

Municipal Official Plan Recommendations



*Recommended policy
directions for guidance to
municipal and regional
government Official Plans in
the Muskoka Watershed*

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Muskoka

WATERSHED COUNCIL

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Introduction

On behalf of Muskoka Watershed Council (MWC), this document provides a series of recommended policy directions for guidance to municipal and regional government Official Plans in the Muskoka Watershed¹. It is based primarily on two significant MWC documents; [The Case for Integrated Watershed Management in Muskoka](#) and [Planning for Climate Change in Muskoka](#).

Purpose

Multiple jurisdictions share the Muskoka Watershed and planning decisions made in each jurisdiction impact others. Planning goals often cannot be met without the collaboration of other jurisdictions sharing the Watershed. The health of the Watershed is influenced by all components of the ecosystem, including; lakes, rivers, wetlands, soils, forests, etc.

The Provincial Policy Statement (PPS) emphasizes the importance of using the watershed as the ecologically meaningful scale for integrated, cross-boundary, long-term planning, and the need to ensure climate change adaptation and resiliency measures are a foundation for development considerations. It also directs that Official Plans should coordinate cross-boundary matters to complement the actions of other planning authorities and promote mutually beneficial solutions.

The PPS directs that efficient development patterns permit better adaptation and response to the impacts of a changing climate. What the PPS does not provide is “actual policies” to reflect the intent of the PPS nor is this paper able to provide such, but offers some key elements to consider in OP reviews. Municipal official plans are the most important vehicle for implementation of this Provincial Policy Statement and for achieving comprehensive, integrated, and long-term planning.

Watersheds do not respect municipal boundaries nor do the impacts of a changing climate, so many of the policy directions in this document will encourage collaboration among various levels of government, as well as researchers and NGOs. Many of the recommendations are not feasible for any one municipal government on a financial or expertise level but by considering them, opportunities may be sought through collaboration in the immediate or long term to work towards the goal.

The purpose of this document is to provide a new lens for OP reviews, one that assesses planning decisions on a watershed basis with a consideration of any positive or negative effects on the changing climate.

MWC expects integrated watershed management (IWM) to evolve in Muskoka, and therefore this document should be considered an interim submission. MWC is assisting the Province and the District of Muskoka on various foundational projects related to IWM. Notable among these, in their relevance to municipal planning, are projects on land-use policy review, floodplain mapping and natural capital inventory. These and others are slated for completion in early 2023.

¹ Muskoka Watershed refers to the watersheds lying wholly or partially within the District of Muskoka, including the entirety of the Muskoka River Watershed, portions of the Black-Severn River Watershed, and the Georgian Bay coastal areas associated with these watersheds. See <https://www.muskokawatershed.org/watersheds/muskoka-river-watershed/> for a map.

MWC expects to use the findings of these projects to update our recommendations relating to land-use planning.

Key Recommendations

All should recognize that;

1. Integrated Watershed Management (IWM) is the appropriate mechanism for planning in Muskoka. IWM is not something that any individual municipality can implement immediately nor independently of other municipalities.
2. A watershed is not just connected lakes, rivers, and wetlands. It includes all the land, whether developed or natural, within the drainage basin. Land use, and the appropriateness of development, affect both the water quality and quantity found within the watershed and hence impacts the natural environment Muskoka relies on for its lifestyle, health, economy, and sustainability.
3. An official plan should contain inclusive language;
 - 3.1. to make a commitment to, and adopt provisions compatible with, the ultimate development of IWM.
 - 3.2. to confirm the necessity to work collaboratively with neighboring municipalities, provincial and federal agencies with responsibilities for land, water or natural resources, major economic sectors, conservation NGOs, and members of the community, including members of First Nations and other traditional owners, to develop a plan for integrated watershed management.
4. The municipality should;
 - 4.1. assess the current state of interactive and cumulative impacts by consolidating all environmental quality data from past and present monitoring relating to the relevant jurisdiction in collaboration with other levels of government and NGOs.
 - 4.2. invest in programs to expand environmental monitoring to fill data gaps identified in 4.1, above.
 - 4.3. support collaboration and research directed to improve planning processes to avoid future negative cumulative environmental impacts.
 - 4.4. collaborate with neighbouring watershed jurisdictions to develop a natural heritage system.
 - 4.5. protect and enhance areas of productive forest, wetlands, and open spaces and ensure land-use designations and zoning by-laws protect the environment and implement water resource protection strategies.
 - 4.6. promote the investment of reducing the carbon footprint of municipal buildings and vehicles.
 - 4.7. provide incentives to both develop and restore green energy sources, energy efficient buildings, and energy conservation.
 - 4.8. encourage infill development to reduce transportation reliance.
 - 4.9. implement a climate change lens, a set of criteria to maximize resiliency of ecosystems and communities, and manage the risks associated with climate change.

- 4.10. provide sustainable natural environmental services for future generations such as;
 - 4.10.1. identify development and land-use patterns that address the long-term impacts of climate change such as storm intensities, more freeze/thaw cycles, and greater flooding risks.
 - 4.10.2. promote green building material requirements to ensure durability, reduce the heat-island effect, and reduce the carbon footprint in the use of building materials.
 - 4.10.3. support using products that are environmentally certified, such as FSC wood products, and require sustainable materials in municipal projects.
- 4.11. require stringent environmental conservation measures, such as;
 - 4.11.1. improve floodplain mapping and increase restrictions for redevelopment of existing structures and development of new structures within floodplain areas.
 - 4.11.2. increase setbacks for development adjacent to wetlands, lakes, rivers, headwater areas, and groundwater discharge areas.
 - 4.11.3. retain natural vegetation.
 - 4.11.4. map and manage invasive species on municipal properties.
 - 4.11.5. provide stringent requirements for stormwater management, flood abatement, and provisions to increase the resilience of power and data grids.
 - 4.11.6. have stringent standards for built infrastructure.
- 4.12. seek to reduce the climate impact of energy systems through;
 - 4.12.1. using energy sources that reduce or avoid greenhouse gas emissions.
 - 4.12.2. employing passive solar design principles.
 - 4.12.3. promoting compact form.
 - 4.12.4. using net-zero design principles to reduce or eliminate energy demand by built infrastructure.
 - 4.12.5. increasing the use of hydroelectric generation, to the extent that it can be balanced with other water usage needs such as; summer navigation, tourism, ecological resources such as fish and associated wildlife, and mitigation of spring flooding.
- 4.13. adopt innovative environmental approaches to;
 - 4.13.1. define adjacent lands based on ecological function.
 - 4.13.2. encourage developers to provide treated wastewater quality that is better than that provided by traditional septic tank systems for all new developments.
- 4.14. provide incentives to private and commercial landowners to;
 - 4.14.1. preserve and manage wetlands as parts of larger ecosystems, recognizing the diversity and connectivity of natural features in the area.
 - 4.14.2. maintain the long-term ecological function and biodiversity of wetland systems.
 - 4.14.3. restore or improve linkages between and among wetlands, surface water, and groundwater features.

- 4.15. implement stormwater management processes to;
 - 4.15.1. provide, for demonstration, projects to improve stormwater management practices and to require private and commercial property owners to upgrade stormwater controls.
 - 4.15.2. demonstrate leadership by incorporating the highest level of stormwater management and quality control in construction and maintenance projects on municipal roads and bridges, and incorporating green infrastructure to replace grey.
 - 4.15.3. promote the importance of wetlands and vegetative buffers adjacent to watercourses to filter stormwater flowing into waterbodies, as well as the maintenance of free water-flow in watercourses so that stormwater runoff may be accommodated.
 - 4.15.4. ensure municipal operators are certified by "Smart About Salt" for maintenance of municipal infrastructure including; roads, bridges, and municipal buildings.

Conclusion

"Our environment is our economy, and our economy is our environment." Achieving a balance between development activity and environmental sustainability is a challenge. Given that a healthy environment is paramount to all else in the Muskoka Watershed, including our lifestyle, health, and economy, it is reasonable that the environment be the primary criteria for planning decisions.

The term "cumulative impact" refers to the sum of impacts on the environment from multiple sources over time. Acid rain, use of DDT, and ozone depletion are prime examples. These impacts were addressed but only after the fact.

The changing climate is caused, in part, by the cumulative impact of carbon emissions from human behaviour. Policies to encourage and implement actions to address climate change and ensure resilience and adaptation should be included in municipal Official Plans. Many of these strategies are well known but not included in OP policies.

The climate in the Muskoka Watershed is changing. Climate change modeling predicts that the watershed will experience hotter, drier summers with more heat waves, more intense rainfall events, and milder winters with more freeze-thaw episodes.

Official Plan policy should recognize the threat posed by climate change, and encourage the development of communities that are sustainable, resilient, and flexible, and give priority to climate adaptation policies and programs that address the uncertainties climate change will create in the future.

Protecting natural capital will be one of the most effective ways we have of adapting to climate change. However, climate change impacts will be varied. They will differ in severity from place to place, and from year to year, and they will make managing for a sustainable environment more challenging than it has been in the past. We will be operating on a rapidly changing stage.

APPENDIX A

About MWC

Muskoka Watershed Council (MWC) is a volunteer-based non-profit organization founded in 2001 by the District of Muskoka and the community to champion watershed health. MWC is comprised of representatives from a wide range of stakeholders including; governments (municipal, provincial, and federal), lake associations, academia, and other community interests from across our watershed.

MWC provides a coordinated and science-based voice on issues affecting the environmental quality of our watershed and its role as the basis of Muskoka's economy. For twenty years, MWC has provided scientifically informed advice on environmental issues to municipal governments, the private sector, and the citizens of the Muskoka Watershed.

To advance our evidence-based environmental programs and positions, MWC relies on data collected through several sources including; provincial and regional programs, academic research, and citizen science.

While municipalities must ensure their planning decisions protect the health and well-being of their residents, municipalities must also ensure they protect the environment that sustains the population.

Resource Glossary

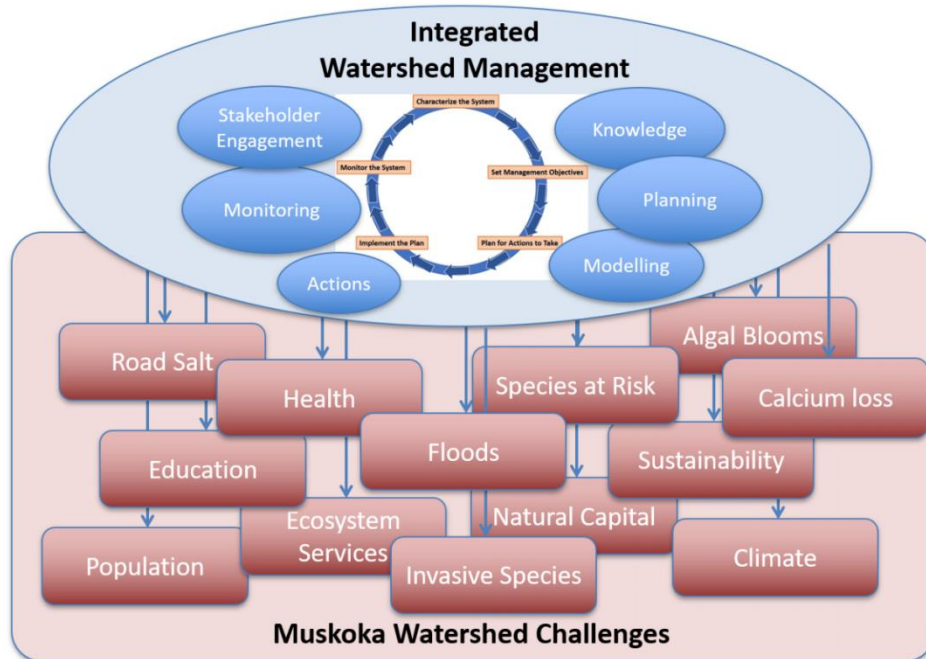
The following glossary represents a comprehensive resource guide and links to support the recommendations presented within this paper. The resources also include; supporting projects, partnership programs, position papers, and additional resources to assist in the planning process.

- [The Case for Integrated Watershed Management in Muskoka](#)
- [Planning for Climate Change in Muskoka](#)
- [Climate Change and Adaptation in Muskoka](#)
- [Economic Development and Environmental Protection - Achieving a Balance](#)
- [Wetland Policy](#)
- [Stormwater Management](#)
- [Aquatic Invasive Species](#)
- [Shoreline Vegetative Buffers](#)
- [Monitoring of Municipal Salt Management Plans](#)

Watershed Management and Planning

Development of Management Objectives; Implementing Actions; Making IWM Routine

Some of these will relate directly to land-use and will lead to actions to amend existing zoning by-laws or building regulations. Others will relate to management of natural heritage, to conservation of water quality, to protection of species at risk. These activities are all ones that take place at present. With the introduction of IWM, they will become more tightly integrated than in the past.



MWC Supporting Projects

[Muskoka Watershed Report Card](#)

The Muskoka Watershed Report Card is produced by the Muskoka Watershed Council every four years. The Report Card is a science-based evaluation of the health of the water, land, and wetlands in Muskoka and the municipalities that share Muskoka's watersheds.

[Watershed Inventory Project](#)

The Watershed Inventory Project was two-tiered with the purpose of identifying available data sets and lack of existing protection for ecologically significant areas on Crown and private lands, both terrestrial and aquatic.

[Stewardship](#)

Individual stewardship can include such activities as; participating in bird counts, restoring damaged wildlife habitat, planting trees and native species on one's property, subscribing to woodlot management best practices, naturalizing shorelines, reducing home energy consumption, considering putting your land into trust or conservation easements, or choosing to drive an energy-efficient vehicle. It can include lobbying local, provincial, and federal decision-makers for community-wide environmentally responsible initiatives and voting for elected representatives and political parties with strong environmental policies and programs.

[Love Your Lake](#)

Shorelines are some of the most ecologically productive places on Earth. They support plants, microorganisms, insects, amphibians, birds, mammals, and fish. The first 10 to 15 metres of land surrounding lakes and rivers is responsible for 90% of lake-life born, raised, and fed in these areas. Additionally, these areas are up to 500% more diverse than areas upland from lakes and rivers.

Shoreline property owners can have a huge impact on this delicate interface by determining if their shorelines are healthy and which actions can be taken to maintain or improve the health of the waterfront area.

[Algae Monitoring Program](#)

This program collects information on the distribution, abundance, and seasonal cycles of combined phytoplankton and blue-green algae, across Muskoka area lakes so that, over time, it may be possible to identify conditions favouring algae, detect trends in phytoplankton abundance, and provide management advice.

[Clean and Green 13](#)

These best practices challenge people to look at their everyday lives and realize the kind of impact their actions have on the watersheds that we share. Included is a list of some positive steps that can be taken, right, now to improve the health of Muskoka's watersheds.

[The Natural Edge](#)

Shorelines are one of the richest environments on earth, but they are also among the most threatened. Habitat loss and degradation, water quality impairments, and increasing pressures from shoreline development can deteriorate our lakes and rivers, making them a priority for environmental stewardship and restoration. Shorelines are the ribbon of life, providing habitat, including shelter and food, for over 90% of aquatic wildlife. Resources in our Shoreline Re-naturalization Starter Kit include a customized planting plan, educational materials, and native plants to create natural habitat along your shoreline.

[Outreach and Education](#)

MWC promotes watershed health through education and outreach, including;

- **Welcome to Watersheds** school presentation – while aimed at Grade 4 students, the presentation can be adapted to suit any grade level.
- **Wash Out Activity Centre** at the annual [Haliburton-Muskoka-Kawartha Children's Water Festival](#).
- displays at various community events and lake associations' Annual General Meetings.
- presentations to various community groups.
- resource material developed for distribution to various community groups and lake associations.

Additional Position Papers

- [Aggregate Resources](#)
- [Power Generation](#)
- [Forest Health](#)
- [Muskoka's Biodiversity](#)
- [Bulk Water Removal](#)
- [Pesticides](#)

- [Pharmaceuticals and other Endocrine Disrupting Compounds in Natural Water Systems](#)
- [Ontario's Living Legacy Program and the Disposition of Crown Lands](#)

Additional Resources

[Living in Cottage Country Handbook](#)

This handbook will show you how simple, everyday actions can keep your piece of cottage country healthy while complying with the various guidelines, regulations, and by-laws that exist.

[Best Practices Program](#)

This link provides best practices on the following topics;

- Septic Systems
- Natural Shorelines
- Healthy Lawns and Gardens
- Caring for Wetlands
- Low Impact Development
- Stormwater Management
- Caring for Your Woodlot

[Presentation Archive](#)

MWC has hosted several excellent speakers over the years through the Environmental Lecture Series and at MWC meetings. Some of these presentations include;

- Assessing and protecting Species at Risk
- Harmful Algal Blooms
- The Watershed as an Ecological Unit
- Building and Carbon Draw Down
- Using Water Balance Dynamics
- Responding to the Threat of Road Salt
- Implementing Low Impact Development
- Water Fleas
- Start at the Bottom (Benthic Monitoring)
- Aliens Amongst Us (Invasive Species)

[Speakers Bureau](#)

Muskoka Watershed Council members are available to give presentations on the following subjects;

- Watershed Report Card
- Position Papers
- What is a watershed and what impacts watershed health