

Crescent Lake Watershed Management Plan Frequently Asked Questions

Prepared by the CLA Water Quality Group CLwaterquality@gmail.com

PO Box 131 * Acworth NH 03601

What is a Watershed Management Plan (WMP)? A Watershed Management Plan is an assessment and implementation plan that serves as a baseline to identify the best and most cost-effective projects for improvements to water quality in the lake. The CLA Board, Water Quality Group, and CLEAR Trust worked together to retain Stone Environmental (www.stone-env.com) to conduct a Watershed Management Plan for Crescent Lake.

What is the concern? Although water quality in Crescent Lake is generally good, the water testing we do several times each summer shows increasing levels of phosphorous and low levels of dissolved oxygen near the lake bottom, which are two primary contributors to potential cyanobacteria blooms.

Why is this happening now? Many factors, both natural and man-made, can contribute to declining water quality. Factors include increased frequency and severity of rainfall events; poor or overburdened stormwater runoff management (eg. failed or insufficient culverts and ditches); warmer winters and shorter ice cap period; unmanaged stormwater from paved driveways, rooftops, or other impervious surfaces; failed septic systems; overuse of fertilizer; insufficient shorefront vegetative buffer.

Why create a Watershed Management Plan (WMP)? The WMP starts with an assessment of the Crescent Lake watershed. Environmental engineers will study data, conduct visual inspections and conduct modeling efforts to better categorize the current state of the water and to identify and quantify the sources of nutrients, and where nutrient risks exist. The WMP will also provide a list of recommended actions with assessments of the benefits and costs associated with each action. This assessment will take about a year and the result is a Watershed Management Plan that incorporates nine elements that the EPA considers essential for a comprehensive WMP (called an "EPA a-i plan"). There may be grant money or low-cost financing available to implement some of the recommendations identified in our WMP. (An EPA a-i plan is a requirement for any funding.)

What happens if the lake experiences a cyanobacteria bloom? Cyanobacteria blooms can contain toxins that can sicken aquatic like and pets. Blooms can make people very sick, and in severe cases can be fatal. When a bloom is reported, NH Department of Environmental Services (DES) will confirm the report and once confirmed issue an alert (watch) and/or warning. See DES website for more information. Signs provided by the State of NH will be posted by the municipality in the case of a warning advising that people and animals should not venture into those areas.

https://www.des.nh.gov/water/healthyswimming/harmful-algal-blooms.

Can a bloom be "cleaned up"? Many techniques and practices have been tested with limited success. A few New Hampshire lakes have been treated successfully with aluminum sulfate, which binds with the phosphorus and hinders its release from the sediment. These "alum treatments" are extremely expensive (hundreds of thousands of dollars) and are performed only after phosphorus reduction recommendations in a WMP have been implemented. Prevention is by far the best way to keep Crescent Lake water quality high.