June 27, 2019

To: California Veterinarians

From: Interagency Working Group on Harmful Algal Bloom Related Illnesses

The purpose of this letter is to bring attention to the 2019 harmful algal bloom (HAB) season and to offer assistance for responding to HAB-related illnesses in animals. We are also requesting your assistance with reporting HAB-related animal illnesses to the state centralized system shown below. Reporting suspected HAB-related illnesses will assist us in estimating the impact of HABs and identifying actions that will help to address HABs statewide. The first indication of a HAB-related hazard in a local waterbody often originates from animal owners and veterinarians. This year, limited funding is available to perform confirmatory testing of cyanotoxin poisoning in dogs. The information below summarizes the 2018 bloom season reports, describes the reporting process for blooms and potentially related illnesses, and provides links to updated HAB-related resources and contacts.

The occurrence of HABs appears to be increasing in inland waters of California, including rivers, streams, lakes, reservoirs, and estuaries. This has led to an increase in the public's concern regarding potential health impacts to humans and animals, particularly dogs. Most blooms appear as green-colored mats or scum on the water's surface and occur in spring to fall, but can begin earlier or continue year-round in some locations. In 2018, 190 reports of potential blooms were received and state and local agencies posted approximately 145 public health alerts at waterbodies throughout California. The Interagency HAB-related Illness Working Group in 2018 received 44 reports of potential HAB-related animal and human illnesses, including 11 dog illnesses. Following further evaluation of the available environmental and health related information, the California Department of Public Health (CDPH) reported 19 cases to the Centers for Disease Control's (CDC) One Health Harmful Algal Bloom System (OHHABS) as suspected, probable, or confirmed link to HAB exposure. These reported cases included 8 human, 4 domestic animal (all dogs), and 7 fish or wildlife incidents.

For the upcoming year, please use one of the following options to report HAB-related animal illnesses and mortalities (suspected or confirmed) to the centralized state database as soon as possible.

- Online: Freshwater Bloom Incident Form
- Telephone: 1 (844) 729-6466 (Toll free)
- Email: CyanoHAB.Reports@waterboards.ca.gov

Reporting a HAB-related animal incident through any of the options above will trigger a multi-agency coordination effort consisting of the following:

- The Tracking California program at CDPH or the Office of Environmental Health Hazard Assessment (OEHHA) will contact your office to request health and exposure information on the affected animal.
- The California Water Boards will contact your office to coordinate the available assistance and potential funding for confirmatory testing in dogs and possible sampling at the associated waterbody.
- If the reported illness involves fish or wildlife, OEHHA will inform the California Department of Fish and Wildlife (CDFW) and assist in collecting the relevant data.
- OEHHA, CDFW or the Environmental Health Investigations Branch at CDPH can provide additional information on HAB-related animal illnesses. Contact information is included below.
- Health Departments are encouraged to use the signs and guidance prepared by the California Cyanobacteria and Harmful Algal Bloom (CCHAB) Network for posting public health alerts at water bodies when HABs pose a health threat.

The following resources are available through the California HABs Portal:

- Veterinarian factsheet that provides technical information on assessing exposure history, evaluating clinical signs, pursuing diagnosis and confirmatory testing, and patient management in potential HAB-related animal illnesses
    - Key articles on HAB-related illnesses in domestic animals.
        - Bates (2018) review on Cyanobacteria (blue-green algae) exposure in dogs
        - Rankin et al. (2013) case report of the successful treatment of microcystin toxicity in a dog using oral cholestyramine seven days after the exposure
        - Dreher et al. (2019) publication on a recent livestock poisoning event in Oregon
- Resources for animal owners including a webpage on domestic animals and HABs, the CDC HABs animal safety poster, and the OEHHA dog owners fact sheet
- Map of voluntarily reported HAB occurrences in California
- Other important HAB-related information from the CCHAB Network

Please contact the staff listed below with feedback or questions relating to these efforts.

- Tracking California: Susan Paulukonis (Susan.Paulukonis@cdph.ca.gov; 510-326-7260)
- OEHHA: Beckye Stanton (Rebecca.Stanton@oehha.ca.gov; 916-322-2088) and Reggie Linville (Regina.Linville@oehha.ca.gov; 916-327-7336)
- CDPH Environmental Health Investigations Branch: Jeff Fowles (Jeff.Fowles@cdph.ca.gov; 510-620-3665)
- State Water Resources Control Board: Marisa VanDyke (Marisa.VanDyke@waterboards.ca.gov; 916-322-8431) and Keith Bouma-Gregson (Keith.Bouma-Gregson@Waterboards.ca.gov; 916-322-8430)
- CDFW: Glenn Sibbald (Glenn.Sibbald@wildlife.ca.gov; 916-358-4390) and Krysta Rogers (Krysta.Rogers@wildlife.ca.gov; 916-358-1662)