

Town of Huntsville Official Plan Review - POLICY BACKGROUND PAPER

Sustainable Natural Environment – Recreational Water Quality

BACKGROUND:

- Protecting, restoring and improving the quality and quantity of water resources is vital to the Town.
- The District of Muskoka administers a program of recreational water quality monitoring for many lakes within Huntsville.
- In December 2002, Muskoka District Council approved the [Muskoka Water Strategy](#). Comprised of a number of components, including the [Lake System Health Program](#), and the District's support for the Muskoka Watershed Council, this strategy is used to protect and, where possible, enhance Muskoka's recreational water resources.
- The Muskoka District Council adopted the Lake System Health Program in 2005, which is intended to guide and minimize the impact of human development on water resources, preserve the environmental health and quality of life in Muskoka and also protect the future of Muskoka as a premier recreational region. The Lake System Health Program seeks to protect Muskoka's waterbodies through recreational water quality monitoring, planning policies, and strong stewardship and municipal infrastructure initiatives.
- At present the Muskoka Official Plan policies for Lake System Health classify lakes and rivers as having Low, Moderate, High, or 'Over-Threshold' sensitivities to phosphorus. When development occurs on High Sensitivity lakes the policies *recommend* the application of site plan control or development permitting.
- However, the use of either of the above planning tools is *required* to address phosphorus management on Moderate Sensitive lakes. Development on High Sensitivity lakes can only proceed upon completion of a site specific Water Quality Impact Assessment (WQIA) which demonstrates that development can occur without impairing water quality. Typically these studies also identify a range of phosphorus management techniques to mitigate any potential impacts on the water quality of the receiving waterbody.
- Where the phosphorus loading to a waterbody exceeds 50% of the undeveloped phosphorus load, the lake or river is considered "Over Threshold" and an enhanced level of development control policies are applicable. These policies require the completion of a WQIA and the approval of a site specific Area Municipal Official Plan Amendment to implement the study's findings, as well as the application of site alteration and tree-cutting by-laws or a development permit by-law.
- This cautious policy approach at the District and Area Municipal levels has resulted in generally very good-to-excellent recreational water quality in waterbodies across Muskoka.
- Hutchinson Environmental Sciences Limited (HESL) undertook a review of the District's recreational water quality model and their summary report entitled "[Revised Water Quality Model and Lake System Health Program](#)" was accepted by the District in May 2016.
- HESL indicates that the chemical, physical and biological conditions of lakes across Muskoka are changing due to multiple environmental stressors including climate change, declining concentrations of calcium and invasive species.

- Official Plan Amendment ([MOPA](#)) #45 to the Muskoka Official Plan, which involves implementation of the updated recreational water quality model, is currently under consideration by the District’s Planning and Economic Development Committee. District Planning staff are revising the amendment in response to public consultation feedback.

POLICY CONTEXT:

Provincial Policy Statement (2014):

2.1 Natural Heritage

2.1.1 Natural features and areas shall be protected for the long term.

2.1.2 The diversity and connectivity of natural features in an area, and the long-term *ecological function* and biodiversity of *natural heritage systems*, should be maintained, restored or, where possible, improved, recognizing linkages between and among *natural heritage features and areas*, *surface water features* and *ground water features*.

2.2 Water

2.2.1 Planning authorities shall protect, improve or restore the quality and quantity of water by:

- a. using the watershed as the ecologically meaningful scale for integrated and long-term planning, which can be a foundation for considering cumulative impacts of development;
- b. minimizing potential negative impacts, including cross-jurisdictional and cross-watershed impacts;
- c. identifying water resource systems consisting of ground water features, hydrologic functions, natural heritage features and areas, and surface water features including shoreline areas, which are necessary for the ecological and hydrological integrity of the watershed;
- d. maintaining linkages and related functions among ground water features, hydrologic functions, natural heritage features and areas, and surface water features including shoreline areas

Muskoka Official Plan:

F.3 Maintain and enhance the quality of Muskoka's natural resources

[F.12-F.43](#) These sections contain the current Lake System Health policies.

[\(MOPA\) #45](#)

First Draft Muskoka Official Plan:

F2 All planning authorities shall protect, improve or restore the quality and quantity of water. Policies relating to development restrictions for sensitive ground and surface water features, source protection plans, stormwater management, watershed planning and includes the recreational water quality policies as per MOPA#45

Town Strategic Documents:

Unity Plan

Goal #5 Land Use Planning: Huntsville will become a model of sustainable community development, by incorporating the principles of smart growth, sustainable design and green buildings into all land use planning decisions. This will include a commitment to the protection and maintenance of Huntsville's rural small town character and vibrant downtown, both of which are valued by the community.

Strategic Plan 2017 and Beyond

Natural Environment and Sustainability

Goal #1: Demonstrate the Town's commitment to protecting the quality and character of the natural environment.

Goal #2: Integrate sustainability principles into planning and development policies and processes.

Huntsville Official Plan:

Environment:

3.3 Functions of watercourses will be protected and enhanced.

3.5 Recreational water quality – lakes classified by sensitivity to phosphorous:

- increased septic system setbacks (30m), and site plan control required for all development;
- more sensitive lakes have stricter development controls (water quality impact assessments).

Lakeshore Capacity Assessment Handbook

Best Management Practises such as shoreline naturalization and vegetated buffer strips have been accepted in many jurisdictions as sound management practices for lakeshore properties. However, the handbook suggests that there is insufficient information on these techniques to reliably predict the level of nutrient control that may be achieved or their long-term effectiveness at reducing phosphorus loading. The Lakeshore Capacity Model makes no allowances for mitigation of overland runoff through site engineering and vegetated buffers.

CONSIDERATIONS:

- HESL concluded that although the current policy approach based on the Water Quality Model has served Muskoka well, it is no longer scientifically defensible for several reasons, including:
 - the accuracy of the existing model, with results not effectively predicting measured phosphorus levels on a lake specific basis;
 - the evidence that phosphorus concentrations are not increasing in any of Muskoka's lakes;
 - recent Ontario Municipal Board decisions favouring phosphorus abatement technologies for septic systems; and
 - emergence of multiple environmental stressors that also significantly impact lake health.

- The report indicates that phosphorous should remain as a key indicator of water quality and that the water quality monitoring program data continue to be collected and tracked to identify trends on each lake. This data would be reviewed annually and compared against the following three indicators:
 - total Phosphorus (TP) being greater than 20 micrograms/litre;
 - a statistically increasing trend in TP; and/or
 - confirmed occurrence of a blue-green algal bloom.
- It is further noted that there are 7 lakes in Muskoka which have been identified using these indicators, however, none of them are located in Huntsville.
- Water Quality Impact Assessments (WQIA) are technical background studies that must be submitted to permit development on waterbodies identified as being “Over Threshold” or “Highly Sensitive”. The WQIAs received by District staff to date have consistently concluded that development is possible without negatively impacting the water quality of the abutting waterbody. The recommendations of these studies are also typically consistent and include the implementation of phosphorus management and mitigation techniques through site plan control or development permitting.
- Changing environmental factors and trends resulted in a need to develop a consistent, simplified and scientifically defensible planning policy approach to protect water quality. MOPA#45 suggests a new method for determining lake health, with best practices for the maintenance and improvement of water quality through strengthened application of site plan control to maintain and restore vegetative buffers along shoreline, among other practices which maintain and potentially improve the recreational water quality (i.e., stormwater management and construction mitigation techniques).
- The proposed approach in MOPA No. 45 of implementation of Best Management Practices (BMPs) through site plan control can easily be accommodated by the Town, as its Site Plan Control Area By-law is applicable to all waterfront development.

- **SUMMARY:**

A review of best practices from other municipalities across Muskoka has revealed that the following policy approaches may assist in addressing some of the considerations:

- Remove reference to existing Lake System Health policies from OP, update to reflect new approach – make reference to MOP regarding more specifics.
- Use of an increased septic system setback of 30m is still considered a BMP.
- Site plan control policies could be updated to reference different goals to be achieved (eg. water quality or vistas or habitat protection). Planning policies should provide for a standard level of protection on all lakes to address the multiple environmental stressors through a set of BMPs for all new development or redevelopment of shoreline lots.