



Greater Peterborough Area Climate Change Action Plan

Township of North Kawartha
Partners for Climate Protection Milestone 4 Report
Community Sector Implementation Results

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Section 1: Introduction

The effects of climate change are projected to intensify over the next decade. In the Greater Peterborough Area (GPA) annual average temperature is projected to rise 2.1°C to 4.2°C above current levels (Appendix A). A changing climate will exasperate extreme weather events as the following risks will become more prevalent:

- Heightened frequency of severe rainfalls and windstorms
- Mean winter temperatures in 2030 to rise from -7°C to -4.9°C
- A 20% rise in 10-year storm rain events projected by 2030
- Days above 30°C to increase to 23 days from 6 days by 2030
- Chance of freezing rain events 40% more probable in winter

In 2018, the United Nation's Intergovernmental Panel on Climate Change (IPCC) released a special report urging mitigation of greenhouse gas (GHG) emissions to limit the global average temperature increase to only 1.5°C from the current 1°C of global warming. The IPCC recommends that a decrease in GHG emissions of 45 percent from 1990 levels by 2030 is necessary to prevent the worst implications of climate change. At present national commitment levels, a 3°C rise in global heating is forecasted by the year 2100.

The good news is that climate change can still be managed that restrains the worst effects, but immediate community action is critical. Residents and businesses can influence 95 percent of a community's GHG emissions through direct action and positive climate stewardship. Modifying one's home to restrict energy consumption through home retrofits, upgrading appliances, and replacing non-efficient furnace/boilers are possible avenues. Changing personal behaviour to limit unnecessary GHG emissions connected to driving, eating, and waste produced can also drastically reduce a community's collective emissions. Businesses too can seek to limit energy use, and GHGs emitted through transforming operations and striving towards sustainable business practices. When residents and businesses commit together in a concerted effort to no longer be a significant contributing source to climate change, then community-wide GHG emissions will decline.

Section 2: Overview

Background

In 2012, the City and County of Peterborough, the eight-member Townships, Curve Lake First Nation, and Hiawatha First Nation adopted the Greater Peterborough Area Integrated Community Sustainability Plan, coined Sustainability Peterborough Plan. Within this Plan, climate change was identified as one of the eleven key theme areas.

In 2014, each of the twelve Greater Peterborough Area (GPA) member communities came together to develop a Climate Change Action Plan (CCAP), designed to reduce local contributions to climate change while preparing the community for future changes. They joined a network of more than 250 other communities across Canada to address climate change through participation in the Federation of Canadian Municipalities' Partners for Climate Protection (PCP)

program. The PCP program aims at reducing GHG emissions from both municipal/First Nation operations (“corporate” emissions) and the community at large (“community” emissions). The program uses a five-milestone (Table 1) framework:

Table 1. Partners for Climate Protection Milestone Framework

	Milestone Description	Status
Milestone 1	Create a greenhouse gas emissions inventory & forecast	completed 2015
Milestone 2	Setting an emissions reductions target	completed 2016
Milestone 3	Developing a local action plan/CCAP	completed 2016
Milestone 4	Implementing the local action plan	underway 2019
Milestone 5	Monitoring progress & reporting results	planned 2020

Milestone 1 – North Kawartha Community GHG Emissions Inventory and Forecast

The CCAP established a 2011 GHG emission baseline and found the total Community Sector emissions for the Township of North Kawartha was 12,128 tonnes of carbon dioxide equivalent (tCO₂ e).

Milestone 2 – Setting an Emissions Reduction Target

In 2016, North Kawartha completed Milestone 2 that established a GHG emissions reduction target. A community sector GHG emissions reduction target of 25 percent was determined using 2011 as the baseline year. This reduction target is equivalent to removing 3,074 tCO₂ e from the community by 2031, lowering the total emissions generated to 9,054 tCO₂ e.

Milestone 3 – Developing a Local Action Plan/CCAP

One of the key requirements of the completion of Milestone 3 was the adoption of both the Corporate Sector and Community Sector emissions reductions targets and the Action Plan by the respective Council. On December 20, 2016, the Council of the Township of North Kawartha passed Motion 16-718:

“That the revised Greater Peterborough Area Climate Change Action Plan be adopted and that the Township of North Kawartha’s portion be implemented as budgets permit through the annual budgeting process;

And further that the Township of North Kawartha’s Community Sector and Corporate Sector greenhouse gas emission reduction targets of 25% and 20% respectively, and associated local action plans, be adopted and implemented as budget permits.”

The CCAP was developed to outline potential actions to assist the Township in achieving community emissions reduction targets. The CCAP outlined twenty-two overarching strategies to remove 3,074 tCO₂ e from community linked emissions in North Kawartha by 2031.

Section 3: Milestone 4 – Implementation of the CCAP

The implementation of climate change mitigation and adaptation strategies is a continual process in the effort to reduce community-wide GHG emissions that are generated from residential, commercial, industrial, transportation, agricultural/land-use, and waste. Since 2011, local actors and the Township staff have striven to incorporate many of the twenty-two strategies outlined in the North Kawartha community CCAP. These strategies are focused on six themes: Our Homes, Our Workplaces and Schools, On the Move, Our Food, Our Land, and Our People.

The following (Table 2) presents completed community-orientated actions that the municipality and community actors have fostered to date.

Table 2. Completed and Ongoing Community Mitigation and Adaptation Actions

CCAP Community Strategy	Action Description	Year	Quantifiable GHG Saved (tCO ₂ e)
Strategy F1: Support localization of food	<i>Farms at Work</i> supports farmland remaining in agricultural production. Created a land stewardship program with farmers to protect pollinators' habitat within farmland.	2013	
Strategy F1: Support local organizations raising awareness about the food system	<i>Peterborough GreenUp</i> offers all GPA schools access to Ecology Park in the City of Peterborough to teach students about food production and healthy eating habits.	2013	
Strategy P2: Foster climate change awareness through programming	<i>Peterborough GreenUp</i> supports GPA-wide nature-based programs that connect children to nature and highlights how climate change will disrupt these inter-connected systems.	2013	
Strategy H3: Waste diversion initiative	Implemented Leaf and Yard collection at waste transfer stations to limit organic material entering the County-City Landfill which would produce excess methane gas emissions	2014	
Strategy H3: Waste diversion initiative	Expanded residential waste diversion collection at Township transfer stations that included: <ul style="list-style-type: none"> • Construction/demolition materials • Electronics Thereby reducing the distance and ensuing vehicle emissions for residents to drive to the County-City Landfill to safely dispose of materials	2014	
Strategy M1: Build an active transportation network	400m of sidewalks built in Aspley, ON to support residents choosing active forms of transportation instead of vehicles	2015	

CCAP Community Strategy	Action Description	Year	Quantifiable GHG Saved (tCO ₂ e)
Strategy W5: Facilitate low carbon security	Township Council adopted a Solar Projects Policy to facilitate green energy applications	2015	
Strategy H3: Waste diversion initiative	<p>Held inaugural Environment Day at Anstruther Transfer Station to collect items that are generally not accepted:</p> <ul style="list-style-type: none"> • Mattresses • Furniture • Hard plastics <p>Thereby reducing the drive and vehicle emissions of residents to the County-City Landfill where these items are admitted</p>	2015	
Strategy H3: Waste diversion initiative	Created a Re-Use Centre at the Anstruther Transfer Station to allow residents the option to pick up gently used items that divert potential waste away from the County-City Landfill	2016	
<p>Strategy L1: Strengthen land use policy to support mitigation and adaptation efforts</p> <p>Strategy M1: Support active transportation</p> <p>Strategy L3: Enhance natural assets</p> <p>Strategy H1: Support existing residential buildings to become more energy-efficient</p> <p>Strategy W1: Improve the energy efficiency of existing buildings</p> <p>Strategy W5: Facilitate low carbon generation</p>	<p>Completed a Community Improvement Plan for all settlements in the Township that will foster more complete communities and includes the following features:</p> <ul style="list-style-type: none"> • Enhanced streetscaping with more sidewalks and pedestrian crossings that will support active transportation • Improved parks and trails to enhance natural assets within/near settlements • Support residential intensification with infill construction on vacant lots • One time loan up to \$1,500 to support energy retrofit program for residential and commercial buildings that includes <ul style="list-style-type: none"> ○ Replacing windows/doors with Energy Star models ○ Replacing hot water tanks for more energy-efficient models ○ Upgrade insulation of attics and walls ○ Replacing central heating system with energy-efficient models ○ Installing Renewable energy systems 	2018	

CCAP Community Strategy	Action Description	Year	Quantifiable GHG Saved (tCO ₂ e)
Strategy P1: Prepare for health impacts	County-wide Peterborough Public Health unit, is in the planning stages for a community survey and forum in 2019 that will inform its climate change working group in assessing community vulnerabilities from climate change.	2018	
Strategy P1: Prepare for health impacts of climate change Strategy L2: Identify climate change risks	Floodplain mapping of Stoney Lake in partnership with the Otonabee Region Conservation Authority gained insight into how extreme precipitation events will affect flooding potentials to reduce vulnerabilities and risks of residents	2018	
Strategy L3: Enhance natural assets	<p><i>Kawartha Land Trust</i> was gifted the following properties in the Township to ensure that the natural systems remain intact and that they continue to provide natural services like carbon sequestration:</p> <ul style="list-style-type: none"> • 178 acres that contain a creek and substantial forest (2013) • 135 acres of woodland (2018) • 10km of trail system along Stoney Lake that preserves ~250 acres of mature forests along the route (2016) • 74 acres of woodland (2011) 	2018	541 tCO ₂ stored

Decision-making Process & Engagement

Developing and implementing climate actions at the community scale has been adopted by North Kawartha Township Council Motion 16-718. This resolution has led to the operationalization by senior management and staff in carrying out and supporting community climate mitigation and adaptation initiatives.

Community climate engagement opportunities are found through Sustainable Peterborough's Annual Report Cards, public presentations, and Annual Awards Gala that allows community members to participate in climate discussions involving the Township and the community. However, many community workshops/ events are held regionally, and the Township of North Kawartha has not hosted one to date.

Conclusion

With the adoption of the Climate Change Action Plan on December 2016, the Township of North Kawartha has made a steadfast commitment to reducing its community sector emissions. Action is being taken by multiple local actors along with the municipality to provide residents with alternative low-carbon choices. These community-focused climate strategies can foster positive

changes in residents' lifestyles/behaviours that are integral for any meaningful reduction in emissions.

The leadership provided by local actors and Township staff has demonstrated that North Kawartha is taking its responsibility to tackle climate change seriously. However, with twelve years remaining to reach its community target of 25 percent, accelerated actions are needed to avoid the worst effects of climate change. The Community Improvement Plan is such a document that can provide meaningful change for residents and businesses to alter building energy usage patterns. To further amplify climate action, the Township can team up with community agencies, businesses, service clubs, and other levels of government to stimulate rapid community change. By concentrating all efforts into implementing community-wide emission reduction strategies will allow North Kawartha to surpass its 2031 goal and reduce its contribution as a source of climate change.

Works Cited

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<https://uwaterloo.ca/climate-centre/sites/ca.climate-centre/files/uploads/files/climate-infographic.pdf>

Appendix A

Future Climate Projections

Refer to for more information: https://www.peterborough.ca/en/city-hall/resources/Documents/Climate-Science-Report_Peterborough_Sep17-2018.pdf