



# Greater Peterborough Area Climate Change Action Plan

**Township of Douro-Dummer  
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 – Douro-Dummer 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 Douro-Dummer was 48,046 tonnes of carbon dioxide equivalent (tCO<sub>2</sub> e).

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

In 2016, Douro-Dummer completed Milestone 2 that established a GHG emissions reduction target. A community sector GHG emissions reduction target of 29 percent was determined using 2011 as the baseline year. This reduction target is equivalent to removing 13,746 tCO<sub>2</sub> e from the community by 2031, lowering the total emissions generated to 34,300 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 October 18, 2016, the Council of the Township of Douro-Dummer passed Resolution Number 446-2016:

“That [...] the draft Greater Peterborough Area Climate Change Action Plan be received, that the draft Greater Peterborough Area Climate Change Action Plan be adopted and further that the Township of Douro-Dummer’s Community Sector and Corporate (Municipal) Sector emission reduction targets of 29% and 32% respectively and associated local action plan be adopted.”

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 13,746 tCO<sub>2</sub> e from community linked emissions in Douro-Dummer 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 Douro-Dummer 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 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 L1: Strengthen policy and review process to better support climate change mitigation and adaptation	All reports sent to Township Council must be consistent with the Sustainability Peterborough Plan to ensure that corporate and community-facing projects are not contravening the document	2014	
Strategy H3: Waste diversion initiative	Mattress diversion program established to bypass items from entering the landfill	2015	
Strategy F1: Support localization of the food system	Township council actively pursued preserving prime agricultural land from development	2015	
Strategy L3: Enhance natural assets	<i>Tree Canada</i> planted 9,000 trees on vacant land in the Township	2017	540 tCO <sub>2</sub> e
Strategy H3: Waste diversion initiative	Clear garbage bag program in effect to encourage diversion of organics and recyclables out of the County-City Landfill	2018	

CCAP Community Strategy	Action Description	Year	Quantifiable GHG Saved (tCO <sub>2</sub> e)
Strategy H3: Waste diversion initiative	Organic waste diversion program at Glen Hall Transfer Station recorded 37,370 kg collected which is equal to the combined weight of the previous eight years of organic waste gathered at the Transfer Station	2018	
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 in partnership with the Otonabee Region Conservation Authority, is planned to gain insight into how extreme precipitation events will affect flooding potentials to reduce vulnerabilities and risks of residents. The following water bodies are slated to be surveyed in 2019: <ul style="list-style-type: none"> <li>• Curtis Creek</li> <li>• Mead Creek</li> <li>• Katchewanooka Lake</li> <li>• Stoney Lake</li> </ul>	2018	
Strategy L3: Enhance natural assets  Strategy H1: Help homes become more adaptable	<i>Peterborough GreenUP</i> is in the planning stages for implementing the first rural Sustainable Urban Neighbourhood program in Warsaw, ON that will enhance naturalization of private properties, capture stormwater runoff, and plant trees to sequester CO <sub>2</sub> and impede erosion	2018	
Strategy L3: Enhance natural assets	<i>Kawartha Land Trust (KLT)</i> was gifted 66 acres in 2018 that contains a portion of provincially significant wetland and woodland, in addition to two other forested properties held in trust by KLT in the township	2018	56 tCO <sub>2</sub> e stored
Strategy L3: Protect and enhance natural assets	Otonabee Region Conservation Authority planted 25,000 trees in the Township between 2011-2018 to support naturalization and carbon sequestration.	2018	1,500 tCO <sub>2</sub> e stored
Strategy H3: Waste diversion initiative	Collected empty alcohol bottles at waste transfer stations and returned them to the LCBO, thereby ensuring bottles are reused and not unnecessarily recycled	2018	

## **Decision-making Process & Engagement**

Developing and implementing climate actions at the community scale has been adopted by Douro-Dummer Township Council Resolution Number 446-2016. This resolution has led to the operationalization by senior management and staff in carrying out and supporting community climate mitigation and adaptation initiatives. In addition to the CCAP resolution, the municipality created the *Township of Douro-Dummer Strategic Plan 2015-2018*, which included strategic environmental actions for enhancing and preserving natural features within the township.

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 Douro-Dummer has not hosted one to date.

## **Conclusion**

With the adoption of the Climate Change Action Plan on December 2016, the Township of Douro-Dummer 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 Douro-Dummer is taking its responsibility to tackle climate change seriously. However, with twelve years remaining to reach its community target of 29 percent, more is needed to activate residents and businesses to change consumption patterns. The target can be achieved through dedicated Township programs that residents/businesses 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 encourage rapid community change. By concentrating all efforts into implementing community-wide emission reduction strategies will be the only way Douro-Dummer 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)

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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](https://www.peterborough.ca/en/city-hall/resources/Documents/Climate-Science-Report_Peterborough_Sep17-2018.pdf)