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Vibrant Communities

CASE STUDY

CASE STUDY | BUILDING A NEIGHBOURHOOD-BASED URBAN CLIMATE ADAPTATION INFRASTRUCTURE

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Canadian communities across the country are facing the devastating consequences of increasingly severe weather such as extreme heat, drought, fire, floods, hurricanes and storms. Having supplies for the first 72 hours is important, however, the best way to prepare for these inevitable events is by getting to know your neighbours. Learn how the Lighthouse Project strengthened social connectivity within their neighbourhoods through three models of building climate resilience led by the municipality, community organizations, and residents.

SUMMARY

The Lighthouse Project was an exploratory year-long pilot funded by the Ontario Trillium Foundation in three Greater Toronto and Hamilton Area (GTHA) municipalities—Hamilton, Brampton and Toronto—to show the viability of establishing community designed and led extreme weather resilience hubs and/or networks.

The pilot sought to learn how we can build an affordable and sustainable social infrastructure to support vulnerable residents as they grapple with climate-induced extreme weather emergencies in diverse communities across the GTHA. Particular focus was given to the role that faith communities might take in this action.

This project showed that multi-stakeholder supports for community organizations and local volunteers as significant partners in responding to climate change, before, during and after disaster strikes, will lead to enhanced neighbourhood-level climate resilience. Faith communities proved to be important catalysts in the growth of local networks that want to be responsive to the needs of their communities. By the end of the pilot, there were three distinct models for community engagement and preparedness had emerged and could be replicated in municipalities across the region and the country.

Project Lead: Faith & the Common Good
Project Manager: Community Resilience to Extreme Weather (CREW)
Learning Partners: Tamarack Institute, The School for Social Entrepreneurs-Ontario
Funding Partner: Ontario Trillium Foundation
Program Partners: Environment Hamilton, The City of Brampton's Emergency Management Office

THE NEED

Neighbours are critical in climate resilience.

Canadian communities across the country are facing the devastating consequences of increasingly severe weather such as extreme heat, drought, fire, floods, hurricanes and storms. Research demonstrates that these climate change impacts will be most devastating to seniors, people with mobility challenges, those managing on low-income, newcomers, and young families. A community's resilience will be determined by how well the most vulnerable residents withstand these extreme weather crises.

A substantial body of research shows that the strength of social connectivity is the best predictor of a community's capacity to prepare for, respond, and recover from extreme weather events.

Neighbourhood relationships and communication channels that are established long before any emergency occurs are much more useful than scrambling to find the right person during an emergency.

> **"Recovery from extreme weather disasters does not depend on the amount of government relief or the size of the disaster; instead, the bonds that tie residents together—social capital—function as the main engine of long-term recovery."**
>
> Research summarized by security & resilience scholar, Daniel Aldrich

Our municipalities are overwhelmed with hard infrastructure concerns

Municipal budgets are overwhelmed by the urgent need to retrofit hard infrastructure to meet new climate realities that will impact power, roads, buildings, bridges, sewage and stormwater. Very little time or money has been invested in creating a social infrastructure to support vulnerable residents who will be most affected by the failures of 'hard infrastructure.'

That is why it is critical for our communities to engage local organizations and leaders in creating the "neighbours helping neighbours" connectivity that is necessary for effective preparedness, response and recovery.

Resilience before, during, and after an emergency requires the involvement of whole communities. The table below, created by the Lighthouse Project, highlights the assets and limitations of local stakeholders who are typically involved in supporting extreme weather response. Enhancing local resilience to climate impacts among our most vulnerable populations requires creating a social response infrastructure that transcends silos and fosters collaboration.

ORGANIZATION	FOCUS	LIMITATION
Municipal governments	Focused on hard infrastructure demands of climate induced extreme weather impacts	Limited mandated and resources for social infrastructure to support vulnerable residents
Emergency Management divisions	Focused on emergency response, not responsible for recovery post-emergency or mitigation pre-emergency	Limited capacity and top-down, hierarchical culture, vital for quick response, often at the expense of effective community engagement
Public Health departments	Growing expertise with climate –related health issues; experience with organized community-led response; often lead government ministry for climate impacts	Limited resources and mandate limits ability to create "whole community" response.
Environmental ministries	Programs and grant monies focused on greenhouse gas mitigation	Political polarization has led to paralysis on adaptation action
Public Libraries	Trusted community partners during emergencies	Potential to be lead partners in response planning but have no specific funding to develop this capacity.
Community Hubs / Infrastructure	Ontario working with Federation of Canadian Municipalities on community-based hard infrastructure development	No funding for social/soft infrastructure
Civil society and FBOs	Grass roots, community-focused social service, volunteer organizations providing a range of services	Minimal training in emergency, extreme weather response; varying levels of awareness of climate impacts; not included in government plans
Local businesses	Many have own contingency plans	Rarely incorporated as part of community-wide response schemes
Residents' Associations	Local focus and networks	Often focused on other neighbourhood issues; little experience with climate-related stresses.

THE PILOT: 3 MODELS FOR COMMUNITY-BASED CLIMATE RESILIENCE

The Lighthouse Project pilot delivered three different models for approaching similar work. The project asked each pilot animator to explore the ways in which Community Resilience Networks and/or Resilience Hubs can form at the local level. It also wanted to learn how faith communities might be the catalysts to drive the work forward. Pilot animators were asked to set their own goals based on community needs; they were not provided with a template. The absence of a prescribed process and an emphasis on community ownership were central to the outcomes.

The pilot animators were experienced community connectors; each model developed according to their strengths and expertise. All animators began their engagement process with workshops using the Resilientville Canada suite of tools. These are role-playing and asset mapping exercises that demonstrate the value of social infrastructure and forward planning. All animators delivered local hazards and risks assessments in collaboration with their municipal Public Health and Emergency Management staff. Sharing of extreme weather projections derived from regional climate modelling was another important part of the process.

MODEL 1 – LEADING FROM THE TOP: *a model for communities who have strong municipal leadership around community climate adaptation and emergency response*

Brampton's animator, Michelle Sullivan, is an emergency management professional from Brampton's Emergency Management Office (BEMO) with a comprehensive understanding of hazards and risks. Michelle had spent two years exploring the potential for strategically located faith-based sites as resilience hubs before the launch of the pilot. A vulnerability assessment conducted by York University identified faith sites as vital potential partners for the city. Faith sites would provide trained volunteers ready to support the city's emergency manager during an emergency and would also conduct public awareness outreach in their neighbourhoods.

Pilot Goals: Signed memos of understanding with 21 multi-faith FBOs located in Brampton's most vulnerable neighbourhoods. Delivery of a training exercise for volunteer responders.

Outcomes: Outcomes for this response model continue to be tied to a city-led bureaucratic structure that requires some formal training of volunteers along with a committed, contractual response from the faith-based organization (FBO) that can be counted on in an emergency. While the City of Brampton remains committed to working with local FBOs to strengthen its support to vulnerable residents, legal considerations around the Memorandum of Understanding (MOU) between the City of Brampton and FBOs has slowed the process. BEMO is modifying the contract to make it more manageable for the FBOs who typically do not have lawyers and are run by volunteer boards. Two FBOs have signed the MOU and a dozen more are in various stages of engagement and agreement negotiations. BEMO's experience has resulted in numerous municipalities, such as Oakville and Burlington, requesting training on how to create their community-led response strategies.

MODEL 2 – LEADING FROM THE MIDDLE: *a model for communities that have a strong network of community organizations but lack municipal leadership*

Hamilton's animator, Beatrice Ekoko, has worked for pilot partner Environment Hamilton for 11 years. Her work on environmental issues had forged strong connections to Hamilton's Public Health department and neighbourhood associations that led to early collaboration with these groups. Lighthouse challenged her to think about the large and diverse vulnerable populations who live in Beasley: the downtown, low-income neighbourhood where her office is based. It meant finding new partners, understanding the needs of vulnerable residents and adopting new goals.

Pilot Goals: To make a meaningful contribution to neighbourhood stakeholder understanding of the accelerating hazards and risks of extreme weather, their potential impacts on day to day operations, and the well-being of Beasley residents. To make FBOs central to the collaborative work.

Asset Mapping in Beasley

Outcomes: In Hamilton, in-person meetings with local organizations led to the discovery that many of their buildings could already be considered 'resilience hubs.' The key was to help staff understand projected weather impacts and how these might affect the vulnerable people they serve. This highlighted the need to create a network that could educate, support and advise the 'front line' organizations where demand would be greatest in an extreme weather event.

The growth of the Beasley neighbourhood network and its supporting Partnership Table—both of which include a broad range of strong stakeholders—has been spontaneous and organic. The network has named itself Community Resilience to Extreme Weather (CREW) Hamilton. Public Health continues to be a key member of the network and is engaged in a collaborative mapping project where there is great synergy between Public Health and network goals.

MODEL 3 – LEADING FROM THE GROUND UP: *a model for communities that need to build a community resilience strategy from scratch*

Toronto's animator, Lidia Ferreira, has a background in community development. She understands the multiple social issues around equity and newcomer populations as well as the different experiences of seniors, low-income tenants, mobility challenged and more. She believes strongly in asset-based community development (ABCD), collaboration and full transparency. Invited into the neighbourhood by the St. James Town Community Co-op, whose work is currently focused on food security, she wanted to involve the widest representation of stakeholders and residents to build a resilience plan.

Pilot Goals: To establish a strong local collaborative of agencies, organizations, institutions, politicians and FBOs to help local residents become more resilient. To provide training that would support a hyper-local emergency preparedness plan for climate adaptation: neighbours helping neighbours.

Outcomes: Tenacity, patience, flexibility and focus describe the process in St. James Town. Attention was focused on the handful of committed residents who had been engaged with the work from the start. First among these was a community organization looking at food security and local food production. A six-alarm fire at St. James Town's 650 Parliament building in August 2018 greatly reinforced the sense of vulnerability felt by local residents. This shared vulnerability and the existing relationships led to the formation of a local working group of 14 residents and local stakeholders. The two neighbourhoods' FBOs that had originally been hesitant to engage are now fully committed. As newly identified partners in the community, they provide fresh possibilities for wider collaboration.

KEY LEARNINGS

At the finish of the pilot, the Lighthouse Project pilot team presented their findings to an invited panel of issue experts. Panel reviewers participated in a specially convened call of the Tamarack Institute's Citizens and Emergency Preparedness Community of Practice. The key issues that emerged from the pilot sites and the formal review are as follows:

1. Urgency: Extreme weather emergencies are becoming more frequent, we all need to prepare

Since the pilot began in 2017, the severe impacts of extreme weather have been increasingly felt across the US and Canada. Along with heat-related deaths in Quebec, the worst fire season on record in BC and multiple tornados in Ottawa, flooding continues to top the list of Canada's catastrophic weather events.

When emergencies happen, people become their neighbour's first responders. All emergency managers tell us that we should be ready to look after ourselves in the first 72 hours of an emergency event. Neighbourhoods are best prepared for shocks and stresses when local stakeholders work together to plan. Organizing neighbourhood-level assets and supports to become a predictable component of a city emergency management plan should be a national goal.

2. Time: Creating an emergency response strategy requires time

It takes at least three years to establish an operational neighbourhood level response network or hub. Sustaining interest when emergencies might occur at random and lengthy intervals is an enduring challenge. Networks need to offer a variety of resources and expertise that can be leveraged for discussion and action around a multitude of climate adaptation strategies that could include food security, energy conservation, green infrastructure, flood mitigation, mental health, and more.

Despite the time it may take to establish a formal community response, the engagement of a diversity of people around the conversation serves to begin the process of building necessary social capital.

3. Resources: Collaboration is essential for building an effective, actionable strategy

Many resilience initiatives are led by community members on a volunteer basis. But the multi-stakeholder networking that is considered central to robust resilience strategies needs dedicated leadership and a long-term commitment which requires funding. To date, funding for the 'soft' social infrastructure has been lacking. Funders have prioritized climate mitigation strategies or the adaptation of 'hard' infrastructure. In the absence of a dedicated funding stream, a collaborative funding model could be created: partnerships between three levels of government with contributions from insurance companies, Community Foundations and others.

4. Faith Groups: FBOs play an integral role in Resilience Hubs

Faith communities engage in both community service and care for the environment. As familiar landmarks in vulnerable neighbourhoods, they have the facilities and networks that make them important catalysts for 'resilience hubs.' Canadians are familiar with the work that many faith groups do in their communities. Among the most recognizable perhaps is "Out of the Cold," a multi-faith initiative where churches, synagogues and mosques in cities across the country take turns providing food, hospitality and medical services to people in need. This is only one of a multitude of services that faith-

based organizations provide. A recent study, The Halo Effect, found that every dollar a congregation spends could create $4.77 worth of service for a Canadian city.

This pilot focused on the role of faith communities in particular, but not exclusively. Our review panel raised concerns that faith buildings would not be inclusive or welcome spaces for all members of the community. All three pilots addressed this issue and found that an agreed set of basic ground rules that work with any community organization were able to alleviate these concerns. (The US-based National Disaster Interfaith Network also has excellent "tip sheets" that can be adapted to a Canadian context.) In all of the hubs, faith groups were among multiple community partners. Their specific roles within the hub structure depended on the needs of the communities themselves.

5. **Continuous Learning: Testing models and sharing learning are catalysts for developing best practices**

There was a strong consensus that we need to work to further support and invest in community-based climate resilience infrastructure. An accessible community of practice for shared learning across the country to continue to help communities develop their own "neighbour-helping–neighbour" response infrastructure was seen as very important. The Resilientville Canada tools make an important contribution to starting community preparedness conversations and should be shared. There is a further need for training that helps emergency managers and other relevant municipal employees to recognize how community members can be important partners in an emergency response. Finally, an approach that incorporates more than one of the three Lighthouse models needs to be tested; a combination of all three models would be ideal.

NEXT STEPS

In March 2019, the Lighthouse project's pilot managing organization, CREW, became a project on the Tides Canada Shared Platform. This opportunity allows CREW to form a governance structure and allows for guidance from a project Steering Committee along with full operational backing from Tides Canada. This also provides CREW with charitable status and opens exciting funding opportunities that will help it to grow its impact across the country. There are Canadian municipalities that have already developed community adaptation projects and there are still many municipalities that have yet to support the social infrastructure that is crucial to community resilience.

CREW has been exploring community adaptation strategies since 2014. Its rich collaborations with organizations such as Faith & the Common Good and the School for Social Entrepreneurs and its synergistic relationships with municipal initiatives make it a great resource for communities that are just starting the process of building resilience to increasingly severe weather events. CREW has the expertise, resources and tools that can help any community make an informed beginning. The community adaptation models provide a shopping list of strategies, that can be tailored to fit most communities.

Whether you are an interested resident, a community organization or a municipality, the Lighthouse Project demonstrates that you can begin building a community based-climate resiliency strategy today. With the learnings from the pilot project models, your community can start forming the social connections vital to surviving and responding to extreme weather emergencies together.

References:
Aldrich, Daniel, P. (2010). Fixing recovery: Social Capital in post-crisis resilience. Department of Political Science Faculty Publications. Paper 3. http://docs.lib.purdue.edu/pspubs/3

Connect with the pilot sites:
Hamilton: https://www.environmenthamilton.org/community_resilience_extreme_weather
Brampton: https://www.brampton.ca/EN/residents/emergency-management/Pages/Lighthouse-Program.aspx
Toronto: https://lighthouse-project.weebly.com/toronto.html

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Special Thanks to the Lighthouse Project Pilot Review Panel:
Milton Friesen, Cardus, Hamilton
Bart Harvey
Celeste Licorish, Hamilton Community Foundation
Shannon Logan, Toronto and Region Conservation Authority
Blake Poland, Dalla Lana School of Public Health, Toronto
Jedrek Soh, Tower Renewal, City of Toronto
Rob Wipond, Building Resilient Neighbourhoods, Victoria

Funded by the Government of Canada's Social Development Partnership Program.

Canada

The opinions and interpretations in this publication are those of the author and do not necessarily reflect those of the Government of Canada.