



Sustainable Neighbourhood Action Program

REXDALE SNAP



Rexdale Sustainable Neighbourhood Action Plan

"A Thriving Community Growing in Harmony with Nature and Neighbours"

November 2023

In partnership with:



Program of:



ACKNOWLEDGEMENTS

We respectfully acknowledge the lands Toronto (and Rexdale) is situated on are Traditional Territories and Treaty Lands, in particular those of the Mississaugas of the Credit, as well as the Anishinaabeg of the Williams Treaty First Nations, and the Huron-Wendat and are now home to many diverse First Nations, Inuit and Métis peoples.

The Rexdale SNAP is a comprehensive action plan for neighbourhood revitalization that integrates both local community interests and technical sustainability objectives. The Rexdale SNAP supports a future with a healthy Humber River Watershed, with valley and park lands that are accessible, fun, and safe for everyone's enjoyment, and where Indigenous and global cultures are celebrated with pride. The action plan also supports a community where the suburban forest extends into the busiest, densest parts of the neighbourhood, bringing tranquility to residents. The Rexdale of the future will be net zero and its physical and social fabric will be adequately prepared for the imminent impacts of climate change. This state of preparedness will be achieved by training local youth in the green job sector. Everyone will be able to afford high quality housing. Neighbours will be connected to support each other and build their community. They will get together frequently in beautiful meeting spaces. Local art will be present on every corner, enriching life in the neighbourhood. Culturally relevant food will be grown in all land uses. The extraordinary culture of sharing in this community, will make this neighbourhood the first circular (and sharing) economy neighbourhood in Canada. Residents will share food, talents, and services. Household items will be reused, improving affordability, offering income, and reducing waste.

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Toronto and Region Conservation Authority (TRCA) has authored this report on behalf of project partners, the City of Toronto, and the Rexdale Community Hub (RCH). Action Plan recommendations were identified through a co-creation process involving residents and stakeholders, the City of Toronto, and TRCA staff. **A special thank you to resident leaders, local stakeholders, and numerous staff groups that were extensively involved in collaborative engagement activities and that have helped co-design the recommended initiatives.**

TABLE OF CONTENTS

Acknowledgements	ii
1.0 Introduction.....	1
2.0 How to Read This Report.....	3
3.0 Neighbourhood Selection and Key Drivers.....	4
4.0 About The Rexdale Neighbourhood	6
4.1 Population	7
4.2 Parks and Nature	8
4.3 Building Stock	10
4.3.1 MURBs.....	10
4.3.2 Single Family Homes	11
4.3.3 Institutions	12
4.3.4 The Commercial Sector.....	13
4.4 Transportation.....	14
4.5 Waste Management	15
4.6 A Look Back at the History of Rexdale	15
5.0 The SNAP Governance Model	17
6.0 The Action Plan Co-Development Process	18
7.0 Local Sustainability Themes.....	24
8.0 The Rexdale SNAP Action Plan	28
8.1 Action Area One – Open Space Revitalization and Green Infrastructure.....	30
8.1.1 Recommendations for Action Area One – Open Space Revitalization and Green Infrastructure	32
8.2 Action Area Two – Boosting Rexdale’s Sharing and Circular Economies	35
8.2.1 Recommendations for Action Area Two – Boosting Rexdale’s Sharing and Circular Economies.....	37
8.3 Action Area Three – Retrofits for Sustainable Housing	38
8.3.1 Areas of Opportunity for the Revitalization of MURBS (Public and Privately-Owned)	39
8.3.2 Areas of Opportunity to Advance Home Retrofits.....	42
8.3.3 Other Opportunities to Reduce GHG Emissions from Buildings.....	46
8.3.4 Recommendations for Action Area Three – Retrofits for Sustainable Housing	47
8.3.5 System-Change Recommendations	48
8.4 Action Area Four – Transformation of Streets and Intersections	48
8.4.1 Recommendations for Action Area Four – Transformation of Streets and Intersections	50
9.0 Climate Vulnerability Assessment and Resilience Strategy.....	51
9.1 Climate Trends.....	51

9.2 Vulnerability Assessment	52
9.3 Adaptation and Resilience Strategies.....	56
9.4 Adaptation Opportunities.....	57
10.0 Quick Start Projects	59
11.0 Measuring Success	61
12.0 Next Steps.....	66

LIST OF TABLES

Table 1: Neighbourhood Profile	7
Table 2: Local Sustainability Themes, Guiding Principles and Domains.....	26
Table 3: Results of Vulnerability Assessment in the Rexdale SNAP	53
Table 4: Target Outcomes (Longer Term Observed Changes)	61
Table 5: Output Indicators (Used to Track Shorter-Term Direct Actions).....	64

LIST OF FIGURES

Figure 1: Rexdale SNAP Neighbourhood, Toronto: Study Area and Land Use	6
Figure 2: Project Management and Governance Structure	17
Figure 3: Action Plan Co-Development Process	19
Figure 4: Engagement Activities That Guided the Development of the Rexdale SNAP Action Plan	22
Figure 5: Who Was Involved?.....	23
Figure 6: Local Sustainability Themes.....	24
Figure 7: The Rexdale SNAP Action Plan	29
Figure 8: Open Space Revitalization, Restoration and Green Infrastructure Priorities	34
Figure 9: SNAP Home Retrofit Program Model.....	43
Figure 10: Overall Vulnerability Assessment Results for Rexdale	55
Figure 11: Disaster Management Cycle and Number of Strategies Identified Under Each Stage	56
Figure 12: Evaluation of the 32 Strategies	57

LIST OF APPENDICES

Appendix A: Mapping Framework and Data Considered in the Neighbourhood Screening Process in Toronto....	67
Appendix B: Summary of Action Plan Recommendations	68
Appendix C: Proposed Adaptation and Resilience Strategy for Rexdale by Category and Rating	72

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1.0 INTRODUCTION

Through spirituality, multigenerational families, cultural heritage and diversity, the Rexdale SNAP community hopes to grow and thrive together in harmony with neighbours and the natural world around them -- and what a beautiful natural environment it is! Nestled between two branches of the Humber River, there is no shortage of ravines, parks, and trails to explore. Whether it's trekking or biking the Humber Recreational Trail, spending a few tranquil moments at the Humber Arboretum, heading to a local park to start the day in contemplation and meditation, or taking in serene sunsets on evening strolls with friends, this community sees its greenspace as a treasure to enjoy, away from the hustle and bustle of suburban city life.

Even though these treasured spaces are never far away, the complexities of living in the Rexdale neighbourhood are also ever-present. Faced with the challenges of increasingly unaffordable living costs, food insecurity, lack of jobs and training opportunities especially for youth and newcomers, and the threat of violent crime, this community works hard to thrive in the face of adversity and to creatively come up with collective solutions. Rexdale residents enthusiastically participated in co-developing the sustainability and resilience plans for the neighbourhood in conjunction with TRCA, Rexdale Community Hub (RCH), the City of Toronto, and many local agencies, groups, and institutions.

The action planning process used a three phased approach: Phase 1 included baseline analysis and scoping of issues, stakeholders and interests; Phase 2 included the development of a vulnerability assessment and defining both motivational themes in the community as well as action planning concept areas; Phase 3 included the co-development of the Action Plan. Throughout the action planning process, community members shared their dreams of improvements to local infrastructure and community services, the preservation and animation of greenspaces and streetscapes (to be greener, safer, and better for active transportation), and both increased and enhanced vibrant communal spaces for gatherings and celebrations. Residents identified ideas of how to address housing issues (for residents living in both single-family homes and high-rise buildings), how to tackle the threat of climate change, and how to deal with the high cost of living (through programming, collective action and developing a circular and sharing economy).

This Action Plan outlines the recommendations that were generated through the consultation and co-design process and serves to inspire action to help the Rexdale SNAP neighbourhood achieve the vision of becoming a thriving community, growing in harmony with nature and neighbours.

What is SNAP?

The Sustainable Neighbourhood Action Program (SNAP) of TRCA is a collaborative, neighbourhood-based approach for advancing sustainable urban renewal and climate action in older urban areas. SNAPS help municipalities and other community collaborators improve efficiencies, draw strong local support and build innovative partnerships for the implementation of a broad range of initiatives in the public and private realms. It uses both, a top-down and bottom-up approach, bringing together municipal and TRCA technical objectives, with residents' dreams and priorities.

There are 16 SNAP neighbourhoods in Ontario. The Black Creek SNAP in Toronto was one of the pioneers, which was implemented between 2012 and 2019. At the same time as this plan was being developed for Rexdale, a SNAP Action Plan was also being developed for the Pocket Neighbourhood, for a total of 3 SNAPS in Toronto. For more information go to: <https://trca.ca/conservation/sustainable-neighbourhoods/>.

2.0 HOW TO READ THIS REPORT

Section 3.0 provides a description of the neighbourhood-screening and selection process and the key drivers that brought the SNAP program to Rexdale.

Section 4.0 includes the study area boundaries and provides an overview of the neighbourhood's baseline conditions.

Section 5.0 describes the governance model that guided decision-making during the planning process.

Section 6.0 describes the planning process utilized for the development of the Rexdale Sustainable Neighbourhood Action Plan.

Section 7.0 outlines six local sustainability themes and associated guiding principles to be applied in all Action Areas of the Action Plan.

Section 8.0 outlines the four key Action Areas, providing project and program ideas, and recommendations for implementation.

The four Action Areas of the Rexdale SNAP Action Plan are:

- **Open Space Revitalization and Green Infrastructure**
- **Boosting the Neighbourhood's Circular and Sharing Economy**
- **Retrofits for Sustainable Housing**
- **Transformation of Streets and Intersections**

Section 9.0 summarizes the High-Level Climate Resilience Strategy for Rexdale, which was developed parallel to the Rexdale SNAP Action Plan and includes climate trends, a vulnerability assessment, and key opportunities for adaptation.

Section 10.0 describes quick start projects which were implemented during the planning process to generate trust and enthusiasm from the community, and to achieve further public engagement.

Section 11.0 outlines neighbourhood outcomes and targets across the six local sustainability themes, in addition to providing example output indicators to track shorter term progress in each Action Area.

Section 12.0 identifies the next steps that will support implementation of the Action Plan.

3.0 NEIGHBOURHOOD SELECTION AND KEY DRIVERS

In 2019, TRCA's Sustainable Neighbourhood's team worked with multiple divisions at the City of Toronto to conduct a neighbourhood screening process. This screening process identified new candidate communities within Toronto (in addition to the Black Creek SNAP, initiated in 2010), that would be well suited for the SNAP program. The screening process was designed to support a collective, proactive approach to a growing number of complex issues including but not limited to aging infrastructure, asset management and urban renewal needs, climate vulnerabilities and risks, environmental and watershed regeneration priorities, and socio-economic priorities.

An important first step in the screening process was the development of a mapping framework in collaboration with the City of Toronto's Transportation Services Division, created to organize partner priorities into a comprehensive set of service area themes reflecting sustainable community attributes. This framework applied the Green Streets Prioritization Methodology and guided a multi-objective analysis. **Appendix A** presents the framework of service areas and lists the data considered in the screening process. These layers represented planned projects, sustainability priorities, and known vulnerabilities across departments and organizations.

The Geographic Information System (GIS) exercise consisted of mapping all the layers (shown in Appendix A) across the city, and highlighting areas where many partner projects or vulnerabilities were concentrated. Through this process several “areas of interest”, including the Rexdale SNAP area, were identified. Once the areas of interest were identified, a “deep dive” analysis of these areas was undertaken by various divisions from the City and TRCA to select the preferred neighbourhood. Through the “deep dive” process, the multi-divisional selection team discussed specific characteristics and needs in each area of interest, strategic opportunities for integrated initiatives, feasibility and demonstration potential. The Rexdale Neighbourhood was selected due to its overlapping vulnerabilities and urban renewal, environmental and socio-economic priorities.

The Rexdale SNAP neighbourhood boundaries were refined based on technical and logistics considerations and public engagement results. A summary of the overlapping priorities that brought the SNAP program to the Rexdale Neighbourhood include (see Section 4.0 for more detail on the Neighbourhood's baseline conditions):

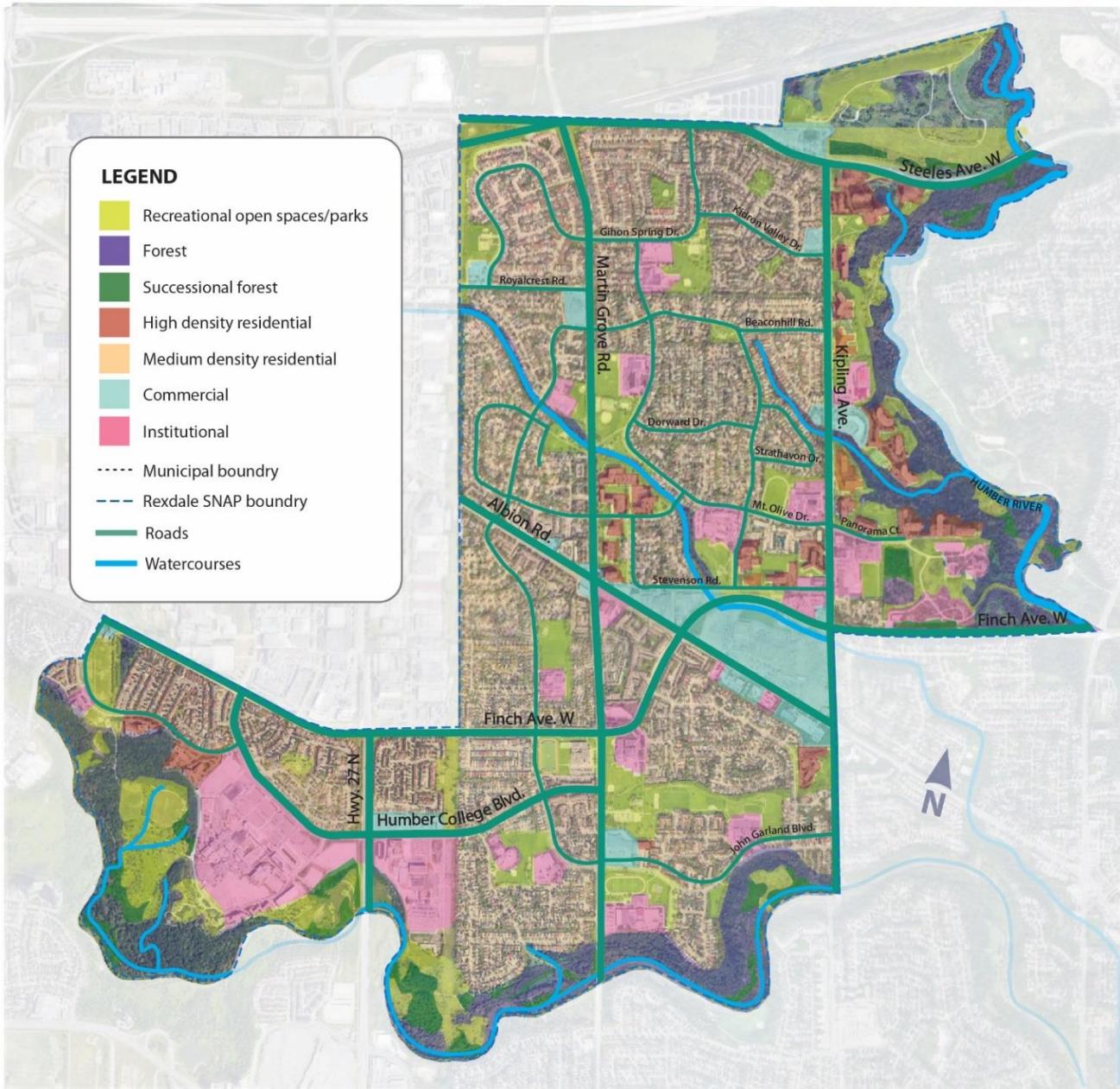
- **Neighbourhood Improvement Area:** An area with vulnerable populations, concentrated poverty, and serious food insecurity.
- **Residential Retrofit Needs:** The Rexdale Neighbourhood has seen close to zero development or redevelopment in the last 60 years. The residential sector offers significant opportunities for climate mitigation and resilience, in addition to overall housing improvements.
- **Low Tree Canopy:** This neighbourhood has low tree canopy cover, compared to the rest of Toronto.
- **Flooding:** Areas of the neighbourhood are subject to riverine flooding, with some residences located within the regional/100-year flood plain. Some areas also experience basement flooding (medium).

- **Low Impact Development (LID) Priority Area:** The neighbourhood's location within the watershed, the presence of medium-high impervious soils, and a depth to water table (conducive to infiltration) make this area a high priority for LID retrofits.
- **Erosion:** This neighbourhood has various erosion and restoration opportunity sites along branches of the Humber River.
- **Sensitive Target Fish Species:** Sensitive target fish species have been identified in sections of the Humber River crossing through the neighbourhood.
- **Discharges to Environmentally Sensitive Area (ESA):** Neighbourhood stormwater system discharges to downstream ESA.
- **Urban Heat Stress:** Areas within the neighbourhood are vulnerable to urban heat stress.
- **Aging Park Infrastructure and Changing Neighbourhood Demographics:** Aging park infrastructure and changes in neighbourhood demographics present an opportunity for park revitalization.
- **Canadian Heritage River:** This designation offers an opportunity to work with Indigenous communities and multiple levels of government to enhance nature-based and history education.
- **Planned Capital Projects:** Through the SNAP program, a series of planned capital projects can be leveraged to achieve environmental resilience and social impacts. Planned capital projects in the community include the Finch Light Rail Transit (LRT) and associated cycling and pedestrian infrastructure, Rountree Mills Park (identified as a priority action area through the Ravine Strategy), and various capital projects in roads from Transportation Services.
- **Existing Programs and Strategies:** Community initiatives and great collaboration are already taking place in the neighbourhood, offering opportunities to join forces to achieve efficiencies and maximize impact in the community. Some of these initiatives are:
 - **Northwest Toronto Neighbourhood Infrastructure Engagement Initiative:** led by the RCH, this initiative looks at opportunities for open space rehabilitation and maps food access.
 - **Previous Recipe for Community Area:** through the City of Toronto's Tower and Neighbourhood Revitalization Unit, relationships were developed and work advanced in MURBs.
 - **North Etobicoke Africa Climate Action Initiative:** Canadian and African leaders acting alongside African communities to tackle climate change and moving towards a resilient, sustainable, and regenerative future.
 - **COVID-19 Cluster Table:** Convened by United Way and the City of Toronto, this table brings together individuals from diverse organizations to rapidly identify local issues, troubleshoot, and then respond in a cohesive way.
 - **Food Access Committee:** Multi-agency and multi-sector group focused on facilitating access to food in the community.
 - **Park People:** Has facilitated park animation.
 - **Queens Leveling Up:** Urban agriculture initiatives led by a local grassroots agency.

4.0 ABOUT THE REXDALE NEIGHBOURHOOD

Located in the northwest of the city of Toronto, the Rexdale SNAP neighbourhood is bounded by Steeles Avenue to the north, the Martin Grove Hydro Corridor and the Humber Arboretum on the west, the Humber River to the south, and Kipling Avenue and another branch of the Humber River on the east.

Figure 1: Rexdale SNAP Neighbourhood, Toronto: Study Area and Land Use



4.1 Population

The study area is home to approximately 54,454 people with a diverse demographic: 89% of residents belong to a visible minority group, 64% identify as recent immigrants, and 52% have a mother tongue other than English or French.

Rexdale has been identified as one of the City of Toronto's Neighbourhood Improvement Areas (NIA), and the United Way identified the neighbourhood as an area of concentrated poverty and vulnerable populations. Food insecurity, physical and mental health, employment, housing, affordability, and gang violence are some of the key issues affecting the community. The average household income is \$79,968 and 28% of residents are considered low income. Throughout the extensive public engagement process, many residents shared their struggles due to precarious immigration status.

Despite the socio-economic pressures, Rexdale is blessed with great social assets. The neighbourhood has numerous dedicated resident leaders that collaborate constructively with local agencies, investing significant energy and time towards improving their community. There is also a culture of mutual aid, with many residents helping neighbours with groceries, sharing prepared food, overcoming language barriers, car sharing, and other supports. Rexdale also has an impressive artistic community that infuses vibrancy into the life of the neighbourhood. There is also a significant proportion of the population that practices and shares expertise on mind-body activities like yoga and meditation, brought from their countries of origin.

Table 1: Neighbourhood Profile

Size	892 Ha
Land Use	Residential – 47% Institutional – 9%; 46 institutional properties Commercial and Industrial – 5%; 156 commercial properties Roads – 3 % Recreational Open Space – 14 % Humber River Valley - 22%
Population	54, 464
Diversity	63.6 % immigrants 89.4 % visible minorities (Most common are South Asian, Black, Arab), most common visible minorities are South Asian (37.6%), Black (25.4%), Arab (5.7%)
Housing	Total households -- 15,836 (51.8% own and 46.2% rent) Houses – 6,148 (33.8%), 22.6% are single-detached homes, 2.2% are semi-detached homes, and 14.0% are row houses Multi-Unit Residential Buildings (MURBs) – 36 Apartments – 9,687(61.2%), 7,305 (46.135) are high-rise buildings, 473 (46.13%) are low-rise buildings, and 1,909 (12.05%) are detached duplexes
Median Age	52 years

Table 1: Neighbourhood Profile

Average Household Income	\$79,968
Employment Rate	63% neighbourhood-wide, 57% for residents living in MURBs Top 3 occupations are Sales and Service, Trades and Transport, and Manufacturing and Utilities
Transportation (Travel to Work)	Public Transit – 30.3% Car – 57.3% Walking – 3.32% Bicycle – 0.52%

4.2 Parks and Nature

Rexdale is bounded in the south and east by various branches and tributaries to the Humber River. There are 13 parks and many open spaces around multi-unit residential buildings (MURBs) and institutional properties. While residents feel tremendously attracted to nature and outdoor activities, most of the parks are outdated and in need of community amenities that better respond to current demographics in the neighbourhood (i.e., South Asian background, large families (or multi-families) living in apartments with inadequate meeting spaces, etc.).

While the City's Parks, Forestry and Recreation's 10-year capital plan includes equitable state of good repair upgrades across the City, there has been very little additional investment through development charges or community benefit charges, as there has been minimal new development in the ward. Additionally, many of these parks are hard to access for those residents living in MURBs. For example, many of the MURBs properties adjacent to open spaces have been fenced. Open spaces around MURBs and institutional properties tend to be underutilized and mostly covered with grass. It should be noted, however, that several beautiful and well-maintained pollinator gardens as well as several community gardens have been implemented across the neighbourhood.

The Humber River trail system is equally difficult for the public to access from the Rexdale neighbourhood, with limited and poorly marked entrances. Residents also indicated that although many of the MURBs are adjacent to the valley, in most cases these spaces are fenced, feel unfriendly and unsightly, with garbage tangled amongst the dense vegetation.

A recent tree planting opportunity analysis developed by TRCA's GIS department showed that the neighbourhood has a tree canopy cover of 14%, which is lower than the city average (27%).

Rexdale's stormwater system drains to the Humber River. The Humber River Watershed Plan 2008 – Pathways to a Healthy Humber— identified the following key issues in the watershed from an aquatic ecosystem perspective:

- Generally poor-quality aquatic habitats in most urban areas.
- Sensitivity of many specialized aquatic species to impacts of urbanization.

- Sustained loss, and risk of further loss, of native aquatic species due to declining habitat and competition with invasive species.
- Fragmented stretches of riparian vegetation.
- Numerous in-stream barriers.

The stretch of the Humber River that crosses the neighbourhood provides habitat for sensitive target fish species. Some of the sensitive target fish species in the Lower Humber River include Rainbow Darter, Smallmouth Bass, Largemouth Bass (ponds), Northern Pike (marshes), while in the West Humber River, Redside Dace, Rainbow Darter and Smallmouth Bass are of key importance. Sections of the Humber River Valley within Rexdale also have localized erosion.



Left: Plowshare Park, Rexdale. Right: Residential towers seen from the Humber River in Rexdale

Due to location within the watershed, soil permeability, and the depth of the groundwater table, Rexdale is a key strategic area for stormwater management (for quality and quantity) within the Humber Watershed. Rexdale has opportunities to help combat the aforementioned factors through the implementation of Low Impact Development (LID) facilities to both retain and infiltrate stormwater on site.

The Rexdale neighbourhood was mostly developed during the 1960's and 1980's. It has a mix of 6,148 houses and 36 post-war MURBs. Out of the 15,836 households, 61% of those are apartment or condominium units. The neighbourhood has a higher rate of subsidized housing compared to the City of Toronto average.

The Humber River is the only Canadian Heritage River in the Greater Toronto Area (GTA), and one of only 40 such designated rivers across Canada.

The Humber River was officially designated in 1999, under the Canadian Heritage Rivers System (CHRS) for its significant cultural and recreational values, thanks to the collaborative efforts of TRCA, the Humber Heritage Community, and dedicated community members.

The Humber River has rich human history as a home for Indigenous peoples along its banks, as an ancient transportation route known as the Carrying Place Trail, and as a site for many of Toronto's post-European settlement homes and industries.

The Carrying Place Trail is one of the oldest established transportation routes in Canada and is the highlight of the Humber's CHRS designation.

4.3 Building Stock



Single Family Homes in Rexdale

4.3.1 MURBs

During the action planning engagement process, local agencies and residents emphasized the impact of the housing crisis, which has disproportionately affected vulnerable residents in Neighbourhood Improvement Areas like Rexdale. Many of the aging MURBs in the neighbourhood are in desperate need of repair, offering poor living conditions to residents. Issues highlighted by residents include extremely hot units with no air conditioning and poor ventilation, uncomfortable drafts during the winter months, and bed bugs.

City of Toronto staff also highlighted the energy resilience risks faced by aging residential towers in Rexdale. There have been incidents in Toronto in which entire buildings have had to be evacuated due to energy system failures, leaving vulnerable residents without housing for months. This situation could potentially happen in similar residential buildings in Rexdale if aging energy systems are not upgraded.

The MURBs in Rexdale are densely populated, often with multi-generational families or multiple families living in apartment units, leaving little remaining living space. During the engagement process, residents expressed that MURBs lack spaces for socializing and gathering as a community. This is a particularly critical issue in Rexdale, which hosts a demographic where big gatherings with family and friends are key cultural activities.

4.3.2 Single Family Homes

In Rexdale, 59% of homes were constructed prior to 1980, suggesting that many homes do not meet the more stringent energy requirements of current building codes. TRCA's staff observations during a home retrofit program delivered in Rexdale in 2016-2018 suggest that most of the houses in the neighbourhood have not had major renovations or redevelopment. However, TRCA found that there is a large group of do-it-yourselfers with construction skills that keep up with general maintenance and small repairs. There is still, however, substantial opportunities for greenhouse gas (GHG) reduction, flood risk prevention, tree planting, on site stormwater management, and other sustainability improvements. With many of the initial homeowners in the neighbourhood being from an Italian background, residents inherited a trend of investing time in caring for their front and backyards. Numerous homes have manicured landscaping, and many grow their own food through impressive gardens and fruit trees.

According to the City of Toronto, 57% of the city's GHG emissions are generated from buildings, of which 55% come directly from residential buildings. Environics reports that approximately 24% of households in the neighbourhood use natural gas to heat their home, which is the primary contributor of GHG emissions from this sector. Approximately 14% of households heat their home with electricity. Approximately 8% of homeowners in the neighbourhood have completed a home energy audit but only 2% have implemented recommendations received through the audit process.

From 2016-2018, TRCA piloted scaling of the Harvest the Rain Home Retrofit Program in the Rexdale neighbourhood. Harvest the Rain was a program originally initiated in the Black Creek SNAP.

The program offered free face-to-face home consultations and ongoing support, to help homeowners retrofit their homes and yards, through energy, water, stormwater management, flood prevention, urban agriculture, and eco-landscaping actions. The program also offered small incentives, and helped homeowners access existing government incentives and programs.

It was a highly successful pilot, with 56 participating homes, out of which 96% implemented at least one significant sustainability or resilience action, such as insulation, basement flooding prevention, tree planting, and rainwater harvesting.

During this period, TRCA also worked with the City of Toronto's Urban Harvest Program and the RCH to bring the Surplus Harvest Donation Program to Rexdale and three other neighbourhoods in the city. The program, initially created by TRCA in the Black Creek SNAP, collects surplus harvest from the neighbourhood houses and brings it to meal programs and food banks within the community, helping to address food insecurity, while reducing waste and GHG related to food transportation.

4.3.3 Institutions

Rexdale has 46 institutional properties, many of which are highly respected and valued by local residents. Of this total, there are 11 schools, 3 community centres, 14 faith-based institutions from diverse religions, as well as employment centres, emergency shelters, food banks, and health and social service agencies.

There is great collaboration happening among the existing local agencies and institutions in the neighbourhood. These organizations have many resident leaders supporting their work and are dedicated to improving the neighbourhood community. These collaborations have been bolstered through the creation of multi-agency cluster tables and COVID-19 working groups. As Rexdale was one of the neighbourhoods impacted most by the COVID-19 pandemic, community leaders joined forces with local agencies to overcome the crises.

The RCH is a much-loved community-based service agency that plays a foundational role in the neighbourhood. It brings diverse social service agencies together in one location, works closely with resident leaders, and holds deep community knowledge, with staff often being hired from within the neighbourhood. The various institutions in the neighbourhood, especially the RCH, played a fundamental role in the development of this Action Plan, generously sharing their knowledge, supporting community engagement, leading constructive discussions, and offering insightful solutions.

Some of the local institutions, like the RCH and Albion Library, have comfortable facilities and beautiful architecture. The Hub has incorporated art from local artists within its building. Although some of the institutions are ageing, they are generally well maintained.

The agencies' stakeholders expressed, however, the need for more government resources to support them. Residents highlighted the need for more community services and improvements to the education system in the neighbourhood.



Rexdale Community Hub (RCH) and Toronto Public Library (TPL) Albion Branch

The neighbourhood also hosts Humber College and the impressive Humber Arboretum, a 250-acre area of botanical gardens and natural areas, managed through a three-party agreement between Humber College, the City of Toronto, and TRCA. TRCA has and continues to invest significant resources in the restoration of the Humber Valley and erosion control in the Arboretum. Through public engagement, Humber College expressed an interest in improving connections with the local community, by bringing more residents to the Arboretum, offering education and skills training, and bringing services to the community through their students and faculties, such as health and wellbeing (i.e., through nutrition, naturopaths, massage therapists, etc.).

Humber College is also advancing interesting work with Indigenous leaders, including the current design of an Indigenous ceremonial space and outdoor classroom in the Arboretum, which is being supported by the City of Toronto and TRCA.

The Rexdale Community Hub (RCH) is a resource for Rexdale residents, offering programming, connecting individuals and families to various social services and resources, and promoting community engagement. As a central focal point within the neighbourhood, the RCH is integral to neighbourhood stewardship and connection. Its mission is to provide an accessible, welcoming space with collaborative and integrated services and programs to enrich every aspect of the community.

RCH's services include, but are not limited to, career planning and job search support, family resource programs, children and youth programming, housing support, legal services, and women's services. They also offer bookable multi-purpose community spaces for gathering, facilitate a collaborative food program offering weekly meals to children and youth, and run a STEM club.

4.3.4 The Commercial Sector

The neighbourhood has a number of commercial properties. The Albion Mall is a focal point for the Rexdale community, as it has culturally significant retail shops and is frequently visited by residents. The architecture of the mall is representative from the 1960s-1980s, with oversized parking lots, and limited greenery.

There is some interest from some local businesses to support the community. For example, one of the local supermarkets, which offers culturally significant food, has been a partner in helping to identify solutions to address food insecurity.



Strip Mall in Rexdale and The Albion Centre

4.4 Transportation

Rexdale is serviced by several bus routes along Hwy 27, Martin Grove Road, Kipling Avenue, Albion Road, Finch Avenue, and Steeles Avenue. During the engagement process, residents expressed that transit service is infrequent and inconvenient. In many cases, residents have noted that they need to take several buses to get to work. This may explain why – even though affordability is one of the main issues affecting the community – 57% of residents still commute to work by car. Only 30% use transit, and only 4% travel using active transportation.

According to the 2016 Transportation Tomorrow Survey conducted by the City of Toronto, approximately 18% of households in Ward 1 – where the Rexdale SNAP neighbourhood is located – do not own a car.

The second largest contributor of GHG emissions within the City of Toronto is the transportation sector, which accounts for 36%. Of that 36%, 73% is generated by passenger vehicles. There are two public electric vehicle (EV) charging stations within the Rexdale neighbourhood, both located at Humber College. There are currently no Bike Share Toronto stations accessible to the neighbourhood. Community members are excited about the opportunities that the Finch LRT will bring but also highlighted the importance of improving active transportation connections (and the biker/ pedestrian experience) to access the LRT.

There are three main multi-use trails that cross the neighbourhood from north to south: the West Humber Trail, the Humber River Recreational Trail, and the Kipling Avenue Bicycle Trail. During the engagement process residents expressed that many of the services and retail they use are within walking distance, and that there is the need to improve the pedestrian experience. This was of particular note along Kipling Avenue and its main intersections (i.e., Mount Olive Drive/ Panorama Court; Finch Avenue; John Garland Boulevard), where many of the bus stops are located. These intersections feel unsafe and congested, are noisy, have poor air quality, and lack greenery.

The City of Toronto's Transportation Services has capital projects planned in 2025-26 for Kipling Avenue (between Albion Rd. and Steeles Ave.) and John Garland Boulevard (between Martin Grove Rd. and Kipling Ave).

It also has capital projects planned for 2026 for a number of smaller streets south of Steeles Avenue (between Martin Grove Rd. and Kipling Ave.). These projects offer opportunities for synergies and can potentially be leveraged to achieve the neighbourhood's sustainability and resilience goals by adding green infrastructure, modern public amenities, active transportation, art and programming.

4.5 Waste Management

The waste sector contributes about 7% of GHG emissions in the city of Toronto; this includes both organic and inorganic waste. Further details about waste practices by City Ward, or postal code, were not available at the time of writing this report. The Conference Board of Canada (CBC) calculated national and provincial waste generation estimates from 2006 to 2012 which could be used as a surrogate for Rexdale. According to the CBC, in 2012, Canadians generated 720 kg of waste per capita, with Ontario residents generating slightly less than the national average at 673.4 kg/capita, or approximately four pounds of waste per day per person.¹ Environics data provides a range of statistics related to residential behaviours related to specific waste activities, including composting of kitchen and yard waste, as well as disposal behaviours for a wide range of hazardous waste materials (e.g., medical waste, paints/solvents, batteries, electronics, etc.).

With respect to composting habits, 64% of Rexdale residents compost kitchen waste and 24% compost yard waste. 91% of residents who have access to municipal composting programs regularly use them. For the hazardous waste materials tracked by Environics, the Rexdale neighbourhood performed below the city-wide average when it comes to using proper disposal methods for batteries, medication, and paints/solvents.

4.6 A Look Back at the History of Rexdale

As far back as time immemorial, the area along the Humber River, north of Lake Ontario, was an important travelling route to many Indigenous peoples and others. It was known as the Carrying Place Trail. This led to a variety of settlements on the banks of the Humber, and people lived and traded goods along the Carrying Place Trail until about 1790. This is when Yonge Street was built, connecting Lake Ontario to Lake Simcoe, thus providing a faster route for trade. The area we now know as Rexdale was established on the very lands that once were settlements supporting, and supported by, the Carrying Place Trail.

According to the Etobicoke Historical Society, 1799 saw the first land grants in the Rexdale area. Because Rexdale was so far from the main city, and had very little infrastructure, it was not a very sought-after area. Due to the lack of roads, it was primarily used for cultivation, which worked well as the soil was great for agriculture. Very little housing was established in Rexdale until post-WWII, when the demand for housing and jobs increased.

Rexdale proper was established in the early 1950's, after Rex Wesley Heslop, a local real estate developer purchased farmland in what is now the Rexdale area for \$110,000. He quickly began building roads, sewers, water mains, and houses. An astute businessman, he also took the opportunity to make an important deal with the Etobicoke City Council. He was granted permission to establish new industry in the area at a ratio of 35% industrial to 65% residential, in exchange for building houses for the neighbourhood. In 1952, Heslop sold the

first 40 homes in Rexdale to a group of employees from the AV Roe Aircraft Company in Malton. Within a year, the area's first school – Elmlea Public School—was established, followed by Rexdale Public School two years later. In 1956, one of the first four plazas in Toronto was built by Heslop and his team, and was home to Dominion and various other retail stores. This plaza stood in the Rexdale neighbourhood for close to 50 years, before being demolished and replaced with what is now the Rexdale Plaza Outdoor Mall. – This includes a large Walmart Supercentre, and will soon be neighbours with a new Costco.

Towards the late 1990s and into the early 2000s, the rapid growth seen by Rexdale over the first half of the century led to increasingly high crime rates, as compared with other areas of the GTA. For years, the area lacked funding and adequate services to accommodate the population. As a result, the area has been notorious for its history with gang activity, including turf wars, guns, and drugs. With this knowledge in the media spotlight, Rexdale has now evolved into a neighbourhood that is supported with ample community centres, services, and programs all working together to serve the needs of a growing and thriving multicultural community.

Today, Rexdale is home to almost 55,000 residents, comprised primarily of those from the Indian subcontinent and the Caribbean. Notable institutions and landmarks in Rexdale today include the North Campus of Humber College, the BAPS Shri Swaminarayan Mandir, as well as the Woodbine Racetrack, Mall, and Fantasy Fair.



Left: Rex Heslop (pictured on the left) next to one of his billboards advertising his houses for sale. Right: Rexdale Plaza as it looked in late 1950s – this was one of Toronto's first 4 plazas ever built, and stood for almost 50 years.

5.0 THE SNAP GOVERNANCE MODEL

The Rexdale SNAP was initiated and developed using a highly collaborative approach to foster co-design and co-ownership of the Action Plan among key stakeholders and the community. Driven by a cross-section of priorities, the SNAP governance model allows for the identification, exploration, and implementation of shared solutions.

The project was guided by a Project Management Team (PMT) comprised of staff from TRCA, City of Toronto (Environment and Energy, Toronto Water, Parks Forestry and Recreation, Transportation Services, Social Development, Finance and Administration, Toronto Public Health, Toronto Indigenous Affairs Office, and the Emergency Preparedness Office) and the Toronto Public Library (TPL).

The RCH and resident leaders also played an integral role in PMT, given their knowledge of local issues and close connections with Rexdale residents, local groups, and agencies. A Climate Resilience Working Group was also created to guide the development of the neighbourhood-based Climate Resilience Strategy, and to integrate it into the Sustainable Neighbourhood Action Plan. This group was led by TRCA and included members from the Resilience Office, Emergency Preparedness Office, Toronto Public Health, Social Development, Finance and Administration, and the RCH. Figure 2 illustrates the project management and governance structure.

Figure 2: Project Management and Governance Structure



6.0 THE ACTION PLAN CO-DEVELOPMENT PROCESS

The SNAP planning process brings together community members with technical staff for the co-creation of an Action Plan with shared outcomes, including measurable environmental improvements and climate adaptation strategies, as well as community health and well-being benefits. The three-phased approach has been well tested and proven through previous SNAP projects.

Phase 1

- Conduct technical analyses of the neighbourhood's baseline conditions.
- Study climate trends and associated local risks.

Phase 2

- Identify the community's motivational themes.
- Develop high-level Action Areas using guiding principles and a framework of sustainability objectives and indicators to measure success.
- Conduct a vulnerability assessment which includes local knowledge of climate risks, assets, and adaptive capacity gathered through the engagement process.

Phase 3

- Co-develop the final Action Plan.
- Under each Action Area, identify integrated projects and programs.
- Conduct an impact evaluation for climate adaptation measures.
- Identify partnerships and resources to facilitate implementation.

SNAP's process includes on the ground, quick-start projects, implemented while the Action Plan is developed. These projects build the community's excitement and are a great venue to gather input towards the Action Plan while starting to identify community champions for future implementation.

In the case of Rexdale, the SNAP planning process was coordinated with RCH's Northwest Toronto Neighbourhood Engagement Initiative (NTNEI), which looked at opportunities to improve indoor and outdoor community spaces in addition to a food mapping analysis. For this purpose, the engagement workshops were co-led by the RCH and TRCA, with engagement activities designed to achieve both groups' objectives. The recommendations from NTNEI were incorporated into this Action Plan and vice versa.

Figure 3: Action Plan Co-Development Process



Meaningful community and stakeholder engagement has been central to the action planning co-design process, and was intended to accomplish the following objectives:

- Understand local top of mind themes and motivating interests.
- Apply local knowledge on climate risks and assets/resources in the community.
- Identify shared plan objectives, projects, and recommendations.
- Invite involvement in early on-the-ground projects and build longer term relationships.
- Facilitate capacity building to help support the action plan implementation.

A selection of the engagement highlights is presented below. Workshop summaries and detailed engagement results are available under separate cover.

Key Engagement Highlights

Three multi-stakeholder workshops were designed and hosted by TRCA in collaboration with the RCH. The intent of these workshops was to bring the community, technical staff, and local agencies together to co-design a shared Sustainable Action Plan and Climate Resilience Strategy for the Rexdale neighbourhood.

The first workshop focused on exploring the past, present, and future of Rexdale, and identifying motivating themes and integrated project ideas. It also explored local knowledge on climate risks and assets in the community and identified potential adaptation directions. The second and third workshops were designed to confirm emerging directions, receive input, gain alignment, and identify next steps for a number of key initiatives.

Highlights of the social innovation engagement activities are below:

- **Hidden Gems of Rexdale:** designed to tap into residents' emotional connections to their community and get participants in a constructive, creative state of mind. Residents were asked to submit photographs of their favorite places and they were presented through a virtual tour with a discussion of why these spaces are special.
- **Tour Through Time:** designed to get residents to consider the past. A virtual tour of historically relevant features and events in the neighbourhood was presented.
- **Resilience Discussion:** designed to get participants to consider learnings from the COVID-19 pandemic, to prepare for future emergencies related to climate impacts. Assets and supports used during COVID-19, including people, places, and programs, were explored through scenarios such as flooding, power outages, heat waves, etc.
- **Imagining Streets and Community Spaces:** designed to get participants to think outside the box, they were asked to share their feelings and experiences in outstanding spaces that they really enjoyed (or saw in a video) anywhere in the world. These feelings were later grounded through specific recommendations for specific neighbourhood streets and community spaces.

- **Wishing Trees:** To continue with engagement during the COVID-19 lockdowns and in order to get input specifically from children (and other residents that did not have access to technology): “Wishing Trees” were installed at two local agencies that remained open, and one Elementary School. Residents and students were asked to write their dreams on cardboard ornaments and hang them on the trees. Over 600 pieces of feedback on priorities for their neighbourhood were shared.



Virtual co-design workshops brought together technical staff with the community.



“Wishing Trees” encouraged residents to hang their dreams for the neighbourhood.

In addition to social innovation engagement activities, 21 one-on-one meetings were held with local organizations and resident leaders during Phase 1, to start identifying neighbourhood priorities and to customize a public engagement strategy. A resilience survey was also completed by local agencies, to identify criteria and potential locations for resilience hubs.

Besides the engagement activities led by TRCA, the Action Plan and Resilience Strategy also considered community input gathered through NTNEI's engagement process, which included:

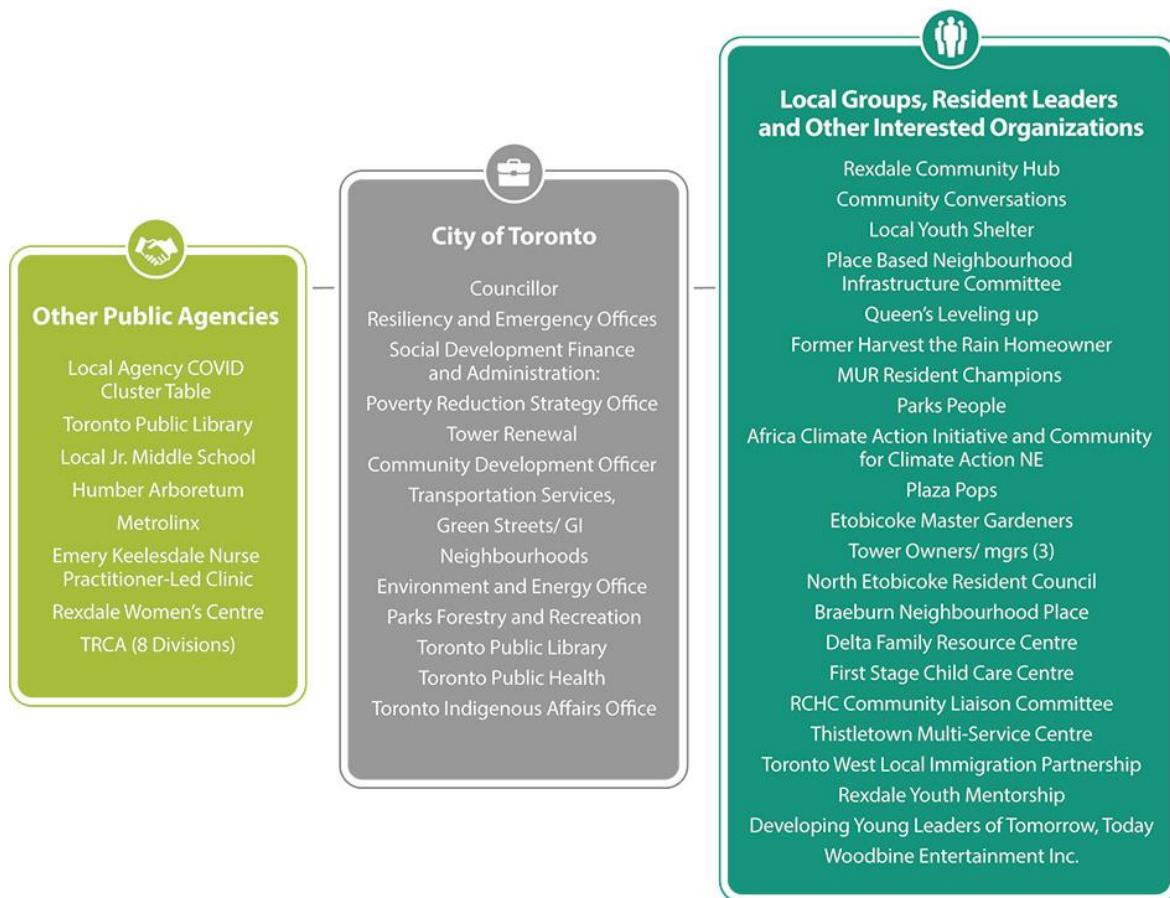
- **Community Design Event Series** (4 events, 50 participants total)
- **Place-Based Neighbourhood Infrastructure Committee** (8 meetings, 9 active residents)
- **Community Conversations** (11 meetings, 275 participants total)
- **Email Outreach** (over 350 residents)
- **Focus Groups** (4 meetings with 13 participants total)

Figure 4 provides a summary of all the engagement activities that contributed to this action plan, including those led by TRCA and those led by the RCH through the NTNEI.

Figure 4: Engagement Activities That Guided the Development of the Rexdale SNAP Action Plan



Rexdale is a complex neighbourhood, and many public agencies, non-governmental organizations (NGOs), and local groups are working to address priorities in this area. Figure 5 provides a list of the stakeholders that were engaged as part of the planning process.

Figure 5: Who Was Involved?

7.0 LOCAL SUSTAINABILITY THEMES

Through the technical analyses completed as part of the action planning process and based on robust staff and community engagement, six local sustainability themes that reflect the “flavour” of the Rexdale community and the vision of the Action Plan were identified (Figure 6). These themes are based on local sustainability priorities, community interests, and technical objectives. Each theme characterizes a specific environmental or social focus.

Within each theme, a set of guiding principles and domains have been identified (see Table 2). The principles provide the foundation and guidance for the design of integrated projects and programs. The domains are categories to track success. A series of key outcomes for each of the themes and domains has been identified in Section 11.0, Measuring Success, to measure impact over the life of the Action Plan.

The sustainability themes, principles and domains will inform the design of specific projects and programs that are carried out under this plan moving forward, with each project or program striving to integrate as many themes and guiding principles as possible.

Figure 6: Local Sustainability Themes



Strong Infrastructure and Community Service

The community feels that the infrastructure in the neighbourhood, including housing, is not as well maintained, safe, or beautiful as in other parts of Toronto. Residents want to improve user experience through partnerships with government and other sectors. Climate vulnerabilities from the built environment in this neighbourhood should also be promptly addressed.

Healthy Environment for Outdoor Enjoyment

The community loves to spend time in nature and is interested in improving access and offering nature-based education. Habitat and urban forest should be enhanced, and erosion in the Humber Valley must be addressed. On-site stormwater management, through LID measures, should be implemented across the neighbourhood. More programming should be delivered.

Skills and Capacity for Jobs, and Affordability

The community expressed its struggles with the cost of living in Toronto and is interested in approaches and supports to achieve cost savings and enhanced opportunities for income generation.

Community Connections, Empowerment, and Pride

The community strongly values unity and neighbourhood relationships, and therefore wants additional support to enhance and celebrate community cohesion.

Community Health and Well-Being

Mental and physical health, and food security, are very strong priorities for the community and should be addressed through all Action Areas in the Action Plan. The community has strong family values that should be supported and celebrated.

Spiritual Values

Rexdale is a spiritual community. Residents often mentioned how they translate their religious values into their day-to-day life. The community is especially interested in expanding its current mutual aid practices and facilitating mind-body activities for all ages.

Table 2 outlines the guiding principles that were co-developed with the community for each sustainability theme, and domains to measure the success in addressing it.

Table 2: Local Sustainability Themes, Guiding Principles and Domains

Local Sustainability Theme	Guiding Principles	Domains
Strong Infrastructure and Community Service	<ul style="list-style-type: none"> • Improve maintenance of public infrastructure such as parks and roads • Increase public amenities like benches, lighting, trails, planters, and playgrounds • Improve cleanliness, aesthetics, and pedestrian experiences • Improve housing conditions • Enrich government presence and foster partnerships between government and local groups • Adapt and prepare infrastructure and buildings for climate change impacts (see Appendix C) 	<ul style="list-style-type: none"> • GHG reduction • Water efficiency • Waste management • Infrastructure asset management • Partnerships
Healthy Environment for Outdoor Enjoyment	<ul style="list-style-type: none"> • Protect and enhance natural features • Develop opportunities for contact with nature, education, spirituality, and reflection • Integrate arts and foster cultural events in parks and open spaces • Support equitable access to parks and open spaces • Improve safety in ravines, parks and open spaces • Clean up and maintain ravines and valley lands • Develop opportunities to involve residents in the maintenance of green infrastructure • Manage stormwater sustainably 	<ul style="list-style-type: none"> • Urban forest and habitat • Stormwater management • Programming • education
Skills and Capacity for Jobs, and Affordability	<ul style="list-style-type: none"> • Develop solutions to address the high cost of living and improve affordability • Support the sharing and circular economies • Build community capacity through skills training and support sharing of skills among neighbours • Create income opportunities for residents • Develop skills, volunteering, and income opportunities for youth 	<ul style="list-style-type: none"> • Skills training and income opportunities • Cost savings • Good re-used and shared • Services shared
Community Connections, Empowerment and Pride	<ul style="list-style-type: none"> • Foster community unity and pride through public art, festivals, and cultural events • Support neighbour-to-neighbour connections and harmony in community life • Support local cultural of care towards fellow community members 	<ul style="list-style-type: none"> • Community cohesion • Sense of belonging • Pride
Community Health and Well-Being	<ul style="list-style-type: none"> • Support local family values • Develop programming to improve physical and mental health and well-being • Support local, healthy food, through urban agriculture and farmers markets • Improve overall community resiliency 	<ul style="list-style-type: none"> • Floor risk reduction and awareness • Heat stress • Healthy food availability • Active living
Spiritual Values	<ul style="list-style-type: none"> • Support local values of mutual aid, neighbour-to-neighbour support, and sharing • Support, through programming and urban design, spiritual mind-body activities such as yoga, meditation, and contemplative reflection 	<ul style="list-style-type: none"> • Mutual aid • Mind-body activities

Spotlight on the Climate Emergency and Need for Net Zero Emissions

Source: Transform TO Net Zero Strategy, Attachment C Technical Report

Climate change is the greatest long-term global challenge that human society is facing. It is particularly complex because it occurs over a long timescale, has variable impacts globally and spatially, and requires rapid and radical changes to our energy, society, and economic systems. Human-induced climate change poses risks to health, economic growth, public safety, infrastructure, livelihoods, and the world's biodiversity and ecosystems. As local and global GHG emissions increase, the Earth continues to warm at an unprecedented rate. In December 2015, the Paris Agreement was adopted at the COP21 by 197 countries. This legally binding international treaty on climate change set a goal to limit global warming to well below a 2°C, and preferably to a 1.5°C increase, above pre-industrial levels (page 23).

In October 2019 the City of Toronto declared a Climate Emergency "for the purpose of naming, framing, and deepening our commitment to protecting our economy, our ecosystems, and our community from climate change." The Climate Emergency Declaration endorsed a new target to achieve net zero GHG emissions before 2050, in efforts to align with limiting global average temperature rise to 1.5°C (page 10). By declaring a climate emergency, governments at all levels are signaling that the situation is dire and urgent (page 28).

Net zero carbon emissions are reached when GHG emissions released into the atmosphere are reduced nearly to zero, with any remaining emissions being removed from the atmosphere. Steps necessary to reach net zero will include measures to decrease energy consumption, changes to the makeup of supply to renewable resources, increase production of renewable energy, and offset any remaining emissions with sequestration or renewable exports (page 25).

By 2050, cities are expected to comprise two-thirds of the global population. The way land-use, urban expansion, construction, buildings, and infrastructure are designed and built will be key determinants for reaching net zero and adapting to climate change. According to the International Panel on Climate Change (IPCC), global GHG emissions from buildings will need to be 80 to 90% lower, energy use for transportation will need to be reduced by about 30%, and renewables will need to supply 70% to 85% of electricity. In addition, improvement of green urban infrastructure, the use of nature-based solutions, and effective land-use planning regulations and policies will be required. Cities will be key implementers of climate action strategies (page 30).

The Rexdale SNAP Action Plan supports direction set out by municipal strategies regarding reduced GHG emissions and climate resilient, low-carbon solutions through integrated projects on public and private lands.

The Action Plan recommendations will focus on mitigation and adaptation initiatives to help address the impacts of climate change on the neighbourhood, its buildings and infrastructure, as well as its natural systems.

8.0 THE REXDALE SNAP ACTION PLAN

The Rexdale SNAP is a comprehensive action plan for neighbourhood revitalization that integrates local community interests and sustainability objectives, under the overarching theme of a **Thriving Community Growing in Harmony with Nature and Neighbours**.

As illustrated in Figure 7, the Action Plan is organized around four key Action Areas. For each, a number of emerging signature projects and opportunities have been identified, based on technical priorities, community and stakeholder needs and dreams, and timing associated with previously planned capital projects or initiatives. These initiatives will be multi-objective and integrated and will aim to achieve the six local sustainability themes and guiding principles listed in Section 7.0.

This report represents a high-level summary of the recommended initiatives, and outlines the context, locally inspired objectives, and recommended actions identified during the action planning process. The proposed projects will be scoped at a more detailed implementation planning level and will involve further engagement with the community and local implementation groups. A summary of all Action Plan recommendations is included in **Appendix B**.

Figure 7: The Rexdale SNAP Action Plan



8.1 Action Area One – Open Space Revitalization and Green Infrastructure

Protecting and enhancing natural features and greenspaces to keep them clean, safe, and beautiful.

What We Learned

The Rexdale community immensely values spending time outdoors and connecting with nature and takes great pride in living in a neighbourhood situated within the Humber River system. As a spiritual community, residents enjoy contemplative and mind body activities in these areas (i.e., meditation, mindfulness, and yoga) as well as walking, biking, and other active pursuits. Apartment dwellers have limited spaces within their homes, and therefore rely on open spaces as important places to socialize and connect with neighbours and friends.

With little new development in the last few decades in Etobicoke North, limited community benefit charges (CBC) have been available for investment in the parks and open space system within the neighbourhood. This system is out of date and needs to be upgraded and revitalized to address demographic needs, improve user experience, and ensure equitable access. Priorities identified by the community include increased and improved public amenities such as meeting spaces, and more opportunities for diverse active and passive activities for all ages. The parks and open space system also offers a great opportunity to support access to fresh food, through both urban agriculture and outdoor fresh food markets.

The parks and open space system in the neighbourhood is an important asset to enhance the neighbourhood's habitat, achieve urban forestry goals, and address heat stress. Soil permeability and depth of the ground water table in the neighbourhood make most of these spaces ideal locations to explore LID potential for stormwater management, which will contribute to achieving water quality and quantity objectives in the watershed. There is great interest from the community in job skills training, especially for youth, and income opportunities related to maintaining green infrastructure systems could be worth exploring. Some examples of how this could be achieved include GreenForce TO, TRCA's Conservation Youth Corps, or the Horticulture Skills Training Programs offered in the Black Creek SNAP neighbourhood.



Left: Example of Natural Playground - Terranova Adventure Play Environment in British Columbia.

Right: Example of outdoor seating – Gasholder Park, London, United Kingdom.

TRCA has identified priority ecological restoration opportunities within the Humber Valley system, which are, and will continue to be addressed over the next few years. There is significant local interest in increasing the opportunities to enjoy nature in the Humber Valley system more broadly and implementing educational programming. To ensure public enjoyment, access to the Humber Valley system must be enhanced. Access points are scarce and hard to locate. Particular attention needs to be provided to improving access to tower residents. Residents also mentioned their disappointment in seeing so much garbage tangled in the vegetation and uncontrolled invasive plant species along the ravine.

As a designated Canadian Heritage River, the Humber River's history should continue to be celebrated, including the involvement of Indigenous groups in the development of designs and the delivery of programs.



Heart Lake Medicine Garden, Brampton, Ontario

Emerging Signature Projects

While most open spaces in the community have room for improvement, the community expressed special interest in the following projects:

- Revitalization of Masseygrove Park, Highfield Park and Rowntree Mills Park (Rowntree Mills Park was used as a case study during the engagement process to develop recommendations for park revitalization).
- Indigenous Ceremonial Space and Outdoor Classroom at the Humber Arboretum.
- Indoor and outdoor urban agriculture throughout the neighbourhood and development of a food hub and or affordable supermarkets.

8.1.1 Recommendations for Action Area One – Open Space Revitalization and Green Infrastructure

- Develop and implement **master plans for the revitalization** of Masseygrove Park, Highfield Park and Rowntree Mills Park, applying the principles listed in Section 7.0, to respond to residents' priorities, and modernize amenities and animate smaller parks and open spaces across the neighbourhood.
- Develop and implement a **neighbourhood-wide urban agriculture strategy** that provides recommendations to expand local food production and retain rainwater, while building skills and creating community.
- Develop and implement a **green infrastructure plan** across public and privately owned open spaces and front/backyards, that includes habitat, biodiversity, and urban forest enhancements as well as LID facilities for stormwater management. Prioritize the Terrestrial Natural Heritage System (potential plateable areas and contributing areas) as well as erosion, ecological restoration and LID priority areas (see Figure 8). Apply equity tree planting and heat stress considerations in decision-making and consider family friendliness and educational opportunities in the design.
- **Prepare parks and open spaces for the impacts of climate change** and install features and amenities such as splash pads, drinking water fountains and shade structures to help residents cool off during extreme heat events (see **Appendix C** for specific adaptation strategies).
- Develop a **formal skills training program on green infrastructure implementation and maintenance**, prioritizing youth. The program should offer income opportunities while participants learn and have a goal of employing residents in the future.
- Continue to implement **ecological restoration activities** and **erosion management within the Humber Valley system** and along the hydro corridor, getting the community involved, when possible.
- Improve **access, trails, and wayfinding for public enjoyment of the Humber Valley** and create opportunities to connect and learn from nature, including nature walks and clean-ups. Support and grow existing walking groups.

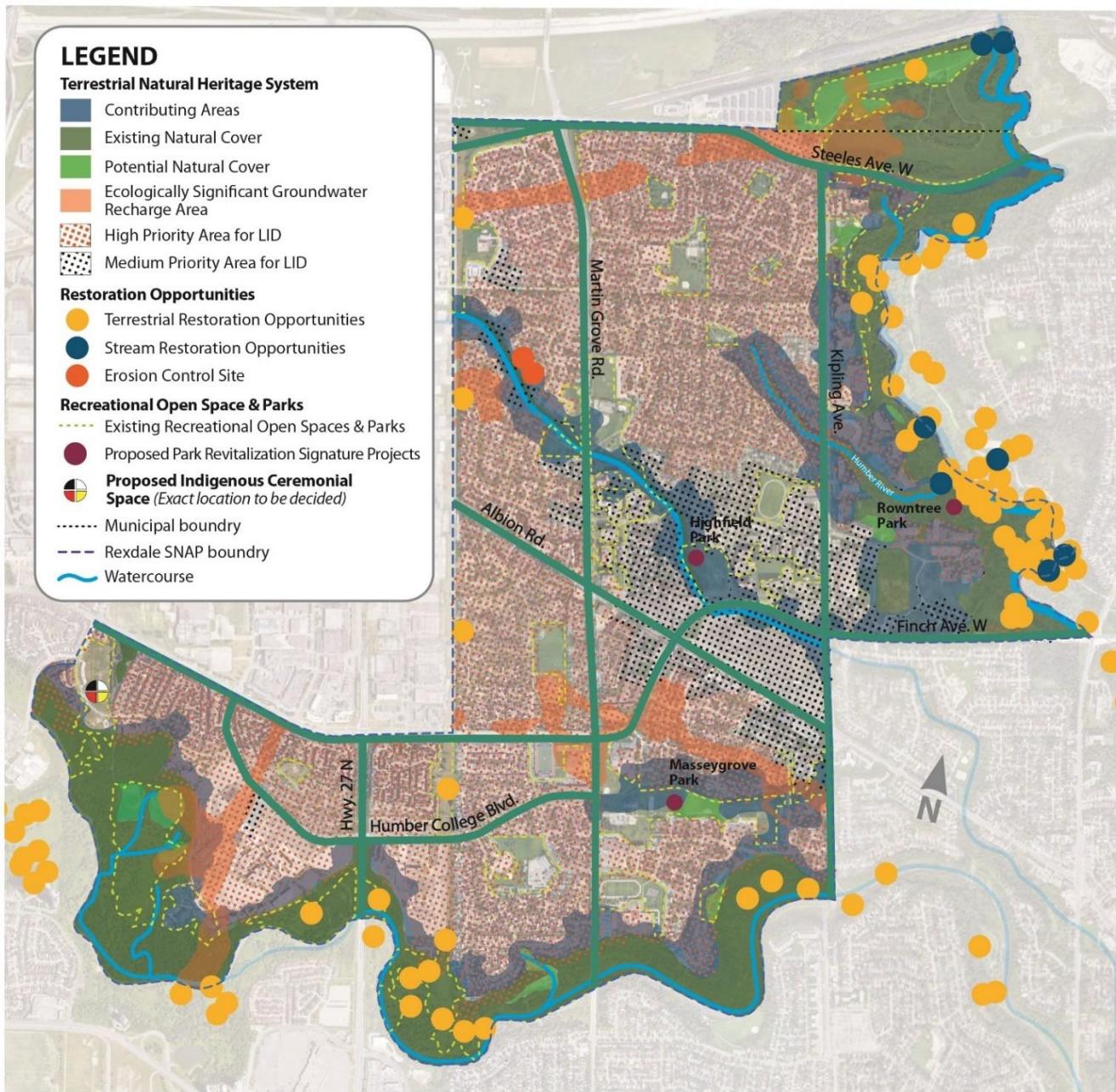
- Work with private property owners to **develop Privately Owned Open Spaces (POPs)** and connect these spaces through design to the city's parks and ravines system (see specific opportunities in section 8.3.1)
- Develop **educational opportunities, and collaborations with Indigenous groups**, for the Rexdale Community to learn about **the Humber River's natural and historical heritage**.
- Continue to work with Humber College and the City of Toronto to **improve access and educational opportunities for the local community and Indigenous groups at the Humber Arboretum**. Continue to support the development of the **Indigenous Ceremonial Space and Outdoor Classroom** which is currently in the planning phase.

Supporting COVID-19 Recovery Through a Greener, Healthier Neighbourhood

The global COVID-19 pandemic has had far reaching impacts. The need to physically distance and isolate at times underscores the value of local green space in helping to provide physical and mental relief and the importance of neighbourhood connections. The SNAP Action Plan supports neighbourhood health and resilience, and together with City of Toronto, and local partners, TRCA seeks to support COVID-19 recovery through:

- Supporting physical and mental health through increased opportunity for active lifestyles.
- Increasing local high-quality greenspace and opportunities to connect with nature.
- Providing alternative outdoor transportation options through a safe and active transportation network.
- Increasing opportunities for improved neighbourhood connections and relationships, check-ins, extra help.
- Increasing opportunities to grow food.

Figure 8: Open Space Revitalization, Restoration and Green Infrastructure Priorities



Disclaimer: The data used to create this map was compiled from a variety of sources and dates. Toronto and Region Conservation Authority (TRCA) takes no responsibility for errors or omissions in the data and retains the rights to make changes and corrections at anytime without notice. For further information about the data on this map, please contact TRCA's Restoration and Infrastructure Division at (416) 661-6600. This map may not be reproduced without permission. This is not a plan of survey. Produced by TRCA under license with the Ministry of Natural Resources and Forestry.

8.2 Action Area Two – Boosting Rexdale’s Sharing and Circular Economies

Sharing and reusing resources for affordability, income, and sustainability, and to strengthen the community fabric towards mutual aid.

What We Learned

The Action Plan leverages the culture of sharing that already occurs in the community. During public engagement process, Rexdale residents told us that they commonly share services and resources, like food, translation services or car sharing to go to the supermarket. Without the use of formal platforms or programs, neighbourhoods share in an organic way, mostly for mutual aid, and feel proud about it. When this theme was explored further with the community, residents expressed their desire to both grow and formalize their sharing practices and circularity to enjoy further economic benefits and a stronger community fabric.

Examples of existing circular and sharing economy programs presented to the community by the SNAP team were received with great interest. Residents and other local stakeholders also contributed with creative ideas for new “Rexdale-made” sharing and circular economy initiatives that could help address their specific needs, utilizing the local assets in their community. Residents enthusiastically supported the goal of making Rexdale the first Sharing & Circular Economy Neighbourhood in Canada.

Improving access to food and healthy living through a sharing economy came up as a very strong theme for both residents and stakeholders. Ideas offered by the community ranged from space sharing for the implementation of food hubs (with urban agriculture, kitchens, and food banks or affordable supermarkets), to sharing cooking services (or food prepared at home) for those in need, to getting local restaurants to donate or sell discounted food that would otherwise go to waste. Many residents offered to share their services and knowledge on yoga, meditation, and other mind-body activities, which are broadly practiced in the community.



Right: Repair Café and Tool Library in the Black Creek SNAP, Toronto.

Left: Little sharing library in Bedford Park, Toronto

Another important theme was space sharing for community building and resource sharing. Meeting spaces in the community are limited, and many residents don't have sufficient space within their own homes to meet neighbours, friends, and family. Ideas that were proposed included adapting and sharing community spaces within the MURBs to allow residents (including those not living in the buildings) to use the space to meet and to exchange or circulate used items like household items, books, and clothing. Another idea was for local institutions and businesses to share space for community building activities/ events and resource sharing.

Other themes that are of interest to the community include:

- Technology circularity or sharing, including making Wi-Fi more accessible in the community, and lending computers and tablets.
- Transportation sharing, including car/ride sharing and bike sharing.
- Sharing and selling/buying used household items like tools, appliances, and books.
- Sharing of services and knowledge, including translation services, gardening, and trades.
- Expanding mutual aid support for those in need.
- Improving sharing of information in the community, through social media, but also using other creative tools for those without access to technology.
- Sharing expensive, seasonal items that typically take a lot of space to store, such as snowblowers, barbeques, recreational equipment.

A neighbourhood-based model to advance a sharing and circular economy will help the City of Toronto achieve its waste reduction and GHG goals in addition to supporting socio-economic development in NIAs.

Sharing in the Global Context

The “Sharing Economy” is an economic model based on sharing, swapping, or renting products and services in a way that enables access over ownership. It is growing exponentially world-wide, offering great opportunities to achieve environmental goals, like reduction in exploitation of natural resources, as well as waste and GHG reduction. It also holds great promise as a generator of economic opportunity and more democratic and affordable access to goods and services for the people that need them the most.

Governments around the world are investing significant resources to promote the Sharing Economy.

However, despite its potential, there has been limited participation by low-income and marginalized communities. Barriers include access to technology, lack of knowledge of existing services, lack of transportation to share or access goods, and discrimination. Trust is a critical element in the functioning of the Sharing Economy, and marginalized or low-income communities are often discriminated and “left out” in sharing transactions due to prejudice.

Achieving meaningful participation by underrepresented groups requires strategies that purposely mitigate these barriers. A neighbourhood-based Sharing & Circular Economy Strategy customized to the needs and assets in the Rexdale community will achieve this goal and will offer lessons to other low income communities.

Source: An Inclusive Sharing Economy: Unlocking Business Opportunities to Support Low-Income and Underserved Communities, Paper published in 2016

8.2.1 Recommendations for Action Area Two – Boosting Rexdale’s Sharing and Circular Economies

- **Develop a neighbourhood-based strategy with a goal of making Rexdale Canada’s first Sharing and Circular Economy Neighbourhood.** The strategy will address residents’ priorities and needs (for affordability & income, skills training, health, and improved community fabric), while helping to achieve the City of Toronto’s ambitious targets for waste and GHG reduction:
 - Identify existing platforms and programs that could be brought to Rexdale.
 - For new “made in Rexdale programs”, identify local assets and resources that would facilitate implementation.
 - Develop a road map for strategy implementation.
- **Facilitate the implementation of Sharing and Circular Economy Initiatives, prioritizing:**
 - Food access and healthy living.
 - Resource sharing (for affordability, income, by renting assets, waste and GHG reduction).
 - Space sharing (e.g., for community connections, work from home, sharing of food and items, etc.).
 - Sharing initiatives for mutual aid and to improve the community fabric.

- Explore opportunities for the Rexdale community to benefit from TRCA's Partners in Project Green (PPG) Material Exchange Program



Through TRCA's Partners in Project Green (PPG) Material Exchange Program, the Rexdale Women's Centre and the S.H.I.F.T Adult Shelter received 22 bunk beds to accommodate overnight service. The Rexdale Women's Centre, the Rexdale Community Health Centre and other organizations serving people in need also received 40 pallets of PPE. Without a circular economy program, these products would have ended up in landfill.

8.3 Action Area Three – Retrofits for Sustainable Housing

Maximizing quality of life through functional, affordable, low carbon and resilient housing.

What We Learned

Access to housing and housing affordability are major concerns in the Rexdale community. As well, quality of housing came up as an important issue through public engagement. The neighbourhood has seen very little redevelopment, and many of the 6,148 houses and 36 MURBs, mostly built in the 1960's, are aging and in need of repairs.

Revitalization of these buildings, with a combination of building retrofits, outdoor improvements, and programming, offers a great opportunity to significantly improve the quality of life of residents living in them, but also to achieve ambitious environmental targets, prepare for climate impacts, and develop skills and green jobs in the local community.

The residential sector in Rexdale can play an important role in reducing GHG and supporting the City's climate goals. In December of 2021, Council adopted the TransformTO Net Zero Strategy with the aim of creating a future Toronto that is zero-carbon, equitable, healthy, prosperous and resilient. City Council set a target of net zero GHG emissions community-wide by 2040 and ambitious interim targets for 2030. TransformTO specifically identifies the following short-term milestones for buildings by 2030, which will support the achievement of 2040 Net Zero Goals, and which are applicable to the Rexdale neighbourhood:

- 100 per cent of new buildings are designed and built (or redeveloped) to be near zero GHG emissions.
- GHG emissions from existing buildings will be cut in half, from 2008 levels.
- At least 50 per cent of energy used comes from renewable or low-carbon sources.

The Rexdale SNAP Action Plan supports this direction through initiatives geared to MURBs and single-family homes in the neighbourhood. It also provides recommendations to explore community energy solutions that consider all buildings and land uses as a connected system.

The front and backyards of houses, and open spaces around MURBs, are an important asset to achieving sustainable stormwater management and other watershed health-related goals. As Rexdale is a high priority area for LID for stormwater management, there are opportunities for the implementation of green infrastructure – such as rain gardens – to retain and manage rainwater on site.

Through the Harvest the Rain Residential Retrofit Program piloted in Rexdale in 2016-2018, homeowners showed great willingness to install rain barrels to support their vegetable gardens. Rainwater harvesting could also be implemented in multi-unit residential towers to support urban agriculture initiatives.

Through the engagement process, residents expressed a desire for more pollinator gardens in the neighbourhood as well as flowers and greenery. Eco-landscaping would support Humber Watershed habitat objectives. A tree planting opportunity analysis undertaken by TRCA showed that there is space available to plant 3,345 trees in single family homes and 847 around multi-unit residential buildings, plus 2,292 along right of ways in residential areas.

Key actions will need to be implemented in the residential sector to improve its resilience to climate impacts, including flood risk reduction, access to fresh food, and measures to address both heat stress and power outages. Residential programs should also aim at strengthening emergency preparedness.

8.3.1 Areas of Opportunity for the Revitalization of MURBS (Public and Privately-Owned)

The Action Plan provides direction for the holistic revitalization of privately owned MURBs, and publicly owned Toronto Community Housing Corporation (TCHC) buildings. Key areas of opportunity were identified by technical staff, local agencies, and the community, which will help to achieve the neighbourhood's environmental and socio-economic goals.

These key areas include:

Improvements to general building maintenance: Key elements that need to be addressed include temperature issues (too hot in the summer and drafty during the winter), malfunctioning elevators, cleanliness, aesthetics, and pests. With Rexdale being a neighbourhood vulnerable to heat stress, it is imperative that the buildings are prepared for heat waves with adequate air conditioning and ventilation, as well as cooling community areas.

Improvement in relationships between property managers and tenants: Improved communication, capacity building, and programming can help to improve ongoing tensions between property managers and tenants. While property managers feel overwhelmed by the many issues to be resolved and constant complaints, tenants feel that they are not being listened to, and are not getting an appropriate level of housing quality. Improved relationships and collaboration could go a long way in improving living conditions.

Energy retrofits: MURBs in Rexdale have enormous potential to reduce GHG emissions, through energy conservation and efficiency retrofits, changes in operations of HVAC systems, electrification, and the implementation of renewable sources of energy. In addition, it is imperative that energy resilience is addressed through energy retrofits such as combined heat and power and backup power to prevent potentially serious power outages.

Waste, water, and energy behaviour change: Programming and education for tenants and property managers could support waste management and energy and water conservation. Initiatives such as the Green Champions program, piloted by City of Toronto's Tower Renewal Office, could be scaled to more buildings. This initiative, which trains and hires resident champions to educate their neighbours, has been successful not only in changing behaviours related to water, waste, and energy, but also in building community connections and ownership, and improving relationships with property managers, while offering income opportunities for residents.

Improving access to food and healthy living: While food security is a complex issue which will require significant policy changes to be resolved, MURBs can play a role in helping to improve access to food. Key actions include the implementation of urban agriculture initiatives and food hubs within MURBs (for food production, preparation, distribution, and donation to food banks). Continued partnerships such as the Urban Harvest Rexdale initiative – which facilitates backyard surplus harvest donation to MURBs –should continue. Programming for active living, improved nutrition, and food production and preparation should be offered on site.

Meeting spaces and climate resilience hubs: One of the main issues that came up during the public engagement process was the lack of spaces for residents to meet with friends and neighbours. MURBs offer an opportunity to generate fantastic indoor and outdoor community spaces. These spaces would not only play a fundamental role in mental health and community building but could also be designed as climate resilience hubs (i.e., as cooling centres to respond to heat waves, communication/ meeting hubs during power outages and storms, etc.). These spaces could also be used to facilitate sharing and circular economies, enabling residents to share household items, toys, and small appliances.

Outdoor improvements: Many of the buildings in Rexdale have underutilized open spaces that, if revitalized, could have a significant impact on both the environment and community life. Tenants support the idea of more trees, pollinator gardens, and greenery that have an aesthetic role element. Outdoor spaces, with the appropriate community amenities, will play an important role in facilitating active living, contact with nature, education, and the development of community connections. Additionally, actions should be implemented to improve the connection between MURBs and their residents, and adjacent ravines. These include improving physical access through gates and trail entrances, nature-based programming, and the removal of invasive species and garbage to improve the visitor experience. Finally, outdoor areas can be retrofitted with shade and water fountains to help residents keep cool during extreme heat events.

Skills training and income opportunities: To support resident priorities, any initiative offered at the MURBs should aim at including skills training and income opportunities for residents. For example, for outdoor revitalization, residents could be trained in horticulture or urban agriculture, and could be hired to help maintain the outdoor areas. For energy retrofits, partnerships could be developed with groups such as Buildingup & Toronto Community Benefits Network's NexGen Builders Mentoring Program, to recruit, train, and hire marginalized or underrepresented youth.

Sustainable and active transportation: To support sustainable and active transportation, buildings should offer infrastructure to park and store bicycles and to connect to trails and sidewalks. Car and/or bike sharing options as well as EV charging stations should also be explored.

Increased access to quality affordable housing: While improving access to quality affordable housing is beyond the scope of this Action Plan, it should be highlighted that it was one of the strongest themes that came out of the engagement process. It is imperative that various levels of government continue working together to develop policy that addresses the housing crisis.

Multi-sector collaboration and partnerships will be required to achieve the holistic revitalization of MURBs, as described above. Funding will not only need to come from diverse sources, but also various experts and key organizations will need to work together. A backbone organization will be required to coordinate the various partners. The San Romanoway Towers Revival Project, led by TRCA through SNAP, is a great example of innovative funding and multi-sector collaboration. The privately-owned tower complex was revitalized using funding from private foundations. For its implementation, TRCA, as the backbone organization, partnered with the City of Toronto, the property owners, and various environmental, food and social-based NGOs and businesses to make the project happen.

More recently, the Rexdale SNAP's Growing Healthy Towers initiative brought together stakeholders from the public, private, not for profit, and academic sectors to develop solutions to address social determinants of health for residents living in multi-unit residential towers, through multi-sectoral partnerships.



Left: San Romanoway Revival Project in the Black Creek SNAP, included building retrofits, outdoor revitalization and skills training and programming for residents, achieving significant environmental and socio-economic objectives. Right: San Romanoway Revival Project

8.3.2 Areas of Opportunity to Advance Home Retrofits

Efforts to address GHG emissions from the single-family residential sector are critical given that 31% of the City's GHG emissions from buildings are generated by the 422,000 single family homes across Toronto. To achieve the City's Net Zero Goals by 2040, approximately 385 houses will need to be fully retrofitted in the Rexdale neighbourhood per year.

Despite Toronto's aggressive targets and financing supports to achieve net zero, basement flooding prevention, urban forest cover, and watershed objectives, the existing government incentives and supports will not be enough to achieve these goals. Further work is needed to address homeowners' barriers to implement required actions.

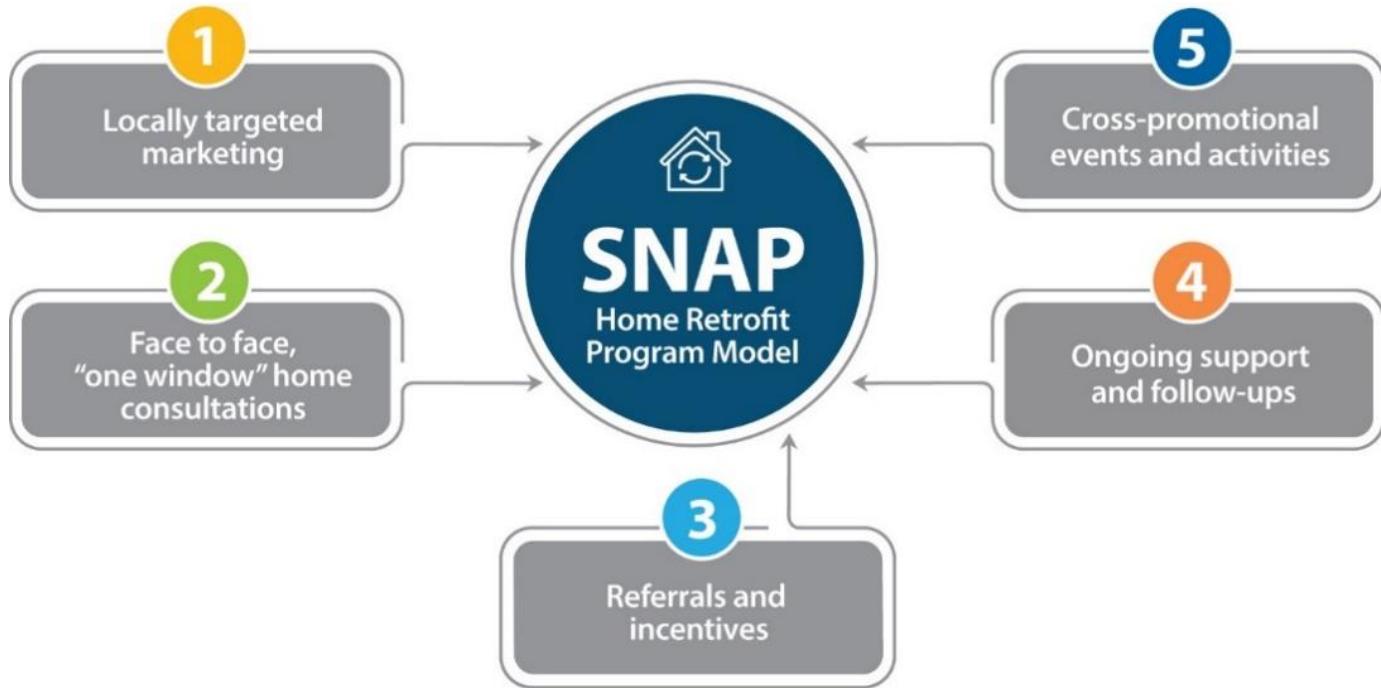
The Harvest the Rain Residential Retrofit Program Pilot, implemented in 2016-2018 in Rexdale, proved to be an effective approach to achieve sustainable and climate resilience action in Rexdale's single family homes. An internal program evaluation undertaken by TRCA showed that the program was significantly more cost-effective than other similar programs in North America.

The program was successful in:

- Increasing home actions towards energy conservation and efficiency, flood risk prevention, urban forest enhancement, stormwater management, water conservation, waste reduction, and food security.
- Increasing uptake of government incentive programs (compared to other similar neighbourhoods).
- Achieving other socio-economic benefits, such as community connections, education, volunteerism, and financial co-benefits.

In addition, 90% of participating homeowners said they were “very satisfied” with the program. While the Rexdale Action Plan recommends continued application of similar elements of SNAP’s Home Retrofit Program Model used in Harvest the Rain (see Figure 9), additional resources will have to be invested to achieve the neighbourhood’s ambitious targets. These targets respond to recent City of Toronto (TransformTO) strategies, and the Humber Watershed Plan.

Figure 9: SNAP Home Retrofit Program Model





SNAP's home retrofit programs across 10 neighbourhoods in TRCA's jurisdiction have helped homeowners implement a diverse actions to address stormwater management, basement flood prevention, energy, urban forest enhancement, urban agriculture and habitat. (Left) Low Impact Development for Stormwater Management, as part of the Lake Wilcox SNAP Home Retrofit Program. (Right) A Do it Yourself energy party hosted in the County Court SNAP.

In order to achieve these deeper retrofits, the following barriers will need to be addressed:

Financial Obstacles – Deep retrofits represent a significant investment, especially for seniors with fixed income and lower income homeowners. Existing financing programs and incentives from the government and utilities are not sufficient to make the business case to most homeowners in Rexdale. With the cost of living in Toronto, in relation to basic salaries, Rexdale residents do not have sufficient disposable income to invest in their homes to respond to environmental considerations.

Many homeowners in Rexdale's demographic also have difficulty getting required approvals from the banks to access loans through the Toronto's Home Energy Loan Program (HELP) program.

Homeowners in Rexdale are less likely to participate in low-income incentive programs due to lack of knowledge about, or trust in, the programs. In addition, the prevalence of multi-generational families is a barrier to participation, as having multiple breadwinners disqualifies households. Better financial incentives that make the business case to homeowners will be needed in Rexdale in order to achieve the desired neighbourhood and City goals.

Process Complexity – The process of undertaking a home retrofit to 1) significantly reduce GHGs, 2) implement eco-landscaping, and 3) floodproof and manage stormwater sustainably, is extremely complicated. While the Harvest the Rain Program was able to offer homeowners support throughout the decision-making phase, implementation of simple retrofits, and to access government incentives, significantly more support is required to achieve deeper, more ambitious retrofits like those listed above. Additional supports required by Rexdale homeowners include:

- More expert knowledge and support in deciding details of desired deep retrofit (e.g., what type of air source heat pump or backwater valve, size of a raingarden, etc.)
- Selection and management of contractors throughout the process
- Prioritization and coordination of various retrofit needs

The ideal approach would be similar to Ontario's Energy Affordability Program (Save on Energy) or Enbridge's Winterproofing program for low-income residents but with a reasonable cost to the homeowner with a short payback period. Homeowners would sign up with a trusted agency to get everything done for them and pay a fee with the energy or tax bill, equal, or below the energy savings.

Lack of Capacity in the Industry – A third challenge for implementing deep home retrofits identified by homeowners in Rexdale and other neighbourhoods across Toronto and Canada, is lack of capacity of contractors. Very few contractors have the knowledge to offer holistic advice for sustainable home energy management. For example, furnace or air conditioner installers don't necessarily know about air source heat pumps or renewable options or maybe more comfortable selling business as usual products. In terms of other actions, like the implementation of LID solutions for stormwater management or the development of habitat, there are very few knowledgeable landscape contractors, and the supply of native beneficial plants is very limited in local, easily accessible nurseries. Also, landscaping contractors prefer to push hardscaping retrofits, as opposed to plantings or softscaping, as these generate less profit.

Do-It-Yourself (DIY) Opportunities – The Rexdale community is comprised of many homeowners that are DIYers. They enjoy implementing retrofits by themselves and do it for affordability reasons. In 2016-2018, DIY parties were successfully hosted by TRCA in the community, where a contractor came to a neighbourhood home to teach the homeowners how to implement weather stripping and other energy saving measures. The Action Plan recommends that an upgraded home retrofit program design considers support for DIYers, designed specifically for the Rexdale's demographic and building stock needs. DIY support should not only be for energy actions but should also include other simple actions to achieve the neighbourhood's sustainability goals.

Accelerating Program Uptake – While the Harvest the Rain Program was very well received in the Rexdale community (93% were very satisfied with the program), and program uptake was excellent compared to similar programs, significantly more staff and marketing resources will need to be invested to achieve the 2040 Net Zero goals established by the City of Toronto. The program was only offered on a seasonal basis by part-time staff and was cross promoted through other neighbourhood events and programs, with minimum marketing and communication materials.

Skills and Jobs for Underrepresented Groups – To respond to overall neighbourhood priorities highlighted during the Action Plan public engagement process, a new generation of the Harvest the Rain Program should include a component of skills training and jobs for underrepresented groups, ideally from within the neighbourhood.

An Upgraded Harvest the Rain Residential Retrofit Program

Most of the actions implemented through the Harvest the Rain Program were simple actions such as insulation, weather proofing and window replacement, installation of rain barrels, grading, and crack sealing to reduce flooding, planting of fruit and shade trees, and surplus harvest donation. To address Toronto's aggressive climate and urban forest targets and the Humber River Watershed goals, deeper retrofits will need to be implemented in neighbourhood homes. Some of the more ambitious actions that should be implemented at scale (in addition to the simpler ones) include:

- Air-source heat pumps
- Renewable energy
- EV chargers
- LIDs such as rain gardens and pollinator gardens
- Backwater valves
- Circular and sharing economy programs
- Power back-up solutions and other emergency preparedness measures

8.3.3 Other Opportunities to Reduce GHG Emissions from Buildings

District Energy

District Energy is an approach for local energy production matched to local use, not only at a building level, but at a neighbourhood level. It is an approach to applying technologies that coordinate the production and supply of heating, cooling, domestic hot water, and power to optimize energy efficiency and local resource use. District Energy systems have been widely implemented in existing urban areas in Europe and are starting to be piloted in Canada, mostly in new development and redevelopment scenarios. From a technical perspective, climate-resilient and low-carbon district energy systems have shown to be one of the most efficient solutions in reducing emissions and primary energy demand.

In looking at the built environment in the Rexdale neighbourhood, there could be opportunities for geothermal energy generation under the neighbourhood open spaces. This energy could be shared to satisfy the demand in the neighbourhood's MURBs, institutions and even homes. There are also a number of arenas as well as a No Frills supermarket that generate significant thermal energy waste which could be utilized.

While the cost to society of implementing a district energy system to get the neighbourhood to net zero could be lower than the added cost of retrofitting all buildings (including the cost to the owner, plus government incentives and costs), the logistics of implementing the system in an existing urbanized area are complicated. Some of the tasks that would need to be addressed include recruiting property owners to switch to the new system, reconstructing streets and parks to install piping and other transmission infrastructure, updating legislation, negotiating financing models, and developing an entity to operate the system. Through exploratory discussions with the City of Toronto, energy utilities, and other experts in the field, it was understood that based

on the current landscape, it could take decades to get a district energy system up and running in an existing neighbourhood.

However, Rexdale offers some opportunities that should be considered. It has high-density clusters of buildings, adjacent to public parks and privately owned open space. Many of these buildings have underutilized underground garages that could be used for the installation of required equipment. In addition, various neighbourhood streets have plans for reconstruction within the next 20 years. The Canadian District Energy Association (CDEA) estimates that 60% of the costs of implementing a community-scale geothermal system in an existing urban area are related to reconstructing streets to accommodate new infrastructure. It recommends that district energy systems are timed with planned road reconstruction projects.

Energy Storage

Neighbourhoods like Rexdale can play a role in energy storage which will be a necessary component to achieve the feasibility of system decarbonization with renewables. The CDEA has suggested that all types of buildings in neighbourhoods, including MURBs (e.g., in underutilized underground garages) and single-family homes, could offer opportunities for energy storage.

8.3.4 Recommendations for Action Area Three – Retrofits for Sustainable Housing

- Identify funding opportunities and **advance multi-sector collaboration for the holistic revitalization of MURBs** that achieve environmental objectives, climate resilience, and address social determinants of health, including the elements listed above.
- Design and implement the **next generation of the Harvest the Rain Residential Retrofit Program** to achieve multiple environmental and climate resilience goals to accelerate both simple and deep retrofits in the neighbourhood homes.
- Explore opportunities and partnerships to **train and hire equity-deserving and underrepresented groups, ideally from within the neighbourhood**, to advance indoor and outdoor residential retrofits across all sustainability themes both in single family homes and MURBs.
- Deliver **programming** to help homeowners, tenants, and property managers **prepare for the impacts of climate change** (see specific strategies in Appendix C).
- **Consider the feasibility of district energy** in the Rexdale neighbourhood towards the achievement of the City of Toronto's Net Zero goals. In the meanwhile, the installation of air source heat pumps in single family homes will prepare homeowners for an easier connection to a future district energy system.
- In the longer term, consider the role of the neighbourhood **to achieve energy storage as a means of transitioning to net zero**. Energy storage should be considered in the MURBs, institutional properties as well as neighbourhood homes.

8.3.5 System-Change Recommendations

While the scope of this report is focused on actions within the Rexdale neighbourhood, the following system-level recommendations were confirmed during the planning process and are fundamental to achieve sustainability goals in this neighbourhood and others in Toronto:

- Better and more convenient financial supports will be necessary. This includes:
 - Increasing the number of available financial supports for home retrofits.
 - Covering the cost of hand-holding services to facilitate home retrofits.
 - Making the process of obtaining financial supports easier to navigate.
 - Offering financing options and incentives for a bundle of retrofits supporting both mitigation and adaptation.
- **More government regulations (from all levels of government) will be required.** For example, the creation of a low carbon building code and requirements for on-site stormwater management for existing buildings.
- **Increased industry capacity/** specialized expertise, including energy auditors, landscape professionals, and contractors needs to be developed. **Material supply issues will need to be addressed.**
- **A streamlined process** to undertake feasibility analyses, and the implementation and operation **of district energy and energy storage systems** needs to be developed to ensure faster and more efficient adoption.

8.4 Action Area Four – Transformation of Streets and Intersections

Developing vibrant community life through green, safe, and attractive streetscapes.

What We Learned

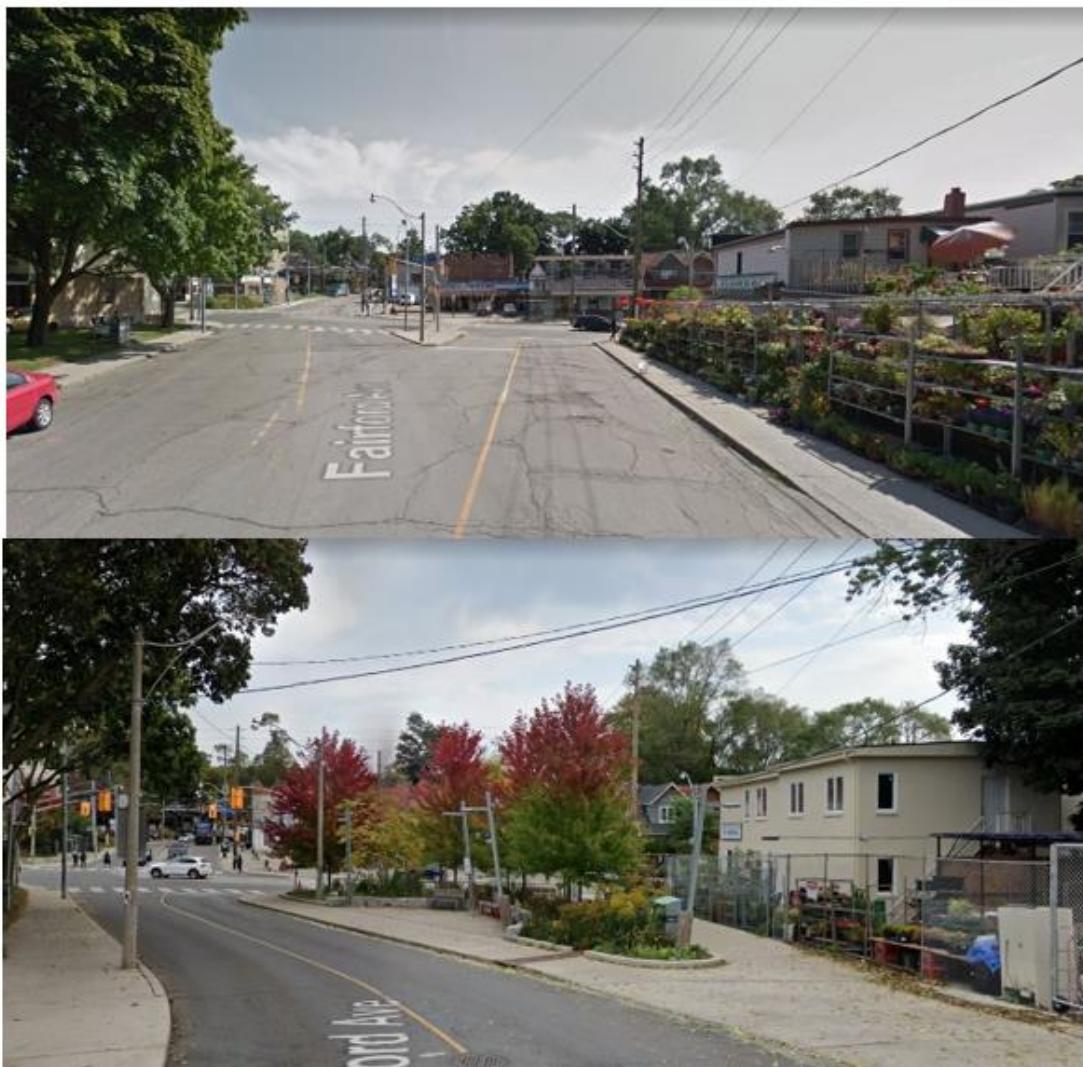
The Rexdale neighbourhood is crossed by Kipling Avenue and other busy streets and intersections, with heavy traffic and scarce greenery. Although residents acknowledge that services, businesses, and parks are generally located within walking distance from many residential areas in the neighbourhood, the noise, poor air quality, inadequate streetscapes, occasional crime, and speeding all significantly impact the pedestrian experience. This also applies to those taking transit or biking. Community members also highlighted the need for more bike lanes and better active transportation connections across the neighbourhood, particularly to the new LRT.

There are several street resurfacing capital projects planned for Rexdale in the next 3-10 years, offering a great opportunity to implement green streets with active transportation infrastructure, which would help achieve environmental objectives including GHG emissions reduction increased habitat, and improved air and stormwater quality. Green streets should support urban habitat and biodiversity through pollinator gardens and tree planting, and should also consider incorporating LID.

Following the community's recommendations, the Action Plan also recommends beautification of streetscapes with greenery and flowers that stimulate the senses (for example, residents suggested adding aromatic and

colourful plants), as well as enhanced litter removal. They would also like to see animation of the main streets to make them more vibrant, with street festivals, parades, and diverse art forms. In addition, the community would like to see more pedestrian crossings and speed bumps in strategic locations, to improve pedestrian safety.

The recommended streetscape improvements, combined with a need for jobs and a love of nature by the community, offer a great opportunity to bring the City of Toronto's GreenforceTO Program to the Rexdale Neighbourhood. The program offers skills training and income opportunities for residents to maintain greenspaces/greenery adjacent to streets within their communities. Through initial meetings, Humber College and TRCA's Education and Training Division showed interest in playing a role in the skills training component. The Transportation Services Division also considered Rexdale as a good fit for the program, pending available resources.



(Upper picture, before. Lower picture, after) Greening and Beautification of corner at Fairford Avenue and Coxwell Avenue, Toronto, by the City of Toronto's Neighbourhoods Team

8.4.1 Recommendations for Action Area Four – Transformation of Streets and Intersections

- **Advance Green Streets** across the neighbourhood, based on opportunity (i.e., timing of capital works) and technical feasibility. Green Streets should aim to achieve sustainable stormwater management, urban forest, habitat, active transportation, and beautification objectives.
- **Develop and implement plans for the transformation of main intersections that achieve watershed goals and improve the pedestrian experience and community life** (including safety from traffic and crime, beautification, meeting spaces, and art), following the guiding principles provided in Section 7.0.
- The following main intersections should be prioritized:
 - Kipling Avenue and Mount Olive Drive/Panorama Court
 - Kipling Avenue and Finch Avenue
 - Kipling Avenue and John Garland Boulevard
 - Midblock crossing on Kipling Avenue, North of Stevenson Road (between Thistletown Baptist Church and St. Andrew Catholic School)
- **Prepare roads right of way for the impacts of climate change**, by increasing the diversity of trees, reducing flood risk by redirecting water runoff away from sewers and into more pervious surfaces, and implementing bus shelters designed for year-round weather protection.
- **Deliver street festivals and programming** to animate main intersections, prioritizing those listed above.
- **Improve cleanliness of main intersections**, considering programming and income opportunities for the community to contribute towards this objective.
- **Enhance urban forest and habitat, and environmental educational signage on road right of ways**, prioritizing areas of heat stress.
- **Consider delivering the GreenforceTO program in Rexdale**, in collaboration with TRCA and local organizations.

9.0 CLIMATE VULNERABILITY ASSESSMENT AND RESILIENCE STRATEGY

A “High-Level Climate Resilience Strategy for Rexdale” was developed in parallel with the Sustainability Action Plan. The resilience strategy has been published under a separate report, and key climate adaptation recommendations have been incorporated into the four Action Areas of the Rexdale SNAP Action Plan. This section provides a summary of the “High-Level Climate Resilience Strategy for Rexdale”.

9.1 Climate Trends

This section presents a summary of climate trends under a high-emissions climate change scenario in which global GHG emissions continue to rise past the middle of the century, leading to approximately 3.2 to 5.4°C of global warming compared to 1986-2005 by the end of the century (Government of Canada, 2018).

- Under a high emissions scenario, **air temperature in Toronto is expected to increase in all seasons and on average across the year**. Average annual air temperature in Toronto could warm by 5°C by the end of the century compared to the recent historical period (1971-2000). Warmer average temperatures are expected across all seasons by the end of the century, bringing hotter summers, warmer winters, and greater variability in temperatures. **Warmer winter temperatures can lead to more precipitation falling as rain instead of snow**, which can lead to an increased risk of flooding during winter, as well as impacts on natural systems and wildlife. **Warmer temperatures can also increase the frequency, intensity, and severity of storms** as warmer air can hold more moisture to produce storms.
- Projections also indicate an **increase in the average number of extreme heat days** in a year. By mid-century, the average number of days in a year with maximum temperatures above 30°C in Toronto is anticipated to increase by 31 days (from 6.9 days in the recent past to 37.5 days by the 2050s), which can pose significant risks to human health. By the end of the century, the number of very hot days is expected to increase even more to 65.3 days in a year, representing an eight-fold increase compared to 1971-2000.
- As temperatures warm, **the number of extreme cold days are expected to decrease**. The average number of days in a year with minimum temperatures below -15°C in Toronto could approach zero by the end of the century compared to 1971-2000. As winters are expected to get warmer, the city will likely see less snow and ice cover, which can impact traditional outdoor winter recreation as well as natural systems. This decline also means that there will be fewer extreme cold days per year that put people at risk of extreme cold-related illnesses such as hypothermia. However, wider variations in day-to-day temperatures may provide less time for people to acclimatize or adapt to colder conditions when they do occur.

The “**High-Level Climate Resilience Strategy for Rexdale**” represents a key step towards the implementation of Priority Action 2.1 in the Toronto Resilience Strategy:

“Enhance the capacity of neighbourhoods to prepare for and recover from shocks through grassroots action and network building”.

- **Precipitation is expected to increase on an annual basis** in Toronto. **Average annual total precipitation could increase by 10 percent by the end of the century** compared to the recent past under a high emissions scenario. A high degree of variability is also found among projected seasonal total precipitation. **Spring and winter precipitation are expected to see the greatest percentage increase by the end of the century** (by 24 percent and 26 percent, respectively). Such increases, coupled with warmer temperatures, can increase the risk of flooding as more precipitation falls as rain instead of snow. On average, a slight decrease in summer precipitation is anticipated, **making hotter and drier summers possible**. Extreme precipitation events are also anticipated to increase, with increases in maximum 1-day, 3-day, and 5-day precipitation totals.

9.2 Vulnerability Assessment

A vulnerability assessment conducted for the neighbourhood provided insight into the level of specific community risks posed by climate change, identified existing vulnerabilities within the neighbourhood, incorporated local knowledge on risks and assets, and was used to inform resilience strategies.

The climate change vulnerability assessment recognizes climate change risk as a confluence of multiple factors including hazard, exposure, vulnerability, and adaptive capacity.

Exposure refers to the degree to which a system is experiencing changing climate conditions and related impacts, such as flooding and the spread of vector-borne diseases.

Sensitivity refers to the degree to which a system is affected by climate change which is influenced by factors, such as demographics, neighbourhood socio-economic characteristics, and perceptions of climate change risks.

Adaptive Capacity refers to the ability to anticipate, cope with, respond to, and recover from the effects of climate change.

Table 3 presents a breakdown of the vulnerability assessment results for Rexdale. A qualitative rating ranging from High to Low has been assessed for each indicator. For exposure and sensitivity, a high rating representing high exposure and high sensitivity is least desirable, while a low rating is most desirable. The opposite is true for adaptive capacity, where a high rating representing high adaptive capacity is most desirable, while a low rating is least desirable. In Table 3, the least desirable ratings are represented in darker shades of colour compared to more desirable ratings.

Table 3: Results of Vulnerability Assessment in the Rexdale SNAP

Indicator	Overall Rating
EXPOSURE (High is least desirable; Low is most desirable)	
Extreme Heat	High
Precipitation and Flooding	High
Ice Storm	Medium-High
Vector-Borne Disease	Medium
SENSITIVITY (High is least desirable; Low is most desirable)	
Perceptions of Climate Change	Medium
Seniors	Medium
Children	Medium-High
Residents Living Alone	Medium-Low
Language Barriers	Medium-High
Educational Attainment	High
Household Income and Distribution	High
Housing Tenure	Medium
Age of Housing	High
ADAPTIVE CAPACITY (Low is least desirable; High is most desirable)	
Local Assets and Services	Medium-High
Presence of Air Conditioning	Medium
Mobility and Access to Transit	Low
Access to Drinking Water	High
Access to Food Outlets*	Medium
Tree Canopy	Medium-High
Access to Greenspace	High
Communications	Medium
Sense of Community	Medium-High

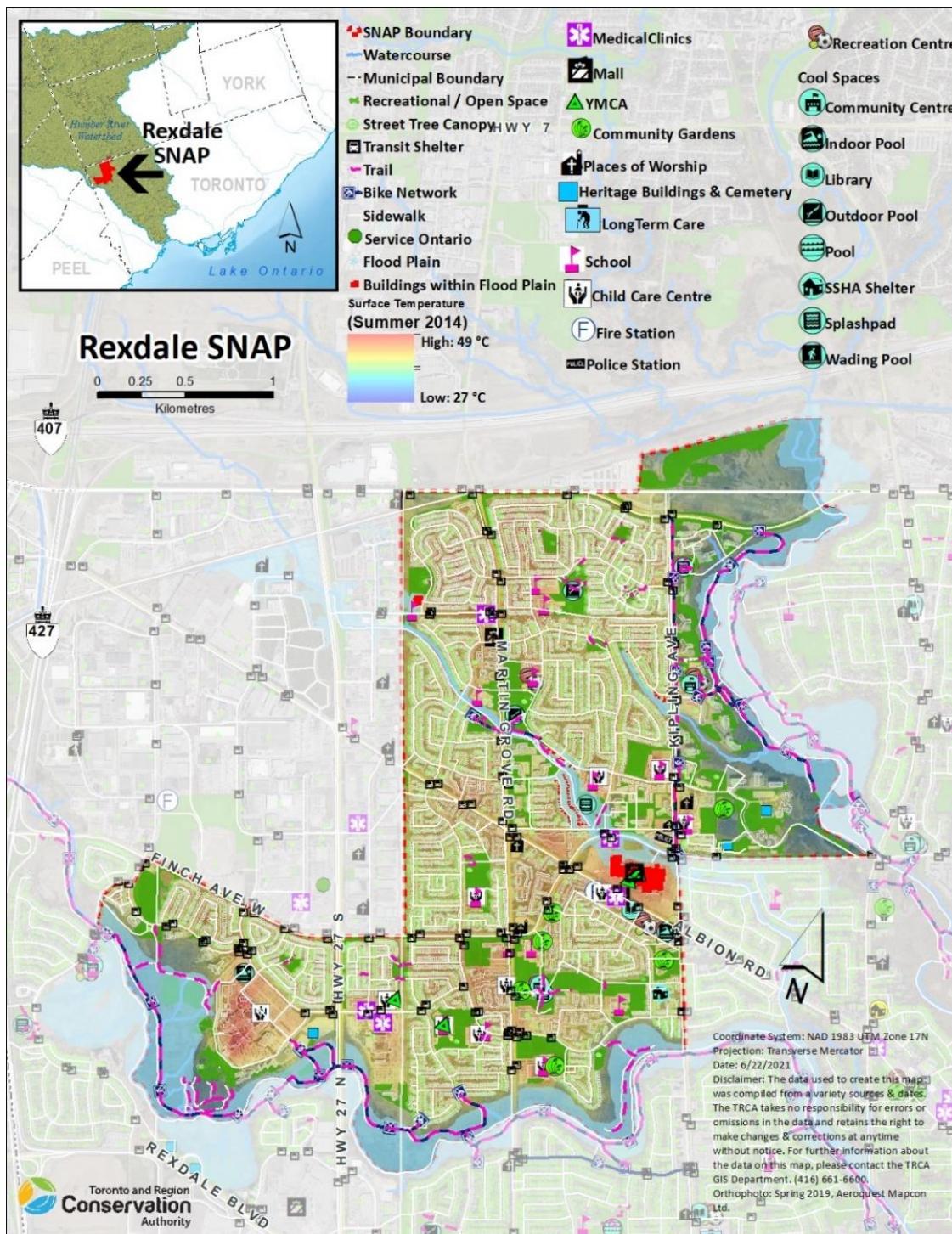
*This analysis was only based on the presence of food outlets. We recognize that this does not equate to food security.

Key Vulnerabilities

- Increases in heat stress:** Many parts of the neighbourhood already experience high summer surface temperatures with surface temperatures recorded on a typical summer day in 2014 ranging from 27°C to a high of 49°C (some prominent “surface heat areas” include Albion Mall, Humbergrove Secondary School, Father Henry Carr Catholic School, and Humber College). Issues identified by the community included lack of shade/shelters for refuge along Kipling Avenue, lack of trees on HWY-27A, and apartments along Kipling Avenue lacking air conditioning. This urban heat island effect can exacerbate extreme heat events, which are anticipated to increase due to climate change. Extreme heat, which affects some people more than others (including seniors, children, and people with pre-existing conditions), is a key risk for Rexdale because it has a higher proportion of children (14 years and under) compared to the rest of the city.

- **Risk of flooding:** The top climate risk perceived by residents within the neighbourhood is flooding. Based on available building footprint data, 58 buildings within Rexdale are located fully or partially within the flood plain, which are at greater risk of riverine flooding. Notably, two clusters of residential properties situated north of Stevenson Road and along Anabelle Drive may be particularly impacted and may present opportunities for flood risk outreach. Residents and stakeholders also reported past flooding issues in some areas that appear to be infrastructure related. These include flooding in houses on Kipling Avenue and Steeles Avenue, due in part to cracks and leaks, basement flooding on Stevenson Road and Seguin Court, and flooding events in several MURBs, including the community room at 2667 Kipling Avenue. These flooding events can be exacerbated by anticipated increases in precipitation.
- **Food security:** Food security was identified as a major issue throughout community engagement. While Rexdale's vulnerability assessment only assessed one aspect of food security (location of food outlets), it draws upon findings from a recent study by Another Axis Consulting (2022). It is clear that food security has been a long-standing issue in the community, which was exacerbated by COVID-19 in unprecedented ways (e.g., increased demand on food banks and rising unaffordability).
- **Housing:** Most of the housing stock in the neighbourhood was constructed before 1980 and unlike the rest of the city, only a small proportion of housing was constructed after 2000. The majority of households are comprised of apartments. Household sizes also tend to be larger in Rexdale, which may suggest a greater risk of overcrowded and unsuitable housing. During the engagement process, community members highlighted housing affordability as one of the main issues in Rexdale, with many residents struggling to pay rent.
- **Access to transit:** For people without access to a car, active transportation (e.g., walking and cycling) and access to public transit are important, especially during an event or disaster. Based on research by Farber and Allen (2019), transit accessibility is low in this northwest corner of the city. Residents highlighted that public transit is infrequent and that the routes are inconvenient.
- **Language barriers:** While most residents are knowledgeable of either English or French, some Rexdale residents (approximately 7 percent) have no knowledge of English or French, which is higher than the rest of the city. To ensure that communications can be understood by all residents, it is important to develop translated products or communications that can be understood with few or no words.

Figure 10: Overall Vulnerability Assessment Results for Rexdale



9.3 Adaptation and Resilience Strategies

The Disaster Management Cycle (see Figure 11) was used as a framework to guide the development of climate adaptation and resilience strategies, as it is action-oriented and represents a continuous cycle. This framework also aligns well with resilience thinking. At some point in time, sudden or chronic changes can lead to disruption in the community's day-to-day lives. By looking at the full spectrum of actions over time, from prevention to response and recovery, this framework can help community stakeholders plan for disruption.

A total of 32 strategies were identified across the five phases of the Disaster Management Cycle, based on technical analysis and public engagement. Each strategy was evaluated, based on 1) its impact addressing one or more climate impacts, and 2) the level of effort required to implement it. A potential implementation lead was also identified for each strategy. Key strategies were integrated into the four Action Areas of the Action Plan. A complete list of the 32 strategies is included in Appendix C.

Figure 11: Disaster Management Cycle and Number of Strategies Identified Under Each Stage

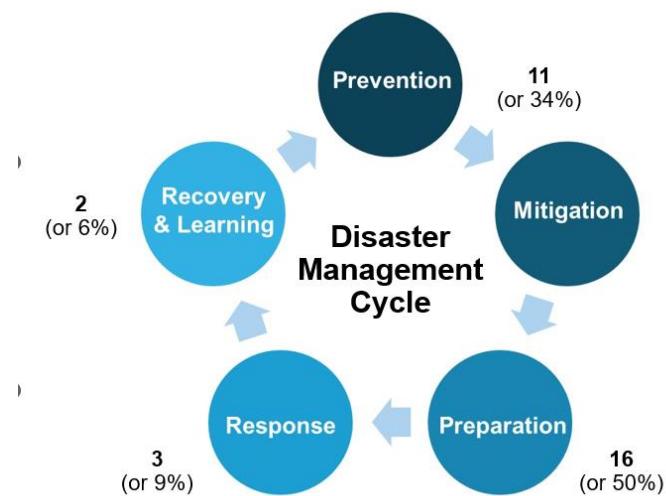
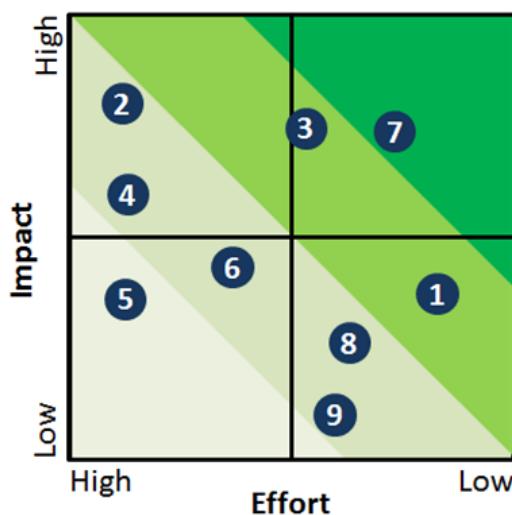


Figure 12: Evaluation of the 32 Strategies

A resilient Rexdale is a neighbourhood that can weather all odds, recover quickly, and thrive in the face of adversity. It is a neighbourhood where people look out for and support one another in the most difficult times; where residents' needs are met; and where there is a strong sense of community and a tight-knit web of agencies, organizations, and groups working together to make Rexdale an even better place to live.

9.4 Adaptation Opportunities

Following is a summary of key opportunities for climate adaptation that were identified in Rexdale's Neighbourhood Resilience Strategy. Many of these opportunities also address other sustainability goals, like GHG reduction.

- **Tower revitalization:** most of the housing stock in Rexdale is comprised of apartments (61% of the housing stock) and most were constructed before 1980. Many have outdated, vulnerable energy systems, poor ventilation and air conditioning, drainage/ flooding issues and lack of spaces to meet.
- **Public transit accessibility and active transportation:** currently, most people within the neighbourhood commute by car. Overall, transit accessibility is low in this northwest corner of the city, though some improvements are being made (e.g., Finch West LRT). There is a lack of cycling infrastructure in the neighbourhood, particularly in the East-West direction
- **Enhanced knowledge and awareness of climate change-related risks** such as flooding, risks related to extreme heat, vector-borne diseases, and winter storms, while building on the lessons learned through the COVID-19 pandemic.

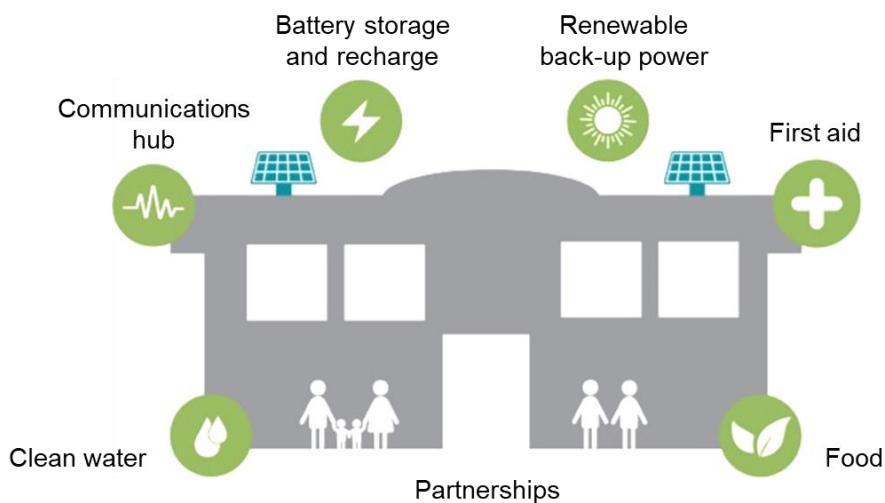
- **Flood risk reduction** by encouraging site-level flood prevention and stormwater management measures, regularly inspecting SWM infrastructure, and relocating structures from the flood plain (where possible).
- **Tree canopy cover and access to greenspace**, especially in the northern part of the neighbourhood and areas with heat stress. Improvements can also be made to improve pedestrian experience and wayfinding.
- **Sense of community, mutual aid, and the sharing economy** by creating more opportunities for residents to meet one another and maintaining and strengthening the mutual support and sharing already in place.
- **Food access** by growing and preserving food locally and increasing affordable (or free) food outlets.
- **Development of a resilience hub** where residents can go for shelter and basic needs during an emergency, and on an ongoing basis during normal periods for increased community resilience.

Resilience Hub

One of the strategies that received the most support from the City of Toronto as well as local stakeholders is the development of a Resilience/Food Hub where residents could go for shelter and basic needs in case of an emergency, but that also operates on an ongoing basis improving community resilience by:

- Providing access to urban agriculture and affordable (or free) healthy food
- Offering gathering spaces for residents and local agencies and organizations
- Delivering community building, skills training, and climate programming

Through the engagement process, potential suitable locations were identified, and key elements of the resilience hub were explored.

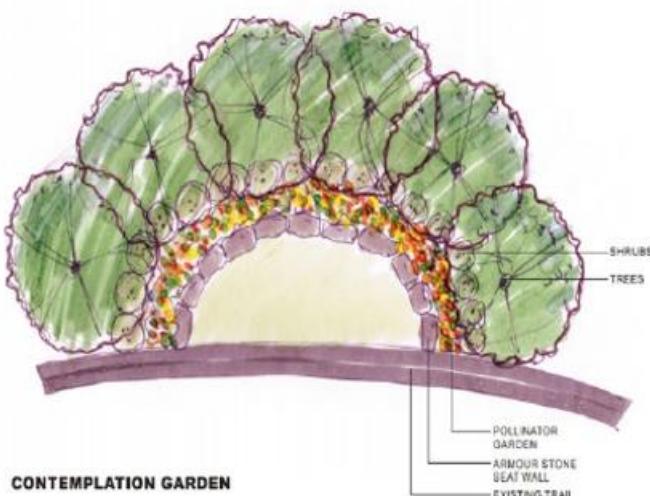


Source of graph: NPU-W's blog post (2020) on Fulton County Community Resilience Hub

10.0 QUICK START PROJECTS

Several quick-start projects were implemented during the Action Plan development phase to generate trust and enthusiasm from the community and to achieve further engagement for plan development. These projects include:

COVID-19 Memorial Garden: Rexdale was one of the hardest hit communities by the COVID-19 pandemic, which was at its peak as this action plan was being developed. Responding to a dream expressed by the community during the engagement process, a COVID-19 Memorial Garden was implemented in Rowntree Mills Park, to remember the victims of the pandemic and commemorate the front-line workers and community leaders that stood up to support the Rexdale community. The garden includes pollinator friendly plants and native trees, a seating area and an interpretive sign. The background of the sign profiles a photograph of a mural created by a local artist.



Left: COVID-19 Memorial Garden design. Right: Community planting day.



COVID-19 Memorial Garden Educational sign designed with the local community. Art by local muralist.

Trees, Balcony Gardens and Rain Barrels: Trees were planted in MURBs and balcony garden kits and rain barrels were offered as an incentive for residents to participate in engagement events.



Left: Planting day in Rexdale's MURBs

Right: Distribution of rain barrels in Rexdale

11.0 MEASURING SUCCESS

The Rexdale SNAP has been designed to address core environmental and socio-economic priorities, which support numerous municipal and TRCA plans and strategies. To measure impact and success over time, a framework of long-term neighbourhood-scale target outcomes has been identified based on the Action Plan's shared objectives. These are outlined in Table 4 below are defined as observed changes anticipated over the long term (by 2040). Quantitative targets were included, when data or directions from higher level strategies were available. When not, qualitative or directional outcomes/ goals were established.

Table 4: Target Outcomes (Longer Term Observed Changes)

Sustainability Theme	Key Outcome
Strong Infrastructure and Community Service	<p>GHG Reductions</p> <ul style="list-style-type: none"> Reduced GHG through actions within the neighbourhood to support the City of Toronto's target of reducing 65% emissions, from 1990 levels by 2030 and becoming Net Zero by 2040. As per Transform TO's Net Zero Strategy, to accomplish the 2040 targets, the following 2030 milestones should be reached: GHG emissions from existing buildings are cut in half, from 2008 levels. At least 50% of energy used comes from renewable or low-carbon sources. 100% of redevelopment in the neighbourhood is designed and built to be near zero GHG emissions 30% of registered vehicles are replaced with Electric Vehicles. In Rexdale this corresponds to approximately 3,800 vehicles. Increased percentage of people walking or cycling to work and/or everyday destinations. Increased percentage of bike share users and ridership within and near the neighbourhood. Increased percentage of people taking transit. <p>Waste Management</p> <ul style="list-style-type: none"> Diverted waste, through actions in the neighbourhood to support the City of Toronto's waste target of diverting 70% of residential waste from the City's waste management system. <p>Infrastructure Asset Management</p> <ul style="list-style-type: none"> Parks and roads brought to the rest of the city's quality standards, or above, by accelerating infrastructure asset management in the neighbourhood, implementing modern amenities, and improving maintenance and operations. Public infrastructure prepared for the impacts of climate change by accelerating infrastructure asset management in the neighbourhood. <p>Partnerships</p> <ul style="list-style-type: none"> Increased government presence in the neighbourhood and number of partnerships between government and local groups.
Healthy Environment for Outdoor Enjoyment	<p>Urban Forest/Habitat</p> <ul style="list-style-type: none"> Urban forest cover within the neighbourhood increased by 15% by 2040, prioritizing heat stress areas.

Table 4: Target Outcomes (Longer Term Observed Changes)

	<ul style="list-style-type: none"> The natural cover of the Terrestrial Natural Heritage System within the neighbourhood increased by 1.2% (or 10.7Ha), through plantings in strategic locations as per TRCA mapping. Increased area of urban habitat and biodiversity, increasing the percentage of native and pollinator friendly species.
	<p>Stormwater Management</p> <ul style="list-style-type: none"> Reduced stormwater runoff through broad implementation of Low Impact Development for Stormwater Management across the neighbourhood, towards the improvement of water quality and quantity and the reduction of erosion in the Humber River.
	<p>Design, Programming and Education</p> <ul style="list-style-type: none"> Innovative designs towards park signature projects completed and implemented to the satisfaction of the community. Increased nature-based programming and education on an ongoing basis.
Skills/Capacity for Jobs and Affordability	<p>Skills Training & Income Opportunities</p> <ul style="list-style-type: none"> Increased job skills in the green economy for Rexdale residents, especially youth, (e.g., in the implementation and maintenance of green infrastructure and green building retrofits, etc.) Increased income opportunities and jobs for residents, towards the advancement of neighbourhood sustainability and resilience goals.
	<p>Cost Savings</p> <ul style="list-style-type: none"> Increased opportunities in the neighbourhood that support cost savings for residents and at the same time help to advance neighbourhood sustainability and resilience goals. Goods re-used/shared Developed/ expanded circular and sharing economy in the neighbourhood.
Community Connections, Empowerment and Pride	<p>Community Cohesion, Sense of Belonging and Neighbourhood Pride</p> <ul style="list-style-type: none"> Enhanced community cohesion, sense of belonging and pride, through physical improvements to the built environment and programming in the neighbourhood. Increased number and influence of local leaders and resident groups, working towards the achievement of Action Plan goals and overall neighbourhood improvement. Increased resident participation in community life.
Community Health and Wellbeing	<p>Flood Risk</p> <ul style="list-style-type: none"> Reduced flood risk in the neighbourhood through retrofits to the built environment, awareness, and emergency preparedness. <p>Heat Stress</p> <ul style="list-style-type: none"> Reduced heat stress risk in the neighbourhood through implementation of green infrastructure, retrofits to the built environment and programming to prepare the community for heat waves resulting from climate change. <p>Healthy Food Availability</p> <ul style="list-style-type: none"> Improved access to healthy food within the neighbourhood through urban agriculture and other initiatives that support the distribution of free or affordable and culturally appropriate food. <p>Active Living</p>

Table 4: Target Outcomes (Longer Term Observed Changes)

	<ul style="list-style-type: none"> Enhanced active living through physical changes to the built environment and programming.
	<p>Mutual Aid</p> <ul style="list-style-type: none"> Developed culture of mutual aid, by supporting existing initiatives and local leaders, and expanding mutual aid programming.
Spiritual Values	<p>Mind-Body Activities</p> <ul style="list-style-type: none"> Increased practices of mind-body activities, through urban design and by supporting existing mind body initiatives in the community and developing new ones.

Spotlight: Enhancing the Urban Forest

The neighbourhood urban forest canopy can be increased by 15% through planting an estimated 18,019 trees on currently available planting space across public and private properties:

- 3,345 in residential yards
- 2,292 along the right of way
- 3,081 in parks
- 5,224 in institutional properties
- 2,749 in commercial properties
- 847 in MURBs
- 484 in parking lots (by retrofitting them without impacting parking needs)

In support of the long-term target outcomes identified above, additional indicators can be used to track shorter-term progress that moves the yardstick *toward a desired outcome*. These are referred to as ‘outputs’ and represent direct results of project or program activities. Achievement of these outputs should also be celebrated as a step in the right direction.

Table 5 illustrates a selection of example measurable output indicators for each of the action areas, as well as a summary of the sustainability themes they collectively support.

A Performance Monitoring Plan will be developed as projects and programs are designed, to confirm specific monitoring and evaluation strategies for the outputs and outcomes identified.

Table 5: Output Indicators (Used to Track Shorter-Term Direct Actions)

Action Area	Example Output Indicators	Sustainability Theme(s) Addressed
Action Area One – Open Space Revitalization and Green Infrastructure <i>Protecting and enhancing natural features and spaces to keep them clean, safe, and beautiful.</i>	<ul style="list-style-type: none"> • # of trees and pollinators planted and LID implemented • # of initiatives that improve access to ravines • # of park master plans developed and funded for implementation • # of nature-based programs and educational signs implemented • # of public amenities improved or implemented • # of events and activities to animate parks and art installations • # of actions to promote mind-body activities • # of urban agriculture projects • # of users satisfied • # of residents employed in green infrastructure maintenance • # of multi-sector partnerships towards open space improvement 	<ul style="list-style-type: none"> • Strong infrastructure and community service • Healthy environment for outdoor Improvement • Skills and capacity for jobs and affordability • Community connections, empowerment, and pride • Community health and wellbeing • Spirituality and religious values
Action Area Two – Boosting Rexdale's Sharing and Circular Economies <i>Sharing and reusing resources for affordability, income & sustainability, and to strengthen the community fabric towards mutual aid.</i>	<ul style="list-style-type: none"> • # of sharing and circular economy initiatives implemented • Tonnes of waste reduces • Tonnes of GHG reduced • Servings of food shared • Dollars saved by residents • # of relationships developed • # of spaces or resources shared • # of initiatives to share skills and mutual aid • # of multi-sectoral partnerships 	<ul style="list-style-type: none"> • Skills and capacity for jobs and affordability • Community connections, empowerment, and pride • Community health and wellbeing • Spirituality and religious values
Action Area Three – Retrofits for Sustainable Housing <i>Maximizing quality of life through functional, affordable, low carbon and resilient housing.</i>	<ul style="list-style-type: none"> • # of homes and buildings retrofitted • # of outdoor and indoor retrofit actions implemented • # of tenants satisfied • Tonnes of GHG reduced • # of flood risk prevention measures implemented • # of meeting spaces developed • # of community energy plans developed • # of residents trained and hired for residential retrofits • # of initiatives to improve access to food and healthy living 	<ul style="list-style-type: none"> • Strong infrastructure and community service • Healthy environment for outdoor Improvement • Skills and capacity for jobs and affordability • Community connections, empowerment, and pride • Community health and wellbeing
Action Area Four – Transformation of	<ul style="list-style-type: none"> • # of streets and intersections improved • # of trees and plants planted on ROW • # of LID facilities implemented 	<ul style="list-style-type: none"> • Strong infrastructure and community service

Table 5: Output Indicators (Used to Track Shorter-Term Direct Actions)

Streets and Intersections	<ul style="list-style-type: none"> • # of community amenities and shade installed on main intersections • % of residents that feel safe • # of initiatives to animate streets • KMs of active transportation initiatives implemented • % of residents that travel by active transportation or transit • # of residents trained and employed in the maintenance of ROW 	<ul style="list-style-type: none"> • Healthy environment for outdoor Improvement • Skills and capacity for jobs and affordability • Community connections, empowerment, and pride • Community health and wellbeing
<i>Developing vibrant community life through green, safe, and attractive streetscapes.</i>		
Climate Resilience	<ul style="list-style-type: none"> • # of trees planted • # of drinking water stations, cooling facilities, and splash pads implemented • # of bus shelters retrofitted • # of people reached with climate and personal preparedness communications • # of inspections of stormwater infrastructure 	<ul style="list-style-type: none"> • Strong infrastructure and community service • Healthy environment for outdoor Improvement • Community connections, empowerment, and pride • Community health and wellbeing
<i>Indicators identified through the High-Level Climate Resilience Strategy for Rexdale.</i>	<ul style="list-style-type: none"> • # of flood risk reduction measures implemented • # of flood vulnerable infrastructure, buildings, or structures addressed • # of buildings with facilities that are equipped with backup power • # of urban agriculture projects • # of servings of free or affordable food • # of programs to improve community connections • # of resilience and food hubs created 	

12.0 NEXT STEPS

This shared Rexdale SNAP Action Plan was co-developed with a focus on collaborative implementation. Next steps include:

- **Establish Implementation Team** – The Project Management Team will transition to an Implementation Team led by TRCA, in collaboration with City of Toronto, RCH and other stakeholders as appropriate. The team will identify priority projects and programs of focus and develop implementation plans. Implementation plans will include process, leads, roles and responsibilities, required approvals, funding requirements and opportunities, timing, phasing, etc. The Implementation Team will also consider a performance monitoring plan for each project/program that responds to neighbourhood goals and will maximize opportunities for cross-promotion of SNAP and stakeholder initiatives.
- **Advancement of Priority Projects** – Advance partnership brokerage and identification of resources for the following projects which were identified through the planning process as a priority:
 - Development and implementation of master plans for the revitalization of Masseygrove Park, Highfield Park and Rountree Mills Park.
 - Development and implementation of neighbourhood-wide urban agriculture and green infrastructure strategies.
 - Development and implementation of a neighbourhood-based circular and sharing economy strategy.
 - Design and implementation of projects and programs towards sustainable, resilient housing (for multi-unit residential and single-family homes) and exploration of community energy solutions.
 - Design and implementation of resilience and food hub(s) and a social supermarket.
 - Design and implementation of community meeting spaces across the neighbourhood.
 - Green Streets and transformation of the following intersections along Kipling: Mount Olive Drive/ Panorama Court, Finch Avenue, John Garland Boulevard.
 - Design and implementation of climate adaptation/ resilience programming for residents and other community members.
- **Support Existing Neighbourhood Initiatives** – TRCA and the City of Toronto will work with the RCH to support existing neighbourhood initiatives in order to achieve Action Plan goals.
- **Seek Funding Opportunities in Support of Community-Based Projects** – Where possible, the City and TRCA will identify internal resources and program alignments that could help support advancement of neighbourhood objectives. These agencies will also support the community to pursue external funding, opportunities that leverage public funding, and to help augment available resources for implementation.

Appendix A: Mapping Framework and Data Considered in the Neighbourhood Screening Process in Toronto

Service Area	Data Layers
Buildings	<ul style="list-style-type: none"> Home energy retrofit priority wards
Infrastructure and Mobility	<ul style="list-style-type: none"> Conceptual Trails (trail gaps) Toronto Road Projects – (from Transportation Services and Toronto Water)
Flood Safety and Erosion Risk Reduction	<ul style="list-style-type: none"> Flood Vulnerable Cluster Management Zones – all Riverine and Waterfront Erosion Problem Areas – higher than 60 Planned Waterfront EA projects Planned Riverine and Waterfront erosion remediation projects – short term (2020-21) Planned Riverine and Waterfront erosion remediation projects – long term (5-10 years) TBD Basement Flooding
Natural Environment and Watershed Systems Health	<ul style="list-style-type: none"> **Urban Tree Canopy Planting Needs – lowest 30% quantile IRP scores – "high priority (7-10)" **Heat Stress – ground surface temperatures - highest 30% quantile Water Balance – priority areas for retrofit LID-SWM controls Catchments supporting sensitive target fish species Meadoway project area SWM (CSO contributor area, SS-ESA contributor area, Impervious surfaces) - REF
Parks and Recreation	<ul style="list-style-type: none"> *Recreational green Space per Capita by neighbourhood – lowest 30% quantile
Health and Wellbeing	<ul style="list-style-type: none"> Opportunities for Environmental Learning – seniors (UAZ areas) Air Quality (Density of senior/childcare facility within TRAP zones) Food Insecurity areas
Economic Vitality	<ul style="list-style-type: none"> Neighbourhood Improvement Areas

Appendix B: Summary of Action Plan Recommendations

Action Area 1 – Open Space Revitalization and Green Infrastructure	Action Area 2 – Boosting Rexdale's Sharing and Circular Economies	Action Area 3 – Retrofits for Sustainable Housing	Action Area 4 – Transformation of Streets and Intersections	Action Area 5 – Climate Resilience
Develop and implement master plans for the revitalization of Masseygrove Park, Highfield Park and Rowntree Mills Park, and modernize amenities and animate smaller parks and open spaces across the neighbourhood applying the principles listed in section 7.0.	Develop a neighbourhood-based strategy with a goal of making Rexdale Canada's first Sharing & Circular Economy Neighbourhood by identifying existing platforms and programs that could be brought to Rexdale, identifying local assets and resources that would facilitate implementation, and developing a road map for strategy implementation.	Identify funding opportunities and advance multi-sector collaboration for the holistic revitalization of multi-unit residential towers that achieve environmental objectives, climate resilience and address social determinants of health, including the elements listed above.	Advance Green Streets across the neighbourhood, based on opportunity (e.g., timing of capital works) and technical feasibility. Green Streets should aim to achieve sustainable stormwater management, urban forest and habitat, active transportation, and beautification objectives.	Opportunity for tower revitalization given that most of the housing stock in Rexdale is comprised of apartments (61 percent of the housing stock) and most were constructed before 1980.
Develop and implement a neighbourhood-wide urban agriculture strategy that provides recommendations to expand local food production and retain rainwater, while building skills and community.	Facilitate the implementation of Sharing and Circular Economy Initiatives, prioritizing food access and healthy living, resource sharing (for affordability, income and waste/ GHG reduction), space sharing (e.g., for community connections, work from home, sharing of food and items, etc.), and sharing initiatives for mutual aid and to improve the community fabric.	Design and implement the next generation of the Harvest the Rain Residential Retrofit Program, to achieve multiple environmental and climate resilience goals, considering the factors listed above, to accelerate simple and deep retrofits in the neighbourhood homes.	Develop and implement plans for the transformation of main intersections that achieve watershed goals and improve the pedestrian experience and community life (including safety from traffic and crime, beautification, meeting spaces, and art), following the guiding principles provided in section 7.0.	A need to improve public transit accessibility and active transportation. Currently, most people within the neighbourhood commute by car. Overall, transit accessibility is low in this northwest corner of the city, though some improvements are being made (e.g., Finch West LRT). There is a lack of cycling infrastructure in the neighbourhood, particularly in the East-West direction.
Develop and implement a green infrastructure plan across public	Explore opportunities for the Rexdale community to	Explore opportunities and partnerships to train and hire	Prepare road right of ways for the impacts of climate change	Opportunity for enhanced knowledge and awareness of

Action Area 1 – Open Space Revitalization and Green Infrastructure	Action Area 2 – Boosting Rexdale's Sharing and Circular Economies	Action Area 3 – Retrofits for Sustainable Housing	Action Area 4 – Transformation of Streets and Intersections	Action Area 5 – Climate Resilience
<p>and privately owned open spaces and front/backyards, that includes habitat, biodiversity, and urban forest enhancements as well as LID facilities for stormwater management. Prioritize the Terrestrial Natural Heritage System (potential plateable areas and contributing areas) and consider soil permeability and depth of the groundwater table. Apply equity tree planting and heat stress considerations in decision-making and consider family friendliness and educational opportunities in the design.</p> <p>Prepare parks and open spaces to the impacts of climate change and install features and amenities such as splash pads, drinking water fountains and shade structures to help residents cool off during extreme heat events (see Appendix C for specific adaptation strategies).</p> <p>Develop a formal skills training program on green infrastructure implementation and maintenance, prioritizing youth. The program should offer income opportunities while participants learn and have a</p>	<p>benefit from TRCA's Partners in Project Green Material Exchange Program.</p>	<p>equity-deserving and underrepresented groups, ideally from within the neighbourhood, to advance indoor and outdoor residential retrofits across all sustainability themes, in houses and buildings.</p>	<p>by increasing the diversity of trees, reducing flood risk, and implementing bus shelters designed for year-round weather protection.</p>	<p>climate change-related risks (e.g., flooding, risks related to extreme heat, vector-borne diseases, and winter storms), while building on the lessons learned through the COVID-19 pandemic.</p>
		<p>Deliver programming to help homeowners, tenants and property managers prepare for the impacts of climate change (see specific strategies in Appendix C).</p>	<p>Deliver street festivals and programming to animate main intersections along Kipling Avenue.</p>	<p>Opportunity for flood risk reduction by encouraging site-level flood prevention and stormwater management measures, regularly inspecting SWM infrastructure, and relocating structures from the flood plain (where possible).</p>
		<p>Consider the feasibility of district energy in the Rexdale neighbourhood towards the achievement of the City's Net Zero goals. Meanwhile, the installation of air source heat pumps in single family homes</p>	<p>Improve cleanliness of main intersections, considering programming and income opportunities for the community to contribute towards this objective.</p>	<p>Opportunity to improve tree canopy cover and access to greenspace, especially in the northern part of the neighbourhood and areas with heat stress. Improvements can also be made to improve</p>

Action Area 1 – Open Space Revitalization and Green Infrastructure	Action Area 2 – Boosting Rexdale's Sharing and Circular Economies	Action Area 3 – Retrofits for Sustainable Housing	Action Area 4 – Transformation of Streets and Intersections	Action Area 5 – Climate Resilience
goal of employing residents in the future.		will prepare homeowners for an easier connection to a future district energy system.		pedestrian experience and wayfinding.
Continue to implement ecological restoration activities and erosion management within the valley system.		In the longer term, consider the role of the neighbourhood to achieve energy storage as a means of transitioning to Net Zero. Energy storage should be considered in multi-unit residential buildings, institutional properties as well as neighbourhood homes.	Enhance urban forest and habitat on Road Right of Ways, prioritizing areas of heat stress in combination with educational signage.	Opportunity to improve sense of community, mutual aid, and the sharing economy by creating more opportunities for residents to meet one another and maintaining and strengthening the mutual support and sharing already in place.
Improve access, trails, and wayfinding for public enjoyment of the valley and create opportunities to connect and learn from nature, including nature walks and clean-ups. Support existing walking groups.			Consider delivering the GreenforceTO program in Rexdale, in collaboration with TRCA and local organizations.	Opportunity to improve access to food by growing and preserving food locally and increasing affordable (or free) food outlets.
Develop educational opportunities and collaborations with Indigenous groups for the Rexdale community to learn about the Humber River's natural and historical heritage.				Opportunity to develop a resilience hub – places where residents can go for shelter and basic needs during an emergency, and on an ongoing basis during normal periods for increased community resilience.
Continue to work with Humber College and the City of Toronto to improve access and educational opportunities for the local community and Indigenous Groups at the Humber Arboretum.				

Action Area 1 – Open Space Revitalization and Green Infrastructure	Action Area 2 – Boosting Rexdale's Sharing and Circular Economies	Action Area 3 – Retrofits for Sustainable Housing	Action Area 4 – Transformation of Streets and Intersections	Action Area 5 – Climate Resilience
Continue to support the development of the Indigenous Ceremonial Space and Outdoor Classroom which is currently in the planning phase.				

Appendix C: Proposed Adaptation and Resilience Strategy for Rexdale by Category and Rating

Strategy	Impact Rating	Effort Rating	Description	Potential Implementation Lead(s)
PREVENTION/MITIGATION				
Tree Planting and Management	Very High	Low	Plant and maintain more diverse native species of trees including public spaces such as streets and parks. Residents and stakeholders noted the need for more trees and shade (e.g., more greenery in Rountree Mills Park; more trees along Humberwood Blvd, along Kipling Avenue, and Steeles and Kipling area). When public trees are lost or damaged due to extreme weather events or pests and diseases, as park trees have in the past, a protocol should be in place to replace lost or damaged trees.	TRCA, City in partnership with local organizations (e.g., LEAF)
Public Cooling Spaces	Very High	Moderate	Create more splash pads, cooling centres, public pools, and drinking water fountains or bottle filling stations within the neighbourhood, and increase shade along streets and around playgrounds and parks to help residents cool off during extreme heat events, particularly in areas with high surface temperatures (e.g. Albion Mall, Humbergrove Secondary School/Father Henry Carr Catholic School, and Humber College), and areas with greater concentrations of vulnerable populations (e.g. schools, childcare centres, and long-term care centres etc.).	City
Climate Change Communications	Moderate	Very Low	Educate the public about climate change risks (e.g., extreme heat, flooding, Lyme disease, etc.) and what can be done to reduce risk, enhance preparedness, and improve the environment (e.g., landscaping, tree planting in backyards, and rain barrels etc.), building on the lessons learned and awareness raised from the pandemic.	City, TRCA in partnership with local organizations and property owners/managers
Community Tree Planting and Stewardship	High	Low	Consider implementing a program to facilitate community tree planting and local stewardship of the environment (e.g., invasive species sighting and management). Residents and stakeholders noted the need to address invasive species issues affecting Rountree Mills Park and the Humber Arboretum.	City, TRCA, nature-based organizations (e.g., LEAF)
Rethinking Bus Shelters	High	Moderate	Residents and stakeholders noted the declining number of bus shelters within the neighbourhood and the lack of weather protection they provide. Residents also noted that shelters play a role as spaces for the community to socialize.	TTC, City

Strategy	Impact Rating	Effort Rating	Description	Potential Implementation Lead(s)
			Consider rethinking the design of bus shelters within the neighbourhood to provide year-round weather protection (e.g., from the heat, cold, rain, and snow), as well as provide safe public space for the community (e.g., with lighting, seating, etc.).	
Access to Greenspace	High	Moderate	Improve access to greenspace for people of all ages and abilities (e.g., removal of fences where feasible, better multi-use trails, better car access, and information about how to access the ravines safely).	City, TRCA
Stormwater Infrastructure	High	Moderate	Regularly inspect and maintain culverts and other stormwater infrastructure and conduct pre- and post-inspections before and after storm events.	City
Flood Risk Mitigation	High	Moderate	Where relocation of infrastructure, buildings or structures from the flood plain is not possible, implement measures to reduce the risk of flooding by enhancing flood preparedness through communications and outreach, and encouraging or supporting implementation of site-level protection measures (e.g., sandbagging, floodproofing, grading, etc.). Visit the following for more information about how to prepare for flooding: https://trca.ca/conservation/flood-risk-management/prepare/	City, TRCA in partnership with home auditors and local organizations
Greening Parking Lots	High	High	Identify opportunities to implement renewable energy (e.g., solar) and green infrastructure in new and existing public and private parking lots. For example, see the following guide .	City, TRCA, property owners/managers, businesses, Infrastructure Ontario
Mobility Hub	High	High	Explore opportunities to create a new kind of mobility hub in Rexdale, which has been historically underserved by high speed public transportation. Residents and stakeholders envision a future with less cars on the road, more carpooling, more public transportation options, more electric vehicles, and eventually, shared autonomous vehicles. They hope to see improved active transportation connections to the Finch West LRT.	Metrolinx, TTC, City

Strategy	Impact Rating	Effort Rating	Description	Potential Implementation Lead(s)
Relocation of Flood Vulnerable Structures	High	Very High	Relocate infrastructure, buildings or structures away from the flood plain, where feasible.	City, TRCA, Province, Federal Government
PREPAREDNESS				
Proactive Maintenance and Testing of Cooling Facilities	Very High	Low	Prior to a heat warning, conduct proactive maintenance and testing of cooling facilities (e.g., splash pads and drinking fountains) to ensure they are operational. Residents and stakeholders noted that sometimes splash pads are not working or not turned on.	City in collaboration with local organizations
Enhance Access to Healthy, Affordable Food	Very High	Low	Invest in programs that bring fresh produce at affordable prices directly to people where they are at (e.g., through mobile fresh produce trucks, and affordable/subsidized supermarkets or pop-up farmer's markets). Consider implementing more programming related to urban harvesting, canning, and preserving (e.g., to take advantage of the neighbourhood's fruit trees, including wild plum trees at Finch/Islington).	City in partnership with Rexdale's Food Access Committee and other food-based organizations and businesses
Get Into Nature Programming	High	Very low	Consider implementing more programming to bring people out into nature (e.g., through the Walks in the Parks program, a Park Friends Group, and community picnics - ideally with free food). Residents and stakeholders noted that the Etobicoke North Multicultural Association used to provide free food and school supplies at their community picnics.	TRCA in collaboration with local organizations
Backup Power	Very High	Moderate	Evaluate energy resilience and encourage solutions such as combined heat and power and backup power within the neighbourhood (for both public and private property, including businesses and MURBs). Residents and stakeholders noted that MURBs have been affected by power outages in the past and can particularly affect seniors and people with mobility issues, especially when elevators are not working.	City, property owners/managers, utilities
Increase Local Food Production	Very High	Moderate	Create more space for urban agriculture within the neighbourhood (e.g., community gardens, balcony gardens, community farms, and greenhouses), targeting suitable public lands and existing vacant/underutilized lands (e.g., Finch and Albion before Highway 27, Downsview, parking lots, etc.), as well as	City, TRCA, local organizations, property owners/managers

Strategy	Impact Rating	Effort Rating	Description	Potential Implementation Lead(s)
			balconies, roofs, and indoor spaces. There are existing examples of community gardens that are managed by tenant associations within the neighbourhood (e.g., 2677-2667 Kipling Ave) – a co-op model can be pursued for long-term sustainability.	
Address Immediate Food Needs	Very High	Moderate	Consider continuing effective pandemic initiatives to provide food to those in need (e.g., MURB community room food bank, Rexdale CHC and Albion Library).	City in partnership with local organizations
Personal Preparedness	High	Low	Host personal preparedness events in the neighbourhood (e.g., at community centres).	City, TRCA in partnership with local organizations
Flood Preparedness Outreach and Engagement	High	Low	Enhance flood preparedness through outreach and engagement with infrastructure owners/operators, property owners and renters. Conduct targeted campaigns (e.g., for pockets of residential properties north of Stevenson Road and along Anabelle Drive, and residents affected by basement flooding).	City, TRCA in partnership with local organizations
Multi-Agency/Stakeholder Collaboration	High	Low	Continue the multi-agency/stakeholder cluster table.	City in partnership with local organizations
Sense of Community	High	Moderate	Create opportunities for enhancing social capital, where neighbours of all ages and abilities can meet one another (e.g., through community gardens, programming in parks/schools/community centres, street festivals, plaza pops, movie nights). Residents and stakeholders noted that new residents move to the neighbourhood but sometimes do not stay long. Opportunities to get to know the community and help make the community better may attract people to stay longer. Consider creating more informal community gathering spaces close to where they live (e.g., schools can be rented out by local groups for gatherings and religious activities, and more gathering spaces in and around MURBs for residents and the broader community).	City, TRCA in collaboration with property owners, local institutions, and local organizations

Strategy	Impact Rating	Effort Rating	Description	Potential Implementation Lead(s)
Risk and Emergency Communications	Moderate	Low	Inform residents of what to do during extreme weather events and how to share information in case of power outage and language barriers. Approximately 7% of residents have no knowledge of English or French, and 11% of residents do not have access to the Internet. For example, encourage people to check on their neighbours, disseminate information in multiple languages or simple visuals that do not require much explanation, and leverage technology that may still be available during power outages (e.g., cell phones, radio, etc.).	City, TRCA in partnership with local organizations
Work with Businesses to Increase Access to Healthy Food	High	Moderate	Work with local businesses to explore opportunities to offer discounted food access before expiry to help improve affordability and reduce food waste. For example, Bento: https://gobento.com/our-solution/	City, TRCA, local businesses
Critical Infrastructure Resilience	High	Moderate	Undertake a more in-depth critical infrastructure risk assessment, focusing on critical infrastructure systems such as transportation, food, water, and electricity to identify critical infrastructure vulnerabilities that can affect the neighbourhood and understand interdependent risks (i.e., if one system fails, how might this affect another system?). Systems that can affect the neighbourhood may be located outside of the neighbourhood (these systems were not included in the Rexdale neighbourhood vulnerability assessment).	City, TRCA, utilities
Multi-Unit Residential Building (MURB) Thermal Comfort	High	Moderate	Work with building owners and operators to identify buildings/units where indoor temperatures can get too high for human health and well-being and identify effective cooling solutions (active or passive). Through public engagements, stakeholders shared stories of people who have had to sleep on their balconies at night to keep cool.	City, TRCA in partnership with property owners/managers and residents
Multi-Unit Residential Building (MURB) Backup Power	High	Moderate	Work with building owners and operators to identify backup power needs, see: https://www.toronto.ca/wp-content/uploads/2017/11/91ca-Minimum-Backup-Power-Guideline-for-MURBs-October-2016.pdf	City, TRCA in partnership with property owners/managers and residents
RESPONSE				

Strategy	Impact Rating	Effort Rating	Description	Potential Implementation Lead(s)
Support for Vulnerable Residents	High	Moderate	Establish a volunteer program where volunteers would go knocking on doors to check on vulnerable populations (e.g., seniors and people living alone) to bring food, water, medication and other necessary items during extreme weather events. Residents living in MURBs may not have access to elevators during power outage if the building does not have backup power.	Local organizations with City support
Resilience/Food Hubs	High	Moderate	Work with community partners to establish community resilience/food hubs - places where residents can go for shelter and basic needs in case of an emergency. These hubs would also operate on an ongoing basis with a goal of strengthening community resilience (e.g., by providing space for urban agriculture, access to affordable or free food, offer gathering spaces for residents and local organizations, and offer educational programs to enhance resilience). Through the SNAP Action Plan development process, residents and stakeholders identified potential locations for resilience/food hubs as well as components that would make a successful resilience/food hub.	City, TRCA, local organizations
Support for the Homeless	Moderate	Moderate	Provide support to homeless populations during flooding and other extreme weather events.	City and local agencies and organizations
RECOVERY AND LEARNING				
Neighbourhood Recovery Plan	Moderate	Low	Develop a neighbourhood recovery plan to help guide recovery when needed.	City in partnership with TRCA and local organizations
Continuous Learning	High	Moderate	Document, maintain and learn from records of past climate change impacts and disruptions (e.g., through a common database).	City, TRCA

Source: High-Level Resilience Strategy for Rexdale (2023)

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