June 27, 2019 **BY EMAIL & REGULAR MAIL**

Flooding Reform
Ministry of Natural Resources and Forestry
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To whom it may concern,

RE: Improving the province's resilience to flooding

Thank you for the opportunity to provide feedback and suggestions on improving Ontario's resilience to flooding. We, the undersigned organizations, have several practical recommendations on how to make our province as flood resilient as possible. Extreme weather events in recent years have demonstrated the threat floods pose to our communities, and 2019 was no exception with thousands of homes damaged and Ontarians displaced. In addition to the risk posed to people and property, floods also represent a significant financial burden in the province. In 2018 the Insurance Bureau of Canada reported that severe weather damages including flooding resulted in $500 million in insured losses in Ontario over the prior year[1]. The first thaw alone in Ontario caused over $70 million in damages as of April 2019, with costs surely rising as floods and high water levels continue to cause damage across the province[2].

There is no doubt that the risk to people and property, and the financial burden of business-as-usual, is unacceptable. It is imperative that we employ policies and tools that create resilient and healthy watersheds and communities, as we are expected to encounter more frequent rain events of increasing severity in the years to come[3]. In order to make our watersheds, shorelines, and communities more resilient to flooding we recommend: supporting integrated watershed management, investing in conservation authorities, protecting wetlands, restoring habitat and

[1] (April 2017-April 2018) Insurance Bureau of Canada. Media Release. Early April Storm causes more than $85 million in insured damages across Ontario and Quebec
[2] Insurance Bureau of Canada. Media Release. Ontario Thaw Causes Over $70 Million in Insured Damage.
[3] An Assessment of the Impacts of Climate Change on the Great Lakes. The Environmental Law & Policy Centre. 2019: http://elpc.org/wp-content/uploads/2019/03/Great-Lakes-Climate-ChangeReport.pdf

planting trees. Additional information on these recommendations is outlined in more detail below. These recommendations represent our preliminary thoughts on creating flood resilient communities, and we look forward to providing further feedback when the Ministry presents proposed plans of action.

Integrated Watershed Management

In order to have effective flood mitigation policies, an integrated watershed management approach is essential. Integrated watershed management (IWM) provides direction to human activities in order to protect and rehabilitate water, and the aquatic and terrestrial health as well as the social and economic resources and assets in the watershed[4]. Through an IWM model, conservation authorities and other organizations are able to achieve coordinated management of the watershed in a way that protects people and property, as well as the health of ecosystems within the watershed.

Using an IWM model addresses the most important factor in watershed management and flood protection: what happens upstream has impacts downstream. Large scale flooding cannot be managed by one municipality or county, and flood waters flow across jurisdictions throughout watersheds. Therefore, using a watershed scale is necessary to properly understand flood risk and mitigate against flooding. Conservation authorities are key agencies with the technical expertise and scope to implement true IWM, and they should be enabled to deliver IWM through their existing core programs and services including natural resource management.

Investing in Conservation Authorities

Further to our recommendation to enable conservation authorities to implement IWM, we also recommend that there be an investment made in conservation authorities and the services they provide in flood mitigation. We were extremely disappointed with the recent announcement to cut provincial transfer payments for flood hazard mitigation to conservation authorities by 50 per cent. With impacts from climate change becoming more frequent and severe, the only changes to this funding should be to increase it. We therefore recommend this funding be restored, as well as additional provincial investment in flood plain mapping, and support for conservation authorities and others to use innovative forecasting and flood warning tools.

Investments should be made to support conservation authorities, and their jurisdiction in the planning system (s28 of the *Conservation Authorities Act*) should

[4] Overview of Integrated Watershed Management in Ontario. Conservation Ontario. 2010. https://conservationontario.ca/fileadmin/pdf/policy-priorities_section/IWM_OverviewIWM_PP.pdf

be respected and supported in regards to floodplain regulations. There is no replacement for the knowledge and expertise that conservation authorities hold, and they are the best suited agencies to protect Ontario communities from floods as they are the only agencies operating at the watershed scale on these issues.

Protecting Wetlands

Preserving and restoring Ontario's wetlands is a practical way to enhance resiliency to flooding, especially in southern Ontario. There are very few remaining wetlands in southern Ontario, and strong protection for those that remain is absolutely essential to flood resilience. Wetlands and naturalized shorelines provide capacity for water to be stored and slowed down from flooding developed areas. They also trap sediment and pollutants while naturally filtering water and improving overall quality. Natural infrastructure can be extremely cost effective in mitigating flooding, for example in the Town of Oakville, a 250-metre naturalized channel provides up to $1.44 million in flood protection annually[5].

Wetlands are natural infrastructure assets that should be strongly protected, and we recommend strengthening the provincial policy statement to deem every wetland as provincially significant until an assessment determines otherwise. While communities are facing increasing threats from extreme weather and flooding, it is imperative that we take bold action to protect the natural infrastructure we have left. We must also take steps to restore habitats and create natural infrastructure where possible.

Protecting and Restoring Natural Heritage

Further to the above recommendations on protecting and restoring wetlands, we must protect, restore and create natural heritage with the goal of climate resilience. One great example of investing in natural infrastructure is the 50 Million Tree Program run by Forests Ontario. It was extremely disappointing to see provincial funding cancelled for this program in late April of this year. Increased tree cover makes watersheds more resilient to flooding, and some regions in Ontario are desperate for additional tree cover. In southwestern Ontario, particularly in Windsor and Chatham-Kent, there is less than 10% tree cover making the region extremely vulnerable to severe flooding. Comparatively, 30% forest cover is considered marginally healthy with anything less being considered at risk; therefore 10% forest cover represents extreme vulnerability[6].

[5] Combatting Canada's Rising Flood Costs: Natural infrastructure is an underutilized option. September 2018. Insurance Bureau of Canada: www.ibc.ca/on/resources/studies

[6] Back to Basics:2018 Environmental Protection Report. Environment Commissioner of Ontario. https://docs.assets.eco.on.ca/reports/environmental-protection/2018/Back-to-Basics.pdf

Tree planting is an investment in natural infrastructure and in making our communities more resilient. For example, Forest Ontario calculated that the GDP impact of tree planting in southern Ontario is over $12.7 million annually[7]. We therefore recommend that the provincial government invest in similar programs across the province with the goal of increasing the province's resilience to flooding. Specifically, we recommend dedicating 15% of all infrastructure funding to implementing natural infrastructure (also called living green infrastructure).

In Conclusion

We trust that these recommendations will be duly considered in the consultation on improving Ontario's resiliency to flooding, and appreciate the opportunity to participate. In closing, we urge the Ministry of Natural Resources and Forestry to recognize the necessity of managing flood mitigation at a watershed scale and the importance of natural infrastructure. There is no need to reinvent the wheel when it comes to protecting our communities from flooding. This goal can be achieved by investing in our existing agencies (eg, conservation authorities) and by protecting and restoring our natural infrastructure (eg, wetlands and forests).

Sincerely,

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This letter has been endorsed by the following organizations:

[7] The Economic Value of Tree Planting in Southern Ontario. Green Analytics and Forests Ontario. February, 2019. https://www.forestsontario.ca/wp-content/uploads/2019/03/Green-Analytics-Report-The-Economic-Value-of-Tree-Planting-in-Southern...-1.pdf

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