



**COUNCIL
AGENDA REPORT**

TO: Mayor Harding and Members of Council
MEETING DATE: December 16, 2020
SUBJECT: Muskoka Watershed Advisory Group Interim Report

RECOMMENDATION:

WHEREAS the shoreline residents of the Township of Muskoka Lakes experienced severe spring flood damages in 2019;

AND WHEREAS the Township of Muskoka Lakes, as a signatory to the MRWMP, has previously requested through Resolution Nos. C-16-15/11/13, COW-11-18/02/14, C-29-15/04/16, C-34-13/04/17, C-3-13/11/19, C-23-15/02/9 and C-4-12/08/20, that the Province undertake a review of the MWRMP operating parameters to better anticipate the potential increasing frequency of flood events;

AND WHEREAS the Interim Report of Muskoka Watershed Advisory Group to the Minister of Environment, Conservation and Parks (MECP), dated June 2020, includes a recommendation (8a) to update to the operating parameters of the Muskoka River Watershed Management Plan (MRWMP);

NOW THEREFORE BE IT RESOLVED THAT the Council of the Township of Muskoka Lakes hereby requests the Premier of Ontario to request that the Minister of Natural Resources and Forestry immediately retain a third-party consultant with water hydrology/modelling, climate science and ecology expertise, to complete an evaluation and adjustment of the Muskoka River Watershed Management Plan drawdown triggers and target spring operating levels.

AND THAT the District of Muskoka and other Muskoka Area Municipalities continue to collaborate on advocacy to the Province respecting flooding and other concerns in the Muskoka Watershed.

APPROVALS:

| | Date | Signature |
|-------------------------------------------------------------|-----------------|--------------------------------------|
| Submitted: Ken Becking P. Eng., Director of Public Works | <u>10/01/20</u> | <u>Original Signed by K. Becking</u> |
| David Pink, RPP Director of DS & ES | <u>10/01/20</u> | <u>Original Signed by D. Pink</u> |
| Approved: Derrick Hammond, CAO | <u>10/01/20</u> | <u>Original Signed by D. Hammond</u> |

EXECUTIVE SUMMARY:

This report provides an overview of the “Interim” [Report](#) of Muskoka Watershed Advisory Group to the Minister of Environment, Conservation and Parks (MECP), as well as commentary on its recommendations.

ORIGIN:

Muskoka Watershed Initiative

In August 2018, the MECP) announced the creation of \$5 million Muskoka Watershed Initiative (MWI) with a view to identifying:

- the risks and issues facing the Muskoka watershed; and
- a path forward to protect the environment and support economic growth.

In addition to the initial \$5 million investment, the Province indicated it would also match tax-deductible donations to the MWI from individuals, businesses, and/or other levels of government up to an additional \$5 million for a potential total fund of \$15 million.

Muskoka Watershed Advisory Group

To assist the Province with advice in meeting the above objectives, the Ministry created the Muskoka Watershed Advisory Group (MWAG), comprised of nine volunteers from across Muskoka with varied educational and experience backgrounds.

BACKGROUND:

Mandate

The Minister tasked the MWAG with the following mandate:

- Communicate with local organizations and communities represented by the Advisory Group and bring these perspectives forward during Advisory Group meetings (subject to confidentiality provisions of the terms of reference).
- Provide advice and make recommendations to the Minister regarding: priority areas, priority issues to be addressed and the types of projects that could be undertaken in the watershed;
- Participate with the Ministry in public and indigenous engagement efforts regarding the Muskoka Watershed Initiative, upon request from the Minister; and
- Assist in identifying municipal, federal and private funding opportunities.

The reason the report is entitled “Interim” is that the MWAG has only completed the first two tasks.

Engagement

To gain insight into the issues and opportunities facing the Muskoka watershed, the MWAG held one-on-one sessions, small meetings and larger listening sessions between October 2019 and April 2020. Stakeholder groups consulted included municipal government, First Nations, lake associations, local stewardship organizations, economic stakeholders, waterpower producers, local planners and consultants, local educators, local agricultural industry as well as members of the public. Staff participated in the municipal listening session.

Report

The report is 57 pages in length and organized into seven chapters: 1) Introduction; 2) Background; 3) Community Outreach; 4) Issue Identification and Prioritization; 5) Issues in the Muskoka River Watershed; 6) Types of Projects; and 7) Conclusions.

Chapter 5 outlines the following priority issues facing the Muskoka River Watershed:

- Increased incidence, severity and risk of flooding;
- Increased incidence of erosion and siltation;
- Existing and emerging threats to water quality;
- Existing and emerging threats to biodiversity and natural habitat;
- Watershed governance; and
- Land use policy.

Chapter 6 identifies a series of short, medium and longer term projects/recommendations aimed at addressing the above noted prioritized risks or issues facing the Muskoka River Watershed.

Whether a recommendation was qualified as a short, medium or longer term was dependent on the nature of the issue and the complexity of the proposed solution. For example, to address the most pressing need in the watershed, flood mitigation, in the short term, the MWAG recommended an update to the operating parameters of the Muskoka River Watershed Management Plan (MRWMP). While this may provide some relief, with a changing climate, the volume of water during future flood events is anticipated to continue to exceed the storage capacity of the Watershed, which will leave a substantial volume of water being routed through the lakes and rivers during extreme flood events. The study, modelling and creation of upstream water storage capacity and the opening of Muskoka River system chokepoints to increase flow and other options are seen as medium and longer term projects.

Appendix "I" provides a brief summary of each recommendation, identifies where work is ongoing and can easily continue, as well as where further discussion with the Province is required. At this point, until the Minister identifies a consultation process and related topics, no action appears necessary at this time.

DISCUSSION

Interim Report

Consultation

The report was filed with the Minister in June, 2020 and released to the public in late October, 2020. At this point, the Province has simply released the report and has not yet identified its intent, or a consultation plan, respecting the report's recommendations/suggested projects.

Medium and Long Term Recommendations

Many of the medium and longer term recommendations involve updating, or creating new data, studies, modelling and plans, as well as a change in approach to environmental, land use management and decision making processes and structures. In creating the MWAG to study the issues in the Muskoka Watershed and provide advice thereon, the Province understood that potential solutions and related costs could likely be extensive, as is evidenced by the other half of the Group's mandate:

- participate with the Ministry in public and indigenous engagement efforts regarding the Muskoka Watershed Initiative, upon request from the Minister; and
- report further on potential municipal, federal and private funding opportunities.

As their implementation would require significant systemic change and investment, to determine a path forward respecting these recommendations, a thoughtful and consultative approach will need to be taken by the Province with the many impacted agencies, organizations and municipalities throughout the watershed.

Short Term Recommendations

In contrast, however, the short term project identified by the MWAG to address flood mitigation is to amend the operating parameters of the MRWMP. As the Township is a signatory to the MRWMP, Council has previously requested that the Province issue a Ministerial Order to change the MRWMP operating parameters to better anticipate the potential increasing frequency of flood events.

Recently, the province has requested that Mayor Harding participate on a Muskoka River Watershed Communications Committee, which they are establishing. The purpose of this committee is to “discuss broad strategies and ideas about operations while reflecting on past decisions as a group of agencies with interests and responsibilities in flood and water management”. It also provides an opportunity for all water managers to share real-time information about water conditions and discuss water management decisions. While the establishment of this committee and improved communications is welcomed, it does not address the Township’s previous requests, or the MWAG’s recommendation, involving changes to the operating parameters to the MRWMP.

The MWAG Report provides further evidence to support the Township’s request and further advocacy from the Township, the other Area Municipalities and the District of Muskoka should continue to occur.

RATIONALE:

Continued advocacy to the Province is required to assist in addressing the issues facing the Muskoka Watershed on a short medium and long term basis.

FINANCIAL:

None at this time.

TOWNSHIP STAFF CONSULTED:

ATTACHMENTS:

Appendix I: Interim Recommendations of the Muskoka Watershed Advisory Group

CONTACT:

Ken Becking P. Eng., Director of Public Work
Ryan Murrell, Fire Chief
David Pink, Director of Planning

705 765 3156 Ext 250
705 765 3156 Ext 261
705 765 3156 Ext 230

Appendix “I”

Interim Recommendations of the Muskoka Watershed Advisory Group

Integrated Watershed Management (IWM) – the primary project recommendation

1. Implement Integrated Watershed Management in the watershed
 - a. Establish a Community Round Table (CRT) as an interim body to implement IWM, with an organization like the Muskoka Watershed Council serving as a lead
 - b. Led by the CRT, develop and execute a two-way plan to communicate IWM to and with the public
 - c. Led by the CRT, study and recommend an optimal model of watershed-scale governance
2. Establish Water Quantity, Water Quality and Land task forces as data synthesizers and advisors of the CRT
3. Identify a comprehensive set of indicators of environmental, economic and social health in the watershed
4. Develop an eco-hydrologic model reflecting the ecological structure and dynamics of the watershed
5. Review land policies across watershed jurisdictions aiming for guidelines that will promote resilience
6. Establish a continuing role for the Advisory Group in support of the CRT and IWM task forces
7. Encourage the Province to assume a leadership role in the formation of the CRT and IWM task forces

Flood mitigation – the most pressing need

8. Flood mitigation projects, led by MNRF
 - a. Evaluate the potential to adjust Muskoka River Watershed Management Plan drawdown triggers and spring operating levels
 - b. Explore if natural and manmade features in the watershed can be altered to minimize flood risk
 - c. Expand and enhance the District’s flood maps.

Specific Projects for enhanced watershed health

9. Develop a comprehensive water quality program, including monitoring, diagnosis, prognosis and intervention
 - a. Improve meteorological, physical & chemical data to detect environmental issues and trends
 - b. Refine and customize models on climate change for the watershed
 - c. Develop indicators and monitoring plans of emerging water quality stressors
 - d. Assess the threat of novel contaminants such as pharmaceuticals, biocides and microplastics
 - e. Study the feasibility of developing a world-class institute of lake science in Muskoka with the infrastructure to assess impacts of multiple stressors during a time of climate change
10. Identify, inventory and assess natural capital within the watershed, starting with forests, wetlands and lakes.
11. Dredge the Muskoka River delta at Lake Muskoka
12. Survey where in the watershed shoreline erosion is emerging as a new problem
13. Undertake a project to reduce levels of road salt in Muskoka Bay of Lake Muskoka and Jevins Lake
14. Expand the capacity of the ASHMuskoka program to remediate calcium decline in local forests and lakes, given calcium decline is damaging half the lakes in the watershed.
15. Develop a research program to understand and predict Hazardous Algal Blooms (HABs) in the watershed
16. Develop a watershed-wide residential septic program aiming to provide consistency and effectiveness of permitting, inspections and enforcement
17. Develop a forest restoration project aimed at supporting long-term forest health
18. Develop a wetland project aimed at wetland protection and restoration
19. Provide an inventory of public access points to the waters and forests of the watershed.