SUN

Sustainable Urban Neighbourhoods

KAWARTHA HEIGHTS

NEIGHBOURHOOD ACTION PLAN

SUMMARY

Toward an active, greener future

GreenUP

In association with:

Sustainable Neighbourhood Action Program | Toronto and Region Conservation Authority

Action Plan Coordinator & Lead Author
Hayley Goodchild, GreenUP

Editorial Team
Heather Ray, Water Programs Manager, GreenUP
Jenn McCallum, SUN Program Coordinator, GreenUP
Brittany Harding, Water Education and Outreach Coordinator, GreenUP
Adriana Gomez, Senior Program Manager, Toronto and Region Conservation Authority SNAP
Brianna Salmon, Executive Director, GreenUP

Graphic Design & Layout
Sarah Crane, Frolic Design

Sustainable Urban Neighbourhoods Advisory Committee
Melanie Kawalec, City of Peterborough
Ian Boland, City of Peterborough
Phil Jacobs, City of Peterborough
Rob Anderson, City of Peterborough
Christie Gilbertson, City of Peterborough
Jill Bishop, Nourish Project
Donald Fraser, East City Curtis-Creek representative
Meredith Carter, Otonabee Region Conservation Authority
Jennifer Clinesmith, Otonabee Region Conservation Authority
Paul Finigan, Otonabee Region Conservation Authority
Carlotta James, Peterborough Pollinators
Janet Dawson, Peterborough Public Health
Monique Beneteau, Peterborough Public Health
Trish O'Connor, Fleming College
Terri Keough, Peterborough Utilities Group
Andrea Connell, Transition Town Peterborough
Shelley Strain, Trent University and Kawartha Heights representative
Beth Stanley, The Canadian Canoe Museum

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We respectfully acknowledge that GreenUP is located on the Treaty 20 Michi Saagiig territory and in the traditional territory of the Michi Saagiig and Chippewa Nations, collectively known as the Williams Treaties First Nations, which include: Curve Lake, Hiawatha, Alderville, Scugog Island, Rama, Beausoleil, and Georgina Island First Nations.

Unless otherwise indicated, all maps in this report use NAD83 projection and were generated by the author using QGIS 3. Aerial imagery and data layers courtesy of the City of Peterborough.

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The Kawartha Heights Neighbourhood Action Plan is a collaborative ten-year vision and guide for achieving greater sustainability and resilience to the impacts of climate change. An extended, text-based version of this Plan is available online at **www.greenup.on.ca/sun**

This document is meant to be used by residents, municipal staff, partners, and community organizations! You can use the following key to identify leaders for each action:

Residents | Community & Faith Groups | Municipality | Schools | Businesses | Otonabee Conservation | NGOs

SUN Sustainable Urban Neighbourhoods

What is SUN?

Sustainable Urban Neighbourhoods (SUN) is a three-year initiative funded by the Ontario Trillium Foundation and led by GreenUP. It offers an innovative and collaborative way to transform the places we live, work, play, and learn, making them more resilient to the impacts of climate change.

SUN is modelled after Toronto and Region Conservation Authority's Sustainable Neighbourhood Action Program (SNAP). SNAP is a collaborative, neighbourhood-based solution for advancing sustainable urban renewal and climate action in older urban areas. For more information, visit: https://trca.ca/conservation/sustainable-neighbourhoods

Executive Summary

Toward an active, greener future

Kawartha Heights is a large, suburban neighbourhood at the westernmost edge of the City of Peterborough. Residents appreciate its spacious feel, nearby schools, and quiet atmosphere. Yet, like many urban communities today, the neighbourhood is characterized by declining biodiversity, underused green space, and car dependency. As climate change intensifies, it is more important than ever that we reverse these trends and adapt to a warmer and less predictable environment.

In 2017, Kawartha Heights was chosen as one of two pilot neighbourhoods for the GreenUP Sustainable Urban Neighbourhoods program (SUN), a three-year initiative that offers an innovative way of making the places we live, work, play, and learn more sustainable and resilient to climate change.

The SUN approach builds widespread support for neighbourhood action by bringing together residents, the municipality, and partners such as Otonabee Conservation, Nourish, and others, to create an Action Plan tailored to each community. Since 2017, our partners and hundreds of Kawartha Heights residents and community members have identified local needs and shared their ideas for neighbourhood projects and programs.

The Plan represents a collective vision of what the neighbourhood can become by 2030 if actions are implemented swiftly and collaboratively, and provides a road-map for how to get there. Actions are grouped into four focus areas:

Transform grey into green enhances residential, institutional, and commercial properties through retrofits designed to increase biodiversity and urban forest canopy, improve stormwater management, support local food production, and reduce our collective carbon footprint.

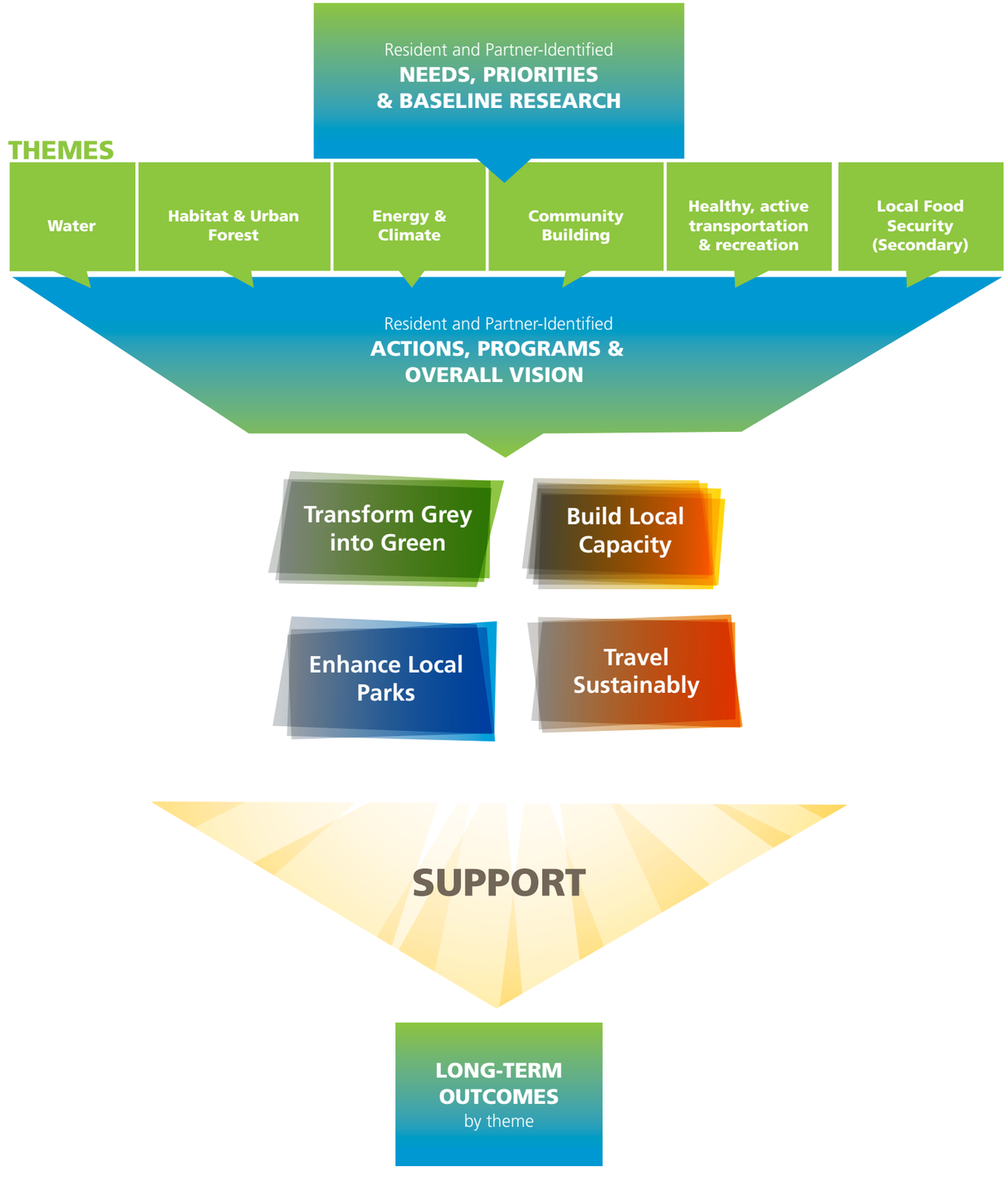
Build local capacity increases the ability of residents and community groups to undertake action at home and in their neighbourhood through education, incentives, and more.

Enhance local parks maximizes the neighbourhood's ample green space for multiple benefits, including more sustainable stormwater management, increased biodiversity and urban forest canopy, and greater opportunities for healthy recreation and community building.

Travel sustainably improves pedestrian and cycling infrastructure and connectivity, encourages residents to choose active transportation options, and maximizes proposed capital projects for additional outcomes like sustainable stormwater management.

Each recommended action aligns with SUN's core principles and supports the long-term outcomes for two or more of the sustainability themes in Kawartha Heights: water; habitat and urban forest; healthy and active transportation and recreation; community building; energy and climate; and local food security. The themes and outcomes align as much as possible with local, regional, federal, and international plans, policies, and goals.

With the planning phases of the project complete, SUN and its partners will be developing an implementation framework that identifies lead stakeholders, supporting partners, and next steps for each action. To get involved, visit the SUN website at **www.greenup.on.ca/sun**



Neighbourhood Overview

Kawartha Heights is a large suburban neighbourhood at the westernmost edge of the city. It is bounded by Sherbrooke St. in the north, Kawartha Golf and Country Club in the east, Lansdowne St. West in the south (including Holy Cross Secondary School and Calvary Church), and Westridge Blvd. and Brealey Dr. in the west (including James Strath Public School and Crestwood Secondary School).

The area was once a diverse landscape of forests and wetlands that were shaped, managed and protected by the Michi Saagiig Nishnaabeg. In the nineteenth century, European settlers took the land and cleared it for agriculture, especially dairy and fruit production. The neighbourhood was established after the area was annexed by the City of Peterborough in 1963. Seventy-five per cent of the homes were constructed between 1961 and 1990.

Today, the neighbourhood boasts six parks. The largest of these, spanning an impressive eleven hectares, is Kawartha Heights Park, which residents describe as a 'neighbourhood gem.' Most of the neighbourhood falls within the Byersville-Harper Creek watershed, which is home to one of the city's last remaining provincially-significant wetlands. Because of the neighbourhood's size, position, and topography, it has an important role to play in maintaining the ecological well-being of the watershed, reducing flooding in neighbourhoods downstream, and expanding the urban forest.

Base map: Aerial photo of North Monaghan Township in 1959 (National Air Photo Library, Roll A16871-91).

Impermeable surface area in 2018

Byersville-Harper Creek

0 250 500 750 m

In just over fifty years this area has been transformed from farmland to a suburban neighbourhood. Today, approximately forty-four per cent of surface area in Kawartha Heights is impermeable, well above the recommended threshold of less than 10 per cent for urbanized watersheds.

WHAT RESIDENTS SAY

An active neighbourhood with lots of family homes, schools, parks, and businesses.

Neighbourhood Size
248
- hectares -

7% (2016)
Residents that commute by walking, cylcing or transit

URBAN FOREST CANOPY
28% (2015)

IMPERMEABLE SURFACE AREA
44% (2018)

POPULATION
5434 (2016)

LAND USE

- **88.6%** Residential
- **4.6%** Open Space
- **6.8%** Commercial

6 Parks **4 Schools** **3 Churches**

What is SUN?

The Sustainable Urban Neighbourhoods program—SUN for short—is a three-year initiative funded by the Ontario Trillium Foundation and led by GreenUP. It offers an innovative and collaborative way to transform the places we live, work, play, and learn, making them more resilient to the impacts of climate change. SUN brings together local residents, municipal staff, community groups, and other key partners to identify ideas and opportunities for change.

In addition to planning, SUN undertakes 'Quick-start' demonstration projects, that inspire residents, community groups, and partners to take action by showcasing possibilities for change. Quick-starts are also opportunities for SUN to connect with the wider community and build capacity amongst residents to support the implementation of the Action Plan.

Did you know?

Canada adopted the 2030 Agenda for Sustainable Development in 2015. SUN's sustainability outcomes support five Sustainable Development Goals (SDGs).

There are five kinds of Quick-start planting projects:

- Tree planting
- Pollinator gardens
- Rain gardens
- Food gardens
- Native species plantings

SUN also supports low-intensity retrofit actions like removing invasive species, and providing rain barrels, composters, bat houses, and birdhouses.

Who's involved?

PARTNERS

The Canadian Canoe Museum
City of Peterborough
Fleming College
GreenUP
Nourish Project
Otonabee Conservation
Peterborough Pollinators
Peterborough Public Health
Peterborough Utilities Group
Transition Town Peterborough
Trent University

NEIGHBOURHOOD

Schools (Holy Cross Secondary School; Crestwood Secondary School; James Strath Public School, and Kawartha Heights Public School)

Local churches and faith groups

Applewood Retirement Residence

APEX Cardiology

Mapleridge Recreation Centre

Residents

This Action Plan is based on the input from local residents and partners collected through more than 900 engagement interactions since 2017! Ways we've been listening include:

- Meetings with municipal and partner staff
- Meetings with local community members
- Kitchen table talks
- Online surveys
- SUN planting and education events
- Tabling at community events
- Two neighbourhood design workshops

Sustainability Themes & Long-term Outcomes

The following themes are sustainability priorities for Kawartha Heights. Outcomes that align with municipal and regional goals have been identified for each theme. For an explanation of how long-term outcomes were generated, please consult the full Action Plan, which is available on the program website. All targets are set for 2030 unless otherwise indicated.

Water includes water conservation, flooding, stormwater management and the ecological well-being of Byersville-Harper Creek watershed.	Improvements to permeability, watershed health, and local flooding by: • Reducing paved surface area by 1750m2 (0.175ha), from the 2018 baseline of 101.1ha impermeable surface area (44% of total area); •Increasing the amount of rainwater managed where it falls on residential, institutional, and commercial properties. Work toward the 90% runoff volume control target recommended by the Ministry of Environment and Climate Change (now Ministry of the Environment, Conservation, and Parks) in 2016, which equals the first 27mm of an average rain event in Peterborough. Improvements to water quality in Byersville Creek from baseline reported in the City of Peterborough's Stormwater Quality Master Plan (2014).
Habitat and urban forest includes the biodiversity and well-being of natural ecosystems in the neighbourhood.	Expansion and diversification of the urban forest by planting 1279 new trees, with 685 on residential properties. Prioritize, where appropriate, underrepresented species recommended by the municipality. Greater biodiversity, by creating 2500 square metres of habitat for pollinators and other wildlife, which is equivalent to 5.7 NBA basketball courts.
Healthy, active transportation and recreation includes the ways we travel to and through the neighbourhood, and the kinds of recreation activities that are available to local residents.	Twelve per cent of KH residents commuting by public transit, walking, or cycling (from 7% in 2016), by enhancing active transportation infrastructure and supporting residents to choose active transportation options. Enhancement of local outdoor spaces for inclusive and healthy recreation, with 100% of local parks meeting or exceeding the minimum required design features for each park type as identified in the Municipal Parks and Open Space review.
Community building includes local events, connections between community members, and general neighbourhood identity.	Greater sense of community belonging amongst residents, measured through qualitative feedback and/or survey data where available. Greater environmental awareness and capacity for local environmental action, to be achieved by increasing the number of environmental events, initiatives, and participants each year.
Energy and climate includes how we heat and power our homes, schools, and businesses on a daily basis, and the greenhouse gases we produce through travel and waste.	Progress toward the Climate Change Action Plan target of reducing community greenhouse gas emissions by 30% below 2011 baseline levels by 2031 (Sustainable Peterborough, 2016), to be achieved by: • Implementing energy efficiency and conservation retrofits at 40% of residences (approximately 800 dwellings); • Implementing energy efficieny and conservation retrofits in 60% of industrial, commercial, and institutional facilities in the neighbourhood.
Local food security (secondary theme) includes the availability of and access to fresh, affordable, nutritious, and culturally appropriate food in the neighbourhood.	Greater number of residents producing more of their own food at home or through community gardens.

A Vision for Kawartha Heights

Toward an active, greener future

The year is 2030. Kawartha Heights has been transformed into a sustainable and resilient urban neighbourhood that maximizes its ample space and people power to achieve its goals. Residents are confident in their ability to weather the storms created by climate change—both literal and figurative—and quick to implement projects that improve their resiliency. Their success has inspired other neighbourhoods, and helped the municipality and other partners achieve their climate change targets too.

Swift collective action has changed what it means to live, work, play, and learn in Kawartha Heights. Urban nature is treated as a friend, an ethic demonstrated by the richness and diversity of neighbourhood forests and gardens, the health of the local watershed, the number of people who cycle and walk on a daily basis, and residents' knowledge and connection to their local environment.

How do we get there?

Over the next ten years, residents, community groups, partners, and the municipality can make this vision a reality by concentrating on four focus areas:

1. Transform grey into green transforms residential, institutional, and commercial properties through retrofits designed to increase biodiversity and urban forest canopy, improve stormwater management, support local food production, and reduce our collective carbon footprint.

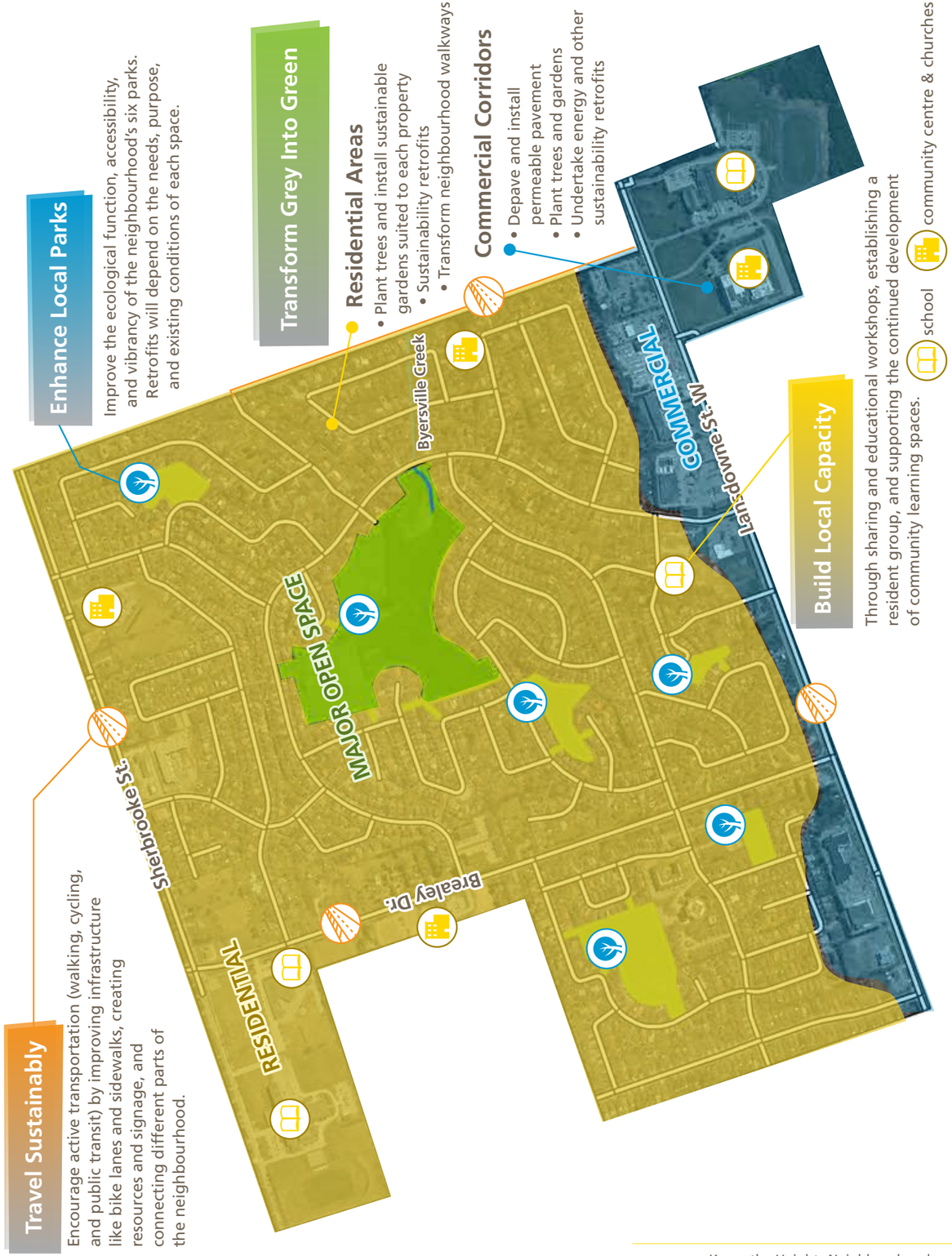
2. Build local capacity increases the ability of residents and community groups to undertake action at home and in their neighbourhood through education, incentives, and more.

3. Enhance local parks maximizes the neighbourhood's ample green space for multiple benefits, including more sustainable stormwater management, increased biodiversity and urban forest canopy, and greater opportunities for healthy recreation and community building.

4. Travel sustainably increases pedestrian and cycling infrastructure and connectivity, encourages residents to choose active transportation options, and maximizes proposed capital projects for additional outcomes like sustainable stormwater management.

The actions recommended in the four focus areas align with the following principles:

COLLABORATIVE	They rely on and benefit from involvement of multiple stakeholders.
MULTIPURPOSE	They connect to multiple sustainability themes.
MEASURABLE	Their impact on the environment and/or community is measurable.
INNOVATIVE	They build on the unique natural assets, local character, and opportunities available in the neighbourhood.
INSPIRATIONAL	They inspire others to take action.



FOCUS AREA #1

Transform Grey into Green

In 2030, diverse front yard gardens define this suburban neighbourhood. Regular tree planting connects formerly isolated pockets of trees into an urban forest that delights residents and visitors with its diversity of colours, shapes, sounds, and smells. Retrofits to buildings and open land have transformed Kawartha Heights into a model for managing rainwater and energy. The benefits of these changes to the Byersville–Harper Creek watershed are celebrated throughout the city.

Sustainability themes addressed:

- Water
- Habitat and urban forest
- Energy and climate
- Healthy, active transportation and recreation
- Community building
- Local food security

How do we get there? Recommended actions include:

1.a. Delawn at homes, schools, churches, and businesses in favour of planting trees and installing pollinator, rain, drought-tolerant, and food gardens supported by rainwater harvesting.

1.b. Transform the neighbourhood's pedestrian walkways into inviting green corridors using pollinator gardens, tree planting, stormwater bioswales, educational signage, seating, and art.

1.c. Retrofit homes, schools, churches, and businesses for greater sustainability by improving insulation, installing new windows, installing rain barrels and grey water systems, and more.

1.d. Transform commercial areas along Lansdowne St. West from grey to green with depaving projects, tree planting, permeable pavement, and/or other green infrastructure.

LEADERS: Residents; Community & Faith Groups; Municipality; Schools; Businesses; Otonabee Conservation; NGOs

Transform your lawn!

Watering lawns and gardens can increase home water consumption by up to 50% in the summer months. Converting all or part of your lawn into a drought tolerant garden can reduce your water bill while helping rainwater to soak into the ground and provide habitat for native pollinators and other wildlife species. Visit the SUN website to learn more.

Drought tolerant gardens like this one, installed by SUN at 2315 Kawartha Heights Boulevard in 2018, can enhance the curb appeal of your property while creating significant environmental benefits.

Illustration by Dawn Pond

One of the pedestrian walkways in Kawartha Heights connecting different parts of the neighbourhood.
Photo courtesy of GreenUP.

FOCUS AREA #2

Build Local Capacity

In 2030, Kawartha Heights residents are known for making things happen. Neighbours ask one another for advice when they embark on home projects. Initiatives like the nature education space at Kawartha Heights Public School bring people from around the city to learn from their success. The community works together to monitor the improvement of the neighbourhood and steward their shared community spaces.

How do we get there? Recommended actions include:

2.a. Organize a collaborative, year-round, local education series to build knowledge and skills about sustainable retrofits and environmental stewardship within the community, drawing on the expertise of community members and other partners.

2.b. Establish a resident group to lead local environmental efforts.

2.c. Offer incentives like subsidies, fees, and pilot programs to encourage and assist residents undertaking energy retrofits, water conservation projects, and/or green stormwater infrastructure on their properties.

2.d. Support the continued development of community learning spaces, such as the Kawartha Heights Public School outdoor community classroom.

LEADERS

- Residents
- Community & Faith Groups
- Municipality
- Schools
- Businesses
- Otonabee Conservation
- NGOs

Sustainability themes addressed:

- Water
- Habitat and urban forest
- Energy and climate
- Healthy, active transportation and recreation
- Community building
- Local food security

"We have enjoyed spending more time in our front yard and chatting more with our neighbours [since replacing the lawn with a drought tolerant garden]. We are happy to chat about the benefits like food for pollinators, reduced water-usage, and the importance of avoiding the use of pesticides and herbicides."

– Tracey, Kawartha Heights resident

FOCUS AREA #3

Enhance Local Parks

In 2030, all six parks in Kawartha Heights are vibrant, enjoyable places to visit throughout the year. The jewel in the crown is Kawartha Heights Park, which attracts visitors from the neighbourhood and beyond. Pedestrians and cyclists use the park's well-maintained trails, while the shaded recreation and play areas bring friends and families together. The park is one of the City's foremost ecological gems, where all kinds of plant and animal species can be observed.

How do we get there? Recommended actions include:

3.a. Enhance play and recreation areas in local parks so they are accessible and inclusive to people of all ages. Possibilities include sensory and botanical gardens, naturalized playscape elements, access to drinking water, exercise equipment, seating, and trees for shade.

3.b. Promote regular use of parks through creative, year-round programming and the construction of a fully accessible, carbon-neutral shelter in Kawartha Heights Park.

3.c. Improve the ecological health and function of all local parks by planting more trees and native plants, and introducing green stormwater infrastructure such as drainage swales and berms, where appropriate.

3d. Enhance park trails and entrances with accessibility features, seating, plantings, bike racks, waste disposal units, community bulletin boards, and educational signage about native wildlife and plant species.

LEADERS

Residents · Community & Faith Groups · Municipality · Schools · Businesses · Otonabee Conservation · NGOs

Sustainability themes addressed:

- Water
- Habitat and urban forest
- Energy and climate
- Healthy, active transportation and recreation
- Community building

Did you know?

Many interesting wildlife and plant species can be observed in Kawartha Heights Park, including the eastern wood peewee, a species of special concern in Ontario.

An eastern wood pewee. Photo by Melissa McMasters from Memphis, TN, United States - Eastern wood-pewee, CC BY 2.0, https://commons.wikimedia.org/w/index.php?curid=74471306

Suggested Enhancements to Kawartha Heights Park

Map is for illustrative purposes only and subject to further design by lead stakeholders.

FOCUS AREA #4

Travel Sustainably

In 2030, cars are no longer the go-to when it comes to getting around. Children walk, cycle, or bus to school, and everyone uses the neighbourhood's intricate network of trails, sidewalks, and pathways to access the restaurants and businesses along Lansdowne Street West. Although Kawartha Heights remains far from downtown, getting there by bike or bus is now comfortable, efficient, and easy.

How do we get there? Recommended actions include:

4.a. Create pedestrian and cycling access between Lansdowne Street West and areas of the neighbourhood that are east of Kawartha Heights Boulevard.

4.b. Extend and improve pedestrian and cycling infrastructure to better connect the neighbourhood with Fleming College, Jackson Park, and the downtown core. Key opportunities include the proposed Brealey Drive, Lansdowne Street West, and Sherbrooke Street road reconstruction and improvement projects.

4.c. Increase educational programming in the neighbourhood and develop signage and other local resources that encourage residents to choose active transportation options for commuting, going to school, and recreation.

4.d. Initiate traffic calming feasibility studies and/or temporary traffic calming actions along Kawartha Heights Boulevard, Cherryhill Drive, and Woodglade Boulevard.

LEADERS

Residents · Community & Faith Groups · Municipality · Schools · Businesses · Otonabee Conservation · NGOs

Sustainability themes addressed:

- Water
- Habitat and urban forest
- Energy and climate
- Healthy, active transportation and recreation
- Community building

Right of way biofilter swale in Brampton, Ontario. A project from the County Court Sustainable Neighbourhood Action Program (SNAP).

Start small! Try walking, cycling, or taking the bus to work or school one day a week to improve your health and reduce your carbon footprint.

Successes to Date

Residents, partners, and the municipality have already made progress toward a greener and more resilient Kawartha Heights. Our successes to date include:

Water	SUN has distributed twelve rain barrels in the neighbourhood and hosted a Ready for Rain workshop at Applewood Retirement Residence in 2019.
Habitat & Urban Forest	Together with residents, schools, and community groups, SUN has planted 755 square metres of trees and gardens at private residences, businesses, and school grounds. This area is equivalent to 1.5 NBA basketball courts!
Healthy, Active Transportation & Recreation	In 2019, Applewood Park was one of nine municipal parks selected for accessibility upgrades made possible through a $50,000 grant from the federal government. This project extended the accessible pathways, converted playing surfaces to engineered wood fibre, and installed two accessible benches. Additionally, SUN planted eleven trees at the park to provide more shade, visual interest, and biodiversity.
Energy & Climate	In 2018, the City of Peterborough converted its cobra head streetlights to LEDs for an estimated neighbourhood energy savings in 2019 of 266,060 kWh, the same amount used by 29.4 average Ontario residential homes for an entire year.
Community Building	653 people have volunteered at neighbourhood plantings and naturalization events since 2018.

Students have been instrumental to the transformation of this unique educational space. In April 2019 they took part in the second annual invasive species removal event. Students pulled out the following invasive plants: common buckthorn, periwinkle, and garlic mustard.

Photo by GreenUP

Kawartha Heights Public School

SUN has teamed up with Kawartha Heights Public School to revitalize an overgrown area by turning it into an inviting outdoor classroom. Dozens of students, staff, and volunteers have removed invasive species, cleaned up garbage, created pathways, and replanted with native trees and perennials. This space, which is open to the whole community outside school hours, will educate hundreds of students and community members about the importance of biodiversity and nature in the years to come!

Next Steps

Implementation

Successful implementation of the Kawartha Heights Action Plan depends on strong collaboration between residents, community groups, the municipality, and other partners. In the fall of 2019, we will continue building implementation teams to work toward specific actions and outcomes identified in the Plan. If you are interested in supporting or taking the lead on a specific action, please visit the SUN website for more information about how to get involved.

Are you a resident? You can find additional resources and tips for actions at your home and in the community in the Resident Guide and other resources available on the SUN website.

Reporting

Have you or your organization completed an action? Visit the SUN website to share your achievements!

www.greenup.on.ca/sun

"We are thrilled that students had the opportunity to build a beautiful, large pollinator garden on our business property. With bee populations dwindling, gardens such as this one are vastly needed in our subdivisions.... At APEX, we believe that healthy living begins with a healthy environment."

–Dr. Ardavan Mahim and Leslie Moxam, APEX Cardiology

A student from James Strath Public School plants a compass plant in a 55m2 pollinator garden at APEX Cardiology at the corner of Sherbrooke St. and Brealey Dr. in June 2018.

Photo by GreenUP

Sustainable Urban Neighbourhoods

NOTES:

GreenUP

In association with

Sustainable Neighbourhood Action Program | Toronto and Region Conservation Authority

In partnership with:

peterborough

Otonabee CONSERVATION

NOURISH

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www.greenup.on.ca/sun