



# Greater Peterborough Area Climate Change Action Plan

Township of Asphodel-Norwood  
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 – Asphodel-Norwood 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 Asphodel-Norwood was 32,980 tonnes of carbon dioxide equivalent (tCO<sub>2</sub> e).

**Milestone 2 – Setting an Emissions Reduction Target**

In 2016, Asphodel-Norwood completed Milestone 2 that established a GHG emissions reduction target. A community sector GHG emissions reduction target of 25 percent was established using 2011 as the baseline year. This reduction target is equivalent to removing 8,169 tCO<sub>2</sub> e from the community by 2031, lowering the total emissions generated to 24,252 tCO<sub>2</sub> 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 November 8, 2016, the Council of the Township of Asphodel-Norwood passed Motion 560/16:

“That the Council of the Township of Asphodel-Norwood receives this report regarding the Township of Asphodel-Norwood’s Climate Change Action Plan for information;

And further that the Council of the Township of Asphodel-Norwood adopt the Draft Greater Peterborough Area Climate Change Action Plan;

And further that the Council of the Township of Asphodel-Norwood adopts the Community Sector and Corporate (Municipal) Sector emission reduction targets of 25% and 28% respectively, and associate local action plan.”

The CCAP was developed to outline potential actions to assist the Township in achieving community emissions reduction targets. The CCAP outlined twenty-three overarching strategies to remove 8,169 tCO<sub>2</sub> e from community linked emissions in Asphodel-Norwood 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, AFOLU, and waste. Since 2011, local actors and the Township staff have striven to incorporate many of the twenty-three strategies outlined in the Asphodel-Norwood 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 <sub>2</sub> e)
Strategy P3: Encourage civic engagement around climate change	St. Paul’s Catholic Elementary School joined the <i>ECO-Schools Canada</i> program that teaches K-12 students about environmental practices around waste minimization, energy conservation, and stewardship. The school achieved a Gold Star rating in 2018.	2012	
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 M3: Make public transit more appealing	Updated transportation routes (e.g. Greyhound Bus) on the municipal website to support alternative transit options.	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 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 culture of climate change awareness	Economic Development & Beautification Advisory Committee (EDBAC) sponsored Kawartha focused climate change lecture.	2014	
Strategy H1: Assist homes and businesses to become more water-efficient	Upgraded water infrastructure (water mains, sewage main, and storm drain) to prevent leaks and failures.	2017	
Strategy M1: Build an active transportation network	Township adopted a Sidewalk Plan to promote connectivity for residents.	2018	

Strategy L3: Protect natural assets	Township preserved 1.4 acres of land as parkland instead of developing it.	2018	3.5 tCO <sub>2</sub> e saved
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 1: Build an active transportation network	<i>Peterborough GreenUp</i> has coordinated an Active School Travel program in the Town of Norwood to enable children to arrive at school without the need for car drop-offs through enhanced walking and cycling routes to designated schools.	2018	
Strategy L2: Prepare for potential climate change risks	Flood mapping underway of the Ouse River by the Otonabee Region Conservation Authority.	2018	
Strategy H2: Decrease housing footprints	Township amended Zoning By-Law 2009-08 and Official Plan to allow for second units and increase the density of residential housing.	2018	
Strategy F1: Support localization of the food system	The '4 <sup>th</sup> Summit of the Planning Locally for the Future of Food and Farming' led by <i>Farms at Work</i> to strengthen the local food system.	2018	
Strategy L3: Protect and enhance natural assets	Otonabee Region Conservation Authority planted 4,500 trees in the Township between 2011-2018.	2018	73.4 tCO <sub>2</sub> e saved
W5: Facilitate low carbon energy generation	Peterborough Distribution Inc. is in the planning stages for an expansion of ground-mounted solar panels throughout the County.	2018	
Strategy L3: Enhance natural assets	Fire Department planted 100 trees on Earth Day within the community.	2018	0.6 tCO <sub>2</sub> e saved
Strategy H3: Waste diversion initiatives	Township implemented a <i>Less Waste Challenge</i> by reducing curbside garbage collection from 3 bags to 2 bags.	2018	
Strategy H3: Waste diversion initiatives	Staff promoted recycling efforts in the Township for residents and businesses.	2018	

### Decision-making Process & Engagement

Developing and implementing climate actions at the community scale has been adopted by Asphodel-Norwood Township Council Resolution Motion 560/16. This resolution has led to the operationalization by senior management and staff in carrying out and supporting community climate mitigation and adaptation initiatives.

The *Asphodel-Norwood Strategic Plan 2018-2021* has embedded community engagement as a core value within three strategic directions. This platform will allow climate actions to be further addressed. As well, the Kawartha Land Trust has engaged with residents of the township to discuss the group's strategic vision that supports land conservation and limiting land-use changes. Additional community climate engagement opportunities are also 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 Asphodel-Norwood has not hosted one to date.

## **Conclusion**

With the adoption of the Climate Change Action Plan on December 2016, the Township of Asphodel-Norwood 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 Asphodel-Norwood is taking its responsibility to tackle climate change seriously. However, with twelve years remaining to reach its community target of 25 percent, more is needed to activate residents and businesses to change consumption patterns. The target can be achieved through dedicated Township programs that residents can access or via policies that promote behaviour changes. Additionally, teaming up with community agencies, businesses, service clubs, and other levels of government is another viable option to foment rapid community change. By concentrating all efforts into implementing community-wide emission reduction strategies will be the only way, Asphodel-Norwood will surpass its 2031 goal and reduce its contribution as a source of climate change.

## Works Cited

IPCC. (2018). *Global Warming of 1.5°C*. Retrieved from:  
[https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15\\_Headline-statements.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Headline-statements.pdf)

Sustainable Peterborough. (2015). Greater Peterborough Area: Climate Change Action Plans.

University of Waterloo. (2015). *The Changing Climate of Waterloo Region*.  
<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](https://www.peterborough.ca/en/city-hall/resources/Documents/Climate-Science-Report_Peterborough_Sep17-2018.pdf)