

2018 Statewide Harmful Algal Bloom Program

The Illinois Harmful Algal Bloom (HAB) Program will continue into 2018 with some slight modifications from 2017. The HAB Program will again consist of two primary components: a “Routine Monitoring” component and an “Event Response” component. The Routine Monitoring component will target a subset of Illinois inland lake drinking-water intakes and beaches; and a subset of Lake Michigan drinking-water intakes, harbors, and nearshore stations. The Event Response component will focus primarily on investigating blooms in publicly-owned lakes with multiple lake uses, or in Illinois rivers or streams where blooms could affect public health.

Samples collected in the HAB program will be sent to the Illinois EPA Division of Laboratories for analysis of microcystins by Enzyme-Linked-Immunosorbent Assay (ELISA) methodology. Samples collected near public-water-supply intake locations will also be sent to the Illinois EPA Division of Laboratories for analysis of cylindrospermopsin by Enzyme-Linked-Immunosorbent Assay (ELISA) methodology.

The Routine Monitoring Component

The Routine Monitoring Component consists of five targeted sampling locations:

- 1. Subset of Inland-Lake Beaches Monitored under Illinois EPA's Ambient Lake Monitoring Program (ALMP)**
Illinois EPA biologists will collect one sample per month (June, July or August, and October) at two inland-lake beaches in the northern region and 12 inland-lake beaches in the southern region.
- 2. Subset of Public-Water-Supply Intakes Monitored under Illinois EPA's Ambient Lake Monitoring Program (ALMP)**
Illinois EPA biologists will collect one sample per month (June, July or August, and October) near each of six ALMP, public-water-supply intakes in the southern region and three ALMP, public-water-supply intakes in the northern region.
- 3. Subset of Lake County Inland-Lake Beaches**
Lake County Health Department staff will collect one sample approximately every two weeks, at each of eleven Lake County inland-lake beaches from Memorial Day (May 28, 2018) through Labor Day (Sept. 3, 2018).
- 4. Subset of Fox River Stations**
Illinois EPA biologists or USGS biologists under contractual assistance will collect one sample approximately every six weeks, at each of four Fox River stations (DT-06, DT-09, DT-22, DT-38), during the months of June through October.
- 5. Subset of Lake Michigan Public-Water-Supply Intakes, Harbors, and Nearshore Stations**
Illinois EPA biologists will collect one sample at each at five Lake Michigan PWS intakes, at each of five Lake Michigan harbor stations, and at each of five Lake Michigan nearshore stations. Sampling frequency varies, but samples will be collected a total of three times during the months of May through October.

The Event Response Component

The Event Response component includes an investigation (as resources allow) of credible reports of HAB events by Illinois EPA professional field staff, Volunteer Lake Monitoring Program coordinators, or other Illinois EPA-approved designated parties. A credible report of a HAB event includes direct observation by Illinois EPA field staff or written and pictorial information contained within a properly submitted [Bloom Report Form](#) or a bloom report submitted through the bloomWatch App.

1. **Direct Observation at an Illinois EPA Ambient Lake or Stream**

Illinois EPA field staff will collect one sample when they have directly observed a cyanobacterial bloom in a lake or stream during a routine visit, at a non-routine location.

2. **Response to a Bloom Report Form Submitted to the EPA.HAB Email Address or to the bloomWatch App.**

Illinois EPA will review all Bloom Report forms submitted; however, the ability to initiate follow-up activities will be dependent on time and resources of Illinois EPA staff at the time of the submittal. Priority will be given to publicly-owned lakes and lakes with multiple lake uses. If the Bloom Report form and photos support the presence of a blue-green algal bloom, a HAB responder may be sent to investigate the bloom.

For all samples collected in response to an actual cyanobacterial bloom, samples will be screened within 24-36 hours of collection using a microcystin strip-test kit. The sample may also be sent to the Illinois EPA laboratory for quantitative analysis of microcystins using the enzyme-linked-immunosorbent assay (ELISA) method. When microcystin results exceed specific thresholds for recreation or drinking water, appropriate lake management personnel and Illinois EPA staff will be notified. Follow-up monitoring by the Illinois EPA may occur as professional judgment dictates and staff, laboratory, and financial resources allow.