





MULDREW LAKES
COTTAGERS' ASSOCIATION

**Muldrew Lake Cottagers'
Association**
Review of Lake Plan Update Rev 1
Via Zoom, November 26, 2022,
11:00 Eastern

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K0L 2H0

Introduction



- Welcome to our 5th Lake Plan Town Hall.
- For the record, this session will be recorded for the benefit of those who cannot attend today and for future reference.
- To keep background noise to a minimum, all participants will be muted.
 - There will be opportunities after the presentations for participants to speak and raise questions / comments at which time only those speaking will be unmuted.

Today's discussion



1. A Roadmap – where we have been and where we are going
2. A new threat to Muldrewh – Blue Green Algae
3. Lake Plan Revision 1 discussion
 - Part 1
 - Presentation from EcoVue Partners Consulting
 - Part 2
 - Q&A Session
 - Questions submitted in advance
 - Questions from attendees
 - Use the Chat Function – send message to Tim Luke
 - Provide your name and cottage address with your question
 - Similarly themed questions will be consolidated
 - Part 3
 - Open Forum
 - Speakers will have 1 minute to share comments or ask question to allow time for all those who want to speak.



1: The Roadmap – Activities to |



- 2020 – Lake-Use Survey
- Town Hall discussions 1 and 2
- June 2022 – Release of Draft Lake Plan Update
- Town Hall discussions 3 & 4
- Comments received
- Revision 1 to Draft Lake Plan Update released November 14



1: The Roadmap – Looking Ahead



- Expecting more comments about Revision 1
- Survey on how members want the Revision 1 adjusted
- Survey results to be incorporated in to Lake Plan Update
- Final version of Lake Plan Update presented to membership, along with Survey results.
- Ratification Vote on Final Lake Plan Update



2: A new threat to Muldrewh - B



- Blue Green Algae (BGA) has been confirmed in Muldrewh with 2 algal blooms being discovered (Middle and South)
- BGA is actually a cyanobacteria that is toxic to humans and animals
- Toxins include
 - Neurotoxins – attacks the nervous system
 - Hepatotoxins – attacks the liver
- Exposure can also lead to abdominal pain, nausea, vomiting, headache, diarrhea, sore throat, blistering around the mouth, and pneumonia
- Exposures to cyanotoxins have killed fish, dogs, cattle, birds, and other wildlife



2: A new threat to Muldrew - B



- Blue-green algae are not normally visible in the water, but populations can rapidly increase to form a large mass or scum called a bloom when conditions are favourable.
- Blooms most commonly occur in late summer and early fall.
- Dense blue-green algae blooms may make the water look bluish-green, or like green pea soup or turquoise paint. Very dense blooms may form solid-looking clumps.
- Fresh blooms often smell like newly mown grass, while older blooms may smell like rotting garbage.



2: A new threat to Muldrew - B



From the Ministry of Natural Resources

- Take a cautious approach, as some varieties of this algae can produce toxins that are harmful to both humans and animals.
- If you suspect a blue-green algal bloom:
 - assume toxins are present
 - avoid using, drinking, bathing or swimming in the water (call your local health unit for swimming advisories)
 - restrict pet and livestock access to the water
 - Contact your [local health unit](#) for information on health risks associated with blue-green algal blooms.



2: A new threat to Muldrew - B



From the Ministry of Natural Resources

- **Home treatment systems may not remove toxins** and can get easily overwhelmed or clogged, so they should not be relied on.
- Do not boil the water, or manually treat the water with chlorine or other disinfectants, as this could increase the toxin levels.
- If you get your water supply from your own surface water intake in the area of a bloom, you should consider an alternate source of drinking water for the duration of the bloom.
- Algal blooms can last 2-4 weeks, but the toxins remain in the water for an additional 2-4 weeks which is why MNR retests the water after the blooms die off to lift a “no contact” recommendation



2: A new threat to Muldrew - B



From the Ministry of Natural Resources

Causes of Blue Green Algae Blooms

- Blooms thrive in areas where nutrient-rich water is shallow, slow moving and warm, but they may be present in deeper, cooler water.
- The amount of available nutrients such as phosphorus and nitrogen in the water.
- Blue-green algal blooms can be caused by agricultural and stormwater runoff as well as leaching from septic systems.
- In Ontario, phosphorus tends to be the nutrient that influences the growth of algae.



2: A new threat to Muldrew - B



How to reduce nutrient levels in the water:

1. Make sure septic systems are working properly
2. Maintain the first 30m of shore in as natural a state as possible
 - The undisturbed soil and plants are nature's sponge
 - Minimize the number of hard surfaces, such as roofs, paved areas etc. which concentrate larger volumes of runoff water to flush nutrients from the soil into the lake.



2: A new threat to Muldrew - B



The resultant effect of repeated BGA events:

Realtors have openly shared that repeated BGA events have a proven negative effect on property values

3-Mile Lake is a known repeat victim of BGA Blooms, and their property values have suffered.



2: A new threat to Muldrew - BG



Some References on Blue Green Algae

- <https://www.cdc.gov/habs/materials/factsheet-cyanobacterial-habs.html>
- <https://www.ontario.ca/page/blue-green-algae>



3: Lake Plan Revision 1 - Discuss



Part 1

Presentation from our planning partner

Please welcome Sarah Bales with EcoVue Consulting Services, and also a life-long Muldrew Laker



What is a Lake Plan?



A lake plan is a strategic process that provides the opportunity to engage all people, governments and business operators to develop and implement actions to maintain or improve the natural and social qualities of life on our lakes, rivers and shoreline communities

(FOCA Lake Planning Handbook)

Land Use Policy + Lake Stewardship



What is Land Use Policy?



Provincial Policy Statement



District of Muskoka
Official Plan

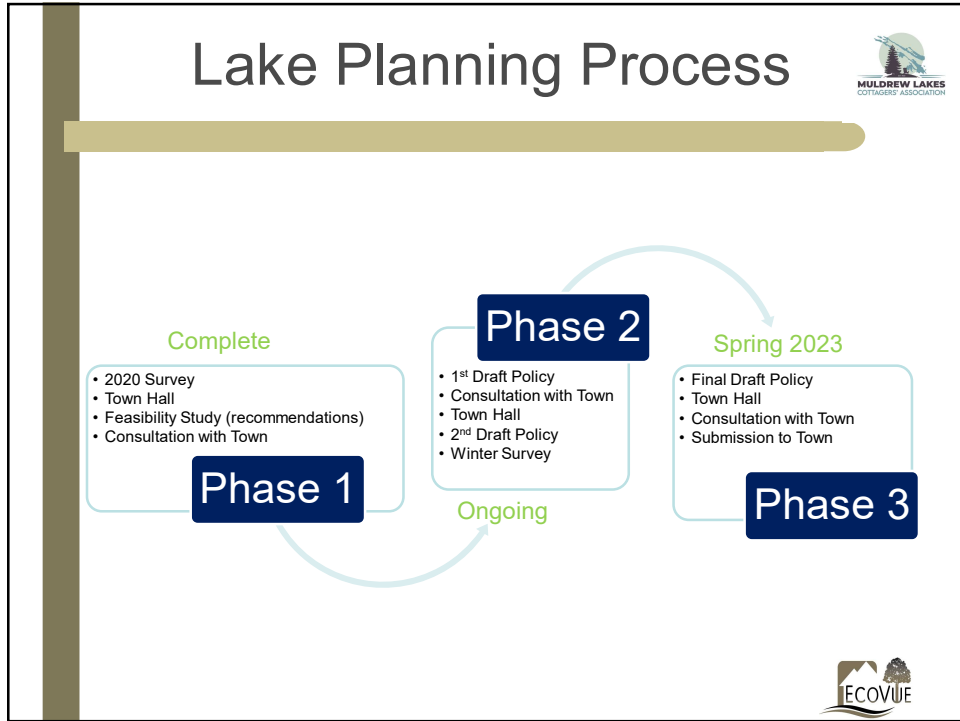


Town of Gravenhurst
Official Plan & Zoning By-law



Secondary Plan
(e.g., Lake Plan)





Review of 2nd Draft

Lake-specific Policies and Provisions for the Gravenhurst Official Plan and Zoning By-law

Lake Character & Vision



- Lake-specific policies must be based on lake-specific character and a community vision
- This first policy describes the unique character of the Muldre Lakes
 - Long, narrow channels
 - A lot of shoreline relative to the surface area of water
 - Predominantly natural shoreline
 - Modest sized cottages which are largely screened by natural vegetation
 - Very few boathouses or other shoreline structures
- The 2020 survey revealed a vision to maintain water quality, peacefulness, natural beauty, and visual character.



Lake Character



Wide Open Lake vs Narrow Long Lake



Shoreline Development



- 2020 survey demonstrated that 73% of 188 respondents want a limit on the size of cottages/houses

- Protect

- Wh

- Pre

- Protec

- Pro

- ma

- Protect visual character

- Natural shoreline – preserve natural vistas
- Privacy/Peacefulness



ertilizers, septic beds

leer

establishing the



Shoreline Development



B) ii. New Dwellings

- When asked to define what “modest” and “reasonable – majority less than 3500 ft²
- 3-4 bedrooms; In keeping with average size on lake, etc.
- Upcoming survey will attempt to confirm whether this reflects majority of community



Shoreline Development



Shoreline Development



New Dwellings

- GOP: “to reduce environmental impact and preserve the unique character described in the Muldrewh-specific policies of the Official Plan, the implementing Zoning Bylaw shall limit the maximum gross floor area of the principal dwelling on a lot”.
- ZBL: Have inserted the 325 m² (3500 ft²) limit on gross floor space into the Regulations for each zone which is located on the Muldrewh Lakes (RW-6B, RW-6C and RI-8D).



Shoreline Development – New Dwellings

Examples from other municipalities

Kahshe Lake (Town of Gravenhurst)

- 375 m² (4000 ft²)

Three Mile Lake and Leonard lake (Township of Muskoka Lakes)

- 325 m² (3500 ft²)

Shoreline Residential Zone (Township of Georgian Bay)

- depends on which Shoreline Residential Zone –
- ranges from 140 (1500 sq ft square metres to 325 square metres (3500 sq ft).



Shoreline Development



Exceptions to Shoreline Setback

- Proposed lake-specific policy is similar to current policy in the GOP
 - Speak to lots without sufficient depth and with site conditions that preclude meeting setback
- Main Differences:
 - Provides more detailed criteria in terms of site conditions that may preclude meeting the setback
 - Requires the proponent to justify requested relief from the required setback through a Site Evaluation Report by a qualified professional



Shoreline Development



Shorelines provide numerous benefits and in general, larger buffers are better at consistently providing a range of protective functions. A 15 m buffer has been found to be the minimum size necessary to maintain physical and chemical functions while 30 m is the minimum necessary to maintain biological functions. Efficient removal of some pollutants (notably sediment) can occur in buffers of 10-20 m width, but other pollutants (such as nutrients) may require buffer widths of 30 m or more for effective attenuation. Water quality improvements generally increase with buffer size (e.g., 10 m removes 65% of sediment from overland runoff while 30 m removes 85% of sediment from overland runoff). Larger buffers are also better at protecting the diversity of aquatic and terrestrial species that rely on shorelines. Semi-aquatic species such as amphibians and reptiles, can use terrestrial habitat up to 300 m inland from the water's edge. Some



Hutchinson Environmental Sciences Ltd.

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J210039, County of Haliburton

Shoreline Preservation, State of the Science Report

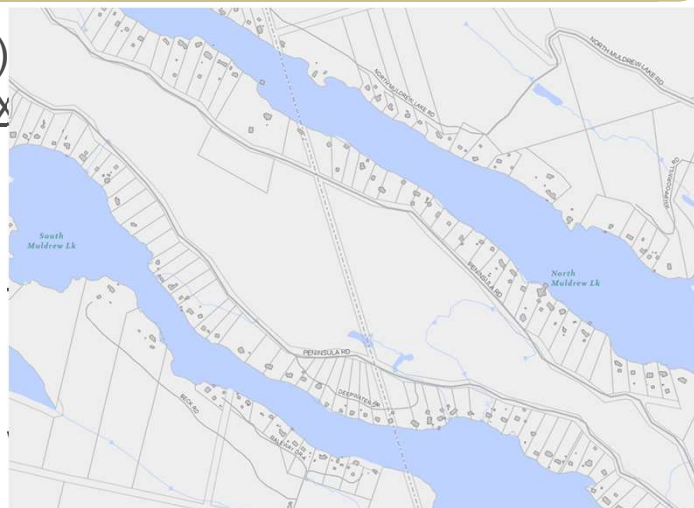
turtle species nest up to 80 m inland. Waterbirds may react to human activity close to their nests, and loons may require several hundred metres between their nests and development.



Shoreline Development



- B) Ex



Redevelopment of Existing Structures

Official Plan policy:

- Does not increase non-compliance
- Complies with provisions for Muldrew Lake in ZBL (next slide)
- Consistent with Shoreline Design Guidelines + Environmental Net Gain
 - Sustainable Shoreline Development
 - An improvement of the current situation



Redevelopment of Existing Structures

Zoning By-law Provisions

a. Nothing in this By-law shall prevent the reconstruction, repair or renovation of a legally existing building that does not comply with the provisions in this By-law, provided that the reconstruction, repair or renovation does not: i) expand, enlarge or increase the height, size or volume of the original non-complying building or structure; or ii) relocate the building or structure from its original footprint.

b) Notwithstanding the above provisions and Section 5.7.2 (iii)(c), where a dwelling encroaches into the required front yard or shoreline setback, the dwelling may be enlarged, replaced or renovated provided that it complies with the provisions in Table 1 as well as all other applicable provisions of the ZBL, including 5.7.2.1. iii a) b) and d).

Table 1. Provisions for enlargement, repair, replacement or renovation of existing legal non-complying dwellings encroaching into the required front yard or shoreline setback.

Column 1	Column 2	Column 3
Dwelling Distance from OSWL	Maximum Gross Floor Area (1)	Lateral Dimension Increase (2)
Less than 15 metres (49.2 ft)	92 m ² (1,000 sq ft)	25%
Between 15 and 19 metres (49.2-65.6 ft)	185 m ² (2,000 sq ft)	25%
Between 20 and 29 metres (68.9-95.1ft)	278 m ² (3,000 sq ft)	25%

Footnotes for Table:

- (1) Notwithstanding any other provisions of this By-law to the contrary, an enclosed porch or screened porch attached to a dwelling shall be included in the maximum gross floor area for the purposes of applying the provisions of Column 2.
- (2) Lateral dimension shall mean that part of a building or structure which is situated more or less parallel to the corresponding shoreline or optimal summer water level (OSWL) and shall be measured along the exterior wall of the building that faces the waterbody measured at right angles to the chord frontage. The lateral dimension provision shall not apply to new decks or unenclosed porches attached to a dwelling where the deck or unenclosed porch is less than 1.2 metres (4.0 ft) in height.



Redevelopment of Existing Structures within the Required Setback- Examples

Township of Muskoka Lakes (District of Muskoka)

- Replacement must be in same location, have same or reduced dimensions, have no increase in floor area

Township of Douro-Dummer (Peterborough County)

- Width increase limited to 25% of existing building
- Any walls within required setback must be incorporated into new structure along with supporting floor structure

Township of Seguin (District of Parry Sound)

- Range 23-56 m² (247- 600 ft²) depending on proximity to shoreline and 0-60% increase in width depending on proximity

Township of Minden Hills (Haliburton County)

- Can increase ground floor area of building no more than 25% of existing ground floor area, can increase height by 1.2 metres
- If within 15 metres of shoreline, cannot increase building size or height

Township of Georgian Bay (District of Muskoka)

- Ranges depending on proximity to water
- Between 25% gross floor area and 20% width to 70% of gross floor area and 60% of existing dwelling width (with ultimate maximums ranging between 190-325 m² gross floor area depending on zone).



Boathouses and Boatports

- Changes are mainly housekeeping in nature
 - Town noted need to clean up terminology
 - Moved all quantitative regs to Zoning Bylaw (from OP)
 - Previously, maximum width provision (10 metres or 15% of frontage) for boathouses was only in the OP and not enforceable
 - Inconsistent terminology: “shoreline storage buildings” – assumed intent was to apply to both boathouses and boatports – as current terms are confusing for Town
 - New provision limiting projection – important for narrow waterbody
 - Feedback from one person so far suggesting to increase this slightly – Kawshe Lakes has a max 10 metre projection – upcoming survey will address this.



Boathouses and Boatports



Oversight of Development

- Proposed changes to the GOP to ensure responsible development planning and practices
 - Site Evaluation Report
 - Site Plan Control



Site Evaluation Report

- Proposed to be required for any major development
- A comprehensive evaluation of a site
 - Information about a site (topography, soils, natural heritage features [e.g., wetlands])
 - Analysis of potential impacts
 - Mitigation methods for development
 - Addresses both biotic (animals and plants) and abiotic (soils, steep slopes) when developing recommendations for development



Site Plan Control

- A tool used by municipalities to ensure a land development is compliant with the applicable policy and provisions
- A contract between municipality and land owner consisting of conditions for development that are registered on title
- Proposed to be required for any development that is considered “major”
- Maintain shoreline buffer/natural vegetation



Sleeping Cabins

- Currently the lake-specific policy for Muldrew permits 1 sleeping cabin up to 500 square feet.
- Proposing up to 2 sleeping cabins with a total gross floor area of 500 square feet
- Addition of a sleeping cabin may constitute need for a septic suitability study



Recreational Carrying Capacity

- 2020 survey – issues of boating congestion, safety
- At or over capacity
- Looked at Limiting lot creation
 - only 6 lots
- Potential additional recreational impact from existing vacant lots and potential redevelopment of commercial property



Recreational Carrying Capacity

- Proposed policy to mitigate these potential impacts
 - Define the current model of RCC on Muldrew Lakes
 - Standard formula derives a capacity of 160 dwellings
 - Currently 400+ (more than double “ideal” recreational capacity)
 - Require a boating impact study to ensure new development does not contribute to overcrowding of the lake surface area



Commercial Property

- Current policy
 - States expectation that land use will continue in its present form, but if expanded, requires a SER and ZBA
 - If new land use, OPA required
- Changes
 - Revising “trailer park” to “campground” and adding civic address
 - Requirement for boating impact study



Conservation

Issue	Proposed Changes to the GOP
<p>Conservation</p>	<p>The use of innovative forms of tenure, ownership and interests of properties is encouraged for their long-term conservation. These may include conservation easements, property acquisition by land trusts such as the Muskoka Conservancy, and use of available tax incentive programs.</p> <p>Where a property owner proposes to convey lake front land for conservation purposes, shoreline lots with smaller frontages than those required in Section D17.3.6 may be recognized, where in exchange a significant area of land is preserved in perpetuity for conservation purposes and conveyed to a public authority or private foundation. A minimum lot frontage of 45.0 metres (148 ft) would be required for any residential lot considered in this instance as long as an equal minimum 45.0 metres (148 ft) is conveyed for conservation.</p>



Closing

- Proposed policies address issues, values and concerns expressed in 2020 Survey and feedback received to date
- A precautionary approach in light of recent algae blooms and uncertainty associated with climate change
- Protecting the shoreline environment is the only way to protect water quality and the future of the lake



3: Lake Plan Revision 1 - Discuss



Part 1

Presentation from our planning partner

Please welcome Sarah Bales with EcoVue Consulting Services, and also a life-long Muldrewh Laker



3: Lake Plan Revision 1 - Discuss



Part 2

Q&A Session

- Please use the Chat function in Zoom to submit your question
- Send questions and comments to Tim Luke who is administering our chat stream
- Please include your name and cottage address with your question in case we need further follow-up/clarification after this session.
- Similarly themed questions will be consolidated and answered together.



3: Lake Plan Revision 1 - Discuss



Part 3

Open Forum

- If you would like to raise a comment or a question, please use the "Raise Your Hand" function in Zoom
- Speakers will be limited to 1 minute to make their issue known so that everyone will have an opportunity to speak.
- Similarly themed questions will be consolidated and answered together.



Lake Plan Town Hall #5



Thank you for your comments and your participation.

The Lake Plan Update will be better because of your input.

Look for to your Survey invitation early in January, 2023.

