

DRAFT: Ontario Urban Flooding Collaborative Theory of Change

What do we need to do to increase the flood resiliency of Ontario's cities and towns over the next five years?

The content for this first draft of a theory of change for increasing urban flood resiliency in Ontario was gathered through a facilitated session with key stakeholders on 25 January, 2018 in Toronto. Stakeholders are coming together as part of a collective impact initiative to address the urgent issue of urban flooding in Ontario – including overland flooding, sewer backup, and untreated sewage discharges.

A theory of change is a high level overview of how we envision making change on this issue. Working groups on each identified area will develop detailed action plans, to be agreed upon by the broader collaborative. This theory of change is a draft based on input from a limited number of stakeholders. We are now reaching out more broadly to gather feedback from a wider range of stakeholders.

In particular, as you read through the theory of change, please consider:

- Are there action areas that are left out or which should not be included?
- Are the strategies the most logical and effective for making progress on this issue? Do the rationales make sense?
- Are there effective programs or activities to increase flood resiliency that would not fit under any of the action areas or strategies? Note that it is not the goal of the theory of change to list all possible activities, but programs or projects that might be included in an action plan should fit under the identified action areas and strategies.
- Would you be interested in joining a working group to develop a plan for a specific action area?

Please send your feedback to Clara Blakelock at cblakelock@greencommunitiescanada.org . While the theory of change is a living document and will continue to be adapted over time, please send your comments by **March 23, 2018** for the next round of edits.

Thank you for your input and for your interest in collaborating to increase flood resiliency in Ontario.

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Action area	Long-term vision	Strategies	Rationale
Increase awareness about flood risk.	The general public is well-informed about flood risk and supports action to increase resiliency.	Agree on common messaging that can be delivered using different approaches targeting a range of stakeholders (property owners, renters, decision-makers, home inspectors, real estate, insurance, contractors).	Deliver quality, solutions-based, repeated messaging to the public via multiple channels. Improve coordination so communications strategies of different organizations and levels of government complement each other.
		Incorporate flood preparedness, risk and mitigation into the school curriculum.	Fire risk and safety has been taught in schools for years and is much better understood than flood risk and safety.
		Take advantage of flood events (local and international) to promote common messages through media coverage.	Bring attention to the issue when it is top of mind.
Increase uptake of flood-proofing retrofits on private property.	Private property owners take action to protect their properties from flooding.	Improve uptake of municipal subsidy programs for basement flood protection and green infrastructure.	Existing programs have very low uptake (usually between 5% and 10%). Contributing factors include the way programs are designed and promoted.
		Provide accessible, easy to use, reliable information on retrofitting.	Remove barriers to action by making sure that information is available in a variety of formats when people are ready to retrofit.
		Promote retrofits during times of investment or construction (time of sale, renovations, after floods, landscaping).	When people are already investing and doing work on their properties, they are more willing to integrate flood prevention measures.
Invest in infrastructure to reduce flood risk in priority areas.	Governments are investing in infrastructure (grey and green) to mitigate flood risk.	Measure and quantify the benefits and impacts of green infrastructure for flood risk reduction.	Green infrastructure has not been adequately valued or invested in because of a lack of understanding of its potential to reduce flood risk.
		Promote the use of stormwater user fees as a sustainable funding source for flood protection infrastructure.	This is a fair and reliable funding source that can incentivize action on private property.
		Retrofit older neighbourhoods without flood control. Integrate retrofits with other municipal operations and infrastructure investments.	Significant parts of existing developed urban areas were developed before flood control was standard practice and these areas have the highest risk. Costs can be lowered by dovetailing flood retrofits with other planned projects.

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Improve emergency preparedness.	A coordinated system exists to respond quickly and effectively to disasters caused by extreme weather.	Create neighbourhood-based resilience hubs.	People know what local resources to turn to in the event of extreme weather.
		Promote individual emergency preparedness (along with flood risk messaging).	People need to take action to reduce flood risk as well as being prepared in the event of a flood.
		Improve connections between emergency managers and those with knowledge of flood hazards.	Silos between organizations and departments result in important information being unavailable.
Increase the uptake of flood-resilient design standards.	New construction and reconstruction projects are resilient to flooding.	Support changes to the Ontario Building Code that improve flood resilience.	Building code sets minimum standards for all new construction.
		Support municipalities to develop resiliency standards for new and infill development.	Municipalities set higher standards based on their particular risks.
		Re-build after floods to a higher standard, or use flood-prone areas for flood-mitigation projects.	Properties that have experienced flooding are higher risk and should be built back better.
Improve data collection and risk mapping.	Each community has a good understanding of its urban flood risk, and a plan in place to address it.	Improve sharing of data between insurance industry, municipalities, conservation authorities, the province, and the public.	Data is currently collected in different ways and highly guarded, meaning urban flood risk is not well understood by all parties.
		Develop a standard protocol for community flood risk assessment.	Risk assessment is being done in different ways in different places. It needs to take into account a range of factors including infrastructure conditions, the impacts of intensification and upstream land use change, and the vulnerabilities of structures and people using the land.