ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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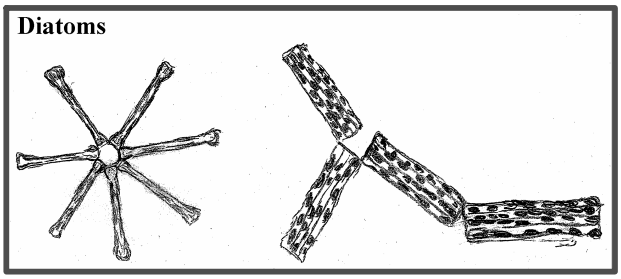
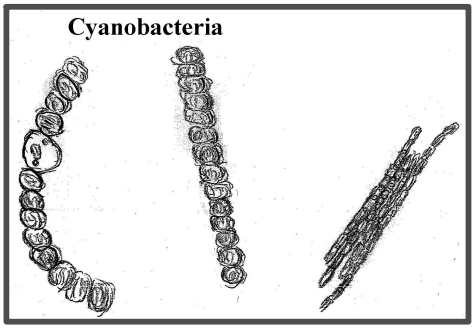
Algae

Algae are tiny microscopic plants that grow naturally in lakes, rivers and oceans. An algal bloom can form through the growth of a dense concentration of these small plants. Algal blooms generally occur under high phosphorus concentrations when one species of algae out-competes other algae and becomes so abundant that the lake water appears murky.



Algal blooms are made up of either harmless algae or potentially toxin-producing cyanobacteria. Algae blooms of diatoms, green and golden brown algae occur throughout the ice free period. Algae blooms can turn the water bright green, dark green, blue-green or brown, and may cause obnoxious odors around the lakeshore.

Cyanobacteria blooms create a greater problem for lake users when cells become concentrated with wind and wave action, forming a colorful surface scum. This scum may form by lake currents or windblown into the shallows and onto exposed rocks, making the shoreline appear painted with blue-green paint. When these organisms die and decompose, they create very unpleasant odors that resemble septic system effluent.



Treatment Options

An algal bloom is an indication that a problem exists within a watershed. The problem is often related to nearby construction activities, stormwater runoff, agricultural impacts, fertilization and land-use changes, as these activities cause soil nutrients to wash into the lake. Algae receive so many nutrients that they reproduce in vast quantities, impairing water quality. If the sources of pollution are reduced through lake management activities, the amount of nutrients entering the lake can be reduced thus decreasing the probability and extent of future blooms. To identify sources and possible solutions, a watershed plan should be developed. A plan containing best management practices and low impact development methods will guide residents and local officials on how to best reduce the nutrient flow to a lake.

Removing algae from a lake is difficult and processes are not always successful. Applying chemicals is only a temporary solution and is not likely to be approved unless the waterbody serves as a municipal water supply that is subjected to odor or treatment plant deficiencies due to cell proliferation.