

Lake Waseosa Lake Plan

Including Ripple, Palette and Jessop Lakes

Draft



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1. Executive Summary

This Plan encompasses the four small lakes of Waseosa, Ripple, Palette and Jessop, in the Little East sub-watershed.

Our vision is to **preserve the sub-watershed and natural environment** of these lakes **for future generations** via strong environmental stewardship and strong coordination with the Town of Huntsville and the District of Muskoka.

The vision and policies of this Plan are consistent with bringing **more external spending to Huntsville**, and thereby to improving the standard of living of local residents, and the economic position of the Town.

These lakes differ from many large lakes in the region, because they are small and/or narrow. This means they have a **small surface area relative to their shorelines**, compared to larger local lakes, or to lakes of other shapes. Lake Carrying Capacity and Boat Density studies indicate that the four lakes are currently at, or over, maximum capacity, and that preserving and increasing the value of these lakes to Huntsville requires conscientious planning to preserve their environmental integrity.

Area residents, via the Lake Waseosa Ratepayers' Association, support a **strong stewardship** program including water-quality testing, benthos monitoring, environmentally-friendly cleaners, septic clean-out discounts, education, and other services.

This Lake Plan includes several planning policies that complement the Town and District's Official Plans. In particular, the Policies (in section 7) address **new lot creation** and **lakefront setbacks**. Within these policies, this Plan supports **high-quality re-builds** or **new builds**, in order to enhance the symbiotic development of (a) the sub-watershed's natural environment, and (b) property values and the Town's tax base.

2. *Vision statement*¹

To protect and preserve the sub-watershed and natural environment of Waseosa, Ripple, Palette and Jessop Lakes for future generations, via

- 1. A strong education, stewardship and lake monitoring program by LWRA**
- 2. Strong co-ordination with the Town and District, including constructive, active collaboration on zoning, preservation and development issues**

In our vision, the lakes are a region in which owners can cottage or live year-round in an environment of natural physical beauty, in which

- Lake water is clean and safe for swimming and other recreational activities, there are no algae blooms, and phosphorus levels remain at background levels
- Shorelines are substantially vegetated for much of each property, providing a natural feel and aesthetic for residents, and a healthy riparian zone
- Wetlands are preserved
- Native fish, birds, mammals, reptiles and amphibians remain abundant
- Local residents are highly aware of measures that help preserve lake and watershed quality, and are actively engaged in stewardship
- Lakefront areas remain designated as residential shorefront, with no commercial establishments other than Camp Huronda.

3. *Consistency of the Vision with Huntsville's Economic Development*

The Lake Plan Vision is fully consistent with improving the standard-of-living of Huntsville residents.

To build a high local standard of living, Huntsville must ultimately attract external dollars, by selling product or services to those outside the region. We still have a small amount of manufacturing, but much has disappeared. There was never much agriculture, and it is now inconsequential (except perhaps for the new marijuana operation). Realistically, the best avenues for Huntsville to earn significant external dollars are **forestry** and **tourism** (including all the trades and

¹ This Vision relates specifically to the Lake Plan, not the Lake Waseosa Ratepayers' Association

services that support tourism). Both forestry and tourism can be sustainable for generations if managed well. For tourism, we are well-positioned, with the biggest Canadian market within a three hour drive. However attracting visitors to invest their savings here, alongside local residents, requires offering something different than what they can get in Toronto or Ottawa. If we aspire to be a “mini-Toronto” or a “mini-Barrie-big-box-parking-lot”, then there is no need for southerners to bring their money this far north. What causes them to seek Huntsville is something that Toronto cannot offer: a more natural and green environment in which to enjoy life. If we preserve this great resource, we will attract externals and their dollars. If we erode our natural environmental heritage, we become less attractive. Eco-preservation is fully consistent with tourism, external dollars coming into Huntsville, and a higher local standard of living.

As we develop our lakes, we have a further choice. We can produce many buildings next to the waters’ edge, on small, sub-standard lots. This does not attract those seeking something unique, and it does not produce or preserve high property values. Alternatively, we can space dwellings well, with set-backs that preserve the shoreline and lakes, to encourage higher-valued construction. This increases property values, and encourages more money to come to Huntsville, both in property sales and in construction and services. The total value of properties in the area becomes higher, as does the tax base. The spending of externals flows into Huntsville, augmenting the local economy. Many may eventually live here permanently for part of their lives, next to local residents, and thereby increase local spending substantially.

Key to this solution is that the relationship between environmental preservation and external money for Huntsville is *symbiotic*: each depends heavily on the other. If one dies, so does the other.

Importantly, we are NOT saying that development should slow or stop in Huntsville. There is sufficient land area that we can have both ‘downtown shops and services’ areas, ‘big box’ areas, as well as rural environmentally-friendly

areas. The key is a good planning process that identifies which area is which, and preserves environmentally- and financially-valuable lakefront areas.

4. Character of the Lakes

This Plan encompasses the four small lakes of Waseosa, Ripple, Palette and Jessop, in the Little East sub-watershed. The centre of the region is approximately 9 km northwest of downtown Huntsville, and is accessed from Highway #11 primarily via the exits at North Waseosa Lake Road and Ravenscliffe Road. After early use by First Nations and fur-trappers, the area was logged for White Pine and Hemlock bark in the late 1800s, leading to the creation of the small town of Melissa, which had a general store, post office, and eventually a school house. Throughout the 20th century, the area was gradually developed as ‘cottage country’, with shoreline residential construction. A strong local culture led to the incorporation of the Lake Waseosa Ratepayers’ Association in 1963, and for more than 50 years, the LWRA has captured the local community spirit through social and sporting activities for the young and young-at-heart.

Further historical details are found in Appendix A.

[insert map of region]

Importantly for this Lake Plan, the four lakes share several characteristics:

- All are in the **same sub-watershed** and are interconnected through marshes and small, non-navigable streams. With no major rivers, the lakes have **poor flushing rates**.
- All are **small, shallow**, and have a **high ratio of shoreline to surface area** (which is relevant because zoning and lot sizes are based substantially on shoreline, not lake surface area)
- Water quality levels have been a constant concern, and at different times individual lakes have been at or over threshold, and/or have been closed to development. Lake Waseosa was closed to additional development from 1980 to 2009 (except for pre-existing lots) because of high phosphorus levels.

- Currently the Muskoka Watershed Council lists the sub-watershed as ***'vulnerable' for land, wetlands and biodiversity***. The water for the entire sub-watershed is 'not stressed', although individual lakes have levels of phosphorus above background (details in **Studies**).

Character of Lake Waseosa

Lake Waseosa, the largest of the four lakes, is still only 155 hectares². The average depth is about 6m, (20 feet), but four basins descend up to 20m, creating a cold-water environment with a native population of lake trout and cisco. Two wetland areas provide small water inflows from Jessop and Clark lakes, and several small streams drain nearby wetlands. There are also some springs that feed the lake. For outflow, a small stream runs into Ripple Lake, via a culvert under North Waseosa Lake Road. The limited inflow and outflow result in a low flushing rate for the lake.

Lake Waseosa was closed to development for almost 30 years due to declining water quality. The MNR first noticed deteriorating deep-water oxygen levels in the early 1970s, endangering the native lake trout population, and high phosphorus levels were subsequently noted. The development restrictions and proactive actions by existing residents seem to have halted the deterioration, although it is unclear whether any lake trout survive.

Lake Waseosa homes vary considerably, in both use and size. Currently, there are 143³ subdivided lots bordering Lake Waseosa. We estimate slightly under 30% of properties are now full-time domiciles⁴. Despite the high development density, much of the shoreline largely retains a natural flavor, as the buildings tend to be modest (between 600 and 2,500 square feet) and partly obscured by vegetation (although a smaller number of legacy and new constructions remain close to the shore or are not well screened). However generally the naturalized shoreline makes the lake desirable, and has attracted more interest that supports property values. Additionally, more conversion or re-builds of seasonal cottages to year-

² District of Muskoka Lake Data Sheet

³ Based on Town interactive map, Town tax record review and Google maps

⁴ Proportion of properties without secondary mailing address, per LWRA records

round residences have increased property values and brought additional funds and residents into Huntsville. Conversely, this increased activity can also create strain on the lake, if not planned well, depreciating the value of the properties to the Town.

Camp Huronda, one of three camps in Ontario that serves diabetic children, has been on Lake Waseosa since 1971. Aside from bringing campers and their parents into the Huntsville area, the camp has become an important part of the local community. The camp's future in our region depends on the health of the lake on which it is situated, as the campers actively swim, canoe, kayak and sail. The camp does not use motorboats, except for two pontoon boats and a utility runabout, and campers do not water ski. Local residents consider the camp to be a good neighbour on the lake. For example, for several years the camp has agreed to respect a voluntary moratorium on activities on 'Blueberry Island', where replanting is attempting to re-vegetate the island.

There are no commercial facilities on the lake, and it does not typically attract the public for "day" recreation purposes, because of its modest size. The exceptions are generally local back-lot residents who access the lake through the Town Dock or friendly waterfront neighbours.

Character of Palette Lake

Palette Lake is named for its shape, which is reminiscent of an artist's paint palette. The lake is 16 hectares and is shallow, with a maximum depth of 9m (30 feet) and an average depth of six metres (20 feet). Palette has a small amount of continuous drainage into Ripple Lake via a culvert under Ripple & Palette Lake Road. A number of properties actually front both lakes, with Palette on one side and Ripple on the other. Palette Lake is spring fed, and receives continuous inflow from two small streams along the south shore.

There are 42⁵ lakefront lots on Palette (of which 40 are developed), as well as 13 additional backlots with deeded access to Palette, for a total of 55 with lakefront access. A peninsula almost bifurcates Palette, generating two different basins and

⁵ Town map and LWRA records

a dramatically increased shoreline length relative to the surface area, and also relative to water volume. In addition, cluster development along the eastern shore provides multiple residences with a concentrated point of access.

This combination of “extra” shoreline, legacy clustering, deeded access and development based on shoreline measures, has resulted in a high density of lake development. Palette has more than 3.4 lots with access for each hectare of lake area. Palette also has approximately 45% year-round residents⁶, which means large average dwelling sizes. Fortunately, there are few boathouses or boat ports. Especially on Palette, the maintenance of shoreline vegetation is essential to protecting a natural aesthetic, and hence to protecting property values and bringing more dollars to Huntsville on re-sales.

The small size and split in the lake mean the use of large boats can be challenging, particularly for activities such as waterskiing, which must be confined to one side of the peninsula or the other.

Character of Ripple Lake

Ripple is a narrow, shallow lake of 19.5 hectares, with a maximum depth of just over 10m (34 feet), and an average of about six metres (20 feet). It receives modest water flow from Waseosa via a culvert running under North Waseosa Lake road, and from Palette via a culvert under Ripple & Palette Lake Road. Ripple drains into a significant wetland to the northeast, and after a short run joins the Little East River.

There are approximately 32 lakefront lots on Ripple (including four that also front on Palette). Approximately one-third of the dwellings are inhabited year-round. Development is focused on the southern and eastern shores, while the northern end has less construction. Of the four lakes, Ripple’s shoreline has many sections that have good shoreline buffers and are well-screened by vegetation.

Nonetheless, as a small lake, the ratio of lots-to-lake area is relatively high, at over 1.6 lots per hectare of lake.

⁶ LWRA records

Character of Jessop (Jingo) Lake

Now named “Jessop”, this lake was originally known as “Jingo” according to a 1879 map, and is still often called this by local residents. The principal perimeter road is named “Jingo Lake Road”. It is a small lake at 29 hectares⁷, and is extremely shallow, with a maximum depth of three metres⁸. The depth is influenced by beavers, who frequently dam the outlet stream to Lake Waseosa. Approximately 30% of the lake is bordered by wetlands that increase biodiversity in the region.

Jessop currently has 24 developed properties, which are almost entirely seasonal. Some are serviced by a dirt road with no winter maintenance. Historically the lake has had more of a “backwoods retreat” feel, with smaller buildings and simple construction with functional, low maintenance landscaping. In recent years, new residential constructions on the western side of the lake, and further severances on the north side, have increased the human presence. With the new severances, there is now approximately one lot per hectare of lake.

The very shallow nature of the lake means there is only a limited volume of water to absorb excess nutrients, and very little water flow to remove them. The phosphorus level in the lake has been of historic concern, and the lake is now more than 50% above its background phosphorus level. (re-checking)

5. Studies

5.1 The importance of Lake Geometry

Not all lakes are created equally, and shape and size matter significantly to the amount of lake surface area compared to shoreline. For example, consider Lake Waseosa, which has 14.8km of shoreline. Now imagine that this 14.8 km is stretched into various shapes, and notice how significantly the lake area changes:

⁷ 29 ha per District Lake Data Sheet and 27 ha per MNR Lake Fact Sheet

⁸ District Lake Data Sheet

The impact of lake shape on lake surface area

Long rectangle: 7.3 km x 0.1 km Area = 73 ha, Shoreline = 14.8 km

Square 3.7 km per side

Area = 1369 ha

Shoreline = 14.8 km

Waseosa:

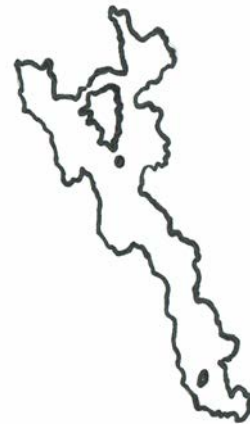
Area = 155 ha

Shoreline = 14.8 km

Circle with diameter 4.71 km

Area 1743 ha

Shoreline (circumference) = 14.8 km



This is important, because shoreline frontage is a key planning variable – based on shoreline, each of the lake shapes above will receive the same number of lots. However the surface area available to residents varies considerably – as a long and narrow lake, with many peninsulas and inlets, Waseosa has a relatively small surface area compared to its lengthy shoreline – in the examples above, it has only about 9% and 11% of the surface area of the circle and square, respectively. This means that zoning based mainly on shoreline distances will develop Waseosa to a much greater density per unit of surface area than most typical lakes. Clearly, lake shape affects density.

In addition, size, not only shape, matters. For example consider a ‘big square lake’ of 5 km x 5 km and a ‘little square lake’ of 1 km x 1 km, and consider the ratio of area to shoreline:

Size	Area (sq km)	Shoreline (km)	Area : Shoreline
“Big”: 5 km x 5 km	25 sq km	20 km	1.25 : 1
“Little”: 1 km x 1 km	1 sq km	4 km	0.25 : 1

A similar effect occurs for any shape (we have used a square to make the math easily visible): small lakes have less area per unit of shoreline than large lakes, irrespective of their shape. This effect can be seen by comparing real lakes in Huntsville:

Size	Area (sq km)	Shoreline (km)	Area : Shoreline
Fairy	7.11	22.5	0.32
Mary	8.7	27.4	0.32
Vernon	15	50	0.30
Waseosa	1.55	14.8	0.10
Jessop	0.27	2.5	0.11

One could extend the analysis to consider the entire water volume of a lake. For the same shoreline, deep lakes will have relatively less development per unit of water, while shallow lakes will get relatively more development per unit. All four lakes under discussion are all shallow, with average depths of

approximately 6m (20 feet), except Jessop, which is typically less than 3m (10 feet).

5.2 Lake Carrying Capacity & MNR “Lake Alert” model:

The District and Town Official Plans, take a broad and descriptive view of carrying capacity, and note that lake-specific factors may play a role:

District of Muskoka⁹: *“C.3 The growth permitted by the Plan will be monitored and reviewed on a regular basis to ensure that the carrying capacity of the natural environment is not significantly affected in the adverse and the development pattern as identified in the Plan is achieved in a fiscally and socially sound manner.”*

Huntsville¹⁰: *“8.13.4 It is recognized that environmental, physical and social factors other than recreational water quality may also present limits to the amount of development that would be desirable for a particular lake. Therefore, the preparation of specific Lake Plans in consultation with waterfront communities is strongly encouraged to **address these matters on an individual lake basis.**”* (Emphasis added)

A Lake Alert model developed by the MNR¹¹ uses the size and shape concepts above, and compares a lake’s “net” surface area to the number of dwellings that can be supported. To determine the net usable area, the study begins with total area and then deducts a buffer of 60m along the shoreline, and 30m around each island. The resulting net surface area is multiplied by .741 to determine the number of dwellings that can be supported.

We have endeavoured to do this for our lakes, however this is challenging because the 60m shoreline buffer eliminates a substantial portion of the lakes, especially for Palette and Ripple.

⁹ District of Muskoka Official Plan, Consolidation October 3, 2014

¹⁰ Town of Huntsville Official Plan, approved October 2006

¹¹ Lake Alert Phase II Report, 1972, pp 12-15

The results for our lakes are as follows:

<i>Lake</i>	<i>Total surface area (ha)</i>	<i>Implied dwellings that can be supported, EXCLUDING buffer zone</i>	<i>Number of Properties with deeded lake access¹²</i>	<i>Conclusion</i>
<i>Waseosa</i>	<i>155</i>	<i>115</i>	<i>143 (counting Camp Huronda as one property)</i>	<i>Over-developed</i>
<i>Palette</i>	<i>16.2</i>	<i>12</i>	<i>55¹³</i>	<i>Over-developed</i>
<i>Ripple</i>	<i>19.5</i>	<i>14</i>	<i>32</i>	<i>Over-developed</i>
<i>Jessop</i>	<i>27</i>	<i>20</i>	<i>27</i>	<i>Over-developed</i>
<i>FOR COMPARISON: VERNON</i>	<i>1467 (main basin + north bay)</i>	<i>1088</i>	<i>453 approx.</i>	<i>Room for development</i>

These calculations are conservative, because (a) they do not deduct the 60m buffer zone along the shore, and especially for Waseosa, they consider Camp Huronda as only one property, although it has hundreds of summer residents who use the lake extensively for boating.

We have shown Lake Vernon for comparison, and the same theme emerges: small and narrow lakes have much less capacity for development as larger lakes. The conclusion is clear: based on this measure, all four lakes are already over carrying capacity. Nonetheless, as shown in **Section 7**, this Plan recognizes the ability to develop all existing lots, and in some cases, to create additional lots.

¹² Source: Town interactive map, Town tax roll, LWRA records

¹³ Includes 41 lakefront (incl 2 undeveloped) plus 13 clustered backlots with deeded access to Palette.

5.3 Boat Density Study

The **District of Muskoka** Official Plan also refers to boat density:

“D.21 increased boating density on many lakes is a significant issue. Discussions with senior levels of government should be undertaken to address issues of congestion, speed and use.”

And

(An objective is) “... F.4 To maintain and enhance the quality of Muskoka's natural resources by, among other matters: ... b) maintaining and improving public access to and opportunities for public enjoyment and use of the lakes and rivers of Muskoka in a manner which is compatible with established uses and the recreational carrying capacity of these waterways.”

A common method of determining the recreational carrying capacity is by measuring the boat density – i.e.: the surface area of water per boat. While some authorities use an area per boat regardless of use, this study utilized a sliding scale that allocates less surface area for some activities and more for others. For example, a powerboat towing a water-skier requires more space than a powerboat alone. This approach is particularly suitable for small to medium-sized lakes and narrow lakes where the available space for maneuvering when towing or tacking is limited.

Methodology

In 2006, for the first version of this Lake Plan, the LWRA surveyed residents on Ripple, Pallet, Jessop and Waseosa lakes, with a response rate of 38%. Of these, 47 property owners indicated that they own and operate at least one power craft and 18 residents indicated that they own and operate at least one sail craft. Using our respondents' boat ownership a representative sample those on the lake indicates a total of at least 124 power and 47 sail craft distributed among the developed lake front lots on the four lakes. Of the power craft, 66% of respondents indicated that they use their boats for water-skiing.

These are the key assumptions made for this study:

1. A household will operate only one boat of any class at once (e.g., a household with two power craft is unlikely to use them simultaneously)
2. No more than 10% of craft in any class will be operating at once, even during peak periods. These assumptions represent typical use according to studies previously conducted for the MNR.
3. Canoes, kayaks, and paddle boats are ignored, on the assumption that they are typically used within the 30 meter shore zone from which power boats are excluded. Obviously this is a conservative, since they are often seen in the middle of the lake.
4. No allowance is made for craft not owned by lake residents, as such use is limited.
5. To consider future load, the calculations were grossed up to reflect approved but still undeveloped lots. This calculation was updated in 2011.
6. Camp Huronda's seven sail craft were added to the projected load for Waseosa

The key measure for this study is the usable surface area per boat. The area and perimeter of each lake was determined from MNR records and the Land Information Ontario mapping system. Since powerboats are restricted to a minimum distance of 30 meters from shore and since sail boat keels are similarly restricted by depth, the average usable area was calculated excluding a 30m stretch along the shore¹⁴. For Lake Waseosa, the 30m exclusion was also calculated around 'Treasure Island', the largest island at 9.3ha. The two smaller islands were ignored, as they are close to shore or Treasure Island. The usable surface area was not reduced for hazards such as rocks and shoals. Some of these lie outside the 30m zone, and would reduce the usable area slightly.

¹⁴ formula $[\{(2*(Area/Perimeter)-30)^2\} / \{4*(Area/Perimeter)-60\} * Perimeter]$

Results

The resulting “Usable Area (EST.)” and number of craft are shown below:

Lake	Usable Area (EST)	# of Power Craft	# of Sail Craft
Palette Lake	12.7	25	10
Ripple Lake	14.6	16	6
Waseosa Lake	122.6	84	39
Jessop Lake	25.1	15	5

Determining the required space is not an exact science. While there are several well-respected studies on the subject, their conclusions differ slightly. Four such studies are by Kusler (1972)¹⁵, Jaakson (1989)¹⁶, Wagner (1991)¹⁷ and Warback (1994)¹⁸ were used to determine an average:

	Power boating	Water-skiing	Sailing
Kusler		16.18ha	
Jaakson	8.09ha	8.09ha	4.05ha

¹⁵ Kusler, Jon A. 1972. Carrying Capacity Controls for Recreation Water Uses. Upper Great Lakes Regional Commission.

¹⁶ Jaakson, R., M.D. Buszynski and D. Botting. 1990. Carrying capacity and lake recreation planning. The Michigan Riparian, November 1989

¹⁷ Wagner, Kenneth J. 1991. Assessing Impacts of Motorized Watercraft on Lakes: Issues and Perceptions. Proceedings of a National Conference on Enhancing States’ Lake Management Programs. Northeastern Illinois Planning Commission.

¹⁸ Warbach, J.D., M.A. Wyckoff, G.E. Fisher, P. Johnson and G. Gruenwald. 1994. Regulating keyhole development: Carrying capacity analysis and ordinances providing lake access regulations. Planning and Zoning Center, Inc.

Wagner	10.12ha	10.12ha	10.12ha
Warbach	12.14ha	12.14ha	12.14ha
Average	10.12ha	11.63ha	8.77ha

For our lakes, the anticipated load for “power craft” was allocated between the “power boating” and “water-skiing”. As noted, a peak loading of only 10% of these totals was used to determine a total requirement for each lake.

Lake Name	Usable Area (EST.)	ha for Powerboat	ha for Water-skiing	ha for Sailing	Total Required	Surplus/Shortfall
Palette Lake	12.7	12.4	19.3	8.4	40.1	-27.4
Ripple Lake	14.6	8.1	12.5	5.1	25.7	-11.1
Waseosa Lake	122.6	41.6	64.5	34.1	140.3	-17.7
Jessop Lake	25.1	6.0	11.6	4.7	22.3	2.8

Conclusions

Palette, Ripple and Waseosa are all above the carrying capacity for boating, and Palette is particularly stretched. Waseosa may be equally dangerous, as the children at Camp Huronda are learning to sail and cannot be expected to develop great proficiency during their camp session. Based on this study, Jessop appears to have some room left, however if the study were fully updated to reflect recent severances, it too would be over threshold.

5.3 Water, land, wetlands and environmental quality

Water testing is conducted by the District, and uses a model that compares phosphorus levels to an interpreted ‘background’ level of naturally occurring

phosphorus. Based on criteria revised approximately 6 years ago, none of the lakes is currently over threshold. Recent measures are shown below.

Lake	Background Phosphorus	10 year avg phosphorus	Trend
Waseosa			
Ripple			
Palette			
Jessop			

The Muskoka Watershed Council currently shows the following for the Little East watershed¹⁹.

Land	Water	Wetlands	Biodiversity
Vulnerable	Not stressed	Vulnerable	Vulnerable

The water for the entire sub-watershed is ‘not stressed’, although individual lakes have levels of phosphorus above background (details in **Studies**).

6. Stewardship

For many years, local residents and the LWRA have pursued policies to protect the local watershed and surrounding environment. We believe that such efforts are necessary, not only for their immediate impact on lake quality, but also to promote property values and attract future residents to our region.

Some active programs include:

- **Water quality monitoring:** the LWRA has helped connect the District Lake Partner Program with local volunteers to take water samples. Waseosa and Palette have had Lake Partners for years, and with LWRA assistance this has been expanded to Jessop for 2015
- **Benthos testing:** for years the LWRA has worked with XXXXXXXXXXXXXXX to monitor benthos invertebrates in Lake Waseosa (commonly known as

¹⁹ 2014 Muskoka Watershed Report Card

summer bug counting). The ratio of different types of small invertebrate wildlife in water samples taken from the lake, and their changes over time, provide an early warning signal for changes in our lakes. The results of these tests are shared with our community via our website and email.

- **Septic systems:** the LWRA routinely reminds residents of the importance of properly operating septic systems. To encourage this, we have also, for years, arranged a discount with A1 Septic, for those who are LWRA members.
- **Environmentally-friendly cleaners:** the LWRA has sourced environmentally-friendly cleaners from a local Huntsville company (Lord & Partners), and offers these for sale to area residents.
- **Education:** the LWRA regularly provides educational information to area residents. Examples include:
 - Speakers at AGM: the last two years have featured the Muskoka Conservancy (2014) and Ontario Firefighters (2013).
 - Articles highlighting the importance of the littoral zone, and the importance of a lakeside vegetative buffer
 - Excerpts from the “Don’t Feed the Deer” article published and promoted by the Town of Huntsville
 - Numerous articles including shoreline stewardship, the Shore Primer, the Dock Primer, fish habitat, and septic system maintenance
 - A voluntary Lake Etiquette charter (attached as Appendix B)
- **Spring clean-up Day:** New for 2015, the LWRA is organizing a spring walk along area roads, to remove litter and recycling that has been disturbed or blown during the winter.
- **Town of Huntsville relations:** for years, the LWRA has engaged actively with the Town on development and variance applications. It is one aim of this Plan to work constructively with the Town to establish policies that create greater certainty for all stakeholders, and avoid addressing each case on a one-off basis.

7. Lake Plan Policies for Waseosa, Palette, Ripple and Jessop

All policies subject to community feedback, final Board vote, and Town & District approval process

These policies recognize that

- There is value in having **clear, reliable policies** that are supported by all stakeholders, including residents and Town. For those who want to purchase, this means greater certainty that the value of their investment will not be eroded. This encourages **bringing more dollars into Huntsville**.
 - The economic value of the properties depends heavily on **preserving the quality of the watershed** and surrounding environment. The value to the Town depends on the value of the properties, and the economic value of the resulting investment in them
 - The four lakes in this Plan **differ from many large lakes in the region**, because they are small and/or narrow, and have **small lake surface areas compared to their shorelines**
- a) **Lake preservation:** all development and redevelopment approvals shall endeavour to preserve the water quality and natural aesthetic of the lakes to their current level or better
 - b) **Residential use:** Lakefront properties shall be developed only for residential use, except for Camp Huronda. The continued institutional camp use by Huronda is encouraged and protected. Subject to MOE approval and monitoring of the required septic system, the construction and modification of buildings, where required to accommodate the target of 136 campers plus support staff, shall be permitted.
 - c) **New lot creation**

Huntsville's Official Plan currently has approved Lake Plans that require the following for new lot creation:

Vernon	90 m in deer wintering areas
Mary	120 m

Menominee	120 m
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Option 1 – no new lot creation (per old Plan)

Option 2: In view of the small lake surface area to shoreline, and in view of the substantial development already existing on these lakes, new lot creation will require a minimum lakefront frontage of **120m**. All legacy lots will be respected, regardless of size. If the phosphorus level in any lake is more than 50% above its background level, as determined by the District of Muskoka, then new lot creation will be suspended until the level returns to less than 50% above background

- d) **New builds on undeveloped:** Existing, undeveloped waterfront lots can be developed for residential use, subject to a minimum setback of 30m.
- e) **Rebuilds within legacy footprint:** Rebuilds may be completed within the footprint of an existing habitable construction that does not meet the required zoning setback, subject to an absolute minimum setback of 10m, and provided a minimum of 75% of the shoreline is (re)vegetated to a depth of 15m
- f) **Rebuilds outside existing footprint (or additions to existing structures):** Where these do not meet the required zoning setback, these must be no closer to the lakeshore than the existing structure, subject to an absolute minimum of 20m
- g) **Septic systems:** The adequacy of septic systems will be reviewed by the Building Department for all new builds, re-builds and additions, and **extra focus** will be applied in cases where a bed must be closer than 30m from the lakeshore
- h) **Voluntary LWRA Lake Etiquette Charter:** this document is noted and attached as Appendix B

Appendix A

A History of Lake Waseosa and Its Surrounding Area: Recollections of long time local residents²⁰

The history of Canada's First Nations in the region is thinly documented, however there is evidence that the Anishinaabeg peoples had a long and continued history in Muskoka and along the Georgian Bay shore²¹. The first to arrive in the Huntsville area after the First Nations people were trappers, pursuing the fur-bearing animals that were abundant along the waterways and lakes. In 1858, a party of men was dispatched from Lake Muskoka to map all the waterways that fed into the area. They mapped as far as what is now known as Lake Vernon.

The Free Grant Land Act was passed in 1868, drawing settlers who received one hundred acres of land and the option to purchase an additional one hundred acres for fifty cents per acre. Beginning in 1870, logging and lumbering were the most attractive activities. Sawmills were erected adjacent to waterways and lakes. During this time the first bridge across the Muskoka River was built in Huntsville. The river was very shallow, and the locks between Fairy and Mary Lakes were not constructed until 1877, raising the level upstream by ten to twelve feet.

In 1885 a decision was made to extend the railway from Gravenhurst to Huntsville. Early settlers traveling north of Huntsville followed the Old North Road to Melissa, which had a general store and post office. Mail was obtained from the train as it passed by means of a collection arm. A school on old Schoolhouse Road was also part of Melissa.

The area around Lake Waseosa was logged around the start of the 20th century for white pine for construction, and for hemlock bark for the Huntsville Tannery. There were few farms established around Lake Waseosa, as the land

²⁰ This appendix substantially sourced from the original version of the Lake Plan

²¹ **Aboriginal History in Ontario's Cottage Country**, by Tom Peace, April 3, 2012

was gravel filled and steep at the shoreline. One farm, owned by the Solway family, was located on what is now Camp Huronda. The farm was subsequently purchased by Miss Coventry and Miss Rothwell, who operated a camp under the name of Camp Waseosa. Initially it may have been exclusively for girls, but was definitely co-ed later in its life. Eventually the property was purchased by the Ontario Diabetes Association, which presently operates Camp Huronda, a camp for boys and girls.

One of the early families on Lake Waseosa was the Norton family. During the free land grant of 1868, brothers George and Nathan Norton obtained abutting 100-acre parcels between the 2nd and 3rd concessions of Chaffey Township. This is now the area at the intersection of Highway 60 and Earl's Road. It is reported that in 1926, George Norton's son Ernie traded two pigs for 200 acres on the north end of Lake Waseosa. During the 1930's, 40's and 50's, Ernie operated "Waseosa Beach Resort", which had seven housekeeping cottages around the north end of the lake. Since properties adjacent to the lake were not valuable for farming, this is how development on Lake Waseosa began. A sawmill previously operated where Bill Norton's home is located now, close to the road leading to nearby Ripple and Palette Lakes.

In 1920, a number of lakes in Muskoka had more than one name. Several lakes were called Long Lake, including Lake Waseosa. Ernie Norton petitioned the Ministry of Natural Resources in the late 1920's to see if another name was on record for the lake. He was informed that the lake was also called Wasooa, or Waseosa, an Indian translation of "Lake of Shining Waters". From that time forward the lake was referred to as Waseosa. Ripple Lake was previously known as Deep Lake, Palette Lake as Round Lake, Jessop Lake as Jingo Lake, and Clark Lake as Hopkins Lake.

The 1940's and 50's brought improvements to roads, creating increased demand from those wishing to locate cottages on the lakes. Waterfront lots, at a minimum of one hundred feet or greater, were established initially on Waseosa, but development quickly spread to the other lakes.

The Lake Waseosa Ratepayers' Association was incorporated in 1963. Over the years, cottagers and residents of the adjacent lakes – Jessop, Palette and Ripple – have joined the Association. Since its inception, the Association has provided social activities as well as representation for lake issues at local and district levels.

Appendix B

Voluntary Lake Etiquette Charter

Welcome to the lake! How lucky you are to spend time on Waseosa, Palette, Ripple or Jessop Lake. We know you want to be a good neighbour and an active protector of our special environment. To do this there are a few simple things you will want to know:

- what to do with your garbage
 - how to get along with the neighbors
 - how to have as little impact on the lake as possible yet still enjoy its simple pleasures
1. Let's talk garbage first. The summer has weekly pick-up, which changes to every two weeks in winter. Re-cycling continues weekly all year. Re-cycling is based on a two-stream system: paper, cardboard and fibers are in one stream, and plastics, glass, cans and other containers are in a second stream. You must keep the two streams separate at the curb for pick-up. For details on disposal, and the bi-weekly winter schedule, visit the Town's website at Huntsville.ca

Please remember: if you are going home on Sunday and garbage is not picked up until Thursday, take it home with you! If you drop it at the end of the road, the only ones who will thank you are the ravens, dogs, bears and raccoons, and they are not tidy.

2. Neighbours can make or break cottage life. We need to balance everyone's need for privacy, with the warm feeling of having someone next door to socialize with or ask for advice
 - Make yourself known in a friendly way without being a pest
 - Many neighbors gladly keep an eye out for unusual activity, and it helps if they have your home number just in case
 - Permanent residents are particularly watchful and can be very helpful keeping an eye on your property in the off-season. Some may even be hired for cottage checking, snow removal and other maintenance needs. Ask around.

3. We all like to have fun and we each consider the lake our own. But the truth is we all share the water in it, and we all have a stake in keeping the water clean, the fish jumping and the loons returning each spring.
- Be the first one to take a plunge in May and the last one out in October, but don't use shampoo and soap in the lake! Use biodegradable soaps on land too (many so-called biodegradable products are not biodegradable in water). If you are not sure about appropriate products, see http://www.lwra.net/LP_Products for some examples that the LWRA provides at cost.
 - Like to fish? Great! Catch, release and brag about the one that got away. Leave some for the grandkids.
 - Watch the loons, herons and other wildlife from a respectful distance. Avoid the small islands in nesting season in June and July. There is currently a voluntary moratorium on use of Blueberry Island.
 - Everyone likes to see a canoe or a small fishing boat go by the dock. But a jet ski... not so much! Powerboats of all kinds should adjust their speed based on the proximity to shore: it's about erosion, noise, and safety. Ski and boat with speed safely in the middle of the lake where we can all enjoy your skill and your wake will have dissipated by the time it reaches shore. Run boats either fast enough to be up on plane or dead slow to minimize wake damage to the shorelines -- remembering that it is illegal to exceed 10kph within 30 meters of shore.
 - Most people swim near the shore, but some may swim right across the lake. A swimmer is very hard to see so keep a very sharp lookout at all times when boating. Swimmers, consider wearing a bright (e.g. yellow) swim cap, and/or use a floating pull buoy to improve visibility, and consider having a canoe or pedal boat accompany you to keep a lookout, if you venture from shore.
 - Swim rafts should be in front of your own property, within 30m of shore and marked with reflectors.
 - Fire is a scary thing. Bonfires and campfires are part of the cottage experience but must be enjoyed at the appropriate time. Check the fire hazard warnings on the side of the road, on the LWRA website (http://www.lwra.net/fire_hazard) or toll-free at 1-877-847-1577. If the dial is at hazardous or extreme, wait - the hazard will drop after a rainy day. Have a hose nearby and make sure the fire is really out before you go to bed. Remember, the property owner is legally liable for any

- offences under the Huntsville Burning Bylaw, including fines and the cost of extinguishment.
- Sound carries extremely well on the lake - much better than in your neighbourhood at home. No one should begrudge you the odd celebration on special occasions but you must also respect your neighbours' rights to peaceful enjoyment of their property. Remind your guests to keep it down if the party goes a little late. And remember the folks on the other side of the lake can probably hear every word spoken at night, so they will certainly hear every guitar chord and drum beat. Kumbaya baby! For more information about the Huntsville Noise Bylaw, please see http://www.lwra.net/noise_bylaw.
 - Fireworks are best restricted to the two traditional holidays: Victoria Day (May 24 weekend) and Canada Day (July 1). Remember that not everyone shares your enthusiasm for sudden, loud noises. It is hard on pets and other animals. Again, use common sense. Certain fireworks (like sparklers, waterfalls and Roman Candles) are legal for personal use in Canada, but large display-type fireworks are illegal without a permit. The big ones are most likely to disturb wildlife and your neighbours, so think twice when your guests show up with some "really good" fireworks they bought in the US. Sound waves, like the water, are another thing we share. And of course, the property owner will be held liable if a spark ignites the forest.
4. One of the first things you will notice at night is how many stars we have up here! Ok, we don't really have more stars; we just have less light pollution than the city. Let's keep it that way:
- Use dark-sky friendly lighting that points downwards. Keep your light from spilling beyond your own property, including out over the water.
 - Use the minimum wattage bulb that will still do the job. Your eyes will quickly adjust to low light at night
 - Use solar LED lights to illuminate paths and stairs rather than large area lights. Use motion-activated security lights where area lighting is required. Set the timer to 5 minutes maximum.
 - Avoid architectural lighting. We'll admire your home in the daytime.

Finally, just so we don't sound like a bunch of killjoys, we know you are here for rest, relaxation and fun. So are we. It is all about the golden rule really. Does that

chain saw really have to start at 8:00 AM? Is it too much to ask that you slow down on the back roads? Do you really need to ride that noisy ATV/dirt bike back and forth over the same road all day long? Does your grass really need that fertilizer to make it look like the "burbs"? (Fertilizers, pesticides and herbicides are all really bad for the lake)

Yes, there are some things you just have to change when you live on a lake. Think them over. Think about what makes this place so special and different from city life! Discuss things with your neighbours.

Join the Lake Waseosa Ratepayers' Association. Come to the Corn Roast, the Fun Day and the February Winter Social.

Be safe. Think of others. Protect the lake. Enjoy a relaxed life style in our special but fragile lake community.

Thank you, from the Lake Waseosa Ratepayers' Association including Palette, Ripple and Jingo (Jessop) Lakes