



The Regional Municipality of Durham Report

To: Committee of the Whole
From: Commissioner of Planning and Economic Development and
Commissioner of Works
Report: #2021-COW-3
Date: March 10, 2021

Subject:

Regional Submission to the Ministry of the Environment, Conservation and Parks for the Lake Simcoe Protection Plan 10-Year Review, File #D07-000633

Environmental Registry of Ontario Posting [#019-2833](#) Launching the Minister's 10-Year Review of the Lake Simcoe Protection Plan

Recommendation:

It is recommended that the Committee of the Whole recommend to Regional Council:

- A) That Report #2021-COW-3 be endorsed and submitted to the Minister of Environment, Conservation and Parks as Durham Region's response to the Lake Simcoe Protection Plan 10-Year Review;
- B) That the province, affirm, revise and update the Lake Simcoe Protection Plan as necessary to:
 - i) Continue to employ an ecosystems approach and subwatershed approach to the LSPP because these principles remain important to understand cumulative impacts on the watershed while focusing specific actions to the unique needs and priorities of different areas of the watershed;
 - ii) Complete systematic tracking and progress reporting of each of the targets of the LSPP and identify whether changes have been observed on a watershed/subwatershed level;

- iii) Consider assigning timelines and performance measures to the targets in the LSPP;
- iv) Produce a supplemental report that provides an update on the implementation of the Strategic Actions of the LSPP;
- v) Update the LSPP to reflect the changing health of the watershed based on the changing context of the watershed and ongoing advances in watershed science, particularly as they relate to the impacts of climate change;
- vi) Update the stormwater management policies of the LSPP to reflect the considerable research and advancements in industry knowledge of Low Impact Development;
- vii) Update the LSPP to consider and be consistent with the 2017 updates to Greenbelt Plan and Oak Ridges Moraine Conservation Plan, the 2019 update to the Growth Plan and the South Georgian Bay Lake Simcoe Source Protection Plan;
- viii) Provide support to the Lake Simcoe Region Conservation Authority to analyze the results of the Phosphorus Offsetting Policy to determine how well the remediation actions are working and how long the offset lasts.
- ix) Consider the following specific to private sewage systems:
 - a. Oversee the implementation, monitoring and completion of all mandatory maintenance inspections;
 - b. Define program parameters, develop an inspection template and extend cost covering and supplements to municipalities to ensure each municipality is acting consistently;
 - c. Fully fund or subsidize the cost of mandatory maintenance inspections to ensure timely completion and increased public support for the program, especially among those with properties not only on Lake Simcoe, but on its tributaries;
 - d. Facilitate grants, subsidies or loans for private homeowners to remediate sewage systems proactively; and
 - e. Improve messaging and outreach to homeowners to increase understanding of the program;

- x) Focus the next phase of LSPP implementation on more significant sources of phosphorus such as, stormwater and agricultural/rural runoff and invasive species, and that the existing phosphorous loading caps for water pollution control plants be maintained;
- xi) Implement any new initiatives and measures in a phased approach, allowing for flexibility given the broad range of local partners and available resources;
- xii) Establish a LSPP implementation committee that would serve to increase collaboration and communication among the various stakeholders;
- xiii) Produce supplemental material to the Minister's 10-Year Report that is directed at property owners, including the development of a dedicated website to report on the health of Lake Simcoe that uses plain language and is accessible to residents;
- xiv) Develop an education and outreach campaign for individuals and businesses within the Lake Simcoe watershed to foster a broader understanding of Lake health, key areas of concern and the impacts of LSPP policies and programs;
- xv) Provide presentations to stakeholders to facilitate a more collaborative approach toward implementing the LSPP;
- xvi) Support enforcement efforts related to the activities of private residents, agriculture/businesses and recreational enthusiasts;
- xvii) Contribute financially to the development and coordination of local/Regional climate change data to ensure consistency in data, objectives and performance measures;
- xviii) Develop a comprehensive financing strategy for the next decade of implementation of the LSPP that is consistent with the principles of the existing financing strategy;
- xix) Re-institute funding for land stewardship programs and retrofits to stormwater management systems;
- xx) Recognize that the current economic challenges related to COVID-19 bring some risk that future progress in achieving LSPP targets and objectives may be set back; and

- C) That a copy of this report be forwarded to the: Townships of Brock, Scugog and Uxbridge; Lake Simcoe watershed municipalities; Lake Simcoe Region Conservation Authority; Durham Environmental Advisory Committee; Durham Agricultural Advisory Committee; and Durham Region Roundtable on Climate Change.
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Report:**1. Purpose**

- 1.1 The [Lake Simcoe Protection Plan, 2009](#) (LSPP) is a comprehensive watershed-based Plan to protect and restore the ecological health of Lake Simcoe and its watershed. The LSPP came into effect on June 2, 2009.
- 1.2 The [Lake Simcoe Protection Act, 2008](#) requires the Minister of Environment, Conservation and Parks (MECP) to review the LSPP at least every 10 years from the date the Plan takes effect. During the review, the province must consult with the council of each municipality that has jurisdiction in the Lake Simcoe watershed.
- 1.3 To meet this requirement, the province initiated a 10-year review of the LSPP on December 18, 2020. The [Minister's 10-Year Report on Lake Simcoe](#) was released in July 2020.
- 1.4 Regional staff participated in a virtual science forum on January 28, 2021 and a virtual town hall session on February 11, 2021.
- 1.5 The province invited stakeholders to submit comments by March 3, 2021. Regional staff advised the province that Durham would be unable to meet the deadline, and that comments would be submitted following the March 24, 2021 Regional Council meeting.
- 1.6 To inform the Region's comments on the 10-year review, provincial staff were invited to meet with Regional staff to discuss the review and were also requested to provide a presentation to this Committee, as was offered in the stakeholder invitation.

2. Previous Reports and Decisions

- 2.1 The following Regional staff reports related to the LSPP and Lake Simcoe watershed have been provided to Regional Council:
- a. Report #2009-J-11, Proposed Lake Simcoe Protection Plan;

- b. Report #2010-J-8, Lake Simcoe Phosphorus Reduction Strategy (EBR #010-8986) and Feasibility Study for Water Quality Trading in the Lake Simcoe Watershed (EBR #010-8989);
- c. Report #2010-J-9, Proposed Lake Simcoe Shoreline Protection Regulation Discussion Paper (EBR #010-9107);
- d. Report #2010-J-26, Proposed amendments to the Ontario Building Code (OBC) (O. Reg. 350/06) respecting on-site sewage maintenance inspection programs (EBR #010-9557);
- e. Report #2010-J-41, Update on Implementation of the Lake Simcoe Protection Plan;
- f. Report [#2011-P-56](#), Lake Simcoe Protection Plan;
- g. Report [#2011-P-76](#), Lake Simcoe Protection Plan Review – Recommended Policy Directions, File: D07-01; and
- h. Report [#2020-W-50](#), Pending Provincial Decision on Upper York Sewage Solutions Environmental Assessment.

3. Background

3.1 Approximately one third of the Region's geographic area (parts of Brock, Uxbridge and Scugog) lies within the Lake Simcoe watershed, including the Urban Areas of Uxbridge, Sunderland, Cannington and Beaverton. The Region also operates four water pollution control plants (WPCPs) in the watershed:

- a. Sunderland WPCP (Lagoons);
- b. Cannington WPCP (Lagoons);
- c. Lake Simcoe WPCP (Beaverton); and
- d. Uxbridge Brook WPCP.

3.2 The Lake Simcoe watershed contains significant natural, urban and agricultural systems, including portions of the Oak Ridges Moraine and Greenbelt Plan Area. Attachment #1 details the boundaries of the Lake Simcoe Protection Plan and locations of the WPCPs.

4. Overview of the Lake Simcoe Protection Plan

- 4.1 The *Lake Simcoe Protection Act, 2008* provides the authority for the development of the LSPP which supports the restoration and protection of the watershed.
- 4.2 The LSPP is part of the province's overall strategy to protect and restore the ecological health and environmental sustainability of the watershed. It builds on policies of the Provincial Policy Statement and the Greenbelt Plan but unlike these

other provincial planning instruments, the LSPP is watershed based. It is intended to provide additional policy direction to improve water quality, protect the watershed's natural heritage resources and manage the effects of climate change and invasive species.

4.3 Policies in the LSPP are organized as follows:

- a. **Aquatic life** policies are intended to improve and restore the health of aquatic life within the watershed. Several policies seek to improve habitats and help protect and restore aquatic communities by improving overall management and stewardship of these resources;
- b. **Water quality** policies are intended to identify and address the causes of water quality degradation and actions needed to enhance water quality. Targets are also established for reduced phosphorus loadings, pathogens and contaminants;
- c. **Water quantity** policies are intended to help increase the capacity of the watershed to adapt to the impacts of climate change. Policies support water supply protection and water conservation and efficiency programs.
- d. **Shorelines and natural heritage** policies are intended to foster a resilient, adaptable and sustainable watershed by promoting and protecting the ecological health of the Lake Simcoe shoreline and the watershed's natural heritage.
- e. **Other threats and activities** policies focus on invasive species management, climate change and recreational activities that impact the watershed.

5. Regional Implementation of the Lake Simcoe Protection Plan

- 5.1 The Region has demonstrated a commitment to improving the health of the Lake Simcoe watershed through Regional infrastructure investments, research, operations, promotion, long range capital planning and other implementation measures:
 - a. Investments in wastewater systems that flow into Lake Simcoe through rehabilitation, upgrades and optimization;

- b. Inspection of sewage treatment facilities regularly and reporting effluent concentrations monthly;
- c. Assisting municipalities in conducting inspections of private residential septic systems;
- d. Funding research and programs of the Lake Simcoe Region Conservation Authority;
- e. Implementing the provincial Phosphorus Reduction Strategy;
- f. Promoting water management and conservation;
- g. Implementing road salt management programs;
- h. Water testing/monitoring (including private water systems inspections, testing, monitoring and education campaigns);
- i. Employing and promoting best practices in stormwater management along Regional roadways and through official plan policies;
- j. Administering environmental health programs (e.g. beach and water quality monitoring and advisories, blue green algae monitoring, and the Well Aware Program);
- k. Updating and upgrading infrastructure through the Region's Asset Management Program, including a new asset management policy committed to environmental and climate change goals and objectives;
- l. Implementing the Durham Community Climate Adaptation Plan and Durham Community Energy Plan, corporate climate adaptation planning and development of a Durham Region Climate Change Master Plan (underway);
- m. Development of a Durham Region Long-Term Solid Waste Management Strategic Plan 2021-2040;
- n. Continuous monitoring and care of two legacy landfills within the watershed to ensure leachate prevention and the reduction or elimination of related waste contaminants and GHG emissions;
- o. Implementing erosion control programs including tree planting, stream bank erosion control inspections and projects, and roadside shoulder run-off erosion controls;
- p. Requiring studies such as water budgets and phosphorus budgets through the development approvals process; and
- q. Incorporating applicable LSPP policies into the Regional Official Plan (ROP) through the municipal comprehensive review, Envision Durham.

6. Minister's 10-Year Report on Lake Simcoe

- 6.1 To inform the 10-year review and associated consultations, the MECP released the [Minister's 10-Year Report on Lake Simcoe](#) to outline the progress made under the LSPP in July 2020.

- 6.2 The Minister's Report describes the provincial and various stakeholder efforts taken to implement the LSPP, as well as results of monitoring programs and progress towards achieving the Plan's objectives. It highlights that Lake Simcoe is experiencing improvements through reduced phosphorus loads from sewage treatment, decreased algae, and successful reproductions in the cold-water fish community.
- 6.3 While these improvements are noteworthy, the Minister's Report also indicates that much has changed in the watershed over the last ten years. For example:
- a. Rapid urbanization, increased impervious surface cover and a population increase of over 100,000 across the entire watershed (mostly outside of Durham) has meant that surface runoff continues to be a key issue;
 - b. Improving high-quality natural cover remains difficult because much of the land in the watershed is privately owned;
 - c. Chloride contamination from road salt is an emerging threat to water quality; and
 - d. Climate change has resulted in more direct local impacts to the watershed.
- 6.4 This changing context, along with the unknown impacts of complex and compounding stressors to Lake Simcoe requires additional research and monitoring. Renewed efforts from all stakeholders to continue to implement the LSPP, and an assessment to determine new policies and/or programs, should be put in place.

7. Comments on the Lake Simcoe Protection Plan 10-Year Review

- 7.1 The Region offers the following comments and recommendations on the 10-year review of the LSPP:
- a. The policies of the LSPP continue to be relevant, and are complemented by other policies and action plans, key provincial plans, standards and Acts. The LSPP applies an ecosystem approach and subwatershed approach in recognition that Lake Simcoe and its watershed is an interconnected system, and multi-scale actions will better protect and restore the ecological health of the Lake and watershed. It is recommended that the province continue to employ these principles to understand cumulative impacts on the watershed, while focusing specific actions to the unique needs and priorities of different areas of the watershed.

- b. While current LSPP policies are leading to some improvements, it is difficult to determine policy effectiveness because not all targets outlined in the LSPP are discussed in the Minister's 10-Year Report, nor are the scale of the improvements clear. For example, there are targets that no further loss of natural shoreline on Lake Simcoe occur, and that new invasive species be prevented, but an assessment of whether these targets have been achieved is not discussed. In order to assess the success of the LSPP, a comprehensive evidence-based monitoring plan should be included. It is recommended that the province undertake systematic tracking and progress reporting of each of the targets of the LSPP and identify whether changes have been observed on a watershed/subwatershed level.
- c. To assess effectiveness of the LSPP, it is recommended that the province consider assigning timelines and performance measures to the targets in the LSPP.
- d. The LSPP contains policies that set out strategic actions (SAs) that public bodies should take in order to meet the Plan's objectives including, stewardship and pilot programs, research, education and outreach. An assessment of which of these SA policies were achieved, and if the timelines identified in the LSPP were met, is absent from the Minister's 10-Year Report. It is recommended that the province produce a supplemental report that provides an update on the implementation of the strategic actions.
- e. As the Minister's 10-Year Report identifies, the context of the Lake Simcoe watershed is changing. It is recommended that the proposed updates to the LSPP also reflect the changing health of the watershed based on this changing context and ongoing advances in watershed science, particularly as they relate to the impacts of climate change.
- f. There has been considerable research and advancements in industry knowledge of Low Impact Development (LID) over the last ten years that can help to address both stormwater quality and quantity from new development. It is recommended that the stormwater management policies of the LSPP be updated to reflect these best practices.
- g. Since the release of the LSPP, the Greenbelt Plan, Oak Ridges Moraine Conservation Plan and Growth Plan have been updated. A Source Protection Plan under the Clean Water Act that covers the watershed was also released

in 2015 and was amended in 2019. It is recommended that the proposed updates to the LSPP consider and be consistent with the 2017 updates to the Greenbelt Plan and Oak Ridges Moraine Conservation Plan, the 2019 update to the Growth Plan and the South Georgian Bay Lake Simcoe Source Protection Plan. For example, considerations for excess soil management have been added to the above noted plans that may have implications specific to the Lake Simcoe watershed.

- h. In 2017, the Lake Simcoe Region Conservation Authority released the [Phosphorus Offsetting Policy](#), which requires that as of January 1, 2018 any new development in the watershed control 100 percent of the phosphorus leaving the property. If this is not possible, developers must pay a fee at a 2.5:1 ratio so that projects to “offset” the phosphorus can be completed elsewhere in the watershed. It is recommended that the province provide support to the Lake Simcoe Region Conservation Authority to analyze the results of the Phosphorus Offsetting Policy to determine how well remediation actions are working and how long the offset lasts.
- i. Specific to private sewage systems, many homeowners have concerns about the costs associated with the mandatory maintenance inspection program, which may lead to delays in inspections and lack of support for implementing the LSPP. Additionally, municipalities may not be in a position to cover the costs to implement the program. To address this issue, it is recommended that the province:
 - Oversee the implementation, monitoring and completion of all mandatory maintenance inspections;
 - Define program parameters, develop an inspection template and extend cost covering and supplements to municipalities to ensure each municipality is acting consistently;
 - Fully fund or subsidize the cost of mandatory maintenance inspections to ensure timely completion and increased public support for the program, especially among those with properties not on Lake Simcoe, but on its tributaries;
 - Facilitate grants, subsidies or loans for private homeowners to remediate sewage systems proactively. This would encourage homeowners to complete the work and decrease the amount of time a system would be malfunctioning; and

- Improve messaging and outreach to homeowners to increase understanding of the program.
- j. While a key initial focus of implementing the LSPP was to reduce phosphorus levels from wastewater plants, it is recommended that the next phase of implementation focus on more significant sources of phosphorus such as, stormwater and agricultural/rural runoff and invasive species, as identified within the provincial [Lake Simcoe Phosphorus Reduction Strategy](#). A more effective and larger decrease in phosphorus levels may be realized with lower costs by focussing resources on non-point sources rather than on WPCPs. The existing phosphorous loading caps should be maintained as the total contributions of phosphorous from all the WPCPs are minor in comparison to the non-point sources.
- k. As per the existing LSPP, it is recommended that any new initiatives and measures be implemented in a phased approach, allowing for flexibility given the broad range of local partners and available resources.
- l. To maximize project efficiencies and avoid duplication of effort, there is a need for coordination of actions among provincial ministries, LSRCA, municipalities and other partners. It is recommended that the province establish a LSPP implementation committee that would serve to increase collaboration and communication among the various stakeholders.
- m. In order to help property owners within the watershed, and in particular, along the Lake Simcoe shoreline understand the importance of the benefits of LSPP programs, it is recommended that supplemental material to the Minister's 10-Year Report be produced that is directed at property owners and is supported by a dedicated website that reports on the health of Lake Simcoe, using plain language that is accessible to residents. The Toronto and Region Conservation Authority's [Watershed Report Cards](#) provide an example of such a website.
- n. It is further recommended that a related education and outreach campaign for individuals and businesses within the Lake Simcoe watershed be developed that would foster a broader understanding of Lake health, key areas of concern and the impacts of LSPP policies and programs. This education and outreach campaign would contribute to greater buy-in and informed local action. Suggested topics include:

- Results and positive impacts of the Mandatory On-site Sewage System Maintenance Inspection Program;
 - Impacts to the Lake from various sectors including agriculture and recreation;
 - Actions that can lead to phosphorus reduction (e.g. using phosphate-free detergents/cleaners and eliminating cosmetic use of fertilizers containing phosphorus);
 - Responsible winter road salt application;
 - Proper disposal of pharmaceuticals and other hazardous wastes;
 - Reduction of single-use disposable plastics and greater awareness of the impacts of microplastics in the environment; and
 - Invasive species and the threats associated with them.
- o. In addition to regular information releases and ERO postings, it is recommended that the province provide presentations to stakeholders to facilitate a more collaborative approach toward implementing the LSPP.
- p. While education and outreach are key to future success, it is recommended that the province support enforcement efforts related to the activities of private residents, agriculture/businesses and recreational enthusiasts.
- q. Climate change impacts including increased prevalence of invasive species and severe weather events should be factored into research, modelling and innovation. It is recommended that the province contribute financially to the development and coordination of local/Regional climate change data to ensure consistency in data, objectives and performance measures.
- r. Consistent with the original financing strategy of the LSPP, sustained funding and partnerships will continue to be required. Plan priorities should be developed and timed with consideration of financing needs and constraints across partners. It is recommended that the province develop a financing strategy for the next decade of implementation of the LSPP. Existing principles should continue to be reflected including:
- Recognizing municipal roles and responsibilities for water and wastewater services;
 - Flexibility to deal with emerging commitments and priorities over time;
 - Diverse sources of financing to reduce overdependence on a single source;

- Financial as well as environmental, economic and social sustainability;
 - Options evaluations that consider technical and financial feasibility, sustainability as well as risk assessments; and
 - Financing strategies that are clearly understood by all stakeholders and the general public.
- s. To support the ecological health of the watershed it is recommended that the province re-institute funding for land stewardship programs and retrofits to stormwater management systems.
- t. It is recommended that the province recognize that current economic challenges related to COVID-19 bring some risk that future progress in achieving LSPP targets and objectives may be set back, particularly the collaborative work needed to address key areas of concern as identified through monitoring, studies and data collection and consolidation processes led by the province.

8. Relationship to Strategic Plan

- 8.1 This report aligns with/addresses the following strategic goals in the Durham Region Strategic Plan:
- a. Under the goal of Environmental Sustainability, Priority 1.3 is to protect, preserve and restore the natural environment, including greenspaces, waterways, parks, trails and farmlands.

9. Conclusion

- 9.1 Regional departments and various partner agencies including area municipalities and the LSRCA, are working to implement the policies and programs of the existing LSPP, with the collective objective to increase the health of the watershed. While the Minister's 10-Year Report notes positive gains in this respect, it also identifies emerging issues for the watershed and areas for improvement. Ultimately, a sustained effort is required from all stakeholders to continue implementing the policies and programs of the LSPP.
- 9.2 This report was prepared in collaboration with staff from Planning and Economic Development, Works, Health, Finance and the CAO's Office, and was reviewed by Corporate Services – Legal Services.

- 9.3 Regional staff will continue to monitor and report on the 10-year review and any proposed updates to the LSPP as the process continues.

10. Attachments

Attachment #1: Lake Simcoe Protection Plan Boundaries and Water Pollution
Control Plan Locations

Respectfully submitted,

Original signed by

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Original signed by

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Recommended for Presentation to Committee

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