Final Report
Placemaking in Floodplains

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Prepared by:

Nushrat Jahan

Sustainability Catalyst Intern

UNIVERSITY OF TORONTO | **Committee on the Environment, Climate Change & Sustainability**

On behalf of:

880 cities

We believe that if everything we do in our cities is great for an 8 year old and an 80 year old, then it will be better for all people.

Land Acknowledgement

We acknowledge that the land on which we are situated is the traditional territory of the Mississaugas of the Credit, the Anishinaabe, the Chippewa, the Haudenosaunee, the Huron-Wendat, and Petun First Nations. These lands are the site of Treaty 13 and the Dish With One Spoon Wampum Belt Covenant — an agreement forged between the Anishinaabe Nation and the Haudenosaunee Confederacy to peaceably share resources around the Great Lakes.

We are mindful of broken covenants, violations of human and treaty rights, and affirm the United Nations Declaration on the Rights of Indigenous Peoples. It is our responsibility to actively interrogate and challenge settler-colonial systems of oppression through our work. We are committed to strengthening our relationships with Indigenous Peoples and Lands.

Executive Summary

FLOODPLAIN PLACEMAKING is a strategic approach that combines climate resilience, health equity, and ecological restoration. In the Greater Toronto Area (GTA), this approach has become increasingly important due to heavier rainfall, aging infrastructure, and the vulnerability of residents living in floodplain tower neighbourhoods. These communities often include newcomers, racialized populations, and seniors who lack access to safe and functional outdoor spaces. Placemaking efforts in the floodplains must address both environmental risks and social needs through well-designed public infrastructure. Many international examples demonstrate successful urban watershed naturalization. Singapore's Bishan-Ang Mo Kio Park replaced a concrete canal with a natural river system. Amsterdam's smart rain barrel network helps manage stormwater across neighbourhoods. TowerPOPS, a multidisciplinary initiative by 8 80

Cities, offers a valuable partnership opportunity. The program activates underused public spaces in tower neighbourhoods to promote health equity. The sites in Rockcliffe-Smythe and Cooksville are located near floodplains where placemaking efforts can combine both stormwater management and community well-being. The Toronto and Region Conservation Authority (TRCA), Credit Valley Conservation (CVC), and municipal staff from Toronto and Mississauga showed strong interest in flood-resilient design during stakeholder interviews for this report. The stakeholders identified opportunities to educate building managers about stormwater retrofits. They also emphasized the need to retrofit parking lots, depave hard surfaces, and create urban community gardens to help reduce stormwater runoff. Local programs such as SNAP (Sustainable Neighbourhood Action Plans) are leading innovation. TRCA's

Black Creek and Rexdale SNAPs have introduced raised-bed gardens, flood alert systems, emergency preparedness workshops, and depaving projects. CVC's Cooksville SNAP has focused on rainwater harvesting, flood evacuation planning, and low-impact development strategies such as bioswales, cisterns, and rain gardens. These programs also support smart blue and green roofs and use tools like the Risk and Return on Investment Tool (RROIT) to guide project planning. Securing funding for stormwater infrastructure remains a challenge. While one-time grants are available for green roofs and energy retrofits, City of Toronto does not offer long-term stormwater credits or grants. Cities such as Raleigh, North Carolina and Washington, D.C. provide models for market-based solutions. Stakeholders

noted that projects serving tower neighbourhoods are more likely to receive municipal support than those focused on individual property owners. Community leadership plays a critical role in successful placemaking. Local champions help build trust and increase participation. 8 80 Cities can facilitate collaborations between community leaders and city-led environmental outreach programs such as Live Green Toronto and SNAPs. TowerPOPS can incorporate flood-resilient infrastructure such as raised gardens and rain gardens, rain barrels, permeable surfaces, and depaved gathering areas to support physical health and environmental sustainability in the tower neighboruhoods. Such partnerships will allow for coordinated planning and community-driven action.

Conclusion

Floodplain placemaking in the GTA provides a pathway to build inclusive, resilient, and ecologically vibrant communities. By combining health equity goals with flood resilience strategies through programs like TowerPOPS and SNAP, and by learning from global examples of watershed naturalization and green stormwater infrastructures, cities in the region can create public spaces that protect residents and support long-term sustainability of the community.

Acknowledgement

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Glossary

GTA - Greater Toronto Area

TRCA - Toronto Region Conservation Authority

CVC - Credit Valley Conservation

GSI - Green stormwater infrastructure

SuDS - Sustainable Drainage Systems

SNAP - Sustainable neighbourhood action plan

GECG - Greening Corporate Gardens

LID - Low Impact Development

RROIT - Risk and Return on Investment Tool

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1 Introduction to Floodplain Placemaking

Floodplain placemaking is a multi-dimensional process that intersects with urban social justice issues, the protection of lives and property from flood damage, and the conservation of healthy ecosystems in urban settings.

1.1 Why Floodplain Placemaking?

The expansion of urban areas leads to an increase in impervious surfaces. Legacy planning and engineering practices have resulted in creeks and streams being covered by concrete, often under the guise of flood management. However, these concrete surfaces generate more surface runoff, placing additional pressure on urban drainage systems.

Climate change is contributing to more intense rainfall. Concrete surfaces cannot absorb excess rainwater, and the resulting increase in stormwater runoff overwhelms drainage systems, leading to flooding. According to the City of Toronto's TransformTO net-zero strategy, summer months in the Greater Toronto Area (GTA) are expected to become hotter and wetter in the coming years.

In 2024, residents of Toronto and Mississauga experienced major flooding events due to uncharacteristically heavy summer rainfall. In 2025, flash floods have affected urban metropolises around the world—including New York, Chicago, Seoul, Tokyo, Kerr County in Texas, and New Delhi. These incidents have reignited global conversations around urban flooding and flash floods in cities.

Neighbourhoods located in the floodplains of the GTA are particularly vulnerable to urban flash floods driven by climate change. These areas are often home to marginalized populations, including newcomers, people of colour, racialized communities, and seniors. Many tower neighbourhoods lack purpose-built outdoor spaces that are essential for fostering social connection, physical health, and overall well-being. Flooding further limits access to existing green spaces in these communities.

Floodplain placemaking, therefore, calls for adaptive, scalable, and nature-based solutions for public outdoor spaces in floodplain neighbourhoods, where residents can live healthy lives and thrive.

2 Methods for Gap Analysis of Placemaking Projects in Tower Neighbourhoods on Floodplains

2.1 Objective

The objective of this report is to conduct a gap analysis of placemaking projects in Tower neighbourhoods located on floodplains. The 8 80 TowerPOPS initiative was selected as a case study to guide this analysis.

2.2 Current State Assessment

2.2.1 Site Identification and Flood Risk Evaluation

The first step involved identifying the locations of TowerPOPS project sites within floodplain zones. Floodplain maps were sourced from the Toronto Region Conservation Authority (TRCA) and ESRI Canada's publicly accessible resources.

These maps were used to assess the flood risk of each site and determine the feasibility of placemaking interventions.

2.2.2 Field Observations

Site visits were conducted to observe placemaking activities.
This included:

- Participating in space activation events
- Investigating governance models that support floodplain placemaking
- Documenting how residents interacted with the placemaking initiatives

2.3 Future State Exploration

2.3.1 Design and Governance Research

The next phase focused on identifying future opportunities for placemaking in floodplain areas.
This involved:

- Researching design strategies suitable for floodplain contexts
- Taking notes on community engagement
- Reviewing promising practices in floodplain management from global case studies

2.3.2 Local Context Review

Background research was also conducted on:

- Ongoing government and non-profit interventions in the neighbourhoods in and around the TowerPOPS sites

2.4 Gap Identification and Stakeholder Engagement

2.4.1 Comparative Analysis

A comparison between the current and future states was performed to identify gaps in existing placemaking practices.

2.4.2 Stakeholder Mapping

Potential stakeholders were identified who could contribute to future placemaking initiatives. Stakeholders were identified from local municipalities, including the City of Mississauga and the City of Toronto, as well as conservation authorities such as the TRCA (Toronto Region Conservation Authority) and CVC (Credit Valley Conservation), community organizations like Heart Comonos, and an indigenous consultant for the 8 80 TowerPOPS project.

2.4.3 Interview and Insights

Stakeholders were invited for interviews to explore:

- Opportunities for floodplain placemaking
- Potential collaborative projects
- Limitations of current initiatives

Four semi-structured, in-depth interviews were conducted. Interviewees were selected based on:

- Their organization's ongoing and future programs' relevance to the TowerPOPS project
- Availability within the project timeline

2.5 Data Analysis and Findings

2.5.1 Thematic Content Analysis

With the consent from the participants, I recorded, transcribed, and analyzed the interviews using thematic content analysis to extract key insights.

2.5.2 Lessons Learned and Future Direction

Findings from the interviews, current state assessment, and promising practices review informed:

- Lessons learned in floodplain placemaking
- Recommendations for future collaborative placemaking programs

3 The TowerPOPS Sites

TowerPOPS[1] is a multidisciplinary project led by 8 80 Cities that transforms underused spaces in tower neighbourhoods to promote health equity. The current TowerPOPS locations are Rockcliffe-Smythe in Toronto and Cooksville in Mississauga. Both areas are home to diverse, growing communities and are supported by active community organizations and local champions.

Each site is located near a creek—Black Creek in Rockcliffe-Smythe and Cooksville Creek in Cooksville—and both are situated in or adjacent to floodplains, making them vulnerable to flooding during periods of heavy rainfall.

According to the Toronto and Region Conservation Authority (TRCA) floodplain map (Figure 1), the Rockcliffe-Smythe site lies adjacent to the floodplain. The City of Toronto is currently implementing a flood mitigation project in the nearby Black Creek area, which includes increasing flood channel capacity, dredging for improved efficiency, and constructing a flood wall. TRCA has also implemented the Black Creek SNAP and is currently rolling out the Rexdale SNAP.

The Cooksville site is located within a designated floodplain (Figure 2). It falls under the jurisdiction of the City of Mississauga and the Credit Valley Conservation (CVC). The TowerPOPS site in Cooksville is situated within the boundaries of the Cooksville SNAP.

Figure 1. Flood plain map for Rockcliffe Smythe of TowerPOPS site from TRCA[10]. (This is not an exact flood plain map, for current data contact TRCA)

Figure 2. Flood map of Cooksville and location of TowerPOPS site[2]

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4 Promising Practices of Flood-Resilient Placemaking Around the World

Flood-resilient placemaking integrates ecological design, infrastructure innovation, and community well-being. Below are key concepts and global examples that demonstrate how cities are adapting to climate challenges through green infrastructure and nature-based solutions.

4.1 Green Infrastructure for Stormwater Management

Green stormwater infrastructure (GSI) includes a variety of systems designed to manage runoff sustainably. These include:

- Green Streets
- Sustainable Drainage Systems (SuDS)
- Floodable parks
- Bioswales
- Permeable pavement
- Rain gardens
- Rain barrels
- Underground stormwater capture and storage systems

4.1.1 Green Streets in Toronto and STEP

City-led green streets projects[4] in Toronto are from an Etobicoke center neighbourhood, Six Points Interchange reconfiguration, Byng Avenue and an East York neighbourhood, Fairford Parkette. There is also a development-led green street project called Stanley Green Boulevard, located south of Downsview Park.

The green streets consist of stormwater soil trenches, stormwater tree trenches, bioretention planters, and pervious concrete sidewalks. The stormwater tree trenches and soil trenches, as well as bioretention planters, improve water quality and reduce the quantity of stormwater entering the sewer systems. These examples show that green street design is gaining popularity in Toronto.

Typically, the city assumes maintenance responsibility for green streets after two years following project completion. The city also collaborates with STEP (Sustainable Technology Evaluation Program) to monitor components of green streets, including stormwater tree trenches. STEP is a concerted effort by the three conservation authorities, namely CVC, TRCA, and the Lake Simcoe Conservation Authority.

4.1.2 Sustainable Drainage Systems (SuDS)

Definition and Principles

SuDS[8] replicates natural drainage flows and filtration. They aim to:

- Transport runoff from a site
- Slow runoff before it reaches waterbodies or sewage systems
- Promote retention, infiltration, groundwater recharge, evaporation, and evapotranspiration
- Balance water quantity, quality, and biodiversity
- Treat runoff as a resource, not a nuisance

4.1.3 Floodable Parks

Definition and Benefits

Floodable parks combine scalable blue-green infrastructure with recreational space. They are designed to flood temporarily, serving dual purposes: recreation and stormwater detention.

Examples:

- Guyuan Urban Park 2, China[12]
- Bishan-Ang Mo Kio Park, Singapore[13,14]
- Enghaveparken, Copenhagen[15]
- Dong Hoi City, Vietnam[16]
- Lake City Floodplain Park, Seattle, USA[17, 18]

SuDS-based floodable parks often require extensive construction, including stream naturalization, increasing flood flow channels, depaving, permeable pavement installation, underground storage, and bioretention areas for filtration. While floodable parks are aesthetically pleasing and practical, they are more costly than low-tech solutions like rain barrels and temporary rain garden pods.

Stream Naturalization

In Bishan-Ang Mo Kio Park, Singapore, the Kallang River was transformed from a concrete canal into a meandering river. Adjacent parkland acts as a floodplain during heavy rainfall.

Flood Flow Channels

In Guyuan Urban Park, China, a stream-themed urban park was developed by repurposing a drainage canal into a flood flow channel with a secondary stream.

Soil Bioengineering Techniques

Bishan-Ang Mo Kio Park used strategic planting and natural materials to stabilize riverbanks, prevent erosion, and support drought resilience. In Raleigh, North Carolina, suspended pavement systems were implemented to allow tree roots to spread while capturing and filtering runoff beneath impervious surfaces.

Rainwater Retention Reservoirs

Enghaveparken in Copenhagen features an underground reservoir that reduces flooding, groundwater usage, and enhances recreational space. In Manhattan's South Battery Park, similar technology was used to protect against storms like Hurricane Sandy.

4.1.4 Urban Green Stormwater Infrastructure (GSI)

4.1.4.1 Bio-Retention Areas and Bioswales

The City of Raleigh, North Carolina, USA[3] installed bio-retention areas along roads and heat islands using trees, mulch, soil, gravel, and pipes to treat runoff.

4.1.4.2 Rainwater Credit Program

Raleigh Rainwater Rewards incentivizes private landowners to install GSI through rebates and credits.

Figure 3. Suspended pavement system in Raleigh, NC[3]

Figure 4. Bio-retention areas in Raleigh, NC[3]

Figure 5. Underground stormwater capture for suspended pavement in Raleigh, NC[3]

4.1.4.3 Rain Gardens

Definition

According to the TRCA[9], a rain garden is a shallow, landscaped depression that collects and absorbs runoff from roofs, driveways, parking lots, and lawns.

Benefits

- Reduces local flooding
- Minimizes erosion and drainage issues
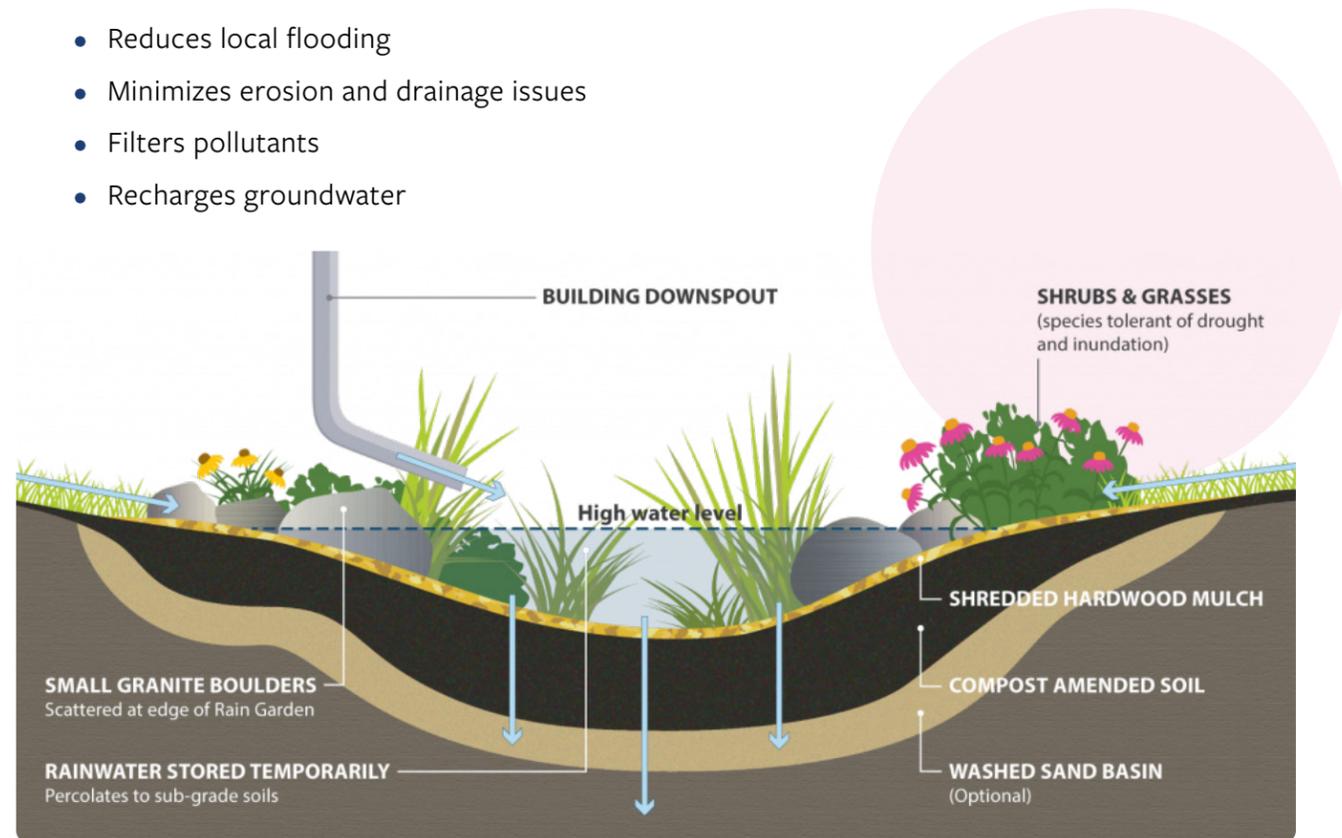- Filters pollutants
- Recharges groundwater

Figure 6. Rain Garden design by TRCA[9]

Design

- Rain gardens should be placed at least 3 metres from buildings
- Special soil mix is necessary (sand and compost)
- Requires an inlet and outlet for water flow
- Planting native species for ecological value

Maintenance

- Watering needed during dry spells (first 1–3 years)
- Weeding and mulching are needed periodically
- Keeping inflow and outflow clear

4.1.4.4 Modular Rain Gardens: SuDSPod Initiative

Reclaim the Rain[6], a joint initiative by Norfolk and Suffolk County Councils in East Anglia, England, installed SuDSPods on schoolyards. The above-ground planters capture rainwater, slow runoff, and support biodiversity. The patented three-chamber design reduces peak flow rates by up to 76% during a typical 15-minute, 1-year summer storm. These are temporary installations. The SuDSPod installations were to reduce water pooling on hard surfaces around schools in an area that is at risk

of both water scarcity and flash flooding during heavy rainfall. The contractor for the SuDSPod was GreenBlue Urban, and the landscape architect was Anglian Water.

Figure 7. SuDSPod East Anglia, England[6]

4.1.4.5 Green Parking Zones

The article "From Gray to Green: rethinking parking lots" by Joseph Westlin published in Deeproot[11] explores how reimagining parking lots can transform them from environmental burdens into sustainable urban assets.

Challenges of Traditional Parking Lots

- Heat island effect
- Stormwater pollution
- Flooding risks
- Pedestrian hazards

Green Design Strategies

- Vegetation and trees for capturing and filtering stormwater
- Permeable pavement allows water to soak into the ground
- Flexible multi-use spaces that adapt for walking, biking, parking, or seating depending on need
- Stormwater reuse for irrigation

4.1.4.6 Smart Rain Barrels in Amsterdam

In Amsterdam, [Studio Bas Sala](#)[7] designs and produces smart rain barrels. The taps of smart barrels are connected to a network and can be controlled online. It is a fully automatic system that ensures that the barrels are full during dry periods and withholds water during heavy rainfall from the drainage system. All smart barrels are part of the local network, thus can become a buffer system to prevent overflow of storm drainage.

Figure 8. Smart rain barrel at the community garden Tuin de Bajonet Rotterdam[7]

5 Flood Resilience in Sustainable Neighbourhood Action Programs (SNAP) by Conservation Authorities in the GTA

5.1 SNAP's Role

Sustainable neighbourhood action program (SNAP) is a multi-dimensional neighbourhood improvement program by the conservation authorities in the GTA and the municipalities. SNAPs foster partnerships among property owners, tenants, municipalities (Toronto, Mississauga, Brampton), non-profits, and businesses. The goal of SNAP is to enhance environmental resilience and socio-economic outcomes. Interviews with City staff, TRCA, and CVC staff gave insight into ongoing and past community-focused stormwater management actions in the TowerPOPS neighbourhoods.

5.2 TRCA's SNAP Contributions to Stormwater Management

5.2.1 Urban Agriculture

- San Romanoway's raised bed garden is a successful model of urban agriculture in the Black Creek neighbourhood.
- Community members continue to maintain the garden post-SNAP, which includes vegetable beds and a fruit orchard.

5.2.2 Emergency Preparedness

- TRCA conducts workshops through Rexdale SNAP on flood, power outage, and heat preparedness.
- Workshops also include food, prizes, and pre- and post-surveys to engage and educate residents.

5.2.3 Flood Alerts

- TRCA's flood team encourages residents to sign up for alerts to avoid waterways during high-risk periods.

5.2.4 Depaving Projects

- TRCA depaved an abandoned basketball court in Burnhamthorpe SNAP and converted it into a garden.
- Depaving requires significant community commitment and volunteer support

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5.2.5 Additional Initiatives

- Splash pad installation in Bramalea SNAP, although the City staff shared that splash pads provide primarily aesthetic and recreational service and have zero or minimal impact on flood resilience or extreme heat resilience.
- Tree planting across SNAP sites.
- Currently, TRCA does not offer parking lot retrofit programs to upgrade them to the Toronto Green Standards.

5.2.6 Corporate Partnerships

- TRCA partners with multi-unit property owners interested in retrofits for flood and heat resilience.
- These retrofits are designed to avoid cosmetic renovations that could lead to renovictions.
- Future priorities for TRCA building retrofit programs include managing extreme heat.
- No ongoing incentives exist for energy-efficient retrofits beyond one-time grants.

5.3 CVC SNAP Actions for Stormwater Management

5.3.1 Community Consultation

Cooksville SNAP community consultations revealed preferences for:

- Rainwater harvesting
- tormwater management
- Flood response planning for homes and businesses
- Creek health improvements

5.3.3 Corporate and Community Partnerships

- Stakeholder engagement has led to partnerships with businesses and community groups.

5.3.4 Greening Corporate Gardens (GECG)

The GECG Initiatives include:

- Tree planting on corporate lawns

- Rain gardens on private properties
- Blue/green roofs on mid-rise towers
- Depaving projects

5.3.5 Cooksville SNAP Projects

- Depaving at schools, places of worship, residences, and businesses.
- Support for smart blue and green roof installations on mid-rise buildings.

5.3.6 Low Impact Development (LID) Strategies

CVC is piloting LID techniques such as:

- Rainwater and stormwater cisterns
- Bioswales
- Rain gardens
- SNAP focuses on above-ground green infrastructure on private land.
- The City of Mississauga offers a rain garden rebate program for homeowners.

5.3.7 Public Land Management

- The City of Mississauga's Stormwater Team manages flooding on public land guided by the city's Stormwater Master Plan, "Build Beautiful."
- Example: One Lake redevelopment as a stormwater reservoir.

5.3.8 Measuring Impact: Stormwater Diversion and ROI

- CVC uses the **Risk and Return on Investment Tool (RROIT)** to assess site suitability and intervention effectiveness.
- RROIT is developed by Climate Risk Institute, Credit Valley Conservation, and Risk Sciences International.
- Other metrics include **hectares converted** and **runoff reduction estimates**.

6 A Stakeholder Perspective on Floodplain Placemaking: Lessons Learned and Future Directions

To understand stakeholder perspectives on floodplain placemaking in the GTA, consultations were conducted with the TRCA, CVC, the City of Toronto, and the City of Mississauga. These discussions included input from SNAPs, environmental outreach teams, and grant program coordinators.

6.1 Educational Initiatives for Flood Resilience

Industry Education and Misinformation

- Collaborations with tower neighbourhood building management to install rain gardens, cisterns, and rain barrels can spark conversations around stormwater management.
- Roofing companies need education on the benefits and feasibility of blue and green roofs.
  - Blue roofs are relatively easy to implement.
  - Green roofs require more expensive materials and professional design by architects and engineers to access city funding.
- Addressing misinformation that green roofs are prone to leaking

6.2 Future State Exploration

Making rain gardens, installing rain Barrels, building stormwater soil trenches and tree trenches, and depaving concrete surfaces all fall under floodplain placemaking actions.

6.2.1 Depaving and Permeable Surfaces

- Converting concrete parking lots into permeable surfaces significantly reduces stormwater runoff.
- Challenges include:
  - Many lots are privately owned
  - Municipalities are hesitant to impose parking lot climate levies that may deter business investment.
- In Burnhamthorpe SNAP, an abandoned basketball court was depaved and transformed into a community garden, serving as a model for future retrofits.
- The City of Toronto's Green Standard mandates one tree canopy per five parking spots, promoting tree planting to reduce urban heat and manage runoff.

6.2.2 Retrofitting Parking Lots

- Parking lots present significant opportunities for flood resilience retrofits.
- Examples: depaving, permeable pavement, bioretention planters, stormwater trenches, underground stormwater reservoirs, rain barrels, rain gardens, urban raised bed gardens, tree planting

6.2.3 Rooftop Gardens

- Vegetable and pollinator gardens can be created on the rooftops of underground or above-ground parking garages.
- Shallow soil conditions can be mitigated using bottomless raised beds with proper filtration, considering the roof's load-bearing capacity.
- Examples include: Seattle's UP Garden, located on the roof of a former parking garage, a ground-level vegetable garden at Colliers Real Estate Management Services Tower, 95 St. Clair Avenue West, Toronto.

Figure 9. Colliers Edible and Pollinator Gardens[5]

6.2.4 Funding, Incentives, and Social Determinants of Flood Vulnerability

Market-Based Solutions

- Toronto currently lacks a long-term stormwater or green infrastructure credits program.
- Other cities, such as Washington, D.C. and Raleigh, North Carolina, offer stormwater credits that incentivize property owners to implement flood resilience measures.

Grant Programs and Incentives

- The City of Toronto offers one-time grants for green roofs and home energy retrofits.
- Ongoing incentives, such as stormwater credits or tax benefits, are needed to encourage broader adoption of retrofits.

Prioritizing Tower Neighbourhoods

- Projects targeting tower neighbourhoods are more likely to receive city support than those benefiting individual property owners.
- Tower neighbourhoods often face higher flood vulnerability and energy inefficiency, making them critical targets for intervention.
- Property managers and owners will be interested in retrofitting programs that can reduce their operating costs in the long term.

Community Leadership in Flood-Resilient Placemaking

- Empowering community champions is a proven strategy for activating public spaces.
- Residents tend to trust local leaders more than city staff, increasing the success rate of placemaking initiatives.

6.2.5 Municipal Partnerships in Floodplain Placemaking

Understanding Jurisdiction

- Effective collaboration requires clarity on the roles and responsibilities of municipal partners.
- Example: The City of Toronto's Live Green Toronto program sponsors and participates in community events.

Cooksville SNAP and the City of Mississauga's Collaboration

- The City of Mississauga leads community engagement for Cooksville SNAP. CVC contributes watershed-level insights to inform sustainable neighbourhood action plans.

Strategies for Collaborating with Municipalities

- Contact environmental outreach coordinators to identify relevant departments and personnel.
- Community leaders should introduce themselves to city councillors and agencies.
- Identify city staff working in the area who are seeking aligned community groups for collaboration.
- Review the city's strategic plan to find actions that align with neighbourhood priorities.
- Use the 3-1-1 service to connect with appropriate offices and outreach officers.
- Email councillors to raise awareness of community issues and initiate engagement.

Example of Community-Led Initiatives

- Blooming Boulevard in Mississauga creates small pollinator gardens through community partnerships.
- Since the Black Creek SNAP ended, the San Romanoway Urban Community Garden Club has an elected committee that organizes, plans, and provides leadership for their garden.

7 Conclusion

Effective placemaking requires collaboration across government, non-profit, and private sectors. It also depends on accurate flood mapping, community engagement, and thoughtful design that balances permanent and temporary green infrastructure. International examples from Singapore, the Netherlands, and China show how urban watershed naturalization can combine innovation with nature-based solutions at a city scale.

Stakeholders of the 8 80 TowerPOPS have identified opportunities to integrate green infrastructure into landscaping plans, recommended municipal incentives such as water credit, and ongoing grants for green infrastructure. Temporary installations for stormwater management can be scalable and impactful, while nature-based solutions can incorporate advanced technologies. Urban flood resilience is not just about managing water; it is about designing cities that support public health, social connection, and environmental sustainability.

Floodplain placemaking in the GTA is a powerful tool for advancing climate resilience, health equity, and ecological restoration. Placemaking in tower neighbourhoods has already gained momentum through community-driven programs, such as SNAP, and partnership initiatives, including the TowerPOPS program. These efforts prioritize marginalised residents who face both environmental, social, and health vulnerabilities. Incorporating a flood resilience approach into the existing programs would be a timely step.

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