

**2020-2021 Off-Season Monitoring (November 1, 2020 – May 1, 2021)**

<b>Microcystins and Cyanobacteria Screening Monitoring Requirements HAB Off-season (First FULL week of November through April)</b>		
<b>Schedule</b>	<b>Monitoring Requirements</b>	<b>Additional Sampling Triggers</b>
1 & 2	Biweekly qPCR screening;  OR  Biweekly raw water microcystins	<p><b>If microcystins are detected in the raw water:</b></p> <ul style="list-style-type: none"> <li>• 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).</li> <li>• PWS will continue with weekly paired raw and finished water microcystins monitoring until non-detect for at least two consecutive weeks, then PWS is eligible to return to off-season monitoring Schedule 1/2.</li> </ul> <p><b>If mcyE are detected in raw water:</b></p> <ul style="list-style-type: none"> <li>• PWS must collect raw/finished water microcystins sample within 24 hours of receiving the result and complete analysis within five days.</li> <li>• If microcystins are not detected, the PWS will remain on reduced off-season monitoring Schedule 1/2.</li> <li>• If microcystins are detected in either the raw or finished water, the PWS continues with weekly raw/finished microcystins monitoring and biweekly qPCR screening until microcystins are non-detect for at least two consecutive weeks, and then PWS is eligible to return to off-season monitoring Schedule 1/2.</li> </ul>
3	Monthly qPCR screening  OR  Monthly raw water microcystins	<p><b>If mcyE genes are detected:</b></p> <ul style="list-style-type: none"> <li>• PWS must collect raw/finished water microcystins sample within 24 hours and complete analysis within five days. If PWS collected a paired finished water sample with their initial raw water sample, an additional raw and finished water sample is not required until the following week.</li> <li>• If microcystins are detected in the raw or finished water, the PWS will continue with weekly paired raw and finished water microcystins monitoring until non-detect for at least two consecutive weeks, then transition to off-season Schedule 1/2 monitoring.</li> <li>• If only mcyE genes are detected (microcystins are not detected), PWS transitions to off-season Schedule 1/2 monitoring.</li> <li>• If sxtA or cyrA genes are detected in the raw water, the PWS transitions to off-season Schedule 1/2 biweekly qPCR monitoring.</li> </ul>

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4	Biweekly finished water microcystins	Increased monitoring would be triggered by finished water microcystins detections (see “All Schedules,” below).
All Schedules	<p><b>If sxtA or cyrA genes are detected in the raw water:</b></p> <ul style="list-style-type: none"> <li>• 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.</li> </ul> <p><b>If microcystins are detected in raw water greater than 5 µg/L:</b></p> <ul style="list-style-type: none"> <li>• 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 of 5 µg/L.</li> <li>• PWS may resume routine monitoring (Schedule 1) if ALL the following occur:             <ul style="list-style-type: none"> <li>○ Raw water microcystins concentrations are less than or equal to 5 µg/L in two consecutive samples collected at least one day apart.</li> <li>○ Microcystins are not detected in finished water and not detected in distribution samples (if collected) during that same time period.</li> </ul> </li> </ul> <p><b>If microcystins are detected in finished water or distribution samples (reported value less than or equal to 0.3 to 0.34 µg /L):</b></p> <ul style="list-style-type: none"> <li>• PWS must begin sampling raw/finished water microcystins daily and complete analysis within 24 hours of sample collection beginning the day after receiving results.</li> <li>• 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</li> <li>• 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.</li> </ul> <p><b>If microcystins are detected in finished water greater than 0.3 µg/L (reported value greater than or equal to 0.35 µg /L):</b></p> <ul style="list-style-type: none"> <li>• All the conditions described above for finished water detections apply.</li> <li>• 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.</li> <li>• 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.</li> </ul>	