Cyanotoxins Preparedness and Response Plans Framework

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Pre-Workshop Webinar: Learning about Cyanotoxins Management Plans and Tools

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CPRF

Presentation Overview

- Overview of tools to prepare, respond and mitigate cyanoHABs and cyanotoxins events in drinking and recreational waters.

Disclaimer

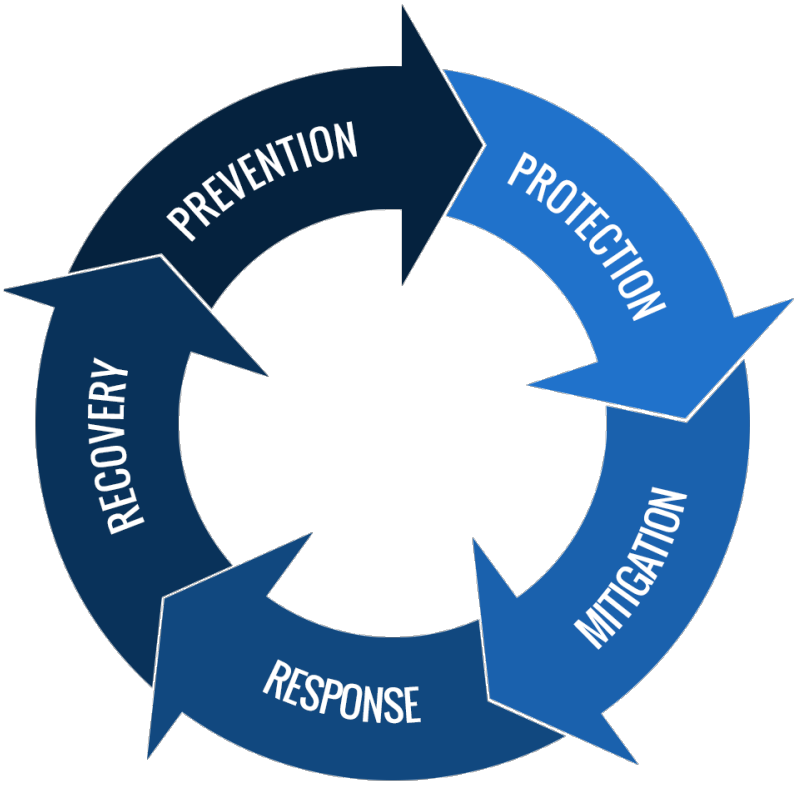
The views expressed in this presentation are those of the author and do not necessarily represent the views or policies of the U.S. Environmental Protection Agency.

Preparedness Framework

Using the template of the Department of Homeland Security's National Incident Management System (NIMS), an integrated framework that defines the roles and responsibilities of federal, state and local first responders during emergency events, approaches to prepare for, and respond to cyanotoxins events in drinking and recreational waters were developed for this exercise.

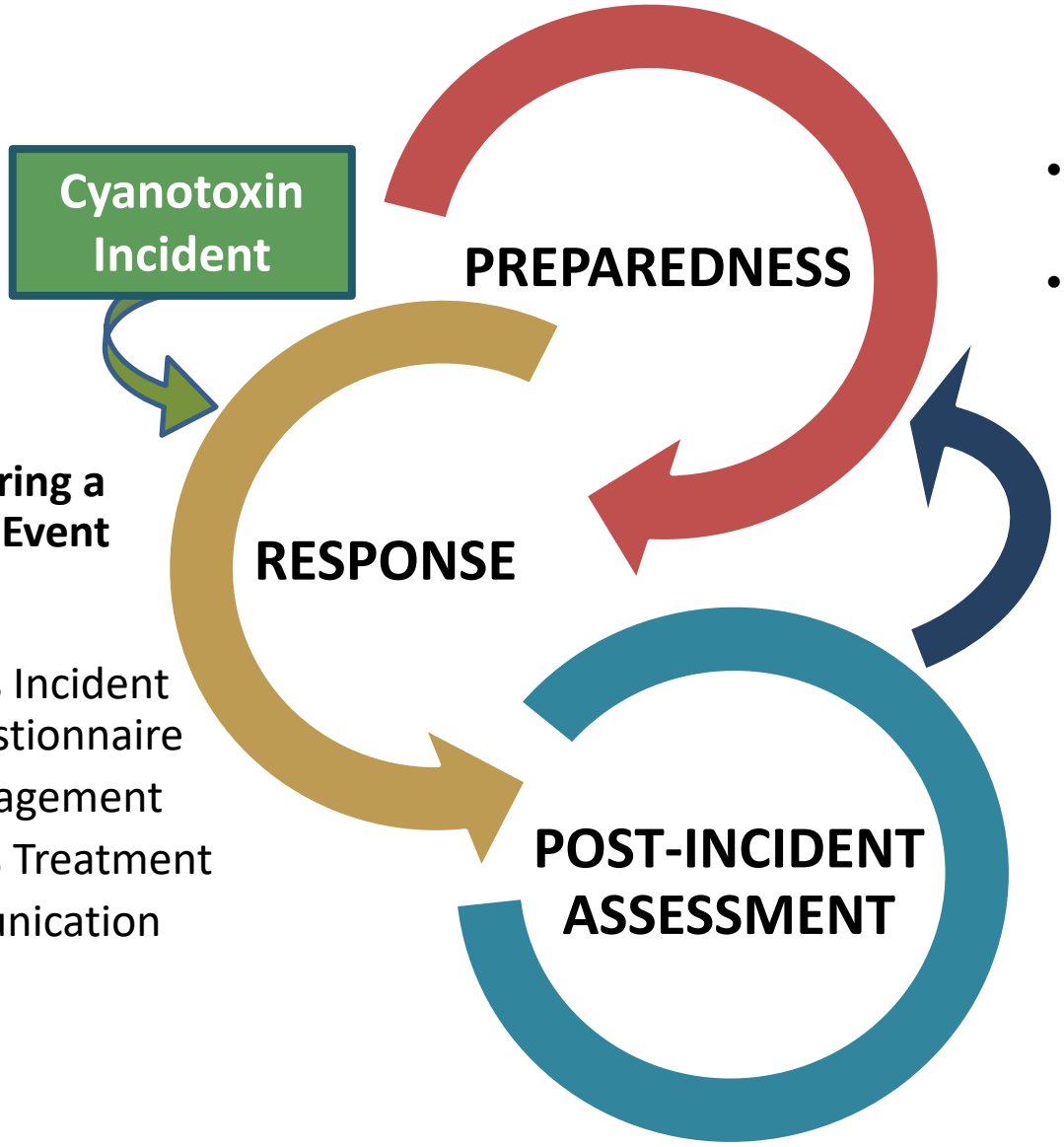
This framework will be called for our purposes The Cyanotoxins Preparedness and Response Framework

National Preparedness Core Cycle



Source: National Protection Framework, Federal Emergency Management Agency (FEMA)

Cyanotoxins Preparedness and Response Framework



Actions Prior a Cyanotoxin Event

- Incident Response and Communication Team
- Cyanotoxins Management Plan (CMP)

Actions During a Cyanotoxin Event

- Monitoring
- Cyanotoxins Incident Report Questionnaire
- Bloom Management
- Cyanotoxins Treatment
- Risk Communication

Actions After a Cyanotoxin Event

- Post-Event Review Questionnaire
- CMP Revision
- Risk Communication

Actions Prior to a Cyanotoxins Event

States and tribes can be greatly affected by cyanobacterial blooms in surface waters used for recreation and as a source of drinking water.

Before a HABs event, it is recommended that states and tribes:

- Initiate communications between states, tribes and other stakeholders to create a **Cyanotoxins Incident Response and Communication Team.**
- Public water systems as well as recreational water managers with source waters that are susceptible to HABs can benefit from developing a **Cyanotoxin Management Plan** (CMPs).

Resources to Prepare For Cyanotoxins Events

- ✓ Cyanotoxins Incident Response and Communication Team Contact Information Template **(Appendix B of EPA's document Cyanotoxins Management Plan Template and Example Plans)**
- ✓ Cyanobacteria Bloom Response Contact List
- ✓ EPA's Cyanotoxin Management Plan Template and Example Plans

Actions Prior to a Cyanotoxins Event (Continued)

When developing cyanotoxins management plans, it is recommended that states and tribes:

- Perform a source water assessment (monitoring) to determine if the waterbody is susceptible to cyanotoxins.
- Establish and document sampling procedures, analytical testing procedures, and list of laboratories to conduct toxins analysis.
- Establish monitoring and management procedures and evaluate bloom control and management techniques, as well as drinking water treatment.
- Have a risk communication plan in place.

Resources to Support CMPs

- ✓ Drinking Water Advisories for the Cyanotoxins Cylindrospermopsin and Microcystins
- ✓ Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin
- ✓ Recommendations for Public Water Systems to Manage Cyanotoxins in Drinking Water
- ✓ Monitoring and Responding to Cyanobacteria and Cyanotoxins in Recreational Waters
- ✓ Water Treatment Optimization for Cyanotoxins

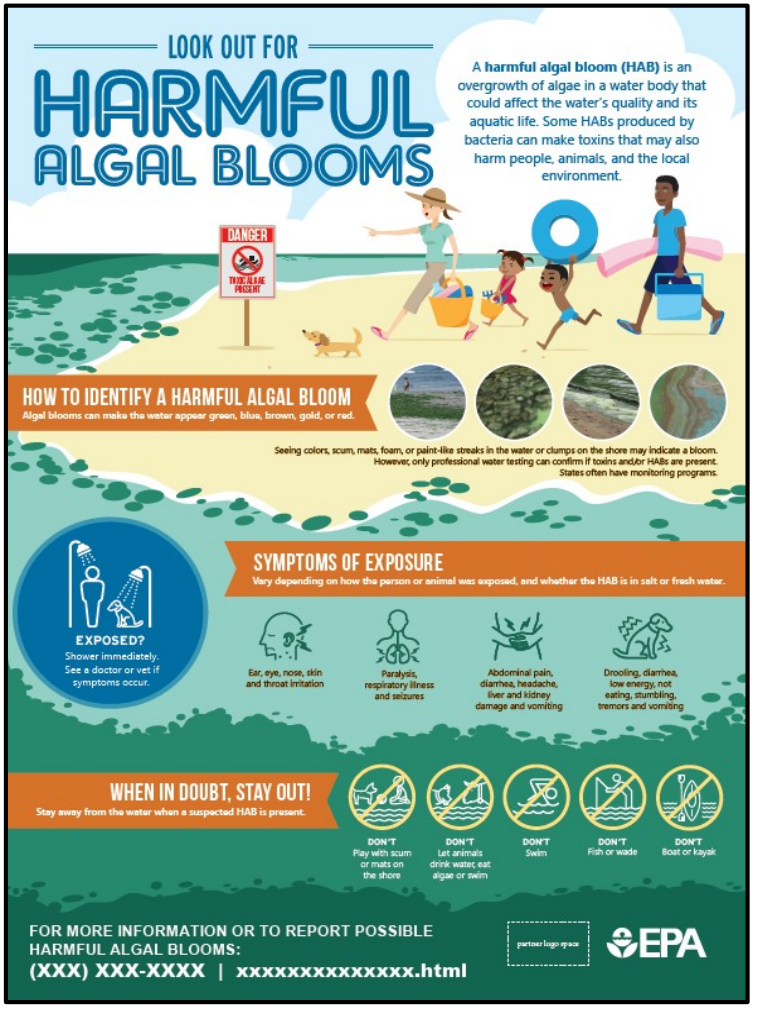
Actions Prior to a Cyanotoxins Event (Continued)

Planning for a HABs event also involves establishing communication plans for the public.

The EPA has developed tools and resources to assist water managers and public water systems to develop their risk communication plans.

Resources on Risk Communication

- ✓ Drinking Water Cyanotoxin Communication Toolbox
- ✓ Recreational Water Communication Risk Toolbox for Cyanobacterial Blooms



Actions During a Cyanotoxins Event

During a suspected or confirmed cyanotoxins event, it is recommended that states and tribes:

- Have a **Cyanotoxins Incident Report Questionnaire** that can be used as a guide to conduct a proper and timely monitoring and assessment of the incident.
- Have accessible **Frequently Asked Questions** on cyanobacteria and cyanotoxins for risk communication with public and media.
- Report suspected or confirmed HABs or cyanotoxins-associated human and animal illnesses to the CDC's **One Health Harmful Algal Bloom System (OHHABS)** voluntary reporting system.
- Have accessible Information on blooms control and management techniques.
- Have accessible Information on cyanotoxins treatment in drinking water systems.

Resources for Assistance During a Cyanotoxins Incident

- ✓ Cyanotoxins Incident Report Questionnaire
- ✓ Incident Action Checklist - Harmful Algal Blooms
- ✓ Harmful Algal Blooms and Cyanotoxins FAQs
- ✓ Frequently Asked Questions: Laboratory Analysis for Microcystins in Drinking Water
- ✓ CDC's One Health Harmful Algal Bloom System
- ✓ Water Treatment Optimization for Cyanotoxins
- ✓ Recommendations for Cyanobacteria and Cyanotoxin Monitoring in Recreational Waters
- ✓ Recommendations for Public Water Systems to Manage Cyanotoxins in Drinking Water

Actions During a Cyanotoxins Event (Continued)

It is recommended that the states and tribes use consistent communication tools during an event.

The EPA has developed ready-to-use templates to develop risk communication materials, including:

- Templates: for press releases, drinking water advisories and recreational criteria/swimming advisories, and social media and text alerts;
- General Information: talking points and messages for consumers and recreators, frequently asked questions and factsheets;
- Graphics: downloadable options for graphics.

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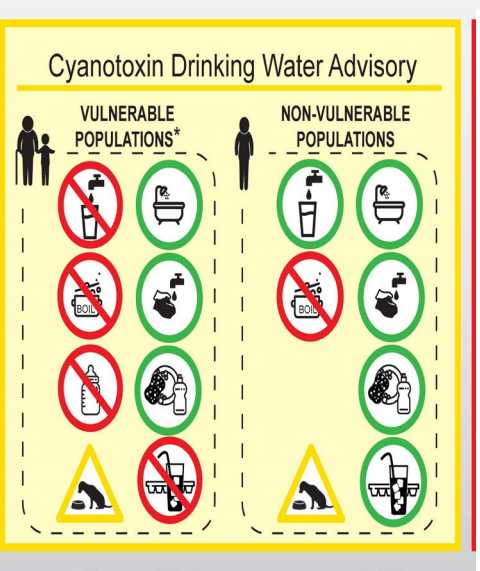


PRESS RELEASE

RECREATIONAL WATER CLOSURE ISSUED

Actions After a Cyanotoxins Event

Once the HABs and cyanotoxins event is over, it is recommended for states and tribes to conduct a post-incident comprehensive assessment to identify the adequacy of the cyanotoxins incident response and assess the effectiveness of the response.

A debrief with the all the involved agencies, e.g. drinking water systems and managers of recreational sites, after the incident helps to identify problems and flaws during the incident and determine areas that need improvement, as well as those actions that contributed to a successful response and that should be repeated in future cyanotoxins contamination events.

Resources to use after a cyanotoxins event

- ✓ HABs Post-Emergency Event Review Questionnaire
- ✓ Incident Action Checklist - Harmful Algal Blooms

Contact Information

One more tool….***DRAFT* EPA Cyanotoxins Preparedness and Response Toolkit**

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EPA's Cyanobacteria HABs Website
www.epa.gov/cyanohabs