

**GOAL A: Water Quality**

Work towards maintaining high water quality in Mississippi Lake and its inflowing streams to support a healthy natural environment and to support the use and enjoyment by residents and visitors

OBJECTIVE	ACTION	% COMPLETED	NOTES
<b>Monitor and assess overall water quality</b>	Continue to participate in the <b>Lake Partner</b> and <b>Watersheds Watch</b> programs	Ongoing	
	Continue supporting the conduct of a nutrient budget, as currently undertaken by the Mississippi Valley Conservation Authority (MVCA)	Ongoing	
	Assess current water quality monitoring programs and results and, in consultation with water quality experts, develop options as required to establish a comprehensive water quality monitoring program for the lake		1, 14
	Assess and report on water quality trends in relation to Provincially designated objectives	Ongoing	
	Promote research initiatives to better understand the relationships between nutrient concentrations in lake water and the growth of algae and aquatic vegetation		1
<b>Reduce the negative impact of surface runoff</b>	Support and promote efforts to maintain and create natural buffers on the lake shore		2, 12
	Participate in and promote the Watersheds Canada <b>Love your Lake</b> program	Completed 2017	12
	Research, and apply as appropriate, available programs to assist communities in continuing “best management practices”, such as the <b>Rural Clean Water</b> program		
	Seek agreement from municipalities to incorporate low-impact development (LID) practices in the design of developments		3
<b>Promote the proper operation of on-site sewage disposal systems</b>	Seek the cooperation of municipalities to implement an on-site sewage disposal system verification program		3
	Investigate funding models adopted by other communities regarding septic inspections and repairs		3
	Investigate program options for grey water recycling (see the <b>Grey Water Reuse</b> pilot program initiated by the City of Guelph)		3
<b>Increase the Lake Community’s level of knowledge and awareness of water quality issues</b>	Record, interpret, and report water quality results to the Community	Ongoing	16
	Disseminate information regarding the potential impact of various fertilizers, pesticides, household cleaners, oil, gas, and other potentially harmful substances		5, 12, 16
	Disseminate information regarding the importance of shoreline buffers	Ongoing	2, 12, 16
	Disseminate information regarding the care and maintenance of septic systems		5, 12, 16

**NOTE:** **DARK GREEN:** previous progress      **LIGHT GREEN:** progress since 27 March 2017      **YELLOW:** activity completed and/or ongoing

**GOAL: Aquatic Vegetation / Algae**

Work towards achieving a balance of aquatic vegetation to support the ecological needs of the lake and allow for the continued human enjoyment of the lake.

OBJECTIVE	ACTION	% COMPLETED	NOTES
Monitor aquatic vegetation and algae	Monitor the lake’s algae and aquatic vegetation on a regular basis to compile a robust database for examining trends, and for developing control and management strategies.		1, 14
	Promote participation in the <b>Citizen Water Watch</b> program	Defunct Program	4
Monitor and investigate causes of algae blooms	Promote the establishment of a Warning, Reporting, and Recording system for incidents of algae blooms		
	In conjunction with the Ministry of Environment and Climate Change (MOECC) and the Leeds, Grenville, and Lanark District Health Unit (LGLDHU), develop improvements to the existing Action Protocol for reporting and investigating algae blooms		
	Encourage research projects to better understand the causes and impacts of algae blooms on the lake	Ongoing	1
Increase the Lake Community’s level of knowledge and awareness regarding aquatic vegetation	Provide information to the Community regarding approved means to control or remove excessive weeds/vegetation		5, 16
	Provide information to the Community regarding the value of aquatic vegetation to healthy natural environments		5, 16
	Provide information regarding algae (types, appearance, dangers, action to be taken, etc.)		5, 16

**GOAL: Water Levels and Flooding**

Work towards community awareness of water level management, to sustain natural ecosystems and to minimize risks from flooding

OBJECTIVE	ACTION	% COMPLETED	NOTES
Monitor water levels	In cooperation with MVCA, maintain / improve the water level monitoring and reporting program currently in place on the MLA website.	Ongoing	
	Encourage the public to subscribe to water level and ice alerts via e-mails from the Mississippi Lakes Association (MLA)	Ongoing	13
	Maintain good liaison/dialogue with MVCA regarding water level management policies and practices	Ongoing	
Increase the Lake Community’s level of knowledge and awareness regarding water level management.	Provide / disseminate information regarding best practices and “what to expect” when living on or near a flood plain		5, 16
	Provide / disseminate information regarding natural shoreline processes and how to mitigate against erosion and flood damage		2, 5, 12, 16

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**GOAL: Natural Environment**

Work towards maintaining a healthy and diverse ecosystem, including a healthy fishery

OBJECTIVE	ACTION	% COMPLETED	NOTES
<b>Maintain and enhance the natural environment</b>	Promote existing programs such as <b>Turtle Watch</b> , <b>Frog Watch</b> , and <b>Canadian Lakes Loon Survey</b> to conduct inventories and monitor changes to the flora and fauna of the Lake		7
	Develop similar additional programs to record data on other flora and fauna of the Lake		6, 7
	Develop and distribute educational material and programs on the natural environment of Mississippi Lake, including its wetlands, and how to protect and enhance them		7, 16
	Establish a reporting mechanism on the MLA website, and encourage the public to report algae blooms, other water quality issues, and general observations regarding the natural environment		7
<b>Prevent further loss of natural shorelines and re-naturalize altered shorelines</b>	Work with MVCA to develop an education and awareness program about the importance of natural shorelines including buffers between lawns and the lakeshore		2, 12
	Disseminate information regarding native shoreline species; promote re-planting of these species		2, 12
<b>Identify, and where possible, control invasive and nuisance species</b>	Disseminate information regarding identifying and reporting invasive species, via the <b>EDDMaps</b> program		7
	Disseminate information regarding controlling and/or coping with Canada Goose and Cormorant populations		7
	Consider establishing an ALERT system on the MLA website to inform the community regarding emerging threats, and what to do about them		7
	In cooperation with MOECC, MVCA, organize invasive species removal events		7
	Continue supporting the <b>Invading Species</b> and <b>Aquatic Invasive Species Prevention and Monitoring</b> programs		6, 7
	Disseminate information regarding the dangers of invasive species propagation		7, 16
<b>Identify and protect species at risk and their habitats</b>	Liaise with governments and NGOs to secure funding and to conduct surveys of species at risk		8
	Develop an awareness program to inform the public regarding existing species at risk, and the proper protocols to protect these species		8, 16
	Establish partnerships with existing programs (eg: <b>Adopt a Pond</b> program with the Toronto Zoo)		8
<b>Protect and maintain a healthy fishery</b>	Encourage the Ministry of Natural Resources and Forestry (MNR) to conduct inventories and research to understand better the state of the fishery (populations; spawning and other habitats; need and opportunity for rehabilitation)		8, 17
	Develop, in concert with local fishing clubs and associations, a public education program about the fishery of Mississippi Lake, including good fishing practices and behaviour		8, 18
	Request that MNR provide increased enforcement of fishing and ice fishing regulations		8
	Engage fishing tournament organizers to formulate appropriate rules/regulations to minimize the impact of these events on the natural environment and overall well being of the lake		8, 18

**GOAL: Land Use and Development**

Work towards future development that maintains the character of the lake and that protects the natural environment, water quality, and the social/recreational features of Mississippi Lake

OBJECTIVE	ACTION	% COMPLETED	NOTES
<p><b>Ensure that future development on the lake takes place with minimal impact on water quality and the natural environment</b></p>	<p>Work with municipalities to develop coordinated municipal Official Plans, by-laws, and other regulations that reflect Lake Plan aims and initiatives</p>		<p>9</p>
	<p>Sensitize municipalities with the concerns of the community regarding development on the lake</p>		<p>9, 19</p>
	<p>Lobby for municipal initiatives to shape development such as tax incentives for Low Impact Development (LID) projects</p>		<p>9</p>
	<p>Participate in the Official Plan review process of the municipalities</p>		<p>9</p>
<p><b>Improve the level of coordination of Governance across the lake</b></p>	<p>Work with municipalities to streamline and co-ordinate municipal planning provisions, policies, by-laws, and regulations and apply these consistently across the lake</p>		<p>10, 19</p>
	<p>Nurture partnerships with the four surrounding municipalities, government agencies, and non-government agencies to ensure a coordinated and proactive approach in furthering the goals of the Lake Plan</p>		<p>10</p>
	<p>Request municipalities to provide the MLA with notices of development applications (plans of subdivisions, zoning changes, cottage conversions, minor variances, and other significant planning applications)</p>		<p>9</p>
	<p>Encourage municipalities to promote and cite the Lake Plan in their Official Plans</p>		<p>9</p>

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**GOAL: Social and Recreational Activity**

Promote social and recreational activities that respect the natural environment, the residents and users of the lake, and help to build a sense of community.

OBJECTIVE	ACTION	% COMPLETED	NOTES
<b>Address overall concerns about boat traffic and conduct of lake users</b>	Establish a broad-based education program with focus on safety and respectful lake use, to include: speed limits, rules of conduct, management of boat wakes, noise abatement, and pollution control		15, 16, 20
	Develop a Code of Conduct brochure for boating and lake use, to be distributed widely		5
	Work with municipalities, marinas, and boat launch owners to help inform the public regarding boating on the lake, and to provide additional services such as: public washrooms, garbage and toxic waste disposal/recycling facilities, and fueling facilities		15
	Develop and implement a shoreline maintenance and cleanup program		
	Invite the OPP to participate in, and make presentations at, MLA sponsored Boat Safety seminars		11, 20
<b>Promote light pollution reduction measures</b>	Promote awareness of the importance of reducing light pollution to the social enjoyment and ecological well being of the lake		8, 16
	Provide educational materials to lake residents and users that will help shift lighting habits to improve night sky conditions around Mississippi Lake		8, 16
	Promote <b>Good Neighbour Lighting</b> practices, including the identification of suitable lighting fixtures, and appropriate retailers		8, 16
	Engage the municipalities to enact bylaws like the Mississippi Mills dark sky by-law No. 03-62 (9 Sep 2003)		8

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**Notes:**

NUMBER	REMARKS
1	<ul style="list-style-type: none"> <li>- MLA, in cooperation with Queen's University, is investigating the feasibility of developing a Water Quality Monitoring Program for Lake Mississippi.</li> <li>- Preliminary agreement on a Nutrient and Bacterial Investigation Project was achieved in March 2017.</li> <li>- This project was approved in Aug 2017 and research was started in Fall 2017.</li> <li>- Regular status reports are posted on the website in the Environmental Initiatives section</li> </ul>
2	<ul style="list-style-type: none"> <li>- MLA fully supports the Natural Edge Program sponsored by Watersheds Canada</li> <li>- Watersheds Canada made a presentation on the Natural Edge Program at the 2017 AGM</li> </ul>
3	supporting research and documentation (addressed by other Actions in this Plan) is required before this Action can be progressed
4	the RVCA Citizen Water Watch program has been discontinued. This Action is therefore closed out
5	<ul style="list-style-type: none"> <li>- An information campaign is being developed by the MLA Communications Committee, to satisfy the requirements of this Action</li> <li>- a new article about Aquatic Vegetation, from MVCA, has been published on the website in the Environment section</li> </ul>
6	MLA is progressing this Action in cooperation with the Mississippi Valley Field Naturalists (MVFN)
7	<ul style="list-style-type: none"> <li>- the MLA Environment Committee is developing an implementation plan to address these closely related Actions</li> <li>- new articles have been posted on the website in the Invasive species section</li> <li>- a "Report Activities" section has been added to the website to assist the public in reporting incidents and emergencies</li> </ul>
8	<ul style="list-style-type: none"> <li>- this Action will be addressed as resources become available and priority increases</li> <li>- information regarding the Banding's Turtle has been posted on the website in the Environment section</li> </ul>
9	this Action will be addressed as individual municipal Official Plan updates are initiated
10	two Working Groups (Planning, Nutrient) have been formed to assist the Lake Plan Implementation Committee to progress this Action
11	MLA interaction with the OPP will include a wide spectrum of topics dealing with regulations and law enforcement on the water and around the lake
12	the Love Your Lake program was executed in Summer 2016. Notice of individual reports for all lake properties was mailed in March 2017

<b>13</b>	A Quick Link to Lake Mississippi water levels is available on the website. Notices in YMM reflect the latest advisories from MVCA
<b>14</b>	A proposition was submitted in March 2017 to increase the number and location of water sampling points on the Lake, to improve the annual State of the Lake report, and to assist in the Queen's University /MVCA /MLA project (see note#1)
<b>15</b>	<ul style="list-style-type: none"> <li>- Preliminary discussions with Carleton Place, to install a Notice Board at the Lake Avenue boat launch, to provide information about boating on the lake, and MLA activities such as the buoy program, water quality monitoring, water level information, invasive species procedures, etc.</li> <li>- A sign has been designed and is awaiting feedback from Carleton Place for a possible Summer 2018 installation.</li> </ul>
<b>16</b>	<ul style="list-style-type: none"> <li>- MLA is continually improving/editing the website to include information and guidance on a wide variety of topics important to the health of the Lake.</li> <li>- A new feature on the site is the Mississippi Belle on Line (MBOL) section, where new article will be showcased.</li> </ul>
<b>17</b>	A Fish Habitat Enhancement Project was completed in Fall 2017 in partnership with the Fisheries and Oceans Canada Recreational Fisheries Conservation Partnership Program, Watersheds Canada, the Mississippi Valley Conservation Authority, and the Lanark County Stewardship Council. A report has been posted to the MLA website in the Environment section.
<b>18</b>	MLA held a Fishing Activities Town Hall in Dec 17 to collate concerns from various lake residents and to develop and Action Plan to address these issues.
<b>19</b>	MLA held a Road Association Town Hall on 12 Apr 18 to collate concerns regarding issues involving private roads around the lake, and to develop an Action Plan to address these issues.
<b>20</b>	MLA has scheduled a presentation by the OPP at the 2018 AGM, to address on-water enforcement issues and how/what to report