



SNAP

Sustainable Neighbourhood
Retrofit Action Plan

Five Year Program Review

2009 - 2014

A young girl with dark hair is reaching up towards a red apple hanging from a tree branch. She is wearing a dark blue sweater with a pink and white striped cuff. The background shows other tree branches and leaves, some green and some yellow, against a clear blue sky. The image is framed by a white border with faint leaf outlines.

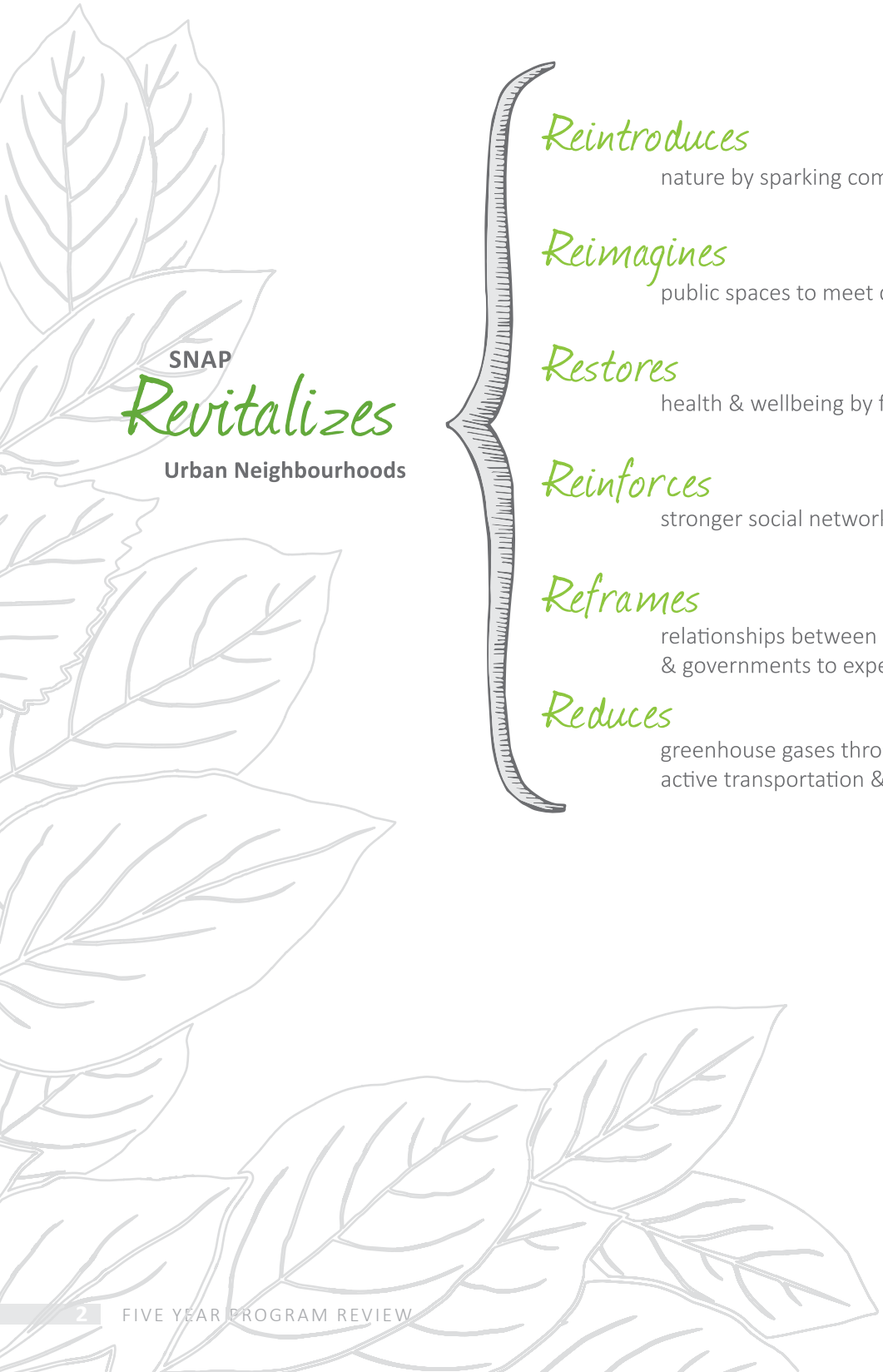
Transforming neighbourhoods

*Place-based solutions and
directions for greater impact*

Table of Contents

<i>Letter From TRCA Chair</i>	3
<i>The Status Quo</i>	
Why it's Not Working	4
<i>The SNAP Approach</i>	
How it Works	5
<i>What We've Accomplished</i>	
Neighbourhood Profiles	8
Other Outcomes	18
<i>Five Year Program Review</i>	
What Have We Learned?	19
<i>How We Are Funded</i>	24
<i>In Summary</i>	
Are We Having an Impact?	26
<i>Thank You to Our Partners</i>	27





SNAP

Revitalizes

Urban Neighbourhoods

Reintroduces

nature by sparking community enterprise

Reimagines

public spaces to meet diverse needs

Restores

health & wellbeing by focusing on the triple top line

Reinforces

stronger social networks to increase community resilience

Reframes

relationships between homeowners, businesses & governments to experiment & showcase

Reduces

greenhouse gases through water & energy conservation, active transportation & urban agriculture

Letter From TRCA Chair

TRCA and its partners share a common dream for more beautiful, healthy and happy communities. We feel increasingly compelled to find ways to help realize that new and exciting future.

Reflecting on the program's first 5 years, we see that SNAPs offer a vehicle to work together towards that dream. Collaboration on these projects is revealing new insights and possibilities to how we can create more vibrant communities that thrive together with a foundation of healthy natural systems. And we are already beginning to see how new ideas can act as seeds for change, growing momentum from the neighbourhood up.

We want to take this time to recognize and thank all those involved in the program, and notably our member municipalities and other founding partners who make this good work possible. I invite you to celebrate with us as we look forward to growing our community of partners and achieving those dreams.



"We feel increasingly compelled to find ways to help realize that new and exciting future."

Words here represent the SNAP participants' vision of their future sustainable neighbourhood

Community
Energy neighbourhood
Local people FOOD MAKE fun
Healthy Beautiful water

Why The Status Quo is Not Working

We need to influence change in older neighbourhoods

Many global, regional and watershed plans call for improved sustainability and actions for climate change. Although numerous programs are emerging to support these directions, implementation in existing urban areas is not happening as quickly or efficiently as needed to achieve local objectives. Implementation of these plans face unique challenges, particularly in established areas where no impetus for mass change exists. There are often competing demands for land, complex stakeholder interests and networks, a disengaged public, perceived high costs, and unwillingness to try new practices and technology.

The cost of doing nothing

The need to rethink and reinvest in existing communities is critical. This is evidenced by the growing costs associated with aging infrastructure, more severe and frequent weather events, and environmental and human health issues. Many of these costs are not easily quantified, however some examples include:

- Federation of Canadian Municipalities reports the national municipal deficit for existing water infrastructure is **\$31 billion**¹.
- **60%** of Ontario's buildings, roads and water systems are upwards of **50 years old**², and **70%** of Ontario homes are over **25 years old**³.
- Insurance Bureau of Canada estimates claims related to catastrophic events were **\$3.2 billion** nationwide in 2013, triple the annual average for the past five years⁴.
- Number of extreme heat days in southern Ontario is projected to **more than double** by 2050⁵.
- World Health Organization reports that **24% of the global disease burden** and **23% of all deaths** can be attributed to environmental factors⁶.
- TRCA modelling indicates that sustainable design must be implemented in new greenfield development and in retrofits of existing urban areas, **simply to maintain** watershed conditions, let alone improve them⁷.

The issues are complex, and call for collaborative solutions. Sustainable Neighbourhood Retrofit Action Plans represent one part of the puzzle, and offer a strategic model for infrastructure and environmental renewal combined with diverse community and partner benefits.

¹ Federation of Canadian Municipalities (2007). Danger Ahead: The Coming Collapse of Canada's Municipal Infrastructure.

² David Fleischer and Nicole Visschedyk (June 2011) Concrete Problems. Available at: <http://www.metroland.com/page/Infrastructure>.

³ Statistics Canada, Census of Population (2006) Occupied private dwellings by period of construction and condition of dwelling, by province and territory. Available at: <http://www40.statcan.ca/l01/cst01/famil63b-eng.htm>.

⁴ Insurance Bureau of Canada (January 2014) Media Release. Available at: http://www.abc.ca/en/Media_Centre/News_Releases/2014/January/Canada_inundated_by_severe_weather_in_2013.asp.

⁵ Chiotti, Q., and Lavender, B. (2008). Ontario; in From Impacts to Adaptation: Canada in a Changing Climate 2007, edited by D.S. Lemmen, F.J. Warren, J. Lacroix and E. Bush; Government of Canada, Ottawa, ON, p. 227-274.

⁶ World Health Organization (2006) World Health Report.

⁷ Toronto and Region Conservation Authority (2007) Rouge River Watershed Scenario Modelling and Analysis Report.

The SNAP Approach: How it Works

SNAPs represent an innovative model for sustainable urban renewal in older existing neighbourhoods.

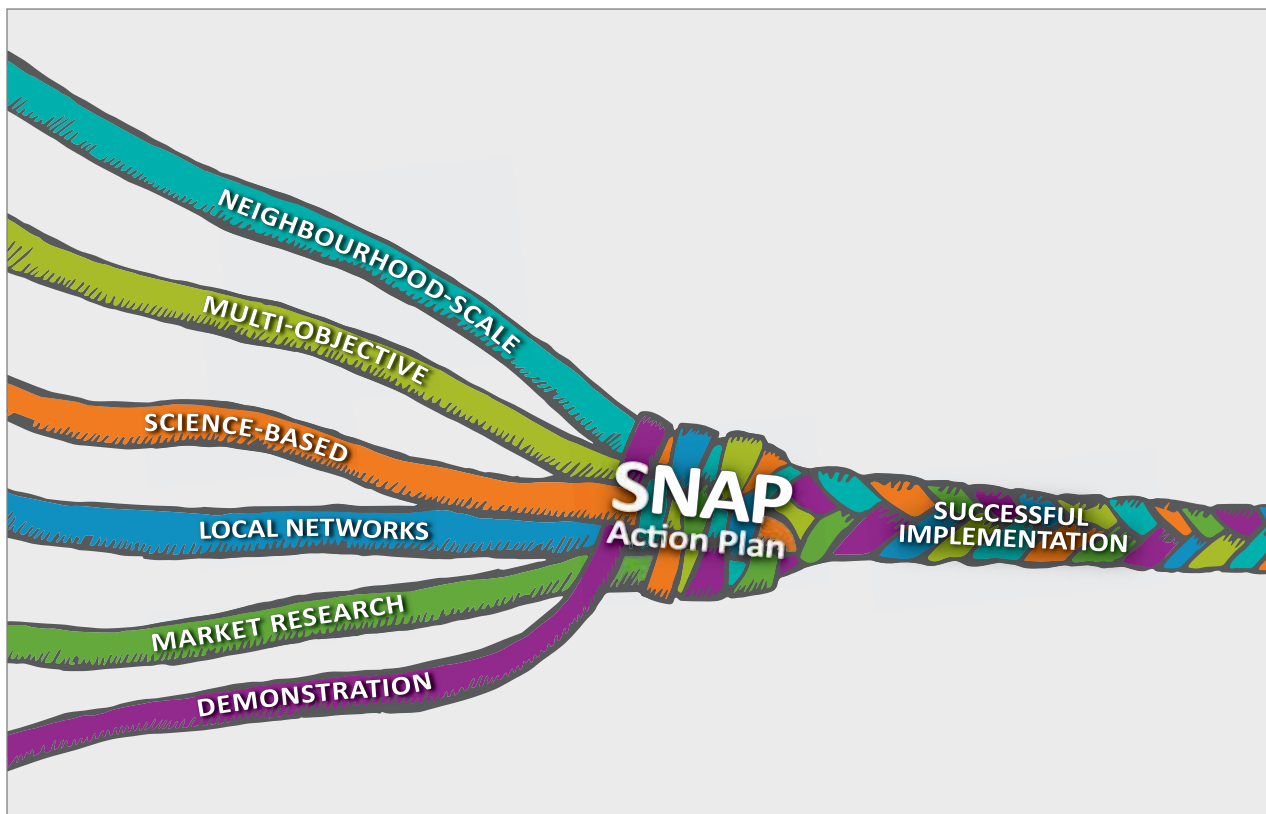
SNAPs are plans for measurable environmental improvement and community transformation. They address environmental objectives by identifying solutions that also meet the diverse objectives of municipal strategic plans and local community interests. Most importantly, they find ways to overcome implementation challenges.

SNAPs increase participation and uptake at a local scale and communicate an understanding that every action counts. They coordinate private and public actions at a neighbourhood scale contributing to a holistic systems strategy.

*"We believe this project can serve as a
role model for positive change across Canada."*

- Municipal Staff

The SNAP planning model includes the following key elements:

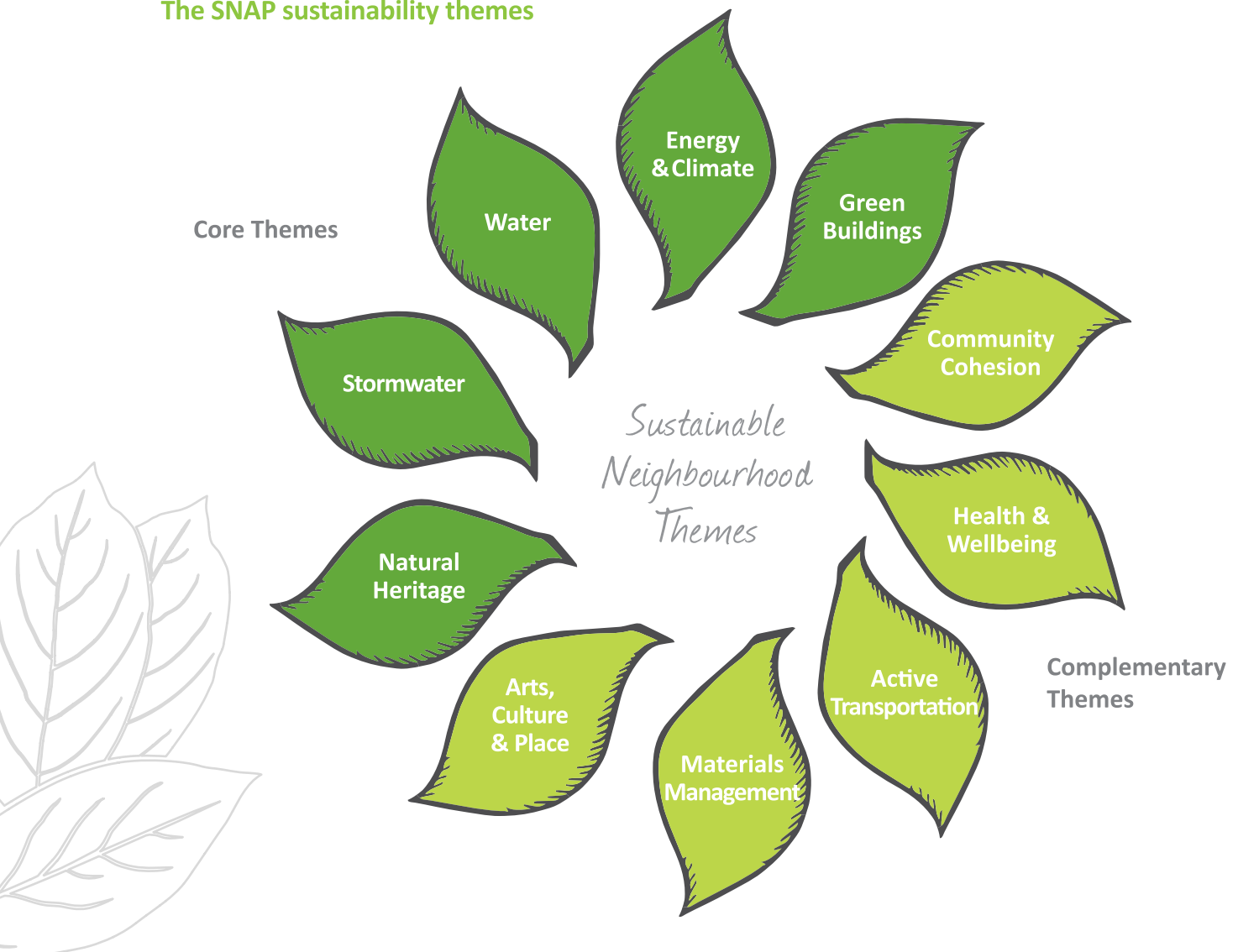


SNAPs seek to document current conditions and predict outcomes of actions, working towards a framework of long term sustainability targets. This ensures that change and the benefits of local actions can be tracked over time.

To respond to local sustainability issues, each neighbourhood SNAP is guided by a framework of sustainability goals, indicators and targets. This framework is based on larger goals and targets set by partners as well as other innovative policies and best management practices. These working targets help guide the action plan development and measure outcomes.

Although each SNAP is unique, the framework that guides them is based on a common set of sustainability themes. These include core environmental themes, as well as a selection of complementary themes based on the physical neighbourhood context, and social and cultural flavour. This makes for creative and locally tailored plans driven by community interests.

The SNAP sustainability themes



Each neighbourhood plan contains measurable outcomes that help make the business case for implementation

- Stormwater targets achieved
- Stormwater re-use potential
- Urban forest and natural cover increases
- Ecoservices provided
- Water and energy savings
- Other social co-benefits

SNAP is part of a growing movement that draws on the science of behaviour change to achieve sustainable neighbourhood transformation

Local action requires behaviour change, particularly in the area of residential retrofits. The SNAP program uses a variety of tactics to understand local context, identify what motivates people and the appropriate measures to encourage change. The following illustrates emerging trends across the field of practice.

Key Challenge	SNAP Tactic & Emerging Practice
<p>Getting homeowner’s attention, where mass marketing and education/awareness campaigns have run their course</p>	<p>Consumer-based marketing, motivation</p> <ul style="list-style-type: none"> • Market research and behavioural insights as basis for designing targeted marketing, tailored programs • Community-based Social Marketing – commitments, social diffusion, prompts, norms, communications, incentives, conveniences • Nudging • Local network based delivery • Demonstrations • Benchmarking <p>Industry-based partnerships</p> <ul style="list-style-type: none"> • Partnerships with business/retail and services to provide desired products. Showcase display of preferred options • Labelling/Certification (e.g. Energy Star, “Green Home”)
<p>Overcoming financial barriers to retrofit, upfront investment costs</p>	<p>Incentives</p> <ul style="list-style-type: none"> • Short term incentives, rebates, subsidies on products • Fees and credit (e.g. stormwater fee and credit for desired practices being explored locally) <p>Financing Tools</p> <ul style="list-style-type: none"> • Enabling financial tools from municipality (e.g. Local Improvement Charge loans against property tax paid back with savings) • Enabling financial tools from banks (green loans, green mortgages etc.) • Crowdsourcing and crowdfunding <p>Sharing Economy</p> <ul style="list-style-type: none"> • Sharing of resources and services (e.g. harvest donation) <p>Social Enterprise</p> <ul style="list-style-type: none"> • Supporting and creating opportunities for local social and economic development (e.g. skills training, income opportunities)

What We've Accomplished: NEIGHBOURHOOD PROFILES

Black Creek **SNAP**

CITY OF TORONTO



Orthophotography, 2011 First Base Solutions



Place

- Population: 25,000 (1,750 homes, 45 multi-unit buildings)
- Building age: 90% built between 1960s and 1970s
- Median household income: \$31,000 to \$40,000 (\$57,000 in single family homes)
- Top home languages: English, Vietnamese, Spanish, Chinese, Italian

SNAP Action Plan

- Focuses on local food production, stormwater management, urban forest, energy conservation and renewables, green jobs and training in this priority neighbourhood where social issues, degraded environment and basement flooding are key issues.



Innovation

- Local motivators and behavioural insights drive program design

Harvest the Rain is a multi-objective, one-window, home renovation program based on market research to identify local motivators. Strategic approach involves door opener incentives that respond to resident interests (rainbarrel deals), door step meetings to identify strategic retrofits and referrals to delivery partners. Program delivers down-spout disconnection and rain harvest supported vegetable gardens, while advancing basement flood protection, tree planting, energy conservation and harvest donation.

- Creation of a 21st century sustainable urban village

The San Romanoway Revival Project involves private and public sector partners transforming a 1970s tower complex at the heart of Jane and Finch. The project aims to achieve social and economic outcomes through inspired environmental initiatives (balcony vegetable gardens, new community gardens and fruit orchard, market, urban forest enhancement, renewable energy, storm water management, landscape revitalization projects, celebration of the arts, job skills training, social enterprise, capacity building). A crowd sourced design competition is supporting new ideas and participation from across the globe.

By The Numbers...

Harvest the Rain program is engaging a new, hard to reach public

- 140 participants
- 8% uptake in first 10 months
- 217+ rain barrels deployed (typically, 2-4 per home & emptied 10-14 times per season)
- 51+ trees planted



in Black Creek SNAP



In similar Toronto neighbourhoods

Expect to reduce stormwater runoff and pollutants from private lots by 30%, expand the urban forest cover from 26% to 34%, and reduce electricity use by 10% and natural gas use by 17%

Over 400 residents shared their dreams for the San Romanoway Revival project at a community corn roast

65 new balcony vegetable gardens created

Current Black Creek SNAP programs:



Tracking of all homes adopting actions in the Harvest the Rain program.

Black Creek SNAP lead partners:

City of Toronto • Jane/Finch Community and Family Centre • Black Creek Conservation Project
Black Creek Community Farm

What We've Accomplished: NEIGHBOURHOOD PROFILES

County Court **SNAP**

CITY OF BRAMPTON



Orthophotography, 2013 First Base Solutions



Place

- Population: 5,800 (1,600 households)
- Building age: 1983-1987
- Median household income: \$77,008
- Top home languages: English, Punjabi

SNAP Action Plan

- Focuses on key public realm renewal projects addressing an aging stormwater pond and community park for an increased sense of community; boulevard bioswales; improved urban forest; rainwater harvesting from adjacent subdivisions for golf course irrigation; and water and energy efficiency in residential homes.



Innovation

- **Demonstrating home retrofit through local Green Home Makeover**
Showcasing green transformation and achieving significant energy and water savings. Developed markets for innovative technology, nurtured local champions, identified and resolved barriers to green renovation, opened the door to private sector involvement in neighbourhood wide program delivery.
- **Strengthening local networks through Neighbourhood Action Team and Coffee Nights**
In the absence of a social network in this suburban community, priority has been put on nurturing local champions and building capacity. A Neighbourhood Action Team has been created, along with coffee nights for interested residents.
- **Leading by example and measuring outcomes**
The City has installed its first bio-filter swale along County Court Boulevard as part of planned road resurfacing. The integrated project was able to access new funding and draw on existing budgets, demonstrating a strategic financing model and interdepartmental coordination.
- **Stormwater irrigation facility provides option with multiple benefits**
By bringing landowners together, SNAP identified a multi-objective solution, presenting cost effective options to address golf course irrigation needs and untreated stormwater.

By The Numbers...

Green Home Makeover demonstration at 71 Turtlecreek Blvd. achieved:

- Annual water savings of 41%, down to 116 LCD for 2013 (Regional average 215 LCD)
- Implementation of a Fusion Landscape®
- Annual energy savings of 44%, 174 GJ down to 98 GJ (Ontario average 136 GJ), including reductions of 26% hydro and 49% natural gas
- Permeable driveway capable of capturing rainwater from events up to 21 mm (approx. 71% of average annual rainfall depth)
- Rain garden capable of capturing runoff from events up to 27 mm (approx. 82% of average annual rainfall depth)

City of Brampton is financing \$125K for a demonstration filter-swale along County Court Blvd. through their Gas Tax road budget

- Implementation of Fusion Landscaping demonstrations at park and five local homes
- 87 trees planted on private lots (at 10% of single family homes)
- Over 2500 trees planted in golf courses

Current County Court SNAP programs:



County Court SNAP lead partners:

City of Brampton • Region of Peel • Peel Village Golf Course • Brampton Golf Club



What We've Accomplished: NEIGHBOURHOOD PROFILES

Burnhamthorpe **SNAP**

CITY OF MISSISSAUGA



Orthophotography, 2013 First Base Solutions



Place

- Population: 21,000 (7,300 households)
- Building age: built between 1960s and 1980s
- Median household income: \$65,428
- Top home languages: English, Polish, Urdu, Tamil
- Diverse community ranging in age, family size, ethnicity and income

SNAP Action Plan

- Currently underway, seeking strategic projects that integrate active transportation and neighbourhood connections, enhanced urban forest and animated public spaces, stewardship of a local creek, as well as tower initiatives that engage the community and youth. Actions will target sustainable stormwater management and energy practices for residential homes, reducing flood risk and stormwater flows to the sanitary system.



Innovation

- **Depave Paradise project demonstrates climate change adaptation**
Partners working collaboratively at the Russet Homes Housing Co-operative to convert an underutilized hardscape area to garden and common space for co-op residents. This volunteer-driven initiative will achieve diverse goals of local food production, biodiversity, and stormwater management, and offer a demonstration for other interested property owners.
- **Collaborating with local network of Community Leaders**
Project Team is seeking insights on action plan directions with a broad cross section of leaders, who are in turn reaching out to their networks and memberships to build awareness, research behaviours and understand barriers to action.
- **Nurturing local champions through resident-led movie nights**
A local initiative to engage and build connections between neighbours and inspire participation through compelling environmentally themed documentaries.

By The Numbers...

Working with over 20 community leaders to tap into local networks

Over 30 tower properties provide significant opportunity for water and energy reduction

200 m² of impermeable surface converted to garden space as part of De-Pave Paradise project

Hitting the Streets

- 105+ surveys
- 270+ participants

Burnhamthorpe SNAP lead partners:

City of Mississauga • Region of Peel

What We've Accomplished: NEIGHBOURHOOD PROFILES

Lake Wilcox SNAP

TOWN OF RICHMOND HILL



Orthophotography, 2013 First Base Solutions



Place

- Population: 15,540 (4,650 households)
- Building age: most households built in 2000s, some cottage households built between 1930s and 1940s
- Median household income: \$125,000
- Top home languages : English, Chinese

SNAP Action Plan

- Targets stormwater management, biodiversity, energy and water efficiency and a strong sense of community. Key actions include residential eco-landscaping, shoreline naturalization and stewardship of natural areas. These represent a way for homeowners to embrace nature in their community and protect the health of Lake Wilcox and surrounding natural areas.



Innovation

- **Locally tailored Eco-Landscaping Program connects residents and industry**
Promotes eco-friendly landscaping practices, as well as water and energy efficiency and community stewardship. The strategic approach targets busy commuter families who want to balance environmental interests with aesthetic appeal. This involves the creation of trendy, custom garden designs, easy and convenient assistance, negotiated discounts and community-spirited gardening events. Relationships have been built with local private landscape businesses for long term program delivery.
- **Measuring local participation and change**
As part of the Eco-Landscaping program, recognition yard signage designed by local students reinforces social norms and prompts participation.
- **Reaching out further to schools and families**
Working with a local public school to construct and showcase a bio-swale feature, supporting a broader partnership between the school board, children and their families.

By The Numbers...

Achieving on-the-ground action

- Over 400 eco-landscaping elements installed, such as LID features, trees, shrubs and native plant gardens
- Over 500 people have attended SNAP events

Targeting 46% of residential lots in priority areas with eco-landscaping to achieve 40-50% phosphorus removal, 35% urban forest canopy cover, and additional energy and water savings

Two Front Yard Makeovers attracted over 150 neighbours to ribbon cutting event where they learned how to transform their lawns

Front Yard Makeover at 20 Wheatsheaf St.:

- Sideyard soakaway captures roof runoff from rainwater events up to 13.2 mm in depth (approx. 54% of average annual rainfall depth), making this an effective practice in an under-utilized space

Current Lake Wilcox SNAP program:



Lake Wilcox SNAP lead partners:

Town of Richmond Hill • York Region
Oak Ridges Friends of Environment • LEAF



What We've Accomplished: NEIGHBOURHOOD PROFILES

Bayview Glen **SNAP**

CITY OF MARKHAM



Orthophotography, 2011 First Base Solutions



Place

- Population: 2,100 (770 households)
- Building age: Built between 1960s and 1970s
- Median household income: \$148,119
- Top home languages: English, Chinese
- Residents value trees, green, health, sophistication

SNAP Action Plan

- Currently underway, seeking to leverage public stormwater infrastructure renewal addressing local flooding and sewer infiltration and inflow issues, through inspired designs that achieve synergies with municipal and watershed objectives and community benefits. Project areas include road right of way alternatives, integrated parks concepts, aging urban forest and succession planning, and a locally tailored program for indoor and outdoor green home improvement. In turn, use public projects to achieve private engagement.



Innovation

- **Public realm renewal will meet diverse needs**

This SNAP will showcase innovative right of way and park concepts to store and retain significant volumes of stormwater, while offering active and passive recreational opportunities, cultural heritage and ecosystem services.

- **Reaching a new public**

This SNAP is finding strategies to influence behaviour in a hard-to-engage, high income socio-economic group that, although generating a particularly large carbon footprint, has not been the target audience of broad-based sustainability programs.

By The Numbers...

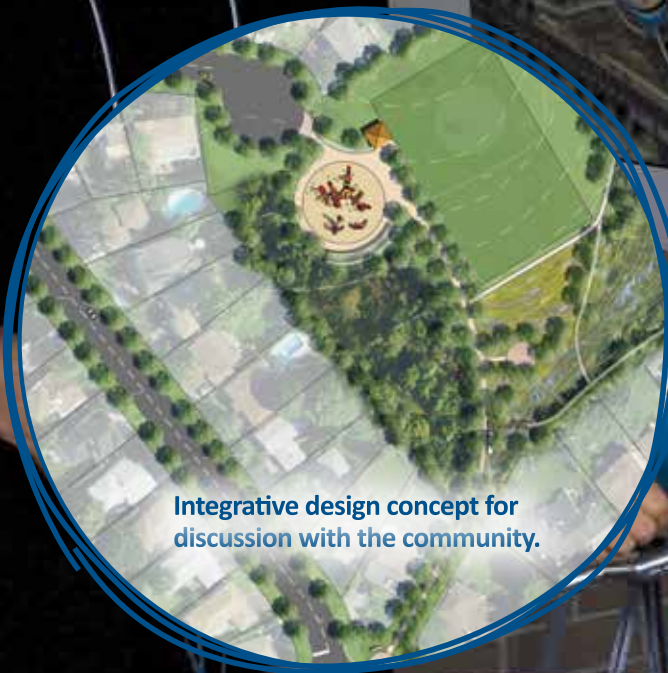
Opportunity to launch engagement at 14% of homes where flooding events have been reported

30% of homes have a swimming pool, presenting significant energy savings potential

Electricity use is significantly higher than provincial averages with Green House Gas produced by electricity doubling those produced by natural gas

Hitting the streets

- 70+ Surveys
- 300+ participants at events



Integrative design concept for discussion with the community.

Bayview Glen SNAP lead partners:

City of Markham • York Region

What We've Accomplished: OTHER OUTCOMES

SNAP's local, national and international participation

SNAP has been part the growing conversation around collaborative and innovative approaches to community transformation.

Recent Presentations

- Parallel 52/Dutch Consulate Sustainable Housing & Neighbourhood Transformation Video Conference Series (Toronto, Rotterdam 2014)
- Canadian Water Resources Association National Water Congress (Hamilton 2014)
- Ecodistricts Summit (Washington DC 2014, Portland, Oregon 2011)
- Ontario Professional Planning Institute (London 2013, Niagara Falls 2014)
- Grey to Green Infrastructure Conference (Toronto 2014)
- International Water Sensitive Urban Design Conference (Gold Coast, Australia 2013)
- CMHC Sustainable Neighbourhood Summit (Toronto 2013)
- FCM Sustainable Communities Conference (2012, 2013)
- International Council for Local Environmental Initiatives (ICLEI- Canada) Living Cities Conference (Hamilton 2012)
- Canadian Institute of Planners National Conference (Montreal 2010)

Recent Articles

- Ontario Professional Planning Institute Journal (March 2011, Sept 2014)
- International Water Sensitive Urban Design Conference Proceedings (2013)
- Sustainable Architecture & Building Magazine (2013)
- Green Building Magazine (2012)
- Environmental Science & Engineering Magazine (2011)
- Sustainable Builder Magazine (2011)
- Pipeline (2011)



"[SNAP has contributed] forward-thinking programs and a smart conversation about the dynamics of the neighbourhood and how it can be improved."

- Project partner

Five Year Program Review : WHAT HAVE WE LEARNED?

Five year program review

In recognition that 2014 marks the fifth year of the SNAP program, including completion of three pilot action plans and two years of their implementation, TRCA staff initiated a program review in consultation with our partners. The program evaluation serves the following purposes:

1. Refine the planning model and increase effectiveness of SNAPs.
2. Recommend opportunities for scaling up retrofit solutions identified in pilot SNAPs.
3. Recommend ways to share knowledge about SNAP to other interested groups.
4. Recommend a future SNAP Program and TRCA's role.
5. Confirm place in the field of innovation related to sustainable urban retrofit and contribute recommendations for its advancement.

At this stage, the review was an exercise among TRCA and our SNAP partners. Input was based on: lessons compiled by project management teams throughout the planning process; an online survey distributed to 128 SNAP partners representing all sectors; and interviews with a cross section of 10 partners.

We were able to gather responses from 40% of our partners based on the survey and interviews combined. This represents a balance of input from each SNAP and a variety of sectors.

What have we heard about achieving a sustainable neighbourhood?

Greatest Obstacles

- Securing and sustaining participation
- Attracting interest
- Understanding of benefits
- Understanding of costs

Greatest Opportunities

- Collaboration among many groups
- Inspiring demonstrations
- Community champions
- Consistent outreach

What has SNAP contributed?

This cloud of words summarizes survey responses.



Summary of interview and survey input

Topic	What is SNAP contributing?	What could SNAP do better, do next?
<p>Planning Model</p>	<p>Innovative Community Engagement</p> <ul style="list-style-type: none"> Identifying messages that capture local attention Helping address communication barriers Building awareness through events, outreach <p>Model for Neighbourhood Transformation</p> <ul style="list-style-type: none"> Helping advance municipality's vision Showcasing sustainability on the ground Offering a place to experiment Has informed place-based solutions involving the community Fills the gap connecting strategic plans to household action Good, appropriate, flexible, effective approach Created a framework or template that can be adapted to other neighbourhoods Satisfied, happy with SNAP, good job <p>Increased Connections</p> <ul style="list-style-type: none"> Connecting people Starting the dialogue Supporting Interdepartmental communications Providing channels for new partnerships 	<p>Engagement</p> <ul style="list-style-type: none"> More outreach, further and wider Increase youth engagement Promote intergenerational relationships Continue public sector lead in community engagement, draw on consultants for specific tasks Improve logistics of delivery More notice on events <p>Planning Model</p> <ul style="list-style-type: none"> Strengthen metrics, including economic and social benefits, and how SNAPs are making communities better Focus efforts and analysis on most strategic actions Continue to strive for senior staff buy-in by implementation partners Recognize city planning department interests in neighbourhood revitalization planning Faster timelines for developing a SNAP Plan for longer implementation time frames Keep partners up to date on project status <p>Role of private sector</p> <ul style="list-style-type: none"> Make effective use of consultants through narrowly scoped contracts
<p>Residential Retrofit Programs (i.e. Harvest the Rain, Green Home Program, Eco-Landscaping)</p>	<ul style="list-style-type: none"> Market development for innovative green technology and practices Promoting green businesses Creating neighbourhood tailored programs Providing "hands on" delivery 	<ul style="list-style-type: none"> Provide catalytic funding, more incentives Seek opportunities to scale up pilots for efficient retail partnerships Increase engagement of industry and consultants early in the process as advisors/market experts Explore private sector membership fees as part of funding model for long term program delivery Provide clear program administration details for residents



Topic	What is SNAP contributing?	What could SNAP do better, do next?
Public Infrastructure Renewal	<ul style="list-style-type: none"> Placed-based approach has brought multiple departments together to set the stage for more integrated planning Working within existing municipal processes Creating business cases as basis for cost-effective solutions 	<ul style="list-style-type: none"> Making change may take time, be patient and work with necessary municipal process Celebrate any progress Use municipal-wide water infrastructure plans as a place for future integrated project opportunities
Future SNAPs	<ul style="list-style-type: none"> Working collaboratively to select strategic neighbourhoods based on partners' mutual priorities 	<ul style="list-style-type: none"> Consider community engagement potential relative to objectives for site selection Use municipal-wide water and road infrastructure plans as a place for new SNAPs
Funding	<ul style="list-style-type: none"> Leveraging municipal funding by accessing innovative funding sources, grants Forming partnerships for in-kind support, donations of products and services Nurturing social enterprise Developing business cases in cost analysis in support of new integrated projects 	<ul style="list-style-type: none"> Continue to align with municipal priorities and budgets Continue to seek local municipal funding contribution as upfront commitment to long term implementation Explore expanded role for crowdsourcing beyond implementation projects
Sharing Knowledge	<ul style="list-style-type: none"> Gaining insights to identify and overcome barriers to neighbourhood retrofit, locally and system wide 	<ul style="list-style-type: none"> Transfer lessons learned related to neighbourhood scale application Inform industry dialogue on overcoming systemic barriers Continue to promote the SNAP brand

"SNAP supports our business' goals of environmental awareness, increased market demand and sales. Being a part of this program helps demonstrate we are a sustainable industry."

- Retail business partner

A summary of key observations and recommended directions based on our five year review:

1. Refined Planning Model

The SNAP planning model and neighbourhood-scale approach appear to be an effective tool to guide on-the-ground implementation of higher level plans for sustainability, climate change adaptation and grey and green infrastructure renewal. Regardless of whether or not the environmental benefits are recognized, it is often the community benefits which are the most compelling and motivational for action. For example, SNAP offers unique contributions:

- Brings communities and governments together to reimagine public spaces to meet diverse needs;
- Revitalizes older urban neighbourhoods by re-introducing nature and blending with community enterprise;
- Restores a healthy balance of environmental, social and economic wellbeing of urban spaces;
- Nurtures stronger community social networks to increase community resilience;
- Achieves measurable improvements in strategic stormwater management, water re-use, urban forest and natural cover, ecoservices, and water and energy savings.

Recommendation:

Incorporate lessons learned from the pilot SNAPs to streamline the planning process and seek to identify more metrics to communicate and track the community socio-economic benefits that arise from these projects.

2. Scaling Up Residential Programs

SNAPs invest a lot in upfront market research to understand the interests, motivations and challenges of local homeowners, in order to design a tailored residential retrofit program with effective marketing, products, incentives and delivery. Once the program has been pilot tested and proven within the SNAP neighbourhood, there may be opportunities to achieve greater economies of scale and return on investment by expanding the program to a broader area having a similar driving issue, demographic and housing stock.

Recommendation:

Explore with program partners the feasibility and potential interest in expanding the area of application of residential retrofit programs, once a level of success has been reached in the pilot.

3. Scaling Up Lessons from Public Infrastructure Renewal Concepts

By taking a place-based, collaborative approach, SNAPs have helped to identify design concepts for roads, parks and stormwater management facilities that can address diverse needs of many municipal departments and community interests. This can provide a basis for cost sharing and take advantage of opportunities that one capital project may offer to achieve other needs. Other specific project locations could also benefit from an integrated design at the neighbourhood scale and these locations could be identified upfront to facilitate long term collaborative capital planning. Some of these same concepts identified in the pilot SNAPs may also have application elsewhere.

Recommendation:

Explore with municipal partners ways that we could work together to identify infrastructure project locations which could benefit from an integrated design (at site or neighbourhood scale) such that long term capital planning can be coordinated to take advantage of these opportunities.

4. Sharing Knowledge

TRCA staff have received enquiries from many groups beyond TRCA's jurisdiction who are interested in learning more about our planning model or component projects. Our own SNAP partners have also expressed an interest in dialogue with their counterparts in other SNAPs.

Recommendation:

Share knowledge by publishing a simple SNAP planning guide, offering a SNAP advisory service on a fee for service basis, and facilitate intra-SNAP partner networking.

5. Future SNAPs

Much more experience can be learned from continued implementation of the pilot SNAPs, and as indicated, there are opportunities to scale up concepts arising from those SNAPs to broader geographic areas, thus potentially avoiding the need for a SNAP type project to be done in every neighbourhood. However, we believe there will still be neighbourhoods which would benefit from a SNAP approach. These areas would have multiple grey and green infrastructure renewal priorities and a strong requirement for participation by private landowners.

Recommendation:

Continue to implement the pilot SNAPs and, as noted above, explore with municipal partners ways that we could work together to identify infrastructure project locations which could benefit from an integrated design at a neighbourhood scale.



"TRCA is in a good position to lead SNAPs, having technical expertise and connections to the community and their interests."

- Private sector consultant



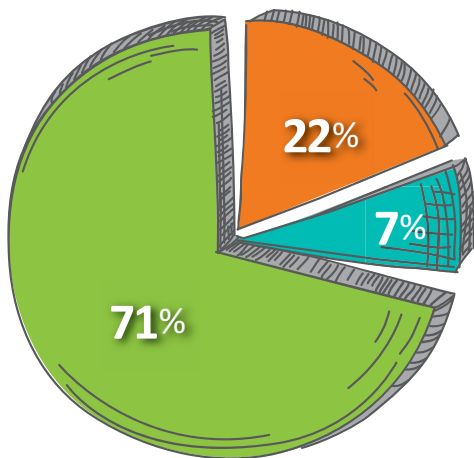
How We Are Funded

The following describes the cost of developing a SNAP plan, revenue sources and expenses. These illustrations do not include costs associated with implementation, as each neighbourhood plan has a unique set of recommended actions and funding strategies. Each SNAP also receives in-kind contributions from partners, volunteers and local businesses.

With a number of action plans developed and implementation underway, we believe the ground work has been laid for infrastructure renewal cost savings, increased participation in partner programs and actions toward community transformation. Additional work will be undertaken to further define the full return on investment, including socio-economic benefits and savings.

SNAP plan costs

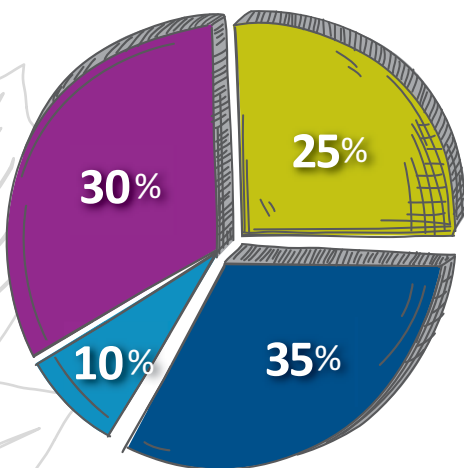
Average cost to develop a SNAP plan: \$200,000 per year, for 2 years.



SNAP Revenue Sources (average annual)

- Core Capital (Regional & Local Municipal)
- Private (Foundations, Utilities)
- Federal (FCM)


This demonstrates the critical role of core municipal capital seed funding to bring partners together to work on the plan, kick-start demonstration projects, and leverage further federal and private sector dollars.



SNAP Plan Expenses (average annual)

- Project Management
- Demonstration Projects
- Consultants/Technical Support
- Community/Partner Engagement

Strong project management is important to bring partners together. Our lessons learned have allowed us to streamline the planning process and minimize project management time; however a dedicated Project Manager is required.



"The work that has been done on the property is not only practical and beneficial, but also improves the aesthetics... Words cannot express how much we thank you for all you have done to help brighten the lives of children."

- Church group leader

In Summary: ARE WE HAVING AN IMPACT?

Supporting community resilience

SNAPs demonstrate how to strengthen community resilience to a changing climate. They make recommendations to address heat, energy and greenhouse gas emissions, water use, biodiversity, stormwater management and strengthened social networks.

Implementing strategic plans

The pilot SNAP plans have demonstrated how it is possible to achieve, and in some cases potentially exceed, targets set by the watershed plan and other municipal partner strategies at the neighbourhood scale. The SNAPs have also identified strategic implementation programs, which will set the stage for greater success. Although implementation programs are still in the early stages, it is possible to make some observations of their potential success at this point.

Residential retrofit

Tailored marketing, demonstration projects and strategic program design has been effective in engaging a new public and to varying degrees inspiring residential retrofit actions. Another 1-2 years will allow us to fully evaluate the impact we have had, recognizing it does take some time for homeowners to act, particularly on deeper retrofits.

Public realm renewal

Stronger cases for the social and community benefits of public infrastructure renewal projects may provide rationale for more integrated planning and budget alignment across departments and agencies. This may achieve greater impact and advance implementation timelines under current budget levels and may even provide rationale for greater budget allocation that will be needed to shorten timelines.

Forging new partnerships

SNAP strengthens existing relationships and forms new targeted partnerships for greater impact. Working collaboratively with public governments and agencies, private sector and community organizations represent effective delivery agents with good market knowledge and ties to local networks. While these new arrangements take time, they will facilitate greater delivery capacity in the future.

It is important to build trust and capacity in the diverse partner groups who need to be part of plan implementation and sustainable community transformation. Thank you to all of our partners who have been a part of the journey so far!



"SNAP helps develop a sense of place and helps inform place-based solutions that involve the community."

- Municipal Staff



Thank You to Our Partners!

We are fortunate and grateful to have support of many partners who provide in-kind and/or monetary contributions towards this innovative program ~ Thank you!

SNAP Founding Partners:



Utilities:

Enbridge Gas
Enersource

Hydro One Brampton
Powerstream

Toronto Hydro

Community Organizations & Institutions:

Afri-Can Food Basket
Bayview Glen Public School
Bond Lake Public School
Black Creek Community Farm
Black Creek Conservation Project
Dixie Bloor Neighbourhood Centre
Ecosource
Everdale
Foodshare
Fresh City Farms

Future Watch
GreenSaver
Jane Finch Community Family Centre
Jewish Vocational Services (JVS)
Lake Wilcox Public School
LEAF
Oak Ridges Lion's Club
Oak Ridges Friends of the Environment
Oak Ridges Trail Association

Pallisades Media Arts Centre
Rainbarrel.ca
Reaching Up Homework Club
Rockwood Homeowners Association
San Romanoway Revitalization Association
University Presbyterian Church
Windfall Ecology Centre
York Region District School Board
York Region Environmental Alliance

Community Champions:

Paul Gay (County Court SNAP)
Marisa Mancuso (County Court SNAP)
Pindy Sanghera (County Court SNAP)
Les Molnar (County Court SNAP)
Simi Kapur (Burnhamthorpe SNAP)
Mimi Lau (Burnhamthorpe SNAP)

Euming Yu (Lake Wilcox SNAP)
Andy Yu (Lake Wilcox SNAP)
Joyce Ng (Lake Wilcox SNAP)
Tommy Chan (Lake Wilcox SNAP)
Kara Burgess (Lake Wilcox SNAP)
Tammy Tam (Lake Wilcox SNAP)

Robert Jackson (Lake Wilcox SNAP)
Dorothy Rodrigues (Lake Wilcox SNAP)
Eduardo Ortiz (Black Creek SNAP)
Paz Ortiz (Black Creek SNAP)
Pravin Chitnis (Black Creek SNAP)
Devayani Chitnis (Black Creek SNAP)

Major Landowners / Property Managers:

Bond Lake Public School	Greenwin Inc.	Peel Village Golf Course
Brampton Golf Club	Infrastructure Ontario	Russet Homes Cooperative
CAPREIT	Jane Finch Mall	Toronto Community Housing Corporation
Duka Property Management Inc.	Pallisades Towers Condominium Corporation	

Local Business Partners and Donors:

1-800-Got-Junk	Hanson Hardscapes	Reliance Home Comfort
Aluminart	Home Depot	RenewAbility
Aquascapes	Kampen's Landscaping	RONA
Bernardin	Landsource Organix	Sears Canada
Best Way Stone Limited	Less Mess Enviro Bag	Sheridan Nurseries
CBRE	Lowe's	Solar Ontario
Coloured Aggregates	Miller Waste	Tassone Landscape Construction
ContractHer	Native Plants in Claremont	Thompson Environmental Planning & Design Ltd.
Cypress Hill Landscape Design & Build	Native Plant Nurseries	Threadleaf
Dufferin Aggregates	Nick & Mira's No Frills	Tri-Land Environmental
Filtrex Canada	Oak Hill Garden Centre	Unilock
FVK Design	Oak Ridges Home Hardware	Upper Canada Stone Company
Gramma's Oven Bakery	Oaks Concrete Products	Water Matrix
Greenpark Homes	Ontario Flora	Zander Sod
Gro-bark	Permacon	
	Petri & Sons Contracting	

Professional Services:

Aquafor Beech	DuToit Alsopp Hillier	Projexity
ARUP	Keystone Interiors	Schollen and Company
Ascentia	LURA	Swerhun Consulting
BRE	Outside IN	The Municipal Infrastructure Group
Chalkboard Media	Planning Alliance	
Dillon Consulting	Powerline Films	

Partners in the Sustainability Field:

BILD, Renomark	EnerQuality	Ontario Water Works Association
Canada Green Building Council	Guelph GIG	Project Neutral
Canada Mortgage and Housing Corporation	Interlocking Concrete Pavement Institute	Sustainable Buildings Canada
Canadian Water Resources Association	Landscape Ontario	The Natural Step
		Toronto Atmospheric Fund

Other Funding Partners:

Government of Ontario	Toronto Community Foundation	Trees for Life
Mitacs Accelerate Ontario	Toronto & Region Remedial Action Plan	Project Up

Please join us!

The success of the program depends on successful partnerships. We always welcome new ideas and collaborators.



SNAP

Sustainable Neighbourhood
Retrofit Action Plan

www.sustainableneighbourhoods.ca

A project of:



Toronto and Region
Conservation
for The Living City