

Microcystins and Cyanobacteria Screening Monitoring Requirements HAB Season (First FULL week of May until Off-season)

Schedule	Monitoring Requirements	Additional Sampling Triggers
1	Biweekly qPCR screening; AND Weekly raw/finished microcystins (paired with biweekly screening sample)	Increased monitoring would be triggered by finished water microcystins detections or raw water detections greater than 5 µg/L (see “All Schedules,” below).
2	Biweekly qPCR screening; AND Biweekly raw water microcystins collected on alternate week of qPCR screening (not paired)	<p>If microcystins are detected in the raw water:</p> <ul style="list-style-type: none"> • PWS must collect raw and finished water sample within 24 hours of receiving the result and complete analysis within five days. If PWS voluntarily collected a paired finished water sample with their initial raw water sample, an additional set of raw and finished samples is not required until the following week unless raw is greater than 5 µg/L or a finished water detection triggers more immediate sampling (see “All Schedules” below). • PWS will be changed to Schedule 1 requirements for the remainder of the season. If the PWS has at least four consecutive weeks of non-detect microcystins sampling results, and mcyE is less than 5 gene counts/µL during that same time period, the PWS can send an e-mail to their HAB coordinator requesting a transition back to schedule 2 monitoring. <p>If mcyE are detected in raw water greater than 5 gene counts per µL:</p> <ul style="list-style-type: none"> • PWS must collect raw/finished water microcystins sample within 24 hours of receiving the result and complete analysis within five days. • If microcystins are not detected, the PWS will remain on Schedule 2 monitoring requirements. • If microcystins are detected in either the raw or finished water, the PWS will be changed to Schedule 1 monitoring requirements for the remainder of the season. If the PWS has at least four consecutive weeks of non-detect microcystins sampling results, and mcyE is less than 5 gene counts/µL during that same time period, the PWS can send an e-mail to their HAB coordinator requesting a transition back to schedule 2 monitoring.

3	Monthly qPCR screening	<p>If mcyE genes are detected:</p> <ul style="list-style-type: none"> • PWS must collect raw/finished water microcystins sample within 24 hours and complete analysis within five days. • If microcystins are not detected (only mcyE genes are detected), PWS transitions to Schedule 2 monitoring. • If microcystins are detected in the raw or finished water, the PWS will switch to Schedule 1 monitoring for remainder of the season. If the PWS has at least four consecutive weeks of non-detect microcystins sampling results, and mcyE is less than 5 gene counts/μL during that same time period, the PWS can send an e-mail to their HAB coordinator requesting a transition to schedule 2 monitoring.
4	Weekly finished water microcystins	Increased monitoring would be triggered by finished water microcystins detections (see "All Schedules," below).
All Schedules	<p>If sxtA or cyrA genes are detected in the raw water:</p> <ul style="list-style-type: none"> • PWS must notify Ohio EPA no later than the end of the next business day per OAC Rule 3745-89-08. Ohio EPA also recommends written or verbal results be communicated as soon as possible to ensure timely Ohio EPA follow up. <p>If microcystins are detected in raw water greater than 5 μg/L:</p> <ul style="list-style-type: none"> • PWS must begin sampling raw/finished water microcystins three days per week beginning no later than the week following the receipt of the results in exceedance. • PWS may resume routine monitoring (Schedule 1) if ALL the following occur: <ul style="list-style-type: none"> ○ Raw water microcystins concentrations are less than or equal to 5 μg/L in two consecutive samples collected at least one day apart. ○ Microcystins are not detected in finished water and not detected in distribution samples (if collected) during that same time period. <p>If microcystins are detected in finished water or distribution samples (reported value \leq0.3-0.34 μg/L):</p> <ul style="list-style-type: none"> • PWS must begin sampling raw/finished water microcystins daily and complete analysis within 24 hours of sample collection beginning the day after receiving results. • PWS may resume routine monitoring (Schedule 1) if microcystins are not detected in two consecutive finished water daily samples AND raw water microcystins are less than or equal to 5 μg/L during that same time period • PWS may transition to raw/finished water sampling three days per week as outlined above if microcystins are not detected in two consecutive finished water daily samples AND raw water microcystins are greater than 5 μg/L in either of the samples during that same time period. <p>If microcystins are detected in finished water greater than 0.3 μg/L (reported value \geq0.35 μg/L):</p> <ul style="list-style-type: none"> • All the conditions described above for finished water detections apply. • PWS must collect one resample of raw/finished water within 24 hours of action level exceedance and collect an additional repeat sample of raw/finished water within 24 	

hours of resample. Analysis must be completed within 24 hours in each case. Resamples and repeats satisfy daily sampling requirements outlined above.

- If microcystins are greater than 0.3 µg/L in either resample or repeat, PWS must notify all consecutive systems within three hours of receiving results. PWS and consecutive systems must, within 24 hours of receiving results, collect samples from representative distribution points established in the contingency plan and complete analysis within 24 hours. Additional distribution sampling may be required.