



# **Five Year Review Report of the Otty Lake Management Plan**

Prepared by the Otty Lake Association and volunteers,  
with the support of community partners

May 2014

[www.ottylakeassociation.ca](http://www.ottylakeassociation.ca)

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## Five Year Review Report — Otty Lake Management Plan

### Executive Summary

Last year, the Otty Lake Association initiated a review of a long-term action plan it published in 2008, the Otty Lake Management Plan. The goal of this five year review was to take a fresh look at what had been accomplished to preserve and improve the lake and to identify areas which still need work. A key input for the review was an opinion survey conducted in 2013 among lake property owners about lake issues.

This summary presents a synopsis of the Five Year Review Report of the Otty Lake Management Plan.

The purpose of the Review Report is to inform property owners and to encourage them to engage in practices that will improve the health of the lake and the surrounding area for both humans and wildlife.

The Review Report looks into twelve issues: aquatic vegetation; climate change; development pressure; fish and wildlife health; ground water quality and quantity; impacts of boating; mining; partnerships in lake management; responsibility in protecting lake health; shoreline protection and health; surface water quality; and water levels. For each issue, it includes accomplishments and recommendations.

In fall 2013, the Association surveyed the local community about its perspectives on those issues. It distributed approximately 500 surveys. 206 were returned. Property owners rank **surface water quality, aquatic vegetation, and fish and wildlife health** as their top three concerns. The results of the survey clearly show that people on the lake understand that the issues are inter-related. For example, development pressure and the health of the shoreline have an impact on water quality. Many said that everyone in the community is responsible for ensuring Otty Lake is a healthy lake.

The Review Report is a forward-looking document. Like the original Otty Lake Management Plan, it is community-driven and identifies the shared role of lake property owners and community partners in protecting Otty Lake. Property owner education is a key priority for the Association. It works with provincial and local organizations in order to stay current and develops programs and events to educate residents about ways they can take lake-friendly action on their properties and on the water.

The Review Report contains a wealth of information and provides opportunities for everyone to contribute to making Otty Lake healthy and beautiful.

**What you can do:**

- Read the Review Report at [www.ottylakeassociation.ca](http://www.ottylakeassociation.ca). Look under OL Mgmt Plan.
- Volunteer with the Association by emailing [ola@ottylakeassociation.ca](mailto:ola@ottylakeassociation.ca)
- Protect your shoreline using the information in the “Love Your Lake” shoreline report for your specific property.

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## **Introduction**

This Review Report describes efforts to address the goals and objectives of the issues identified in the 2008 Otty Lake Management Plan (OLMP) and to identify areas that still need to be addressed as of May 2014.

In October 2013, the Otty Lake Association (OLA) distributed opinion surveys to the local community for the review of the OLMP. Approximately 500 surveys were distributed, and 206 were returned by December 29, 2013.

In the survey responses, Otty Lake residents identified water quality, aquatic vegetation and algae, and fish and wildlife habitat as their three top-priority issues. However, it was clear that they understood there were strong correlations among issues. A great many recognized that all members of the community have a responsibility in ensuring that Otty is a healthy lake. They also identified climate change as an issue that will increasingly affect Otty Lake and its watershed.

### **Intent of the 2008 Otty Lake Management Plan**

The OLMP was a long-term action plan developed by the Otty Lake community, with the assistance of its community partners, to protect the health and special features of Otty Lake.

The OLMP reflected community consensus about what was needed to protect the natural, physical, cultural and economic aspects of Otty Lake and its watershed.

### **Vision Statement for Otty Lake Management Planning Process**

“To protect and sustain the health of Otty Lake through the combined efforts of residents and users of the lake and its watershed, and of concerned community partners in government and non-government organizations.”

### **Mission Statement in the OLA Constitution**

“The OLA strives to promote and assist in the protection and enhancement of the natural environment of the lake and surrounding watershed.”

### **Issues in 2008**

Based on input from the lake community and its partners, eleven issues were identified as priorities for action and became the basis for the Otty Lake planning process:

1. Surface Water Quality
2. Aquatic Vegetation
3. Groundwater Quality and Quantity
4. Water Levels
5. Development Pressure
6. Fish and Wildlife Health

- 7. Mining
- 8. Shoreline Protection and Health
- 9. Impacts of Boating
- 10. Responsibility in Protecting Lake Health
- 11. Partnerships in Lake Management

Added in 2013

- 12. Climate Change

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## 1. Surface Water Quality

### Goal

To protect, maintain and improve the water quality of Otty Lake

### Objectives

- To monitor water quality to identify sources of water quality impairment
- To reduce or eliminate sources of water quality impairment

### What has been done — 2008-2013

- Otty Lake volunteers conduct an ongoing E. coli sampling program to determine bacteria levels at selected shoreline sites. Only one E. coli sample taken by the OLA has exceeded the provincial standard for swimming during the 2008-2013 timeframe. In 2013 these volunteers took 71 E. coli samples.
- Volunteers have participated in the Ministry of the Environment's (MOE) Lake Partner program since its inception in 2002, sampling for Total Phosphorus and measuring water clarity (using a secchi disk) six times annually. In addition, since 2012, these volunteers have taken additional Total Phosphorous and Nitrogen samples at various deep water and shoreline sites, under an augmented OLA water quality monitoring program.
- Every year volunteers have helped the Rideau Valley Conservation Authority (RVCA) carry out its Watershed Watch monitoring program on Otty Lake, measuring parameters including Total Phosphorous, Nitrogen, E. coli, pH, conductivity (the ability of electricity to pass through water), the level of dissolved oxygen in the water, and water temperatures.
- Volunteers assist the RVCA to monitor Otty Lake invasive species such as zebra mussels and to carry out a program for monitoring macro-invertebrates in the benthic zone as an indicator of lake health.
- The OLA Lake Steward maintains an Otty Lake water quality database.
- Information about the OLA water quality programs and results of the Otty Lake and MOE monitoring programs are available on the OLA website. The Lake Steward provides regular updates to the community in the Capt'n Otty's Log newsletter and at the annual general meeting (AGM).
- The OLA continues to communicate with and educate the community about the need to protect water quality through good stewardship, by encouraging:

- the development and expansion of healthy shoreline buffers
  - good maintenance of septic systems
  - reducing hard surface run-off
  - avoiding the use of fertilizers on lakeshore properties
- In 2011-2012, the OLA participated in an interagency group comprised of representatives of Tay Valley Township (TVT), MOE, RVCA, Mississippi Valley Conservation Authority (MVCA), Ministry of Natural Resources (MNR) and several lake associations. This group discussed ways TVT land use planning decisions can help mitigate the impact of shoreline development on lake health. (See also section 5 below, [Development Pressure](#)).
  - In 2000, TVT initiated a pilot septic system re-inspection program on Christie Lake. It was then expanded as a voluntary Sewage System Re-inspection Program on its other lakes including Otty Lake.
  - In 2012, following changes to the Ontario Building Code and responding to the concerns of lake associations about the health of their lakes, TVT established a pilot program for mandatory septic re-inspections on Otty and six other lakes in the township. According to schedule, all septic systems older than nine years on Otty Lake shoreline properties were inspected by the summer of 2013.
  - In 2008, Drummond/North Elmsley (D/NE) Township and the Leeds, Grenville and Lanark Health Unit established a voluntary septic re-inspection program for Otty Lake shoreline properties with systems older than nine years. In 2009, the Mississippi Rideau Septic System Office began to conduct the re-inspections. The D/NE Township Septic System Re-inspection Program became mandatory in 2012. As of May 2014, six D/NE Township septic systems older than nine years on Otty Lake shoreline properties remain to be inspected. D/NE Township Council has committed that these last six septic systems will be inspected by the end of the summer of 2014.
  - Both townships have expressed their intention to continue the septic re-inspections on a 10 year cycle once all septic systems have had an initial re-inspection.
  - The Mississippi Rideau Septic System Office Septic Inspector and the DNE Township Chief Building Official are regularly invited to the OLA's AGM to meet with members of the Otty Lake community and answer their questions.

- In 2010, the OLA produced the Otty Lake Shoreline Handbook in partnership with the Algonquin to Adirondacks Conservation Association, the Centre for Sustainable Watersheds and the RVCA. The handbook was adapted to apply to the Otty Lake watershed and was delivered to 525 Otty Lake shoreline and near-shoreline property owners. The goal of the handbook was to provide practical, environmentally friendly resources and guidelines to seasonal and permanent residents.
- For 2010, 2012 and 2014, the OLA produced calendars which featured photos of Otty Lake (2010), the shoreline (2012) and flora and fauna (2014) taken by Otty Lake residents and friends. The calendars contained stewardship messages guiding lake residents on ways they can keep the lake healthy.
- In August 2012, the OLA partnered with the Lake Networking Group and other local lake associations to provide a workshop which featured septic system experts and provided an opportunity for local residents to learn more about maintaining a healthy septic system.
- Each summer the Area Counsellors visit lake residents and distribute information packages which explain how they can help protect the health of the lake.
- In 2009, 2010, and 2012, the OLA, in partnership with the RVCA's Shoreline Naturalization Program, provided opportunities for members of the community to purchase native shrubs for shoreline plantings at reduced rates. In 2013, the native shrubs were available at no cost to shoreline residents as the RVCA covered the full cost in a special 2013 Tay watershed program. As well, in 2013, wildflowers were available at a discounted price through the Otty Lake shoreline planting program. (See [Appendix 1](#) for more information on the OLA shoreline planting program.)
- An Otty Lake Shoreline Survey, completed in 2013 under the Love Your Lake Program in partnership with the Centre for Sustainable Watersheds and Canadian Wildlife Federation, provided shoreline residents with information about their individual shoreline properties. It made recommendations for shoreline stewardship actions. This 2013 Shoreline Survey will provide an opportunity for the OLA to compare the state of the shoreline in 2013 with that described in the 2005 survey and to assess the possible benefits of the stewardship education programs (including the shoreline naturalization projects) that have been carried out since 2005.

### **Still to come — Recommendations for Future Action**

- The OLA should maintain the expanded water quality monitoring programs it established and enhance the monitoring as needed to provide a complete, ongoing assessment of water quality
- Continued partnerships between the OLA and agencies and organizations such as the municipalities, RVCA, MOE, MNR, and the Leeds, Grenville and Lanark District Health Unit should be maintained to provide the supports for the water quality monitoring programs
- RVCA should be encouraged to continue its active involvement in monitoring water quality at Otty Lake through programs such as the Watershed Watch program and monitoring for invasive species and benthic invertebrates.
- See also section 2, [Aquatic Vegetation](#), for more information on zebra mussels.
- The OLA should continue to recruit and train volunteers to participate in monitoring programs and data collection.
- The OLA should continue to inform the community about the results of water quality monitoring by making data and information on collection methods available to the residents and to community partners in a timely, consistent and accessible manner.
- Observations of the lake by residents enhance the monitoring done by the OLA. This should continue. For example, a project to monitor mid-lake water temperatures in three seasons by residents enhances the work done by the OLA through the Lake Partners program and the RVCA's Watershed Watch Program. Likewise, ice-in and ice-out data collected by residents adds to the OLA database of information.
- The OLA should continue to develop and promote education programs, workshops and information resources to make the community aware of good stewardship practices and of health threats to water quality. New residents should receive an updated copy of the Otty Lake Shoreline Handbook.
- More work remains to be done to identify wetlands and permanent and intermittent streams within the watershed so that the community better understands the role each plays in maintaining good water quality. (See also section 3, [Ground Water Quality and Quantity](#), for more information on the wetland evaluation workshop.)

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## 2. Aquatic Vegetation

### Goal

To manage excessive aquatic vegetation growth in problem areas of Otty Lake

### Objectives

- To monitor aquatic vegetation in Otty Lake
- To identify and manage inputs contributing to excessive aquatic vegetation growth

### What has been done — 2008 -2013

- The OLA continues to observe the aquatic vegetation in the lake and inform the community and the RVCA. Observations are reported by lake residents who spend a great deal of time on the lake year after year and can compare with previous observations.
- Over the past seven to eight years the amount of Eurasian watermilfoil in Otty Lake has decreased. This is consistent with observations reported by residents of nearby lakes who have found that increases and decreases of Eurasian watermilfoil are cyclical.
- Over the past five years the amount of algae in the lake has increased. The RVCA has identified the algae observed in Otty Lake as green filamentous algae, typically Spirogyra and Mougeotia. Although this algae is not harmful to human health, lake residents complain about its appearance and its interference with swimming along their shorelines. Other local lake communities also report an increase in the algae in their lakes.
- Total Phosphorus levels in the lake, as measured through MOE's Lake Partners program, have declined slightly since 1996.
- The OLA and the RVCA are looking to university research programs to help residents understand the cause of increased algal growth.
- Otty Lake residents are encouraged to follow good shoreline stewardship by limiting the amount of phosphorus reaching the lake. In 2013 the OLA initiated the "Starve the Lake of Phosphorus" campaign to increase awareness among cottagers and residents of actions that they could take to reduce the flow of nutrients into the lake. Campaign fridge magnets were distributed to all lake cottagers and residents. Educational articles were included in the newsletter and summer information packages and were posted on the association's website.

- See also Section 1, Water Quality, for more information about shoreline planting programs and the septic re-inspection program.

#### **Still to come — Recommendations for Future Action**

- The OLA should continue to educate property owners about the causes of excessive algae aquatic vegetation growth and about good stewardship practices.
- Residents should be reminded that water systems need healthy algae and aquatic vegetation to sustain the fish, reptiles, vertebrates and invertebrates which are key links in the food chain. These reminders must take into account that excessive algae or aquatic vegetation is an aesthetic concern and a problem for residents who want to enjoy recreational activities such as swimming and boating.
- Residents are encouraged to continue to participate in the shoreline naturalization program and to maintain and expand the shoreline buffer areas of their properties.
- Independent research and research conducted with community partners such as RVCA and MNR should find a reasoned, balanced approach to the current proliferation of green algae.
- During the summer of 2013, as a first step in establishing a program to understand more about increased aquatic vegetation, the RVCA invited cottagers and residents in the Rideau watershed to respond to a research survey about aquatic vegetation. The largest number of responses from within the watershed came from Otty Lake cottagers and residents.
- The RVCA used this survey to support an application for a Trillium grant for education stewardship workshops and university research. Friends of the Tay Watershed was the lead applicant, and the OLA and other local lake groups supported the application. On April 1, 2014, funding was approved for the project “People, Aquatic Plants and Healthy Lakes: Finding the Balance in Eastern Ontario’s Lake Country.”
- The OLA needs to understand more about the current level of aquatic vegetation in the lake. Much of the existing milfoil in shallow bays is unhealthy and it is not spreading. It is possible that, within a short period of time, much of this growth will die off and be replaced with another species of aquatic vegetation.

- Zebra mussels continue to be a concern for residents. Further study is needed to determine whether they play a role in the increased aquatic vegetation and algae found in Otty Lake.
- A project to monitor the mussel population in various areas of the lake will be done in summer 2014. An Otty Lake resident with expertise in this area is undertaking this project at his own expense.

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### 3. Ground Water Quality and Quantity

#### Goal

To protect groundwater resources in the Otty Lake watershed

#### Objectives

- To prevent groundwater contamination

#### What has been done — 2008-2013

- In 2013 the OLA, in partnership with the Toronto Zoo's Adopt-A-Pond Program, held a wetland inventory workshop. Its goal was to better understand the role that the wetlands play in contributing to water quality by removing nutrients, pathogens and sediments. The outcomes of the workshop were presented to members of the Otty Lake community at the 2013 AGM. After the workshop, three Otty Lake property owners approached the Adopt-A-Pond staff to invite them to evaluate the wetlands on their properties.
- The OLA encourages members of the community to test their well water regularly. Testing bottles and information on well water testing locations are available annually at the AGM.
- In partnership with Caduceon Environmental Laboratories, the OLA provided an extensive Well Water Testing Package to an Otty Lake resident as a door prize at the 2012 AGM.
- Otty Lake residents are made aware of the funding available through the Rideau Valley Rural Clean Water Program for improvements to wells and septic systems. This information was included in the summer information package and the Otty Lake Shoreline Handbook.
- During the Mississippi-Rideau Septic System Re-inspection program, information is collected on the source of drinking water and the water

treatment practices of the property owners. This information assists in planning the protection of the long-term health of the lake.

- See also Section 1, [Surface Water Quality](#), for more information on septic re-inspection programs in TVT and D/NE Township.
- The Mining Amendment Act, passed in October 2009, ensured that ground water in the Otty Lake watershed has protection from the impact of mining activities. Property owners with ‘surface rights only’ are no longer vulnerable to staking and now have more control over what happens on their properties.

#### **Still to come — Recommendations for Future Action**

- There is still much to be understood about the ground water in the Otty Lake watershed. Work should continue to identify all wetland areas in the area and to understand the role that they play in contributing to water quality and recharging the aquifer.
- Otty Lake residents should be informed about and encouraged to use the Rideau Valley Rural Clean Water Program and other incentive programs to decommission wells and improve wells and septic systems.
- The OLA must continue to educate property owners in the watershed about sources of potential ground water contamination.
- The OLA should continue to support the work of TVT and D/NE Township to provide ongoing septic re-inspection programs..
- The OLA should support MOE and the Health Unit in work they do to ensure an updated database of all—old and new—wells in the Otty Lake watershed.
- The OLA should work with the RVCA and the Mississippi-Rideau Source Protection Committee to understand the implications for Otty Lake of the Clean Water Act.

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## **4. Water Levels**

### **Goal**

To preserve Otty Lake’s natural water levels

### **Objectives**

- To promote understanding of naturally fluctuating water levels
- To ensure adequate flow into and out of Otty Lake

#### **What has been done — 2008-2013**

- The OLA and the RVCA both measure Otty Lake water levels and maintain records. The RVCA installed a “log meter gauge” in 2011 to continuously record Otty Lake water levels. Periodic updates are provided to the OLA. An Otty Lake resident’s 30 year record of water levels is available to the OLA.
- The OLA calculates the flow of Jebbs Creek and monitors the water level using a “stage gauge” at the bridge on Rideau Ferry Road.
- When there is concern about Rideau watershed water levels, the OLA posts RVCA notices about high and low water levels, drought conditions, etc. on the OLA website.
- The OLA shares information about beaver activity on Jebbs Creek with the RVCA.
- The RVCA has a Beaver Management Package to inform landowners in the Rideau watershed about beaver and dam removal from individual properties.
- The RVCA determined the Otty Lake flood level in 2011. (See the RVCA [Technical Memorandum](#).) However, the RVCA, which advises local municipalities and the County about applications made under the Planning Act, currently does not yet have the updated topographical mapping needed to show this information on the maps.

#### **Still to come — Recommendations for Future Action**

- There needs to be more work done to identify wetlands within the Otty Lake watershed and to understand the role that they play in maintaining water levels and lake water recharge. (See also Section 3, [Groundwater Quality and Quantity](#).)
- The OLA, the RVCA, local municipalities and other partners should continue to monitor climatic conditions on an annual basis and relate this information to water level data and to historical records.
- As the RVCA’s “log meter gauge” information is now graphed and provided to the OLA, this information should be posted on the OLA website.

- Once better topographical mapping is available, RVCA will be able to plot on maps the extent of land that might flood around Otty Lake. Flood plain mapping will be discussed with the municipalities and the OLA before the mapping is used to further implement the regulations concerning building within the flood prone area. A public meeting will also form part of the process.

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## 5. Development Pressure

### Goal

To protect the Otty Lake environment and ecosystem from the impacts of shoreline development and redevelopment

### Objectives

- To ensure that the official plans and zoning by-laws for TVT and D/NE Township have development and re-development policies that will protect the long-term health of the lake
- To determine the sensitivity of Otty Lake to development and re-development
- To maintain and improve septic systems within the Otty Lake watershed
- To ensure a transparent planning and development process

### What has been done — 2008-2013

- Whenever possible the OLA has continued to attend municipal meetings.
- The OLA Land Use Committee receives copies of applications for minor variances and severances. Members of this committee meet with landowners who want to submit applications before they present the applications to the municipality. On behalf of the Otty Lake community, the committee encourages decisions that are friendly to the health of the lake.
- The OLA encourages both TVT and D/NE Township to limit disturbance to shoreline properties during development and re-development.
- The OLMP was recognized in the 2012 revision of the D/NE Township Official Plan:

*The OLA has prepared the OLMP, in co-operation with the TVT and D/NE Township, RVCA, MNR and MOE, and with other community partners. When*

*considering development proposals within this watershed, Council shall consider the planning recommendations and policies contained in the Management Plan which are consistent with the policies of this Plan.*

- As TVT prepares to revise its Official Plan in 2014, the OLA will also seek recognition of the OLMP in its updated Official Plan.
- The OLA works with RVCA, MNR and the municipalities to provide updated information about water quality and fish and wildlife habitat. It thus gives the municipalities solid background information for development decisions that have the potential to impact on Otty Lake. It also provides Otty Lake landowners with additional information about lake and the watershed.
- Lanark County's Sustainable Communities Official Plan has been completed. It was approved by the province and came into effect on May 28, 2013. A copy of the County Official Plan is on the [County's website](#).
- In 2008, MOE assessed the carrying capacity of several lakes in the Tay Watershed, including Otty, using the MOE phosphorus model. However, by 2013, it was generally agreed that the assumptions used in the MOE model for the phosphorous inputs from shoreline septic systems were not accurate.
- The Total Phosphorus levels of Otty Lake measured at the mid-point have declined slightly since regular measurements began in 1996 although there has been considerable development and re-development along the shoreline since that time.
- The OLA continues to seek information from and work with the RVCA to develop a way to understand the sensitivity of the lake to development. From 2011-2013, Otty Lake representatives participated in a TVT Interagency Working Group involving RVCA, MVCA MOE, Parks Canada, Farren Lake, Adam Lake, Otty Lake and the Lake Networking Group. This group's mandate was specifically to look at the sensitivity of Adam and Farren Lakes to development and to make recommendations to municipal council. Recommendations for Adam and Farren Lakes could have an impact on other local lakes
- See also Section 1, [Surface Water Quality](#), for more information about TVT and DNE septic re-inspection programs

#### **Still to come — Recommendations for Future Action**

- Existing communication links between the OLA and the municipalities of TVT and D/NE Township should be continued and strengthened.

- The OLA should support the continuation of the TVT and D/NE Township septic re-inspection Programs.
- The OLA should continue to work with both TVT and D/NE Township to provide information about Otty Lake and its watershed and to encourage enforcement of consistent, sustainable development and redevelopment standards and policies under the townships' official plans and zoning by-laws.
- The OLA should work with TVT, D/NE Township, the RVCA and residents to ensure that buffer areas, natural areas, and wetlands are protected during and after development. For example, this protection could include limiting disturbance of waterfronts and maintaining or expanding vegetated shoreline buffers.
- The OLA's Land Use Committee should continue to keep open dialogue with Otty Lake property owners about redevelopment applications. It should take a collaborative approach for discussion of developments as plans are conceived and before positions are established.

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## 6. Fish and Wildlife Health

### Goal

To protect wildlife's terrestrial and aquatic habitat and ensure sustainable management of watershed resources

### Objectives

To protect, maintain and enhance indigenous fish and wildlife diversity and their required habitat in the Otty Lake watershed

### What has been done — 2008-2013

- OLA has distributed and posted signs and other information about bass spawning season.
- OLA has continued to encourage catch and release and selective harvest of smallmouth and largemouth bass.
- At the AGM and in newsletters, the Environment Committee has promoted the harvesting of panfish for human consumption to reduce the pressure on game fish.

- The OLA has continued to accumulate and provide annual creel data of smallmouth and largemouth bass caught and released in Otty Lake for the Otty Lake records and for MNR.
- The most recent MNR on-lake study of the Otty Lake fishery was the Nursery Habitat Assessment Report of 2007. It gathered information about areas of critical fish habitat.
- The OLA continues to participate in Bird Studies Canada's Canadian Lakes Loon Survey. Individual residents participate in surveys such as "Feeder Watch," "Frog Watch" and "Turtle Tally."
- Until 2012 the Rideau Valley Field Naturalists conducted Christmas Bird Counts. These surveys helped monitor the presence of species in the watershed. As follow-up, individuals now have access to a reporting system that allows them to report wildlife presence and behaviour.
- In May 2010, the OLA in partnership with agencies such as RVCA, the Community Stewardship Council of Lanark County, the Rideau Valley Field Naturalists and the Centre for Sustainable Watersheds conducted a 24 hour BioBlitz on private properties at the outlet of Otty Lake to Jebbs Creek. Information gathered during the BioBlitz added to the database of information collected for the 2007 Report on the State of Otty Lake and its Watershed. It also provided a wonderful opportunity for members of the community to work with scientists and local experts to observe and learn more about the flora and fauna around them.
- In 2011 the OLA partnered with the Lake Networking Group, MNR and the Community Stewardship Council of Lanark County to offer a "Fish 101 Workshop" to representatives of local lake communities.
- In July 2012, a second Otty Lake BioBlitz took place at Scout Camp Whispering Pines on the south-west shore of Otty Lake. Again, the community had an opportunity to learn more about the natural world around them, and the lake association added to the database of information available about the watershed. The OLA partnered with RVCA, Community Stewardship Council of Lanark County, Centre for Sustainable Watersheds, Canadian Wildlife Federation and others.
- In June 2012, the Toronto Zoo Adopt-A-Pond Program offered a workshop about turtles that provided a hands-on opportunity for members of the community to learn more about the different turtles in the Otty Lake watershed and the habitats they need.

- In June 2013, a Wetland Identification Project of the OLA and the Toronto Zoo Adopt-A-Pond Program provided an opportunity for the community to learn more about the wetlands of the lake and the important role they play.
- In October 2013, the OLA and RVCA partnered to build 92 new bass spawning beds in the lake using washed rock and gravel. During this work, RVCA and OLA volunteers submerged some small trees deep in the lake adjacent to spawning areas to provide protection for fish as well as other aquatic creatures. It is planned to monitor these sites in the future.
- In September 2013, the OLA established a committee to look at the need for stewardship activities to protect the plants and animals whose habitat is the Crown-owned islands on Otty. The committee will work closely with MNR.

#### **Still to come — Recommendations for Future Action**

- In the spring of 2014, extensive monitoring (both by visual examination and also by underwater camera) of the 2013 bass spawning enhancement sites will take place to assess the usage of the new nest sites and underwater wood structures. As well, an extension of the 2013 Fish Habitat Enhancement Project is planned for September 2014. Additional new nest sites will be created and heavily anchored wood will be dropped into pre-selected deeper water (15-25 feet in depth) adjacent to spawning areas. This will provide resting and feeding stations for post-spawn female bass.
- Opportunities for funding or cost-shared initiatives for fish and wildlife enhancement should be explored.
- Important existing or potential wildlife corridors and habitats should be identified and their protection encouraged.
- The OLA should continue to identify species at risk in the watershed and partner with MNR to enhance and protect existing habitat.
- Through presentations at the AGM, articles in the newsletter and inserts in the summer information packages, the OLA should educate Otty Lake property owners on individual actions they can take to sustain or improve wildlife and fish habitat.
- The OLA should continue to identify, evaluate and monitor wetlands throughout the watershed, educate landowners about their importance and encourage their protection.

- The OLA should continue to participate in the Canadian Lakes Loon Survey, monitor the loon population of the lake and ensure habitat for loons is protected.
- The OLA should encourage shoreline plantings of native shrubs, trees and wildflowers.
- The OLA should continue the work of the committee looking at stewardship of Otty's Crown-owned islands.

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## 7. Mining

### Goal

To protect the Otty Lake watershed from the impacts of all mining activities

### Objectives

To protect all privately owned Surface Rights Only lands from mining claims, exploration and extraction

### What has been done — 2008 -2013 (See [Appendix 2](#))

- The Ontario Legislature passed the Mining Amendment Act in October 2009. The Ministry of Northern Development & Mines then withdrew all un-staked “Surface Rights Only” land in Southern Ontario (all land south of Lake Nipissing and the French and Mattawa Rivers).
- The OLA along with the Citizens Mining Advisory Group, the Lake Networking Group and many other organizations and individuals across Ontario participated in the consultation process that provided input to the Ontario Government about this legislation.

### Still to come — Recommendations for Future Action

- Many unmapped and abandoned mines and mine hazards remain throughout the Otty Lake watershed. These could pose safety and environmental concerns, and property owners should continue to be aware of these situations.

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## 8. Shoreline Protection and Health

### Goal

To promote and maintain a healthy ‘ribbon of life’ around Otty Lake

### Objectives

- Promote re-naturalization of altered shoreline by all property owners

- Promote good shoreline stewardship
- Ensure the 'ribbon of life' is protected by municipal planning policies

#### **What has been done — 2008 -2013**

- Through Capt'n Otty's Log, the Otty Lake Shoreline Handbook, OLA website and the summer information packages, the OLA has consistently promoted good shoreline stewardship encouraging lake residents to maintain and enhance their shorelines. (The riparian area is a narrow strip of habitat that is home to many wildlife and vegetation species. This shoreline transition zone is generally made up of trees, shrubs, herbaceous and emergent plants that are tolerant of wet to moist soil conditions as well as rocks, plant roots, fallen logs and other organic material. Riparian habitats provide many social, economic and environmental benefits.)
- Since 2009 the OLA has participated annually in the RVCA's Shoreline Naturalization Program, making shoreline plants available to members of the Otty Lake community at subsidized prices.
- Through a special Tay Watershed program, the RVCA offered free shrubs for shoreline planting in 2013. In addition, the OLA subsidized the cost of a number of wildflowers for Otty Lake shoreline planting
- Partnering with RVCA, the OLA has offered planting demonstrations in conjunction with the distribution of the shoreline plants.
- In 2008, partnering with the Federation of Ontario Cottagers' Association and the Centre for Sustainable Watersheds, the OLA offered "Docktalk," a workshop focused on using native plants and raising awareness of concerns about invasive species.
- In 2008, the OLA worked with the Lake Networking Group, Community Stewardship Council of Lanark County, RVCA and TVT to offer two workshops about native plants.
- In 2012, the OLA included a copy of RVCA's pamphlet "Solutions for Shoreline Erosion" in the summer information packages distributed to all Otty Lake property owners.
- In 2013, the OLA partnered with the Centre for Sustainable Watershed's Love Your Lake program to conduct a survey of the Otty Lake shoreline. Shoreline

residents will receive feedback sheets and recommendations. This survey will also provide an opportunity to compare the state of the 2013 shoreline with that in 2005.

- The OLA Land Use Committee reviews municipal minor variance and severance applications. It encourages landowners and municipalities to protect and rehabilitate shoreline buffers in all development and re-development applications.

#### **Still to come — Recommendations for Future Action**

- To follow-up on the 2013 Love Your Lake shoreline survey reports, Otty Lake residents are encouraged to implement the recommendations for protection and enhancement of shoreline buffers. The individual shoreline reports will be distributed in the spring of 2014. Property owners will be encouraged to participate in the OLA 2014 shoreline planting program and to consider applying for one of the five free Otty Lake shoreline naturalization projects funded by Fisheries and Oceans Canada.
- The OLA should determine a strategy for future shoreline remediation of priority areas revealed by the shoreline survey mapping.
- The OLA should continue to support future participation in shoreline naturalization projects and communicate information about good shoreline stewardship to members of the lake community.
- Examples of good shoreline stewardship should be recognized and promoted using OLA communication tools.
- The OLA should work with the RVCA and the municipalities to identify the location of locally significant wetlands within the Otty Lake watershed.
- The OLA should encourage the municipalities to establish by-laws to ensure healthy shoreline buffers.
- The OLA should continue to encourage the municipalities to develop, implement and enforce site plan policies, by-laws and guidelines to ensure the Otty Lake 'ribbon of life' is protected.
- The OLA should encourage the municipalities of TVT and D/NE Township to develop a monitoring and re-inspection program to ensure that site control or development conditions are met.

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## 9. Impacts of Boating

### Goal

To encourage the respectful enjoyment of the lake by lake residents and lake users and to minimize the negative impacts of boating

### Objectives

- To ensure that the Otty Lake community is aware of the impacts of specific boating behaviours
- To protect Otty Lake from the introduction of additional invasive species

### What has been done — 2008-2013

- The Marine Patrol of the Ontario Provincial Police (OPP) has participated in the AGM, and the OLA has published stats about charges and warnings when they are available. The OLA participates in twice yearly meetings between the OPP and lake associations. The OPP Marine Patrols are welcomed on Otty Lake to enforce existing regulations.
- Otty Lake property owners and users are encouraged to minimize their impact on the lake by using non-motorized watercraft, such as canoes, kayaks and sailboats and to upgrade their boat motors to new low emission technology.
- The RVCA works with the OLA every year to monitor invasive species in Otty Lake.
- The OLA maintains signage at the public boat launch and at other areas around the lake to remind people about ways to avoid the transmission of zebra mussels and other invasive species.

### Still to come — Recommendations for Future Actions

- The OLA should encourage the development of guidelines for boating, such as the “Watch Your Wake” materials provided through the Lake Networking Group.
- The OLA should encourage lake residents to familiarize themselves with and follow the [Safe Boating Guide](#).
- The OLA should continue to reinforce messages concerning safe and responsible boating and educate lake users about the potential negative impacts on the environment of poor boating practices.

- The OLA should identify and monitor sensitive shorelines, e.g., areas prone to erosion and loon nesting areas.
- The OLA should continue to inform lake residents about the potential introduction of invasive species to the lake by boats and their impact on the lake.
- The OLA should continue to encourage non-motorized boating experiences such as “PaddlePower” and canoeing, kayaking and sailing activities. Promote respect for the safety of these boats.

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## 10. Responsibility in Protecting Lake Health

### Goal

To encourage and promote environmental awareness, responsibility, education and action

### Objectives

- To educate the lake community about the issues affecting the lake and their role as good stewards of the lake and the watershed
- To engage the lake community in protecting Otty Lake

### What has been done — 2008-2013

- The OLA has used its website, articles in Capt’n Otty’s Log, summer information packages, the Otty Lake Shoreline Handbook and workshops to communicate about good lake and watershed stewardship.
- The OLA Area Counsellors provide a strong network of committed volunteers who assist in delivering materials such as the Otty Lake Shoreline Handbook and the summer information packages.
- Events such as the Family Environment Day, which evolved into Capt’n Otty Day, provided an opportunity for people of all ages to celebrate the lake and to interact with one another and with resource people from the broader community.
- The 2010 and 2012 Otty Lake BioBlitzes offered opportunities for members of the community and other individuals and agencies to work with scientists and local experts to learn more about the local flora and fauna. For example,

in 2012 seven resource agencies and the OLA brought together experts and volunteers.

- Each spring members of the Otty Lake community, including the Maple Glen Family Association and the BurgessWood Community Association, participate in the Pitch-In Canada program to clean up roadways, ditches and shorelines of debris that has accumulated over the winter.
- The OLA continues to partner with organizations such as the Community Stewardship Council of Lanark County (now Lanark County Stewardship Council), the RVCA, the Lake Networking Group, the Centre for Sustainable Watersheds, MNR, the Toronto Zoo Adopt-A- Pond Program, the Mississippi Rideau Septic System Office to offer workshops and circulate educational materials. Examples of workshops include: septic (2012), “Fish 101” (2011), “Lake Links” (annual), turtles (2012), wetland identification (2013), and native plants (2008).

#### **Still to be come — Recommendations for Future Action**

- The OLA must continue to work in partnership with other organizations to offer workshops, training sessions and educational materials.
- There is need for an ongoing recruitment of new volunteers for the OLA Board of Directors and committees.
- The OLA should develop a welcome handout that local real estate firms could give to people buying property on the lake.
- New residents should be encouraged to get involved with the OLA.

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## **11. Partnerships in Lake Management**

### **Goal**

To establish, maintain and expand upon effective partnerships in lake management

### **Objectives**

To maximize opportunities for the lake community and its partners to participate and cooperate in the protection of Otty Lake

### **What has been done — 2008-2013**

- Members of the Otty Lake community have been encouraged to play an integral role in the implementation of the recommendations of the OLMP.

- The OLA has worked consistently to maintain a strong working relationship with D/NE Township and TVT and with community partners such as the RVCA, the Community Stewardship Council of Lanark County, MOE, MNR, the Mississippi Rideau Septic Office, the Centre for Sustainable Watersheds, the Lake Networking Group, and others, in order to find solutions to common problems and thereby maximize the protection of Otty Lake and its watershed.
- Scouts Canada, which maintains Camp Whispering Pines on the southwest shore of the lake, has partnered with the OLA on undertakings such as Pitch-In Programs and the 2010 and the 2012 BioBlitzes.
- The OLA maintains a strong relationship with other local lake associations through the Lake Networking Group. The various lake groups support one another and learn from one another's experiences.
- Captain Otty's Log is sent regularly to other local lake associations and all the community partner agencies that work with the Otty Lake community.

#### **Still to be come — Recommendations for Future Actions**

- The OLA and members of the Otty Lake community should continue to work with community partners in order to maximize opportunities for the protection of Otty Lake and its watershed

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## **12. Climate Change**

### **Goal**

To educate the Otty Lake community about the impacts of climate change on Otty Lake and its watershed

### **Objectives**

- To provide opportunities for members of the Otty Lake community to learn more about the potential impacts of climate change
- To work together with our community partners to develop a strategy to adapt to and moderate the effects of the various impacts of climate change on Otty Lake and its watershed.

### **What has been done — 2008-2013**

- The January 2011 Capt'n Otty's Log included an article about the potential impact of climate change on Otty Lake by the Director of Watershed Planning for the Muskoka Lakes who is a long-time Otty Lake cottager.

- In 2012, the OLA was part of the planning committee for “Lake Links”, a one-day workshop that focused on climate change. The session brought together excellent speakers who provided information on climate change and made recommendations on the importance of building resilient communities that will be able to adapt to and moderate the impacts of climate change.
- The OLA, as part of the Lake Networking Group, has benefitted from information about climate change prepared by a water resources engineer at Mississippi Valley Conservation.

#### **Still to be come — Recommendations for Future Action**

- The OLA must work in partnership with TVT, D/NE Township, MNR, the RVCA and other concerned organizations to understand more about climate change and to develop a strategy to adapt to and mitigate its effects on the lake and its watershed.
- Property owners should consider planting species that will withstand the effects of climate change for the foreseeable future and increase the foliage cover for their properties.
- Property owners should recognize that climate change may have an impact on water levels and take steps to cope with fluctuating water levels.
- The OLA should continue to provide information to the community about opportunities to learn more about the potential impacts of climate change.

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## Looking Ahead

Otty Lake residents — both full-time and seasonal — feel passionately about protecting the health of the lake and celebrating its special features.

The management plan for the lake was released six years ago.

Since then, the members of the community have had many opportunities to learn more about the factors affecting the health of the lake. And they've taken full advantage. Residents work hand in hand with their community partners, and together, they have accomplished a great deal.

In late 2013, Otty Lake residents identified surface water quality, aquatic vegetation, and fish and wildlife health as their three top-priority concerns. But their interests are deeper. For example, to address water quality concerns, they know they have to pay attention to issues such as shoreline protection and development pressure.

All landowners have responsibilities. Their property values are affected by factors such as water quality, natural or degraded shorelines, excess algae, the health of the fishery, the state of the habitat for diverse plants and animals, and the presence of caring, active neighbours.

This review of the lake management plan shows there are still many concerns to be addressed if the lake is to stay healthy. In the years ahead there will be new challenges as the lake and the community evolve.

It is essential that Otty Lake residents, the OLA, local governments and partners in non-governmental organizations continue to accept their shared responsibility for the health of this special lake.

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### Appendix 1: Otty Lake Association Shoreline Planting Program, 2009-2014

The OLA, in partnership with the RVCA's Shoreline Naturalization Program, has offered members of the community native shrubs for shoreline plantings at reduced rates.

Source of shrubs: Ferguson Forest Centre, Kemptville

Source of wildflowers: Old Field Garden and Wildflower Nursery, Oxford Station

Year	Shrubs		Flowers		Comments
	Number	Type	Number	Type	
2009	500 bare root shrubs	100 sumac 150 nannyberry 150 red osier dogwood 100 highbush cranberry	none		
2010	500 bare root shrubs	50 alternate leaf dogwood 50 black elderberry 50 grey dogwood 50 highbush cranberry 50 nannyberry 50 pussy willow 50 silky dogwood 50 sweet gale 100 red osier dogwood	none		
2011	none		none		
2012	150 potted shrubs	30 nannyberry 30 pussy willow 30 red osier dogwood 30 grey dogwood 30 alternate leaf dogwood	none		1 gallon pots deemed most suitable for rocky shorelines
2013	125 potted shrubs	35 red osier dogwood 35 sweet gale 35 highbush cranberry 20 pussy willow	75	15 joe pye weed 15 blue flag iris 15 Canada anemone 15 great blue lobelia 15 cardinal flower	Shrubs provided at no cost by RVCA; flowers provided at a discounted price
2014	100 potted shrubs	25 sweet gale 25 red osier dogwood 25 pussy willow 25 highbush cranberry	75	25 monarda 25 pink coneflower 25 foxglove 25 penstemon	Shrubs and wildflowers provided at 50 % discount by OLA
<b>Total</b>	<b>1,375</b>		<b>150</b>		<a href="#">Top</a>

## Appendix 2: Mining

This appendix includes information on the history of mining and an overview of the 2001 mining claims in the Otty Lake watershed area.

### 1. Background (from 2007 Report on the State of Otty Lake and its Watershed)

- **Mining in the Otty Lake Watershed**

Settlers looking to start a new life in Upper Canada began arriving in this region of Lanark County in the early part of the 1800s. To encourage settlers the Crown offered land grants in 100 to 200 acre lots.

Each land grant from the Crown included title to both surface and mineral rights (the right to mine for commercial purposes minerals below the surface of the land.)

Some settlers cleared enough land to establish modest farms; others learned from hard experience that the rocky and stone-ridden land was, at best, marginal for farming and some turned to mining to sustain their livelihood either by mining the land personally or by deeding or leasing their mineral rights to others

- **“Surface Rights Only” and Mineral Rights Properties at Otty Lake**

The early 1900s saw the government institution of a new acreage tax within the Mining Tax Act. This tax applied to all mineral rights and lands that had been severed from the surface rights. The provisions of this Mining Tax Act became more comprehensive through the years and in the 1950s became embedded in the Mining Act of Ontario.

Some mineral rights and mineral lands holders chose not to pay their mineral taxes. Some may have figured the mineral rights were worthless; many mines in the area had already been abandoned since the minerals were no longer in demand. For example, there are several abandoned mica mines near Otty Lake. Others, if they were the actual landowners, may not have had the money and put off paying their mineral tax because it did not mean foreclosure, as did failure to pay land property taxes. Whatever the reason, those who failed to pay their mineral rights tax for two years or more, forfeited those mineral rights to the Crown in perpetuity. In this area of Eastern Ontario, the forfeitures were carried out in the 1940s, 1950s and into the early 1960s.

As a result, about 25% of property owners along the Otty Lake shoreline currently own only the “surface rights” to their land. Therefore, their property, regardless of whether it is unoccupied land or holds a seasonal/permanent residence, could be staked under the provincial Mining Act for future exploration and mining.

- **Exploration on “Surface Rights” Properties under the Mining Act**

The Ontario Mining Act confers extensive scope and powers for exploration for minerals on “surface rights only” (SRO) properties, i.e., where the Crown has the mineral rights.

A prospector may enter and stake a claim, without notification, prior or afterwards, to the surface landowner. The holder of the mining claim, after giving 24 hours’ notice to the surface landowner in the form of a letter mailed anywhere in the province, can then proceed to begin exploration. The exploration work can include, tree cutting, trenching, drilling and surface stripping of up to 1,000 tons (i.e., 50 truckloads) of overburden from the claimed lands without any requirement for environmental assessment, landowner, or municipal approval.

## **2. Otty Lake Mining Claims Overview**

- In late 2001, Otty Lake residents were shocked to learn that prospectors for Graphite Mountain Inc. had filed a number of mining claims in March 2001 in Tay Valley Township, two of which were in the Otty Lake watershed. One of these claims abutted the north shore of Otty Lake encompassing Lots 1 and A of Concession 8, Burgess, including over 30 lakeshore properties. The second claim was staked just north of the shoreline in the Otty Lake watershed.

As well, the mining company purchased a property on the Rideau Ferry Road just east of the Elmgrove Road, which they identified as a potential location for a processing plant.

After a two-year struggle by a group of Otty Lake residents supported by the Citizens Mining Advisory Group (CMAG) and the OLA, the claims at Otty were cancelled. At the same time, many of the other disputed Tay Valley Township claims were also cancelled.

- The dismissal of the claims at Otty Lake in 2003 was excellent news. From that point there were no active claims near Otty. However, all SRO land remained vulnerable for future mining staking and subsequent exploration and mining.
- Members of CMAG continued to push for: 1) the return of their mineral rights from the Crown, and 2) changes in the Mining Act to enshrine in legislation increased protection for the environment and Ontario rural property owners.
- The multiple unmapped and abandoned mines and mine hazards throughout the Otty Lake Watershed pose both safety and environmental concerns as did the unmonitored assessment phase of any new mining claim.
- The mineral rights of a significant portion of the Otty Lake watershed rested with the Crown. These lands were open for staking at any time. The development of mines on

these lands could have a drastic negative impact on the health of the lake, on the value of property, and of peoples' enjoyment of the lake and its watershed.

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**Appendix 3: Acronyms**

CMAG	Citizens Mining Advisory Group
D/NE	Township of Drummond/North Elmsley
LMP	Lake Management Plan
MOE	Ontario Ministry of Environment
MNR	Ontario Ministry of Natural Resources
MVCA	Mississippi Valley Conservation Authority
OLA	Otty Lake Association
OLMP	Otty Lake Management Plan
OPP	Ontario Provincial Police
RVCA	Rideau Valley Conservation Authority
SRO	Surface Rights Only
TVT	Tay Valley Township

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