



October 31, 2016

Via email: Cindy.Tan@ontario.ca

Cindy Tan, Manager
Ministry of Municipal Affairs
Ontario Growth Secretariat
777 Bay Street
Toronto, ON
M5G 2E5

kim.peters@ontario.ca

Kim Peters, Strategic Advisor
Ministry of Natural Resources and Forestry
Niagara Escarpment Commission -
Georgetown Office
232 Guelph Street
Georgetown, ON
L7G 4B1

Re: Proposed Oak Ridges Moraine Conservation Plan (2016), (part of the Coordinated Land Use Planning Review), EBR Registry Number: 012-7197; Proposed Growth Plan for the Greater Golden Horseshoe, 2016 (part of the Coordinated Land Use Planning Review), EBR Registry Number: 012-7194; Proposed Greenbelt Plan (2016), (part of the Coordinated Land Use Planning Review), EBR Registry Number: 012-7195; and Proposed amendment to the Greenbelt Area boundary regulation (part of the Coordinated Land Use Planning Review), EBR Registry Number: 012-7198

Amended Niagara Escarpment Plan, 2016 (part of the Co-ordinated Land Use Planning Review), EBR Registry Number: 012-7228

Green Communities Canada has coordinated the following submissions in respect of the above noted policy and regulation proposals, which are endorsed by the undersigned and provided for your consideration.

Green Communities Canada is a national association of community organizations working with homeowners, businesses, governments and communities to reduce our impact on the environment. We have developed excellent programs that are coordinated through the national organization and delivered together by Green Communities Canada, member organizations, and other delivery partners. Our RAIN program promotes ecological approaches to stormwater management, to reduce contaminated runoff, help prevent flooding and erosion, and ensure groundwater recharge. Green Communities Canada is also a member of the Green Infrastructure Ontario Coalition, which is a multi-sectoral alliance of organizations that share a common vision for a healthy, green Ontario where the economic, social, environmental and health benefits of green infrastructure are fully realized. We recognize with thanks the support of the Great Lakes Network fund and the policy assistance of Anastasia Lintner, Lintner Law in developing these submissions.

Our submissions regarding the draft plans and regulation in respect of the Coordinated Land Use Planning Review are focussed on urban stormwater, as well as the integration of water resource and natural heritage systems planning with land use planning, in order to ensure water sustainability and security into the future. Broadly speaking, we are pleased by the policy direction of the Ontario government, as reflected in the proposed plans and regulation, which supports source reduction in

stormwater runoff volumes and pollution using green stormwater infrastructure and low impact development. Our primary concern is to ensure adequate implementation. In particular, we note the need for complementary initiatives to achieve runoff quality and quantity objectives through retrofit of the existing built environment not otherwise subject to environmental and land use approvals.

While the focus of this submission is on urban stormwater in the draft plans and regulation, we have included observations and recommendations related to complementary freshwater and natural heritage issues and other policy needs and opportunities. Ontario needs to transform the way rain is managed on the urban landscape and one important step forward is changing our land use planning framework to address stormwater management.

Introduction

As background, consider how the water cycle works in nature versus what is happening in our urbanized communities. Most of the time in nature, when rain falls it is all returned to natural pathways. Heavy rainfall events produce surface runoff (10% by volume); however, natural systems slow this runoff down and filter the water. In highly urbanized environments, where vegetation and soils are replaced with impervious surfaces such as roads and buildings, there is almost no groundwater recharge, very little shallow infiltration, a reduction in evapotranspiration, and a huge increase in surface runoff (to 55% by volume). Urban runoff is: big (much greater volumes), fast (little to slow it down; peaks quickly), hot (thermal pollution, which can damage fisheries), and dirty (“first flush”; contains everything that’s on the ground, dirt, cigarette butts, road salt, oil, nutrients, pet and wild animal wastes).

This urban runoff or stormwater causes an extra burden on infrastructure that was never designed to handle such large volumes, which are increasing with both urbanization and the impacts of climate change (increasing intensity and frequency of storm events). Infrastructure is also aging or poorly maintained due to inadequate funding. Further, there are issues with combined sewer overflows and sewage bypasses.

The impact on our waters is both related to quantity and quality. Water quality issues include phosphorous, bacteria, and other contaminant loadings, as well as soil erosion. Water quantity issues include flooding and low water issues. These water quality and quantity concerns will impact recreational uses, our fisheries, our drinking water sources, and our communities. Land use changes are a primary driver as, through urbanization, we lose natural heritage features (woodlands, wetlands, valley lands) and increase impervious surfaces.

Part of the answer is to implement measures that maintain, restore, and imitate nature, enhance infiltration and evapotranspiration, and reduce and slow down runoff. We need to make our cities more like a sponge, less like a plate. These measures include green infrastructure and low impact development (LID). Some examples are bioswales, rain gardens, urban forest, soil enhancement, infiltration galleries, suspended pavement, pervious pavements, rainwater harvesting and reuse (e.g., rain barrels, cisterns), and green roofs. These measures provide benefits that include a reduction in runoff and peak runoff, which contributes to reduced flood risk, improved water quality, and less thermal pollution, as well as an increase in groundwater recharge, which contributes to maintaining

baseflow in our waterways. These measures also contribute co-benefits by creating walkable, liveable neighbourhoods and reducing the urban heat island effect.

The need for green stormwater infrastructure/LID is particularly urgent in the context of the province’s “intensification first” policy. In general, we recognize the benefits of intensification to help preserve agricultural lands and natural heritage features and systems, create compact mixed use communities that are walkable and transit-friendly, and provide for efficient public services. However, intensification using current development patterns (standard modern practices) will only lead to further increases in the impacts of urbanization on water quantity and quality. See the Credit River Water Management Strategy Update, which projected a build out of the watershed from 15 to 25 per cent urban coverage, using business-as-usual (BAU) planning and development practices.¹ The BAU scenario shows significant increases in impaired conditions throughout the watershed. An alternative build-out scenario using “preferred planning and aggressive stormwater management practices” (i.e., green infrastructure) shows a substantial improvement in environmental conditions relative to the base case.

Transforming rainwater management is an absolute necessity to protect and enhance the ecological health of the Great Lakes-St Lawrence River Basin, which is a legislative priority in the *Great Lakes Protection Act, 2015*. Ontario’s intensification-based growth management policies must respect the need to live within our watersheds’ means. Otherwise the state of our Great Lakes-St Lawrence River waters, which are in decline, will continue to worsen.

As you are likely aware, taking a watershed approach and ensuring that the ecological and hydrological carrying capacity is respected as we plan for growth in the Greater Golden Horseshoe is extremely important, particularly within a changing climate. We have seen how the limitations of our water resources systems are stretched with increasing algal blooms, combined sewer overflows and sewage spills, impacts associated with flooding and drought, and the disproportionate burden that such threats and hazards have on our vulnerable populations. In order to address these challenges, we need to ensure a fully integrated and comprehensive approach to water and land use management. As the Ministry of the Environment and Climate Change indicated in their report from the [Policy Review of Municipal Stormwater Management in the Light of Climate Change](#):

Several ministries are responsible for aspects of stormwater management (e.g. MOE, Ministry of Municipal Affairs and Housing (MMAH), Ministry of Natural Resources (MNR), Ministry of Infrastructure (MOI) and Ministry of Transportation (MTO)). The MOE recommends that the ministries work together with municipalities and conservation authorities to seek solutions for resilient municipal stormwater management systems that are adaptive to climate change and to collaborate on new and existing municipal tools for source control stormwater management.

A collaborative and integrated approach will need to include a strategy, clear guidance, and have legal force. Land use planning is one important piece of the puzzle. On its own, however, land use planning is not going to be sufficient to address urban stormwater issues. In particular, land use planning alone cannot effectively impact what happens within existing built-up areas. In our submission, we address both the proposed plans and regulation and other, complementary policy needs and opportunities

¹¹ <http://www.creditvalleyca.ca/wp-content/uploads/2011/07/CRWMSUbrochure.pdf>

designed to ensure implementation of green infrastructure/LID, not just in greenfields and major redevelopments subject to planning approvals, but across the urban landscape. To achieve the transformational policy goal embodied in the proposed Growth Plan – to manage rain where it falls – will require complementary measures to achieve retrofits within the existing built environment.

Analysis and recommendations

Overall, we acknowledge the leadership and innovation that is demonstrated in the proposed plans and regulation, particularly as it relates to addressing stormwater issues in the Greater Golden Horseshoe region. In addition to support for green infrastructure/LID we are delighted to see proposed amendments that embrace integrated watershed management, a “one water” approach that integrates consideration of all water systems, including potable water, sanitary, and stormwater. A one water approach helps to capture the benefits of stormwater source controls, including recharge of groundwater (a potable water source in many communities), water conservation (through harvesting and reuse of rainwater), and a reduction in combined sewer overflows.

As stated by Conservation Ontario, “Integrated Watershed Management (IWM) is the process of managing human activities and natural resources on a watershed basis. This approach allows us to protect important water resources, while at the same time addressing critical issues such as the current and future impacts of rapid growth and climate change.” (See Conservation Ontario, [Integrated Watershed Management](#)). We are very supportive of the proposed approach. However, with all of the improvements contained in the proposed plans and regulations, water sustainability will only be fully realized if the proposed plans and regulations are fully implemented through monitoring, compliance, adaptive management, complementary policy reforms, and sufficient funding, all of which are addressed below.

Provide guidance for watershed planning, stormwater planning, green infrastructure and low impact development

We are very pleased by the attention paid to improved water management in the proposed plan amendments. New proposed policies will require (rather than encourage) watershed planning in order to inform growth, boundary expansion, and water, wastewater and stormwater infrastructure (policy 3.2.3.2, p24 of proposed Greenbelt Plan). The requirement for “watershed-based, integrated water, wastewater and stormwater master planning” (proposed Growth Plan, p 28), also known as the “one water” approach, is particularly welcome as it will capture synergies between systems that are often managed separately.

We are also pleased to see the requirement for stormwater master plans for all settlement areas “informed by watershed planning” (policy 3.2.7, p35 of proposed Growth Plan). These plans will address cumulative impacts and extreme weather events. Importantly, they will incorporate low impact development and green infrastructure, which are needed to achieve runoff quantity and quality goals.

They will identify needed stormwater retrofits, and include an implementation and maintenance plan. This is an excellent direction that we strongly support.

The requirement for stormwater planning is reinforced in the proposed Greenbelt Plan, which requires that those Growth Plan policies are met (policy 4.3.2.1, p44). As well, detailed and aligned stormwater management policies are contained in the proposed Oak Ridges Moraine Conservation Plan (ORMCP, ss45-46, pp70-71), and growth in the proposed Niagara Escarpment Plan (NEP) is to be compatible with “criteria and recommendations of applicable water, wastewater and stormwater master plans, approved watershed planning and/or subwatershed plan in land use planning.” (policy 1.6.8.9h, p 32 of proposed NEP).

We are delighted to see targets for impervious surfaces identified in the proposed plans and regulations (policy 3.2.2.3e, p24 of proposed Greenbelt Plan; s27(1), p28 of proposed ORMCP; policy 4.2.2.1b)v, p41 of proposed Growth Plan).

Our concern is the urgent need for detailed guidance and targets for all of the above, including green infrastructure and low impact development, and targets for restoring the urban tree canopy and wetland conservation and restoration. Guidance should be developed through broad consultation.

Recommendation 1: Develop guidance for assisting municipalities in meeting the proposed targets for impervious surfaces.

Recommendation 2: Ensure that guidance is developed for local watershed and subwatershed planning, stormwater planning, green infrastructure and low impact development, urban tree canopy, and wetland conservation and restoration.

Ensure watershed carrying capacity is respected

The proposed plans are intended to ensure that expanded settlement boundaries are only to be permitted when there is a watershed or subwatershed plan that demonstrates water quality and quantity will not be negatively impacted (policy 2.2.8.2e, p24 of proposed Growth Plan).

However, we continue to have concerns that watershed carrying capacity will be exceeded, unless forecasts for population and policy direction for settlement area growth take into account ecological and hydrological health. For example, in policy 6.3.2.1 (p62 of proposed Growth Plan), growth in excess of what is forecasted can be approved if various conditions are met. None of those conditions ensures that the watershed’s carrying capacity will be respected. Further, the current Greenbelt Plan (2005) clearly is intended to prevent extension or expansion of Great Lakes based water and sewer systems to settlements that are not currently so serviced, unless certain criteria including failed services and protecting public health are met (p31, Greenbelt Plan 2005). This important policy needs to be continued in the proposed plans.

Recommendation 3: Ensure that forecasts for population and policy direction for settlement area growth take into account the watershed’s carrying capacity.

Recommendation 4: Set conditions for growth in excess of what is forecasted that respect the local watershed's carrying capacity.

Recommendation 5: Ensure that extension/expansion of Great Lakes-based water and sewer systems to settlements not currently so serviced are only permitted when criteria including failed services and protecting public health are met.

Ensure integration across provincial plans and regulation, and beyond

If the ambitious and laudable water management goals of the amended growth plans are to be fully realized, there must be integration across provincial ministries (MMA, MNRF, MOECC, and others) and numerous other planning and approvals entities in order to ensure coordination and the capacity for full implementation. Therefore, we support the recommendation of the Advisory Panel on the Coordinated Review to establish a "secretariat" that will "ensure effective coordination of actions by provincial ministries, the Niagara Escarpment Commission, municipalities, conservation authorities, and other local bodies" (Recommendation 85, p164 of Planning for Health, Prosperity and Growth in the Greater Golden Horseshoe: 2015-2041).

The Ministry of Municipal Affairs' explanatory document states that the proposed changes would: "Align with other provincial initiatives which complement the land use planning framework in the region (e.g., the Lake Simcoe Protection Plan, Ontario's Great Lakes Strategy and source water protection plans)." (See [Shaping Land Use in the Greater Golden Horseshoe](#), p20.) We recommend that the government go further and establish the secretariat that the Advisory Panel advocated.

Recommendation 6: Establish a provincial secretariat that will be tasked with ensuring coordination and implementation of integrated watershed management, both within the proposed provincial plans and regulations and beyond.

Expand the Greenbelt to include urban river valley areas, sensitive headwaters and vulnerable water supplies

We support the proposed addition of "21 urban river valley areas which connect the Greenbelt to Lake Ontario and some associated coastal wetland areas" to the Greenbelt. The recent amendment to the Greenbelt Plan to include an Urban River Valley designation in the Greenbelt Plan was a welcome addition to ensure connectivity and riparian protections on an ecologically relevant scale. We are pleased to see this designation being used.

At the same time, we are concerned that headwater areas are not being considered for expanded protection. The following sensitive headwaters need to be prioritized and protected immediately: Carruthers Creek, Duffin's Creek, Etobicoke Creek, Rouge River, Don River and Humber River. The Town of Ajax and the Toronto Region Conservation Authority have both passed resolutions regarding the urgent need to protect the Carruthers Creek headwaters in particular.

Further, there are lands that are important to protecting vulnerable drinking water supplies that need to be included in the Greenbelt. We are pleased to see the proposed expansion for Niagara Region's Gibson Lake. Further similar protections are needed for lands including the Paris-Galt, Waterloo and Orangeville Moraines of the Grand River Watershed, the Nottawasaga and Lake Simcoe watersheds, and the Oak Ridges Moraine to the east along the shore of Lake Ontario.

Recommendation 7: Prioritize and protect sensitive headwaters including Carruthers Creek, Duffin's Creek, Etobicoke Creek, Rouge River, Don River and Humber River.

Recommendation 8: Expand the Greenbelt to protect vulnerable drinking water sources.

Link with provincial priorities, including Great Lakes-St Lawrence River protection

The purposes of the *Great Lakes Protection Act, 2015* (GLPA) are to protect and restore the ecological health of the Great Lakes-St Lawrence River Basin and to engage individuals and communities in the pursuit of protection and restoration goal. Further, the GLPA envisions inter-ministerial cooperation in achieving the purposes of the Act, as demonstrated in the participation of the Great Lakes Ministers in developing Ontario's Great Lakes Strategy and in participating in the Great Lakes Guardians' Council. The Ministers of Municipal Affairs and Natural Resources and Forestry are Great Lakes Ministers. Within their mandates we expect that they will also seek to fully implement the GLPA.

The proposed plans and regulations reference Ontario's Great Lakes Strategy and any targets developed under the GLPA. For example, the Greenbelt Plan requires that municipalities "consider the Great Lakes Strategy, the targets and goals of the *Great Lakes Protection Act, 2015*, and any applicable Great Lakes agreements as part of watershed planning and coastal or waterfront planning initiatives." (policy 3.2.4.4, p25 of proposed Greenbelt Plan) It will not be enough that municipalities "consider" these provincial priorities in various land use planning decisions. If the purposes of the GLPA are to be realized, a stronger commitment to implementation is needed within our provincial lands use plans and regulations. We recommend using language such as "compatible with" rather than "consider" when referencing meeting goals of Ontario's Great Lakes Strategy and targets established under the GLPA.

Recommendation 9: Ensure that municipal decisions related to watershed planning are compatible with Ontario's Great Lakes Strategy, any targets established under the *Great Lakes Protection Act, 2015*, any other provincial commitments in other Great Lakes-St Lawrence River agreements, and are supportive of federal Great Lakes-St Lawrence River commitments.

Make use of existing legal tools to support integrated watershed management and implementation

The proposed plans and policies are aimed at enhancing integrated watershed management by, for example, requiring master plans for drinking water, stormwater, and wastewater. As well, included in the proposals are requirements for risk assessments and climate change adaptation strategies. In order

to ensure integration of these planning exercises and to address urban water management issues beyond land use planning for new/expanded developments and infrastructure, we recommend that the use of existing, complementary tools, including the *Water Opportunities Act, 2010* (WOA).

Under the WOA, there are enabling provisions for municipal water sustainability plans (MWSP). The Act also contemplates targets, performance measures, evaluation and follow-up requirements in support of the MWSP. Making use of this existing legal tool will enhance the proposed plans and regulation by ensuring more integration of the master planning initiatives. Further, the implementation of the WOA can lead to the establishment of runoff quality and quantity performance targets based on watershed studies. These targets can be addressed in the MWSP, with strategies to achieve the targets, if targets are not achieved. The MWSP can therefore be used to implement green infrastructure on public lands (e.g., parks, rights of way, school yards) and private lands (e.g., parking lots). Currently, the WOA only enables such actions. There are no implementing regulations. The Ontario government needs to move forward to establish regulations to implement MWSP, by engaging in consultations with a broad range of interested public bodies, agencies, and organizations.

We envision that the proposed and policies plans will be based on watershed plans developed by or in collaboration with conservation authorities. Fortunately, Ontario is currently undergoing a review of the *Conservation Authorities Act*. This is an important opportunity to ensure conservation authorities have the ability and tools to enhance integrated watershed management efforts.

Recommendation 10: Implement and enhance existing tools, including municipal water sustainability plans under the *Water Opportunities Act, 2010* and the review of the *Conservation Authorities Act*, to support integrated watershed management within the proposed plans and regulations.

Ensure that natural heritage systems protection is the top priority

We acknowledge the importance of commitments in the proposed plans and regulations to protecting natural heritage systems. Particularly, the proposed Greenbelt Plan improves upon the Provincial Policy Statement, 2014 by providing increased protection for natural heritage systems in the Protected Countryside (policy 1.2.2.2a, p6 and 1.2.3, p7 of proposed Greenbelt Plan). Ensuring resilience in a changing climate requires both protection of natural heritage systems and better stormwater management. We are concerned that some land uses continue to have priority over protection of natural heritage, including infrastructure and aggregate extraction (see, for example, policy 3.2.5.1c, p26 of proposed Greenbelt Plan). Such exceptions to the protection of natural heritage should not be permitted or only permitted with justification that the proposed land use is necessary in the public interest and that there is no reasonable alternative.

Recommendation 11: Remove exceptions for infrastructure and aggregate extraction from the protection of natural heritage.

Retain species at risk protection

We are deeply concerned that the proposed changes to the Greenbelt Plan, Oak Ridges Moraine Conservation Plan, and the Niagara Escarpment Plan include provisions intended to align endangered species policies with the Provincial Policy Statement (PPS), 2014 and the *Endangered Species Act, 2007*. We believe that the proposed provisions weaken protections for species at risk. In the Greenbelt Plan, in particular, there currently exists a requirement to protect species at risk habitat. However, the proposed Greenbelt Plan will remove this requirement in favour of deferring to the Ministry of Natural Resources and Forestry's implementation of the *Endangered Species Act, 2007* (as is the case under the PPS, 2014). It is not appropriate to substitute regulatory regimes for land use planning. Instead, land use planning needs to directly address the needs for species at risk and their habitats. It is in considering where and when development is targeted at a planning stage that is important having species at risk habitat available into the future.

Recommendation 12: Retain and enhance existing provisions that require protection of species at risk habitats in land use planning.

Address human-made hazards planning

Limited policy direction is provided in the Provincial Policy Statement, 2014 regarding land use planning and human-made hazards such as contaminated land (policy 3.2, p32 of PPS, 2014). The proposed plans only deal with natural hazards such as flooding and erosion. To the extent that they are addressed due to threats to drinking water, some human-made hazards may be limited through the interaction of source protection planning under the *Clean Water Act, 2006* and the proposed plans and regulations. However, we encourage the government to do more to ensure all waters in the GGH are in good health by incorporating policies to deal with human-made hazards such as nuclear power plants and associated waste disposal.

Recommendation 13: Incorporate policies within the proposed plans and regulations that address human-made hazards that threaten water quality in the GGH.

Ensure adequate funding for implementation

In order to realise the full potential of the proposed plans and regulations, adequate and sustained funding must be provided to support municipalities and other public bodies in developing the tools to implement integrated watershed management. Such funding will also need to cover the monitoring for performance and the education and outreach that will be necessary. Because integrated watershed management, as well as the protection of natural heritage and the promotion of green infrastructure and low impact development, are important aspects of our climate change strategies, we expect the government to provide adequate resources to fully implement the proposals. To address urban stormwater specifically, there needs to be a focus on decentralizing infrastructure and implementing green infrastructure and low impact development on both public and private lands. As such, alternative funding mechanisms must be explored, including stormwater utilities, incentives and public-private partnerships.



Recommendation 14: Ensure adequate funding for implementation of the proposed plans and regulation is secured.

Recommendation 15: Develop and support strategies that encourage decentralized water, wastewater and stormwater infrastructure.

We hope these recommendations are helpful. Please let us know if you have any questions or would like to meet to discuss our submission.

Sincerely,

A handwritten signature in black ink that reads "Clifford Maynes".

Clifford Maynes, Executive Director
Green Communities Canada

The following individuals, organizations, and collaborations endorse our submission:

Janet McKay, Executive Director
LEAF - Local Enhancement and Appreciation of Forests

Paul Ronan, Executive Director
Ontario Parks Association

Andrew McCammon, Executive Director
Ontario Headwaters Institute

Linda Heron, Chair
Ontario Rivers Alliance

Dr. Gail Krantzberg, Professor, Engineering and Public
Policy Program, Booth School of Engineering Practice
and Technology, McMaster University

Kevin Behan, Deputy Director
Clean Air Partnership

Brent R. Kopperson, Founder & Executive Director
Windfall Ecology Centre

Stephen Smith, Owner
Urban Forest Associates Inc.

Stephanie Crocker, Executive Director
Ecosource

Theresa McClenaghan, Executive Director
Canadian Environmental Law Association

Michael Albanese, President
Avesi Stormwater and Landscape Solutions

Pat Prevost, Project Leader
STEM - Street Tree Ecology Matters

Jill Ryan, Executive Director
Freshwater Future Canada

Tim Gray, Executive Director
Environmental Defence

Mark Mattson, Founder and President
Lake Ontario Waterkeeper

Green Infrastructure Ontario Coalition
<http://www.greeninfrastructureontario.org/>

Ontario Greenbelt Alliance
<http://www.greenbeltalliance.ca/>