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Microcystins/Cylindrospermopsin: U.S. Environmental Protection Agency Published Recommended Human Health Recreational Ambient Water Quality Criteria/Swimming Advisories

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The United States Environmental Protection Agency ("EPA") announced the release of final:

Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin ("Recommendations")

EPA states these are the recommended concentrations of the microcystins and cylindrospermopsin in recreational waters protective of human health while swimming or participating in primary contact recreational activities on the water.

Recommended values found in the *Recommendations* are stated to supplement 2012 Recreational Water Quality Criteria.

Clean Water Act water quality criteria ("WQC") are ambient water quality conditions that are deemed protective of the use established for a waterbody pursuant to the Clean Water Act. States are required to adopt WQC protective of the waterbody's designated uses. The WQC must specify the maximum concentration of pollutants that may be present in the water without impairment.

WQC generally assume three forms. They include:

1. Numerical terms reflecting maximum concentration of a particular pollutant in the receiving water
2. Bioassay or biomonitoring results which reflect mortality rates of certain waterborne organisms relative to the concentrations of particular pollutants
3. Terms narrative in nature

Clean Water Act National Pollution Discharge Elimination System ("NPDES") permits must incorporate the limitations necessary to ensure the maintenance of water quality standards applicable to the waterbody receiving wastewater. The WQC represent a judgment as to what levels, concentrations, or conditions can support a desired use. EPA is periodically required to issue new or required WQCs. WQCs are developed by EPA under Section 304(d) of the Clean Water Act.

EPA released these *Recommendations* for a 90-day public comment on December 16, 2016. The agency states that these *Recommendations* took into account submitted comments.

As EPA notes, microcystins and cylindrospermopsin are toxins that can be produced by a variety of cyanobacteria species. Cyanobacteria are typically referenced as blue-green algae. Such photosynthetic bacteria live in a variety of habitats. They can proliferate under certain conditions to high densities in surface water. If so, a bloom can be created and toxins produced that may be harmful to humans, the environment, and animals.

The EPA “Notice of Availability” addresses the following issues/suggestions in announcing the *Recommendations*:

- What are Microcystins and Cylindrospermopsin and Why is the EPA Concerned About Them?
- Information on the Recommended Recreational Ambient Water Quality Criteria or Swimming Advisories
- What are Clean Water Act Section 304(a) Water Quality Criteria?
- What is the Relationship Between the Water Quality Criterion and your State or Authorized Tribal Water Quality Standards?
- What Changed Between the Draft and Final Criteria

A copy of the *Recommendations* can be downloaded [here](#).