

Aquatic Plants and Healthy Lakes:

YouTube Presentation Please view using [this link](#), or paste this into your browser:

<https://www.youtube.com/watch?v=akObqG2i8Uc>.

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This presentation serves to provide information on conditions for aquatic plant growth in local lakes and highlight some of the regulations that need to be considered prior to engagement in removal projects.

In 2014 a collaborative research project was initiated to examine the effect of climate change, nutrient loading and zebra mussels as stressors within local lakes. From the study, climate change was found to be the primary stressor in most study lakes. Moderate change in the diatom (microscopic algae) community from sediment cores was identified, this suggests minimal changes in water quality in the past 150 years. Overall, the lakes were found to have relatively low to moderate nutrient concentrations and highlighted that conservation efforts should be focused on limiting future change through building ecological resilience and protecting existing water quality conditions.

The study also examined plant biovolume (proportion of the water column occupied by aquatic plants). Lakes with zebra mussels and high total phosphorus concentrations had the most plant biovolume. Invasive species and nutrient enrichment are factors we can try to control to help reduce nuisance plant biovolume. The study also noted natural variability in the volume of aquatic plants across all lakes. A range of factors such as slope, bottom sediments, shelter from wind or waves are all elements that influence aquatic plant growth. The [Algae and Aquatic Plant Educational Manual](#) was produced to help foster the understanding of aquatic vegetation and provide resources for activities that protect lake and river health.

Aquatic plants provide many benefits including:

- Improved water clarity
- Prevent shoreline erosion
- Inhibit algae blooms
- Food source for wildlife
- Provide oxygen (in air and water)
- Provide shelter, breeding and nesting sites

Proliferation of aquatic plants may result in nuisance stands which in turn can have negative impacts on the lake ecosystem and recreation activities, this is of concern in regard to invasive species, such as Eurasian water milfoil (*Myriophyllum spicatum*).

Best management practices to reduce human impact on the lakes continue to be important, including minimizing nutrient inputs (properly maintained septic, limiting surface runoff) and maintaining a natural shoreline buffer with native trees and shrubs. In some cases, dense stands of vegetation may cause a nuisance and impede recreational activities requiring removal. A permit may be required for this type of work, please refer to the following resources for additional information:

Most lakes

<https://www.ontario.ca/page/remove-invasive-aquatic-plants>

<https://www.ontario.ca/page/remove-native-aquatic-plants>

Lakes on the Rideau Canal system

<https://www.pc.gc.ca/en/lhn-nhs/on/rideau/info/vegetation>