U.S. EPA's Tools for Monitoring and Responding to HABs in Recreational Waters

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September 26, 2019
Region 10 CyanoHABs Pre-Workshop Webinar

Disclaimer: The Views Expressed Here are Those of the Author and Not Necessarily those of the EPA

Presentation Overview

- Overview of harmful algal blooms (HABs) and cyanotoxins in recreational waters
- Discussion of tools for waterbody managers to monitor for and respond to CyanoHABs
  - Monitoring and responding to cyanobacteria and cyanotoxins in recreational waters
  - Communicating about cyanobacterial blooms and toxins in recreational waters

Recreational Water Quality Criteria

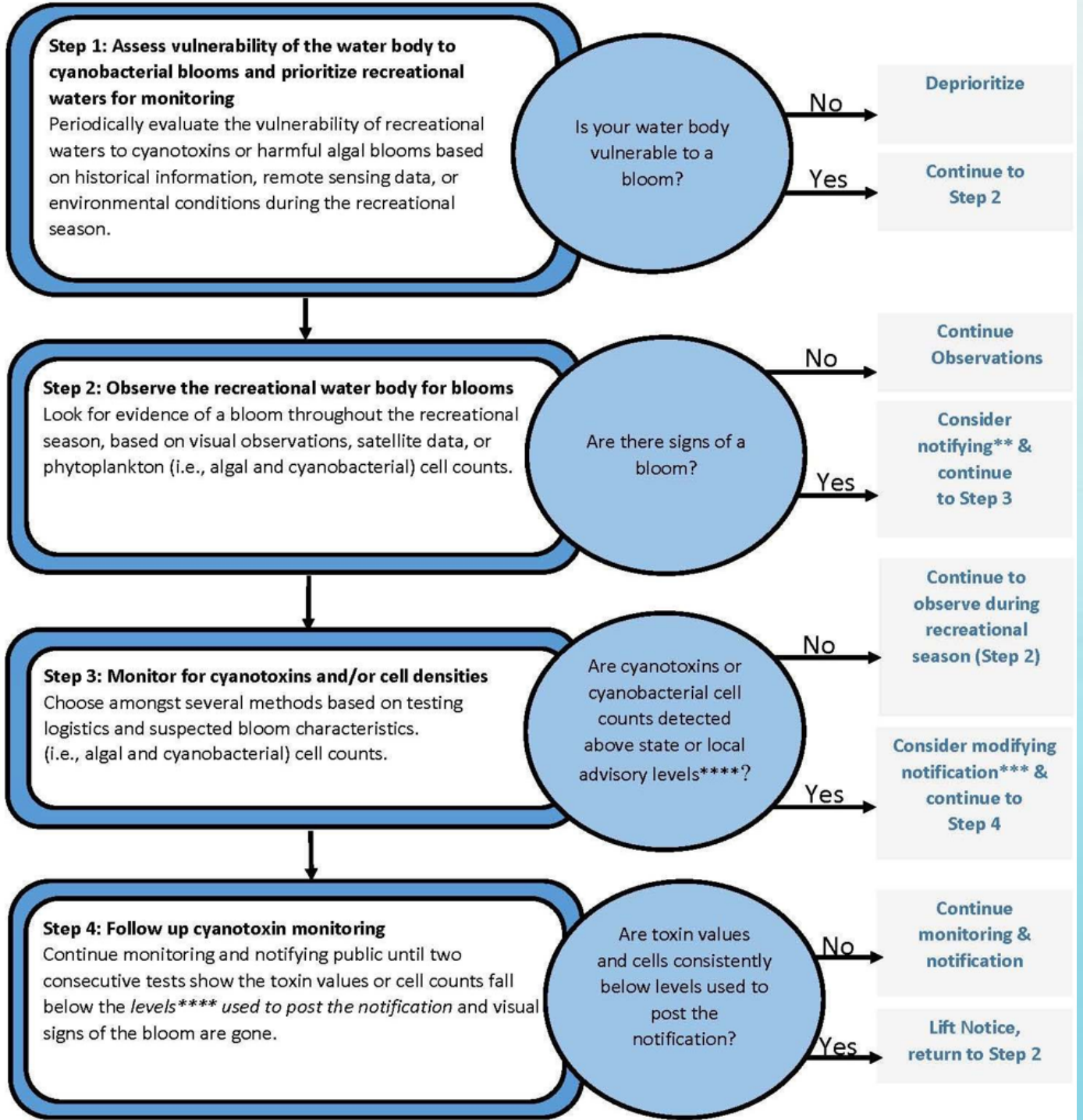
- EPA develops and recommends criteria to protect people from organisms, such as viruses and bacteria, and their associated toxins in water bodies (e.g., lakes, rivers, beaches). State and tribal governments can use the criteria as guidance when setting their own water quality standards to protect human health.
- 2012 Recreational Water Quality Criteria for Pathogens
- 2016 Coliphage Expert Workshops (potential for coliphage-based criteria)
- 2019 Recreational Water Quality Criteria and Swimming Advisories for Cyanotoxins (total microcystins and cylindrospermopsin)

HAB-Related Recreational Water Challenges

- Human health effects from ingesting toxins: gastroenteritis, liver and kidney damage. The criteria were developed based on children's recreational exposures and are considered protective of other age groups.
- Animal health effects: Animals, such as dogs or cattle, are likely to be affected during a HAB event because they are likely to drink from or swim in waters that contain HABs. The Centers for Disease Control and Prevention (CDC) maintains One Health Harmful Algal Bloom System (OHHABS), a voluntary reporting system available to state and territorial public health departments and their designated environmental health or animal health partners. It collects data on individual human and animal cases of illnesses from HAB-associated exposures, as well as environmental data about HABs.

EPA HAB Monitoring and Response Tools

- Monitoring and responding to HABs:
  - Recommendations for Cyanobacteria and Cyanotoxin Monitoring in Recreational Waters (PDF)
  - Monitoring and Responding to Cyanobacteria and Cyanotoxins in Recreational Water (website)
- Communicating risk to the public:
  - Recreational Water Communication Toolbox (website)
  - HABs infographic (PDF)



Recommendations for Cyanobacteria and Cyanotoxin Monitoring in Recreational Waters (PDF)

Note: This document has been updated and will be posted to EPA's website soon.

Webpages for Monitoring, Responding and Communicating to the Public

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Monitoring and Responding to Cyanobacteria and Cyanotoxins in Recreational Waters

This information is intended for recreational waterbody managers, which may include public health officials, lake managers, or other state, local or tribal officials, involved in monitoring water quality and protecting the health of people and animals that use waterbodies within their jurisdiction.

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On this page:

Related Information

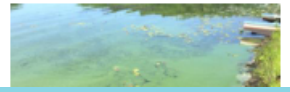
- Learn about Cyanobacteria and Cyanotoxins
- Causes of CyanoHABs
- Communicating about Cyanobacterial Blooms in Recreational Waters
- Nutrient Pollution Policy and Data

You may need a PDF reader to view some of the files on this page. See EPA's About PDF page to learn

Visual Signs of a Cyanobacterial Bloom

Visual signs of a bloom include:

- surface water discoloration (e.g., a green, white, brown, red, or blue tint);
- reduced transparency (e.g., water that looks like pea soup or lets limited light through); and/or



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Communicating about Cyanobacterial Blooms and Toxins in Recreational Waters

EPA designed the tools on this page to support states, tribes, territories, and local governments as they develop their own risk communication materials. The tools can help water managers inform people using recreational waters, as well as pet and livestock owners, of the health risks associated with cyanobacteria and their toxins in lakes, rivers or other recreational water bodies.

Communication to the public may occur through signage at the recreational water body; radio and TV announcements; and/or social media. Messages should clearly define levels of risk and of potential contamination, such as the exposure potential for specific recreational activities. Managers should also be aware that toxins may be transported and affect downstream waters.

Related Information

- Recreational Water Quality Criteria or Swimming Advisories for Cyanotoxins
- Recommendations for Cyanobacteria and Cyanotoxin Monitoring in Recreational Waters
- Determination of Cyanotoxins in Drinking and Ambient Freshwaters
- Control Measures for Cyanobacterial HABs in Surface Water
- What EPA is Doing to Reduce Nutrient Pollution

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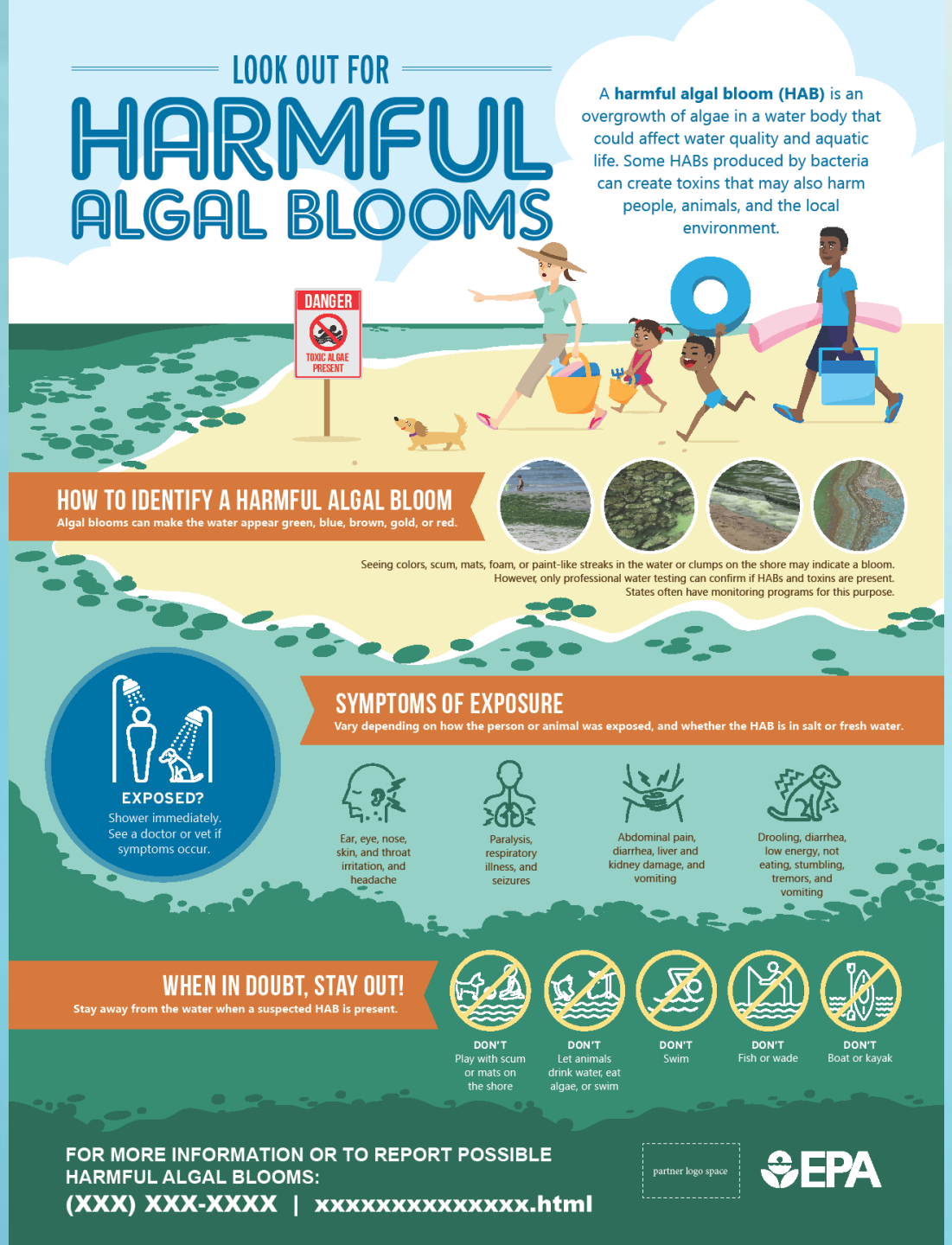

HABs infographic (PDF)

Note: The short and long versions of this graphic are customizable, for providing state or local agency contact information, or to report a possible bloom.

Coming Soon: Draft Criteria Implementation Q&A Document for Public Comment

- Single FAQ document covering criteria implementation, with Q&As on monitoring and assessment
- Working with ACWA Focus Group (8 states: CA, CO, FL, IN, IA, NJ, NC, WI) and internal EPA workgroup (OST, OWOW, OWM)
- ACWA MSA Committee Review in March 2019
- June-August: internal management review
- Draft for public comment fall 2019

Any Questions?

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CyanoHABs website: https://www.epa.gov/cyanohabs

EPA Tools for Waterbody managers to Monitor for and Response to CyanoHABs: https://www.epa.gov/cyanohabs/epa-tools-waterbody-managers-monitor-and-respond-cyanohabs