, and reservoirs. These nutrients reach bodies of water from sources such as livestock operations; fertilizer runoff from farm fields, lawns, and gardens; urban stormwater; and industrial and municipal discharges.

### This evaluation supports EPA mission-related efforts:

- *Partnering with states and other stakeholders.*
- *Operating efficiently and effectively.*

### This evaluation addresses these top EPA [management challenges](#):

- *Overseeing states implementing EPA programs.*
- *Communicating risks.*
- *Complying with key internal control requirements (data quality).*

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## ***EPA Needs an Agencywide Strategic Action Plan to Address Harmful Algal Blooms***

### What We Found

The EPA does not have an agencywide strategy for addressing harmful algal blooms, despite Congress appointing the EPA administrator as the leader for federal actions focused on reducing, mitigating, and controlling freshwater HABs. Federal guidance instructs agencies to establish systems, such as developing strategic plans, that will promote effective government programs. By developing an agencywide HAB strategy, the EPA can improve in four strategic planning areas: (1) purpose, scope, and methodology; (2) problem definition and risk assessment; (3) organizational roles, responsibilities, and coordination; and (4) integration and implementation. By creating an agencywide HAB strategy that addresses these planning areas, the EPA can reduce HABs and their impacts on human health and the environment using the authorities and tools provided by the Clean Water and Safe Drinking Water Acts. We also found that the EPA has not fulfilled its 2015 commitment to Congress to develop additional drinking water health advisories for cyanotoxins associated with some blooms as information became available. In addition, the EPA needs to take further action to develop revised nitrogen and phosphorus numeric water quality criteria recommendations for states to adopt to better control levels of these nutrients in water bodies.

**Scientists predict that harmful algal bloom occurrences in recreational waters and drinking water sources will increase as excess nutrients continue to flow into water bodies, temperatures warm, and extreme weather events occur due to climate change.**

### Recommendations and Planned Agency Corrective Actions

We recommend that the assistant administrator for Water develop an agencywide strategic action plan to describe the EPA's efforts to maintain and enhance a national program to forecast, monitor, and respond to freshwater HABs. This plan should incorporate strategies for (1) closing identified knowledge gaps; (2) monitoring and tracking HABs; (3) enhancing the EPA's leadership role in addressing freshwater HABs; (4) coordinating EPA activities internally and with states; and (5) establishing additional criteria, standards, and advisories, as the scientific information allows. We also recommend that the EPA establish new nutrient numeric water quality criteria recommendations under the Clean Water Act in lakes, reservoirs, rivers, and streams and determine whether additional actions under the Safe Drinking Water Act are warranted.

The EPA completed actions to meet one recommendation and provided acceptable corrective actions and estimated completion dates for two other recommendations. The recommendation regarding numeric water quality criteria in rivers and streams remains unresolved.