



Mike DeWine, Governor
 Jon Husted, Lt. Governor
 Laurie A. Stevenson, Director

May 26, 2021 - Addendum to the Quality Assurance Project Plan for Lake Erie Monitoring

Cyanotoxin sampling near Maumee Bay State Park.

The following information is in addition to the existing Lake Erie Monitoring QAPP. The additional sampling outlined in this addendum is intended to assess impacts of harmful algal blooms, specifically documenting cyanotoxin (i.e., cylindrospermopsin, saxitoxins, and anatoxin-a) concentrations to inform recreational response.

All additional water samples collected based on this addendum will be shipped and submitted to Ohio EPA’s Division of Environmental Services (DES) for analysis. Cyanotoxin samples may be frozen to extend hold time.

During routine (bi-weekly) water quality sampling for microcystins additional sample water will be collected for three other cyanotoxins. This will occur at only one site (302142), which is located approximately 1 mile north of the public swimming beach at Maumee Bay State Park, and site details noted in Table 1. Consistent with the sampling plan for microcystins, samples will be collected bi-weekly after June 15 through the end of September. Sample collection procedure will follow procedures described in the Quality Assurance Project Plan for Lake Erie Monitoring and requires an additional 0.5 L of water sample. Details for cyanotoxin methods are described in Table 2 and note that due to potential breakage glass vials for saxitoxins and anatoxin-a analysis are collecting in pair vials. Preservatives will be pre-dosed in vials, and containers should not be overfilled. All samples will be pre-logged into Sample Master by DDAGW-EC staff. Pre-dosed sample containers, labels, and chain of custody forms will be prepared by DDAGW-EC or DES staff and shipped to NWDO prior to sample collection.

Table 1 — Identifies the additional cyanotoxin samples included in this addendum:

| District office | Site | Event | Sample total |
|-----------------|------------------------------------|--|--------------|
| NWDO | 302142, Maumee Bay near State Park | Any event after June 15 (consistent with microcystins) | 6-8 |

Table 2 — List of parameters for cyanotoxin analysis from water samples collected site 302142. *Methods specify that analysis must be completed within hold time but holding time may be extended by freezing sample.

| Parameter | Method | RL | Units | Container | Preservative | Hold |
|--------------------|----------------|------|-------|---|--|-------|
| Anatoxin-a | Ohio EPA 704.0 | 0.4 | µg/L | 60mL amber glass vial; (2 vials per sample) | ascorbic acid (0.1mg/mL), sodium bisulfate (1mg/mL); Cool, 0-4°C Dark (protect from light) | 28 d* |
| Saxitoxins | Ohio EPA 702.0 | 0.02 | µg/L | 60mL glass vial (2 vials per sample) | Sample diluent (10X), concentrate (1 mL per 9 mL sample) Cool, 0-4°C | 5 d* |
| Cylindrospermopsin | Ohio EPA 703.0 | 0.05 | µg/L | 150mL PETG | Cool, 0-4°C | 5 d* |

Reviewer Initials and Date: Amy Klei AJK Beth Messer BM Colin White CPW
 Brian Hall BWH Mari Piekutowski MP Laura Sullivan LS