

Water Boards Reminds the Public to be Aware of Harmful Algal Blooms this Holiday Weekend

Various Popular Waterbodies Assessed Prior to Labor Day

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SACRAMENTO, Calif. -- With a large number of swimmers and boaters expected this Labor Day weekend at many of the state's water bodies, the State Water Board is reminding the public to be mindful of harmful algal blooms (HABs) in lakes, streams and reservoirs, and to keep dogs and children away from these blooms if they see one.

Last week, the California state and regional water boards conducted targeted sampling at some of the state's most visited lakes and streams that have had a history of HABs. This sampling was part of a collaborative effort with other state and local agencies to gather data and share it with the public. Those agencies included the California Department of Water Resources, East Bay Regional Parks, Elem Indian Colony, Big Valley Band of Pomo Indians, and others.

"Being aware of the conditions at your local waterbody before heading out to recreate is important to keeping you and your pets healthy this Labor Day weekend, and anytime during these hot summer days when HABs can be present," said State Water Board Vice-Chair Steven Moore. "The State Water Board thanks local agencies and groups, for partnering up to identify HABs and keep the public informed on how to safely recreate."

The results of the targeted sampling and data collection for approximately 43 waterbodies are summarized in an <u>interactive map</u> (Figure 1). You can



Figure 1. Pre-Labor Day Assessment 2017 Map



see which locations were sampled at each waterbody and recommended advisory levels. If cyanotoxins were detected, advisory signs informing the public about the presence of HABs and the associated risk, based on of level toxins present, should be posted at that location. Please be aware that HAB location, extent and toxicity can change quickly. The data in this map is subject to change as new information is received. The interactive map can be found at: http://www.mywaterquality.ca.gov/habs/bulletins_newsletters/index.html.

Cyanobacteria are small microbes that live in nearly every habitat on land and in the water. They have existed for millions of years as essential components of freshwater ecosystems and form the foundation of most aquatic food chains. But, when environmental conditions favor their growth - warm temperatures and low or stagnant water flows - they can multiply very rapidly creating what is called a HAB. Some cyanobacteria are capable of producing toxins that can harm pets or people that come into contact with them.

HABs can be recognized by a few distinguishing features, including an oily or paint-like sheen on the water's surface, benthic (on bottom of waterbody) or floating mats, or a "pea soup" appearance of the water. Although HABs can occur anywhere in a body of water, in lakes they tend to be more concentrated in areas where water movement is limited and are downstream of wind and water currents. In streams or rivers, they can be found attached to the sediment on the bottom or floating along the shoreline in backwater eddies.

It is important to distinguish cyanobacteria (often referred to as "blue-green algae") from green algae and other non-toxic water plants that are not thought to pose potential hazards to health (Figure 2). The state has created a visual guide with photos to help users recognize HABs and differentiate them from green algae or water plant growth. The guide is available online at: http://www.ccamp.net/Swamp/images/3/33/SOP-Visual_Guide_to_Observing_Blooms.pdf.



Figure 2. (from left to right): Cyanobacteria bloom, green algae and duckweed.

Cyanobacteria blooms can look like slicks of opaque, bright green paint, or "pea soup," but closer inspection often reveals the grainy, sawdust-like appearance of individual colonies. Green algae are commonly encountered and typically are grassgreen in color and have stringy filaments that feel either slippery or like cotton. Some floating aquatic plants may look like algae, but close examination





shows that individual plants are present, such as duckweed.

Exposure to a HAB, if it is toxin-producing, can result in eye irritation, skin rash, mouth ulcers, vomiting, diarrhea, or cold and flu-like symptoms. Pets can be especially susceptible because they tend to drink while in the water and lick their fur after, increasing their risk of exposure and illness. Symptoms of animal illness include: vomiting and/or diarrhea, lethargy, abnormal liver function test results, difficulty breathing, foaming at the mouth, muscle twitching and sometimes death.

The California state and regional water boards have collaborated with the BloomWatch App (<u>http://cyanos.org/bloomwatch/</u>), which allows anyone observing a potential HAB to document it and send information to water managers. In using the app, each user will be asked to answer a few basic questions and provide pictures of the potential HAB. The public can also report the bloom directly to the water boards by calling the free HAB Hotline 1-844-729-6466, or report the bloom through the online HAB Portal <u>http://www.mywaterquality.ca.gov/habs/do/index.html#how</u>

Remember to always practice healthy water habits:

- Heed all instructions on posted advisory signs.
- Avoid body contact with cyanobacteria.
- Keep an eye on dogs and children, ensuring that they do not approach areas with HABs.
- Do not drink untreated lake or river water, and do not let your dog drink HAB-affected water. Common water purification techniques such as camping filters, tablets and boiling do not remove toxins.
- Do not cook or wash dishes with lake or river water.
- Wash yourself, your family and your pets with clean water after lake or river play.
- Consume fish only after the guts and liver have been removed and rinse filets.

For more information, please visit:

California Harmful Algal Blooms Portal: <u>http://www.mywaterquality.ca.gov/habs/</u>

BloomWatch! http://cyanos.org/bloomwatch/

California Cyanobacteria and Harmful Algal Bloom (CCHAB) Network: <u>http://www.mywaterquality.ca.gov/monitoring_council/cyanohab_network/index.html</u>

California Surface Water Ambient Monitoring Program Freshwater HAB webpage:

http://www.waterboards.ca.gov/water_issues/programs/swamp/freshwater_cyanobacteria.shtml

California Department of Public Health: http://www.cdph.ca.gov/healthinfo/environhealth/water/Pages/Bluegreenalgae.aspx

CA Office of Environmental Health Hazard Assessment: Information on Microcystin



http://oehha.ca.gov/ecotoxicology/general-info/information-microcystins

U.S. Environmental Protection Agency: CyanoHAB website https://www.epa.gov/nutrient-policy-data/cyanohabs

U.S. Environmental Protection Agency: Anatoxin-a report https://www.epa.gov/sites/production/files/2015-06/documents/anatoxin-a-report-2015.pdf

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