OTTY LAKE ASSOCIATION (OLA)
GUIDE TO BUILDING OR RENOVATING ON SHORELINE PROPERTY

PURPOSE: *to provide Otty Lake residents with a summary:*

1. *of who to contact for guidance and approval for various types of construction projects,*
2. *environmental reasons for some of the building codes and*
3. *where to go for more information.*

BACKGROUND

OLA MISSION: *to promote and assist in the protection and enhancement of the natural environment of the lake and surrounding watershed. Its objectives are:*

- *to promote good water quality in the lakes within the OLA constituency,*
- *to foster environmentally responsible use of the lakes, including recreational uses without undue negative impact,*
- *to work and consult with the Townships of Drummond/North Elmsley and Tay Valley (Otty Lake is situated in these 2 townships) and with Lanark County in the implementation of policies, by-laws and regulations intended to improve the quality of the lakes and surrounding environment,*
- *to work with and assist the Ministries of the Environment and Natural Resources & Forestry, as well as the Health Unit, the Rideau Valley Conservation Authority and other governmental agencies along with other lake associations, as appropriate, in carrying out their responsibilities to preserve and enhance the natural environment and maintain good quality water in lakes and streams.*

In 2008, the Otty Lake Association released the Otty Lake Management Plan (OLMP), 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.

Vision Statement for the Otty Lake 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"*

OLA PARTNERSHIPS: *As a result of our efforts in the above areas, the OLA has developed excellent relationships with its community partners. Thus it is uniquely positioned to partner with residents of our lake to assist them in better understanding the relationship between regulatory requirements and OLA objectives. The OLA is prepared to partner with residents interested in building and renovation to foster an understanding of the potential environmental impacts of any construction and in the long run, enable the OLA to support applications by owners to regulatory bodies.*

As mentioned in the OLA Mission, various organizations play important governance roles in the administration of changes made to lakefront property. These organizations are responsible to ensure any construction protects the future health of our lake. ***The OLA does not play an enforcement or governing role.*** *It is recognized as a partner to these various organizations.*

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THE OLA IS HERE TO HELP

*The **OLA** strives to ensure the health of our lake and surrounding areas, foster environmentally responsible use of our resources and enhance the quality of life in our community. As a member of this community, when considering changes to your property on Otty Lake, please make our website your first stop. It is an excellent resource of educational information to help you with your plans. You will thus be better prepared when dealing with the various other organizations identified in this document and thus avoid potential fines or court proceedings if processes are not followed. Those organizations may be including the OLA in their deliberations regarding your application for changes.*

For initial navigation of the process, see OLA website (http://www.ottylakeassociation.ca/shoreline-naturalization.html)

YOUR PROJECT – Want no surprises? Plan, Consult, Execute with the help of:

	DNE/TVT *(Drummond/North Elmsley/Tay Valley Township)*	***RVCA*** *(Rideau Valley Conservation Authority)*	***Leeds, Grenville & Lanark Health Unit***	***MNRF*** *(Ministry of Natural Resources & Forestry)*	***Fisheries & Oceans***	***MOECC*** *(Ministry of the Environment & Climate Change)*
New Construction, Addition, Renovation, Outbuilding	*x*	*x*		*x*		
Deck	*x*					
Boat House	*x*	*x*		*x*		
Dock		*x*		*x*		
Wells						*x*
Septic System (upgrade if renovating, new for new construction, replacement when system fails)	*x*	*x with MRSSO (TVT)* *(Mississippi Rideau Septic System Office)*	*x (D/NE)*			
Floating Raft/Mooring Buoy				*x*	*x*	
Aquatic Plant Harvesting				*x*		
Shoreline Alteration		*x*		*x*		

APPENDIX A – RATIONALE FOR SELECT BUILDING GUIDELINES

Below is a chart which provides rationale for some of the Guidelines to be followed when developing or re-developing shoreline properties. An overarching principle which is critical to keep in mind is the fact that healthy shorelines are vital to maintaining the overall health of lakes and other bodies of water. Shorelines help filter pollutants, protect against erosion and provide habitat for fish and other wildlife. Shorelines are some of the most ecologically productive places on Earth. They support plants, microorganisms, insects, amphibians, birds, mammals and fish.

GUIDELINES	***RATIONALE***
Structure Setback from water *- 30 metres/99 feet (true horizontal from high water to building)* *- Townships*	*- the "Ribbon of Life" that surrounds lakes and rivers is responsible for 90% of lake life which is born, raised and fed in these areas. These areas are up to 5 times more diverse than other areas upland from lakes and rivers.* *- hardened surfaces near the water remove the opportunity for infiltration, e.g. no decrease of the nutrients in septic tank effluents*
Deck Construction *- Townships*	*In order to protect our shoreline, regulations have been put in place by each Township regarding deck size and set back requirements, as well as encroachment.*
Septic Systems *- www.healthunit.org for application form* *- www.rvca.ca works with the MRSSO* *- for more information, see www.ottylakeassocation.ca Environment drop down, Shoreline Naturalization, on right panel, see "Otty Lake Shoreline Handbook", pages 25 to 34*	*- the Ontario Building Code sets out minimum distance requirements for the installation of a system. On new building lots they are required to be installed 30 m from open water, e.g. a lake, a minimum of 15 m from a drilled well and 30 m from a dug well.* *- in areas near shorelines it is particularly important to maintain your septic system properly because soil and water conditions near shore may make the system less efficient in treating wastewater. Incomplete treatment can result in health risks for you due to water quality problems. It can also allow excess nutrients to reach your lake or stream, promoting algae or weed growth. Algae blooms and abundant weeds not only make the lake unpleasant for swimming and boating, but they also affect water quality for fish and wildlife habitat. As plants die, settle to the bottom, and decompose, they use up oxygen that fish need to survive.*
Wells	*- the Ontario Water Resources Act specifies requirements for any type of construction with*

- for more information, see Ministry of Environment website, www.ontario.ca manual entitled "Water Supply Wells: Requirements and Best Practices". *It provides clear and concise discussion of Regulation 903 as amended under the Ontario Water Resources Act.* *Also see www.ottylakeassociation.ca Environment drop down, Shoreline Naturalization, on right panel, see "Otty Lake Shoreline Handbook", pages 21 to 25*	*regard to wells.* *- The upland rocky areas that surround Otty Lake are areas where rain and snowmelt infiltrate into the thin permeable soils that the glaciations left us. This process is called "groundwater recharge". Once water has hit the ground it either moves along the rock surface downhill towards and into the lake, or it enters into the fractures in the bedrock and moves downward until it reaches the water table. Fractured rock forms an "aquifer" if it holds and transmits water, and aquifers provide the water source for the wells drilled at homes within the Otty Lake watershed.* *- well maintenance is important for human health. Testing drinking water can identify pathogens (bacteria, viruses, protozoa) in the water. The main source of this contamination is storm water runoff. When rainwater runs into lakes and streams, it can carry with it fecal matter. Nitrates are another issue. They are found naturally in the environment as well as being found in lawn fertilizers.* *- The* "Water Supply Wells: Requirements and Best Practices" *manual provides best management practices and recommended techniques that help a person constructing a well to go beyond the minimum standards set by the Wells Regulation and better protect and minimize adverse impacts on our environment.*
Docks *www.ottylakeassociation.ca Environment drop down, Shoreline Naturalization, on right panel, see "Otty Lake Shoreline Handbook", pages 34 to 36*	*- there are various types of docks, some of which are more environmentally friendly than others, e.g. causing minimal disturbance to fish and shoreline habitat by having minimal contact with land and lake bottom.* *- for additional information on types of docks, etc, search for The Dock Primer at www.dfo-mpo.gc.ca* *- for approval, contact RVCA. Based on size, MNRF may also have to be involved.* ***For initial navigation of the process, see OLA website*** *(http://www.ottylakeassociation.ca/shoreline-naturalization.html)*

	A SIMPLE WAY TO PROTECT YOUR LAKE
Shoreline Naturalization *- for more information, see www.ottylakeassociation.ca* *Environment drop down,* *Shoreline Naturalization,* *on right panel, see "Otty Lake Shoreline Handbook", pages 7 to 21* *- for additional information, see the RVCA website, www.rvca.ca*	*Any chemical substances that we use on our properties that are water soluble will move with the near surface groundwater flow and will discharge into the lake along the waterfront. These substances include:* *Lawn and plant fertilizers (phosphorous, nitrogen and potassium compounds)* *Septic tank effluent* *Pesticides and herbicides used in our gardens* *Gasoline, solvents, and paints.* *For example, if you fertilize your lawn in the spring, you are adding nutrients to the lake and helping degrade the lake water quality. Phosphate in groundwater is stopped as it flows through iron-oxide rich, reddish sand by a number of geochemical processes. However, there is essentially no attenuation of nutrients in the thin soils or in the fractured rock that surround Otty Lake. Phosphates and nitrates in lakes are harmful to aquatic environments, triggering a process known as cultural eutrophication. It occurs as follows:* *large nitrate & phosphate supplies released from the land stimulate massive algae blooms. The result is algae so thick that it competes with other plankton species and blocks light to bottom-dwelling plants* *as the algae blooms die, the bacteria that break them down multiply and consume large amounts of oxygen in the water body* *without enough oxygen the remaining animal species die off (sometimes drastically – for this reason, some newly eutrophic lakes have more floatiang fish carcasses)* *the final result is a water body that is polluted and impoverished (capable of supporting very few types of plants and animals)* *Certain native plants are very effective at cleaning water as it moves downslope and discharges into Otty Lake. These processes include filtration in root systems and nutrient uptake. The native species include Red Osier Dogwood, Large leaf Meadowsweet, Virginia Creeper, Nannyberry, Pussy Willow, Sweet Gale and various grasses and wildflowers. These species are attractive, will not block your view of the lake or access to it, and are not expensive. A vegetative buffer strip covering 100% of the waterfront is more effective than ornamental plantings.*

	Planting shoreline buffers have many benefits: *- protect & improve air & water quality* *- reduce soil erosion caused by wind & rain* *- stabilize the banks of streams, rivers and lakes* *- trap water-borne sediments that pollute streams, rivers and lakes thereby reducing up to 80% of sediment* *- trap fertilizers, pesticides, organic chemicals, heavy metals, salt and other contaminants that pollute ground and surface water (reducing a significant amount of phosphorus and nitrate)* *- trap bacteria and other pathogens that cause water-borne diseases in people, livestock and wildlife (removing up to 60% of pathogens from runoff)* *- provide habitat for fish and wildlife by providing corridors for movement* *- help prevent flooding* *- make the landscape more beautiful and properties more valuable*

APPENDIX B – CONTACT INFORMATION FOR ORGANIZATIONS

The following table provides contact information for these organizations, as well as the types of information available on the websites. This is by no means an exhaustive list. For further information, please see the Shoreline Handbook, pages 66 to 76

Organization	***Types of Information Available***	***Website***	***Phone #***	***E-mail***
Otty Lake Association	*- importance of healthy shorelines* *- Erosion* *- Shoreline buffers* *- Water sources* *- Septic systems* *- Docks* *- Permits*	*www.ottylakeassociation.ca*		*ola@ottylakeassociation.ca*
Drummond/North Elmsley Township (D/NE)	*1. When is a permit required?* *2. Information re dwelling construction* *3. Information re deck construction* *4. Minor Variances* *5. Fees* *6. Checklists for submitting Applications*	*www.dnetownship.ca* *http://www.dnetownship.ca/content/planning - for Building Application information, Zoning Amendment Application Form, Minor Variance Form* *For information on Fees, http://www.dnetownship.ca/content/building-department*	*613-267-6500*	*kgrenke@dnetownship.ca*
Tay Valley Township (TVT)	*1. When is a permit required?* *2. Info re dwelling construction* *3. Information re deck construction*	*www.tayvalleytwp.ca* *http://www.tayvalleytwp.ca/en/resident-services/building-applications/asp - for Building Application info, forms, development fees*	*613-267-5353*	*planner@tayvalleytwp.ca*

	4. Minor Variances *5. Fees* *6. Checklists for submitting Applications*			
Rideau Valley Conservation Authority (RVCA)	*- policies regarding development, including the construction, reconstruction of buildings and structures, placing of fill and alterations to waterways, septic systems in conjunction with MRSSO, docks* *- planning and regulations fee schedule* *- application form*	*www.rvca.ca*	*613-692-3571*	*mbradburn@rvca.ca*
Mississippi Rideau Septic System Office (MRSSO)	*- minor variances and zoning by-law amendments, in particular related to septic systems* *- application forms & fees*		*613-253-0006, Ext 256*	*ekohlsmith@mvc.on.ca*
Ministry of Natural Resources & Forestry (MNRF)	*- types of projects they should be involved in, e.g. docks, residential development re species at risk, ditches* *- altering erosion control structures on shorelines*	*www.ontario.ca/page/ministry-natural-resources-and-forestry*	*800-667-1940*	
Leeds, Grenville & Lanark Health	*- comments on minor variances and zoning by-*	*www.healthunit.org*	*613-283-2740*	

Unit	*law amendments, in particular related to septic systems* *- application forms & fees*			
Ministry of the Environment & Climate Change	*- well placement guidelines*	*www.ontario.ca/page/ministry-environment-and-climate-change*		
Fisheries & Oceans	*- measures to avoid causing harm to fish and fish habitat* *- information about docks* *- project planning, including timing, site selection, contaminant and spill management, erosion control, shoreline revegetation & stabilization*	*www.dfo-mpo.gc.ca*	*855-852-8320*	*FisheriesProtection@dfo-mpo.gc.ca*