Upcoming 2019 harmful cyanobacterial bloom program
## 2019 UDEQ/UDOH Recreational Health HAB Guidance

<table>
<thead>
<tr>
<th></th>
<th>Tier 1: None</th>
<th>Tier 2: Warning</th>
<th>Tier 3: Danger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Probability of Acute Health Risk ¹</td>
<td>Low</td>
<td>Moderate</td>
<td>High</td>
</tr>
<tr>
<td>Cyanobacterial Cell Density (cells/mL) ¹</td>
<td>&lt; 20,000</td>
<td>20,000 - 10,000,000</td>
<td>&gt;10,000,000</td>
</tr>
<tr>
<td>Microcystins (µg/L) ¹,²</td>
<td>&lt; 4</td>
<td>4 – 2,000</td>
<td>&gt; 2,000</td>
</tr>
<tr>
<td>Cylindrospermopsin (µg/L) ²</td>
<td>&lt; 8</td>
<td>&gt; 8 *</td>
<td>&gt; 8 *</td>
</tr>
<tr>
<td>Anatoxin-a (µg/L) ³</td>
<td>Non-detect</td>
<td>Detection - 90</td>
<td>&gt; 90</td>
</tr>
<tr>
<td>Additional Factors</td>
<td>None</td>
<td>Reports of animal illness or death</td>
<td>Reports of human illness</td>
</tr>
<tr>
<td>Health Risks ¹</td>
<td>Negligible</td>
<td>Potential for long-term illness</td>
<td>Potential for acute poisoning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short-term effects (e.g., skin and eye irritation, nausea, vomiting, diarrhea)</td>
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</tr>
<tr>
<td>Recommended Actions</td>
<td>None</td>
<td>Issue <strong>WARNING</strong> advisory</td>
<td>Issue <strong>DANGER</strong> advisory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post <strong>WARNING</strong> signs</td>
<td>Post <strong>DANGER</strong> signs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No Primary Contact Recreation</td>
<td>Consider <strong>CLOSURE</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sampling recommended at least weekly</td>
<td>No Recreation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sampling recommended at least weekly</td>
</tr>
</tbody>
</table>
## Proposed Timeline of EPA Cyanoblooms and Recreational Health Criteria Implementation

<table>
<thead>
<tr>
<th>Draft High-level Implementation Q&amp;As (Tasks)</th>
<th>Start Date</th>
<th>End Date</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST Office Director Review</td>
<td>4/29/19</td>
<td>5/10/19</td>
<td>Must schedule meeting</td>
</tr>
<tr>
<td>Federal Register Notice publication of criteria</td>
<td>4/30/19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revise document to address OST Office Director comments.</td>
<td>5/13/19</td>
<td>5/17/19</td>
<td></td>
</tr>
<tr>
<td>OW Management briefing and review</td>
<td>5/20/19</td>
<td>5/31/19</td>
<td>Must schedule</td>
</tr>
<tr>
<td>Revise document to address OW Management comments.</td>
<td>6/3/19</td>
<td>6/7/19</td>
<td></td>
</tr>
<tr>
<td>Put Draft out for public comment (docket at regulations.gov).</td>
<td>6/10/19</td>
<td>7/25/19</td>
<td>45-day public comment period</td>
</tr>
<tr>
<td>Address public comments.</td>
<td>7/26/19</td>
<td>8/02/19</td>
<td>EPA-State focus group</td>
</tr>
<tr>
<td>OW Management, coregulator review of final document(s)</td>
<td>8/05/19</td>
<td>10/11/19</td>
<td></td>
</tr>
<tr>
<td>Issue final materials.</td>
<td>10/15/19</td>
<td></td>
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</tbody>
</table>
HAB Response Ongoing Funds

Beginning FY20, ongoing funds:

- Response staff to investigate the bloom including sample collection for phycology and cyanotoxin analysis
- Resources for LHDs to provide on-shore sampling, post advisories and alert the public
- Quicker response time to make advisory decisions and communicate the results
- Follow up sampling to monitor bloom activity to inform advisory decisions including de-posting when favorable conditions return
- Enhanced protection of the public from the risks of HABs
- Programmatic monitoring for at-risk waters prior to response needs
WARNING

Harmful Algae Detected Near Shore

- Do not swim in areas of algae scum.
  No nade en las áreas de escoria de algas.
- Avoid areas of algae scum when boating.
  Evite las áreas de escoria de algas cuando navegue en bote.
- Keep animals away.
  Mantenga alejados a los animales.
- Do not ingest the water.
  No ingiera el agua.
- Clean fish well and discard guts.
  Limpie bien el pescado y deséchese las tripas.

*Algae may move or disperse depending on temperature, wind, and weather.

Date Posted:
Contact the Utah Poison Control Center if you or your animals have unexplained sickness or signs of poisoning. (800) 222-1222

Visit habs.utah.gov for more info.
Report an algae bloom: (801) 536-4123
Permanent Signage

ADVISORY

HARMFUL ALGAE MAY BE PRESENT

Levels of potentially toxic cyanobacteria have been periodically detected in this water.

Toxic algae is most commonly identified in warm months.

PROTECT THE HEALTH OF HUMANS AND ANIMALS:
• Avoid areas of blue-green algae scum during all activities.
• Do not drink from this body of water.
• Keep pets and livestock away.
• Thoroughly clean fish and waterfowl and properly discard guts.

FOR MORE INFORMATION:
Visit habs.utah.gov

If you or your animals have sudden or unexplained sickness or signs of poisoning, contact your doctor, veterinarian, or the Utah Poison Control Center at:
800.222.1222

TO REPORT AN ALGAL BLOOM:
Contact the Utah Department of Environmental Quality at:
801.536.4123

Talking points:

• Usage intent—augment or replace?
• Format and language inconsistency
• Resource support

Division of Water Quality
Cyanobacteria Exposure Risk Response Process

Contact LHD
- Alerts Response Agencies

Incident Report System
- Locate
- Validate

DEQ HAB Communication Plan
- Website
- Press Release

Verify
- Collect Samples
- Assess Data

Notify Public
- Notify Public
QUESTIONS

Visit: habs.utah.gov
Contact: bholcomb@utah.gov