

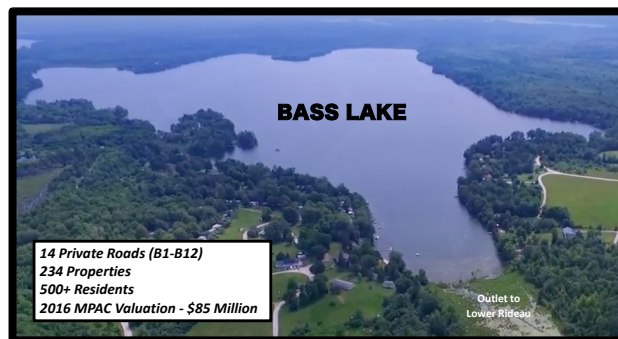
A SUSTAINABLE LAKE MANAGEMENT APPROACH BASS LAKE

The Way Ahead

The theme of this year's Annual General Meeting (AGM) via Zoom on 11 Sept 2021 will be to identify the long-term needs of our lake and how best our Lake Association can address these needs. Over the past three years, the majority of our energy and focus has centered around the need to substantiate and prosecute a capital project to replace the earthen berm in our Outlet. In that time, we have been very frugal and accumulated some financial reserves due to annual membership fees and the Township's annual grant program for lake associations. Now is the time to consider allocating some of these funds to the development of a sustainable lake plan and higher priority lake stewardship initiatives.

What is a Lake Plan?

A Sustainable Lake Plan is an approach by a lake association or community to identify and protect the natural, physical, cultural and economic aspects of a lake and its watershed. It results in a long-range vision for the lake community that can be implemented through a series of stewardship initiatives. Through discussions, residents identify what they value about a lake, learn about the issues affecting it, and offer recommendations on goals, objectives and actions that promote sustainable development and overall protection of a lake and its watershed.



The BLPOA Board has identified an **initial set of goals for consideration** by the membership as priorities and action:

- 1. Water Quality:** To protect, maintain and improve the water quality of the lake;
- 2. Shoreline Protection and Health:** To restore and maintain a healthy 'Ribbon of Life' around the lake;
- 3. Preserve Water Levels:** To maintain the lake's historic and natural water levels;
- 4. Aquatic Vegetation:** To manage excessive aquatic vegetation growth in problem areas of the lake;
- 5. Development Pressures and their Impacts on the Bass Lake Watershed:** To protect the lake environment and ecosystem from the impacts of shoreline development and redevelopment;
- 6. Responsibility of Landowners in Protecting Lake Health:** To encourage and promote environmental awareness, responsibility, education and action.

Lake Stewardship: An Attitude

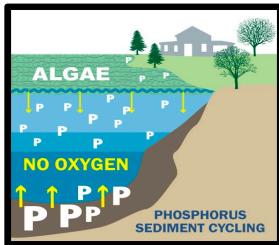
Lake Stewardship really is an attitude – it is the first important step in protecting a lake. Stewardship reflects an understanding that what we do on land and in the water affects the lake’s health. Stewardship centers on thoughtful consideration of the intricate lake ecosystem and interdependence between the lake and its surrounding watershed.



It takes into account to better balance our lifestyles with the needs of our lake. In short, it is a recognition that our lake is vulnerable- that in order to make it thrive, we, both individually and collectively must assume responsibility for its care.

Goal #1 - Water Quality

The Water Quality Index rating for Bass Lake is **“Poor”** as determined by the sampling data and parameters acquired by RVCA in the years 2008-2014. Nutrient exceedances, periods of limited fish habitat conditions, generally clear water, shoreline development and occasionally elevated pH levels contributed to the rating. Note: *The WQ Index has not yet been updated to apply any of the RVCA data collected from the past 6 years (2015-2020). Hopefully this rating has not degraded.*



Good water quality is integral to maintaining ecosystem health and the social, economic and recreational enjoyment of the lake. Water quality is influenced by many activities including nutrient runoff from properties and lawn fertilizers, poor septic system maintenance, shoreline and upland erosion from removal, alteration of shoreline vegetation, and development of near shore and back lot areas.

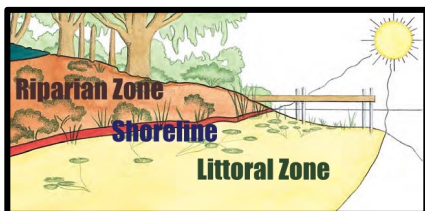
Objective:

Increase the monitoring and testing of our lake’s water quality to identify sources of water quality impairment. Provide ongoing record of water quality parameters such as: nutrient loading, temperature, dissolved oxygen, invasive species and bacteria levels.

Goal #2 - Shoreline Protection and Health

Our lakes shoreline or “Ribbon of Life” is the most biologically diverse area of the lake. The riparian area is a narrow band that provides essential habitat for waterfowl, fish, reptiles, mammals and insects to breed, find protection, move and feed. A healthy shoreline is also home to vegetation species (trees, shrubs, herbaceous and emergent plants) along with rocks that help to stabilize banks, filter contaminants from entering the lake, offers beautiful views and controls soil erosion. Protecting the shoreline, along with adjacent buffer zones is one of the most important steps in maintaining a healthy lake ecosystem.

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- Littoral:** the area of water penetrated by sunlight, where fish and amphibians spawn and feed, birds forage;
- Shoreline:** where water and land meet, between high and low water marks;
- Riparian:** the buffer/barrier behind the shoreline, where natural shrubs and trees hold the bank and filter runoff;
- Upland:** area behind the riparian, where your home, cottage, septic and driveway are likely located.

Objective:

Encourage the retention of natural shorelines and promote re-naturalization of altered shorelines.

Goal #3 - Preserve Lake's Water Level

The Bass Lake Property Owners Association was first established in November 2018 to develop and implement a water level management plan that assists in the protection and well-being of the natural environment of the lake and enhances the quality of life on Bass Lake for both seasonal and permanent residents. Under the leadership and support of our Township, our lake community partnered on a municipal/community-based project to construct a replacement earthen berm in our Outlet. This has required working with the Rideau Valley Conservation Authority and Ontario Ministry of Natural Resources to ensure the new berm/dam is a fully authorized water control structure that will have minimal impact on the ecosystems and is sustainable for generations to come. Thanks to the leadership of the Township and the tremendous support of all waterfront property owners this project will be completed by mid- September 2021.

Objective:

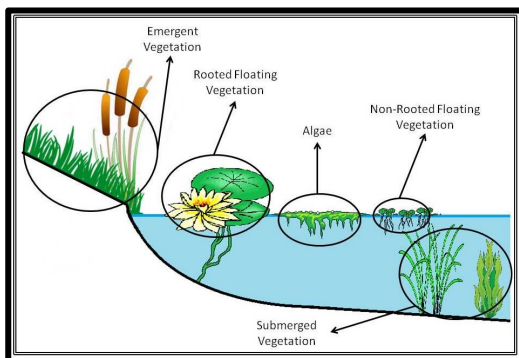
Monitor and assist in the Township in maintaining the integrity of the new berm structure. Continue to measure and record water levels on Bass Lake.



Goal #4 - Aquatic Vegetation

Eutrophication is the process by which lakes are fertilized with nutrients (chemicals absorbed by plants and used for growth). It is a natural aging process, but human activities can certainly speed it up, with more algae and weeds as a result. As nutrients such as nitrogen, potassium and phosphorus wash into the lake in run-off water or by soil erosion, they fertilize the lake, allowing algae and weeds to grow.

Aquatic plants and algae do provide many important services to the lake environment, including oxygenating lake water, taking up available nutrients, filtering sun radiation, providing food sources and habitat for fish, amphibians, waterfowl, reptiles and invertebrates. Root systems of aquatic plants also aid in shoreline and lake bottom stabilization, removing sediment from the water and reducing the effects of wave action.



Aquatic Vegetation is an important aspect of a healthy lake ecosystem. We need to learn how to deal with aquatic vegetation effectively and sensitively when it interferes with recreational activities and aesthetics due to excessive growth.

Objective:

To better monitor aquatic vegetation in Bass Lake. Perhaps in the form of a volunteer based aquatic vegetation monitoring program to monitor species diversity and vegetation density. Create a “What we know” report on the state of aquatic vegetation including species types, where growth occurs and what we can do in the future to deal with the issue.



Goal #5 - Development Pressure

While the year-round population in Rideau Lakes continues to grow, maintaining the health of the lake while meeting the demands of development and redevelopment and urbanized landscaping of waterfront properties is an ongoing challenge. Waterfront development accounts for a majority of the development activity in the Township. Due to the sensitive nature of permitting development in close proximity to waterbodies, the Township has adopted a number of application processes and policies to ensure the long-term protection of this important environment while permitting an appropriate amount of development for private land owners. Promoting sustainable future development within Rideau Lakes and our Bass Lake watershed will protect the lakes' water quality and overall health. Lake density or capacity issues can also impact lake health and enjoyment of the lake.

Objective:

Ensure that the Rideau Lakes Township Official Plan and Zoning Bylaws have development and redevelopment policies that will protect and improve the long-term health of our lake.



Goal #6 - Responsibility in Protecting Lake Health

Do you love the lake? Do you love the lake life? Do your children love the lake? Anyone who has spent time on Bass Lake knows that it is a wonderful place. For years, generations of Property Owners and Residents have enjoyed the natural beauty of the area and the comfortable social life that is part of "being" on Bass Lake. Our community is an important part of the economy and society within Rideau Lakes and the South Elmsley ward. If the ecosystem of the lake declines, so too will property values and overall health of the community. It is the responsibility of lake residents and users to ensure their investment is protected, their quality of life is preserved and the health of the lake and the watershed is preserved for generations to come. Many of us may not be aware some of our activities may be harming the lake.



Objective:

Encourage and promote environmental awareness, responsibility, education and action. Develop educational information on good stewardship practices for topics of concern identified by the lake community and distribute through various communication avenues: website, brochures, communiques.