DUFFERIN CLIMATE ACTION PLAN

REPORT CARD 2021

Dufferin county

CLIMATE ACTION in Dufferin

INTRODUCTION

On March 11, 2021 Dufferin County adopted the Dufferin Climate Action Plan, our first comprehensive strategy to achieve net-zero greenhouse gas (GHG) emissions by 2050 and build resilience to the impacts of climate change. This Report Card provides an update on the County's progress on the implementation of the Dufferin Climate Action Plan.

The climate crisis requires urgent action. The social, cultural, environmental, and economic well-being of current and future generations of Dufferin County depends on the actions we take now to confront climate change.

The Dufferin Climate Action Plan is a strategy to achieve net-zero emissions by 2050 while also increasing community resilience to the impacts of climate change. Under 6 Focus Areas, the Dufferin Climate Action Plan outlines 34 primary actions and 99 sub actions that the County will take to build a net-zero and resilient community:

On the Move | **In Our Buildings** | **For Our Land** | **Planning Our County** | **In Our Bins** | **Empowering Our Community**

For transparency and accountability, this Report Card, prepared for Dufferin County Council and residents, provides a status update for each of the actions outlined in the Dufferin Climate Action Plan.

KEY

The Report Card identifies the County's progress to date on the implementation of the actions in the Dufferin Climate Action Plan since its release in March of 2021. Each action is categorized in one of the following status categories:

COMPLETE:

The action has been implemented.

IN PROGRESS:

Work on this action is actively underway.

ONGOING:

This action will be developed on an ongoing or reoccurring basis.

EARLY STAGES:

Early work has been started, but requires additional work and resources to develop and implement.

BEHIND:

The action is behind scheduled progress.

DELAYED:

Implementation of this action is delayed to a later date.

FUTURE ACTION:

The action has not yet been started and is scheduled for implementation in the future.

ON THE MOVE
2021 HIGHLIGHTS

Embracing diverse and low-emission transportation options is essential, as transportation represents 49% of Dufferin's total emissions. This means making climate-friendly transportation options convenient, accessible, and maintainable for community members. In 2021, Dufferin County:

Installed the Charge Up in Dufferin network of 24 public electric vehicle (EV) charging stations. Installation was celebrated with a launch event, including a fully booked day of electric vehicle test-drives for residents with Plug'n Drive.

Initiated design phase of a regional electric vehicle charging station network with City of Guelph and Counties of Wellington Grey, Perth, Huron and Bruce.

Virtually visited classrooms at the Upper Grand District School Board to promote electric vehicle awareness and produced an educational video with a Plug'n Drive EV expert, reaching 650 students.

Hosted a Bike Month Scavenger Hunt from June 1 – 30, 2021, in partnership with Sustainable Orangeville and Cycling Elements.

Commissioned a Transit Feasibility Study, led by the office of the CAO, to explore options for an equitable and accessible rural public transportation service to meet essential transportation needs.

#	ACTION	STATUS
T1	Review bus routes and optimize connectivity and service within and between local and regional municipalities	In Progress
	Advocate for increased GO transit service	Future Action
T2	Develop an accessible educational campaign to prioritize active transportation and public transit, particularly for trips under 5km	Ongoing
	Develop an accessible educational campaign for trips over 10km to prioritize carpooling options (particularly for commuters) and telecommuting when possible	Delayed (COVID)
T3	Develop anti-idling campaigns to improve compliance with local anti-idling by-law	Behind
	Work with businesses and organizations to create anti-idling policies	Future Action
	Promote and increase awareness of existing eco-driving courses and insurance programs	Behind
T4	Partner with municipalities to develop a regional Electric Vehicle Strategy to achieve network connectivity	In progress
	Develop EV policy at the County level to ensure consistency throughout the development of a County charging network	Complete
	Leverage funding opportunities to install charging stations throughout County	Complete
	Work with local businesses and organizations to encourage low-emission and electric vehicles to be included in fleets	Delayed (COVID)
	Educate and raise awareness of the benefits of electric vehicles amoung residents and local businesses	Ongoing
T5	Work with local municipalities to develop strategy to transition to electric public transit fleets	Early Stages
	Investigate options to electrify school bus fleets	Future Action
T6	Improve pedestrian crossing, comfortable walking route, and maps/ signage	Future Action
	Coordinate and expand accessible trails, walking, and cycling infrastructure throughout the County	In Progress
T7	Create a TDM Plan in partnership with local employers and neighbouring municipalities	Delayed
	Develop an engagement process to include community members in the TDM planning process	Delayed

IN OUR BUILDINGS
2021 HIGHLIGHTS

Residential, commercial, and industrial buildings account for 29% of Dufferin's total GHG emissions. To reduce emissions Dufferin County has set a 2050 target of net-zero emissions buildings. In 2021, Dufferin County:

Completed a feasibility study for a deep energy retrofit financing program with Lightspark Software outlining existing housing stock and initial uptake analysis.

Created home energy efficiency resources, made available to residents on Climate Hub.

DID YOU KNOW?

Air leakage accounts for 20 - 40% of the energy used for heating and cooling in a typical residence! Simple and inexpensive solutions like weather-sealing strips, caulking, or spray foam can help you save energy.

Visit the Climate Hub to explore how small changes can add up to big energy savings.

#	ACTION	STATUS
B1	Complete a feasibility study undertaking a baseline assessment of Dufferin County's housing stock and energy upgrade potential, including the cost benefit of different types of retrofits to maximize dollars spent	Complete
	Investigate options to develop municipally led financing program for residential deep energy and resiliency retrofits	In Progress
	Implement selected municipally led financing program for residential deep energy and resiliency retrofits with a strategic lens to address energy poverty	Future Action
	Support existing training programs for contractors to complete home energy work	Future Action
	Educational campaign on home energy efficiency and fuel switching	Behind
	Explore options for customer utility data comparison	Future Action
B2	Create resilience check-list for residences	Behind
	Improve homes and businesses capacity to manage stormwater on-site through education campaigns, trainings, programs, and on-site consultations	Future Action
	Support training programs for contractors to complete resilience work	Future Action
B3	Educate building occupants and landlords on available energy retrofit programs and encourage participation in future financing options led by the County	Future Action
	Explore feasibility to require property standards by-law for maximum temperature in rented residences	Delayed
B4	Prioritize building designs that reduce energy demand and increase efficiency (passive cooling, air source heat pump, ground source heat pump, triple pane windows, light coloured roofs, etc.)	Future Action
	Prioritize climate resilient building designs (e.g. flood prevention strategies, passive cooling designs, expansion of hurricane clip program)	Future Action
B5	Investigate the potential for district energy systems to maximize energy efficiency	Future Action
	Work with local municipalities to review and enhance local Community Improvement Plans (CIP) to enable retrofits to commercial buildings	Future Action
B6	Encourage ICI stakeholders to take advantage of energy efficiency programs and incentives for new and remodeled buildings	Future Action
	Support educational campaigns and training for owners and employees to maximize energy efficiency and options for retrofits	Delayed
	Support educational campaigns and training for owners and employees to maximize energy efficiency and options for retrofits	Delayed

FOR OUR LAND
2021 HIGHLIGHTS

While agriculture accounts for 16% of Dufferin's GHG emissions, both natural and agricultural lands serve as carbon sinks and provide important services to the community. Dufferin's natural systems play a key role in adapting to climate change by providing essential stormwater management and purification services, mitigating extreme heat, and supporting biodiversity. In 2021, Dufferin County:

Partnered with the County of Wellington to launch Experimental Acres Farm Pilot to provide funding and support to 7 Dufferin farmers to adopt regenerative agriculture practices on a small scale.

Prepared a Natural Asset Inventory for Dufferin County and local municipalities to inform a Natural Asset Management Plan to protect and enhance local assets.

Promoted Dufferin Rural Water Quality Program in collaboration with Economic Development and local conservation authorities at Agriculture Roundtable.

Hosted Introduction to Rainscaping Workshop with Credit Valley Conservation to encourage uptake of natural stormwater management solutions with 66 participants.

#	ACTION		STATUS
L1	Complete a study detailing the barriers preventing the adoption of climate-friendly and resilient practices in agriculture and the values that facilitate adoption		Delayed
	Support evolving research opportunities investigating the carbon sequestration potential of agriculture sector		In Progress
	Encourage regenerative and ecological agriculture practices where applicable such as no-till and cover crops to control run off, tile, or controlled drainage systems		Ongoing
	Encourage mapping of existing crop varieties against future climate projections		In progress
L2	Promote co-learning and networking opportunities for sustainable and resilient agriculture, energy efficiency, crop diversification, new technologies, and water conservation		Ongoing
	Support a variety of educational opportunities tailored to diverse producers and their unique needs		Ongoing
L3	Explore on-site renewable energy production options		Future Action
	Explore options to incentivize manure management and biogas recovery as an alternative fuel source		Future Action
L4	Complete a natural asset inventory for the County including a risk assessment		Complete
	Develop municipal natural asset management plans based on inventory		Future Action
L5	Create an urban forest/reforest strategy with climate resilient tree species		Future Action
	Explore feasibility of developing a "Grown in Dufferin" tree supply program and or partner with conservation authorities to leverage existing nursery programs		Future Action
	Amend the landscape regulations in both Zoning and Subdivision by-laws to increase tree protection and replacement requirement		Delayed (Planner required)
	Adopt both a private and heritage tree protection by-law		Delayed (Planner required)
	Ensure tree planting requirements are executed through new construction		Delayed (Planner required)
L6	Promote educational campaigns on options for and benefits of green infrastructure and low-impact development		Future Action

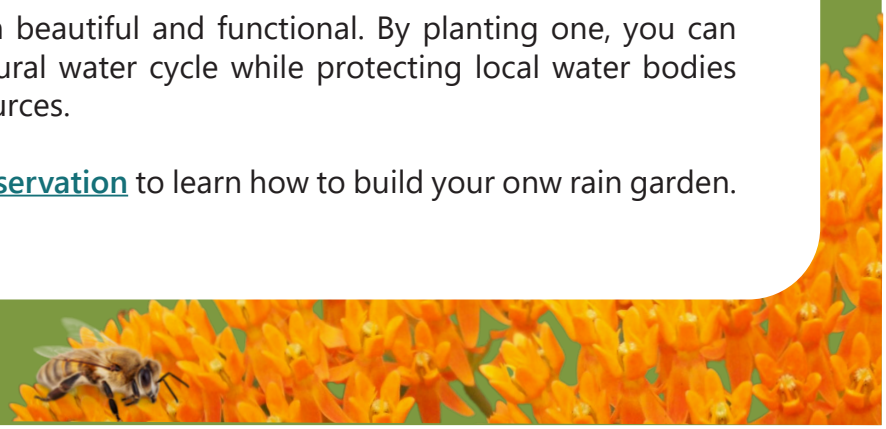
#	ACTION		STATUS
	Support backyard habitat creation initiatives to protect native biodiversity		Future Action
	Encourage uptake of natural stormwater management solutions such as raingardens, soak-away pits, bioswales, or permeable groundcovers (See P2)		In Progress
L7	Support restoration of degraded lands using erosion control, organic and nutrient amendments		Ongoing
	Support conservation of marginal farmland to perennial grasses or trees		Future Action
	Support restoration of wetlands (See L8, P5)		Future Action
L8	Support restoration of wetlands (See L7, P5)		Future Action
	Work with local municipalities to provide a climate lens to water quality and quantity protection initiatives		Future Action
	Work with local municipalities to develop and/or update stormwater management plans		Future Action

DID YOU KNOW?

Compared to a patch of lawn, a rain garden allows about 30% more water to soak into the ground!

Rain gardens are both beautiful and functional. By planting one, you can help maintain the natural water cycle while protecting local water bodies and drinking water sources.

Visit Credit Valley Conservation to learn how to build your onw rain garden.



PLANNING OUR COUNTY
2021 HIGHLIGHTS

As the County did not have internal Planning support for 2021, actions scheduled for implementation in 2021 around the development of green development standards has been delayed.

Green Development Standards (GDS) guide, incentivize or mandate developers to build developments that decrease greenhouse gas emissions, protect the environment, and create climate-resilient neighborhoods. GDS can encourage energy-efficient developments through a variety of ways such as (but not limited to):

- Promoting the inclusion of energy efficiency measures like higher quality doors and windows, increased insulation, zero-carbon heating/cooling and hot water systems, and achieve high-levels of airtightness and balanced ventilation.
- Ensuring new builds are electric vehicle ready.
- Including features such as tree canopies, and stormwater management mechanisms that increase resilience to extreme weather, temperatures, and flooding.

It is critical that the County creates Green Development Standards to make sure new developments are climate proofed to avoid future losses.

#	ACTION			STATUS
P1	Prioritize the design of urban areas to reduce personal vehicle use, vehicle kilometers travelled, and to encourage active transportation. This can be achieved through the development of compact, accessible, and walkable neighbourhoods that integrate residential office and retail developments			Delayed (Planner required)
	Prioritize infill and high-density housing in the downtown core, commercial zones, and along transit routes through policies			Delayed (Planner required)
P2	Create GDS that align with existing or upcoming policy goals and plans related to community energy, climate change, growth and intensification, resilience, and asset management			Delayed (Planner required)
	Engage the building and development community to integrate experiences and leading practices into a GDS			Delayed (Planner required)
	Create requirement for a 'climate impacts' section in all development applications and explore options to incentivize application of GDS by local developers			Delayed (Planner required)
	Embed GDS in the Official Plan, especially as an implementation tool to achieve goals concerning sustainability, health, growth, and infrastructure management			Future Action
	Work with member municipalities to integrate GDS into development standards with a focus on regional alignment			Future Action
P3	Conduct a study to identify priority areas to mitigate extreme heat across private and public properties			Early Stages
	Implement potential recommendations from extreme heat study such as installation of reflective white roofs, urban street tree planting, shading park structures, and the conversion of streets to light colours			Future Action
P4	Increase capacity to apply climate lens to infrastructure planning for stormwater management			Future Action
	Update floodplain mapping and develop/update natural stormwater management plans to ensure no increase in vulnerability			Future Action
P5	Enhance the amount of green space/permeable surface incorporated into all communities			Future Action

#	ACTION			STATUS
	Support an increase in tree coverage through planning policy (See L5)			Future Action
	Strategically manage natural assets through the directives of the natural asset management plan (See L4)			Future Action
	Increase uptake of low impact development technologies on private and public properties (See L6)			Future Action
	Support wetland restoration and creation initiatives (See L8)			Future Action
P6	Determine renewable energy potential in Dufferin, including potential sites for wind and solar installations			Future Action
	Identify options for local energy generation and storage options, such as microgrids that can also serve as back-up power supply during emergencies			Future Action
	Collaborate with the agricultural community and energy specialists to identify local options for on-farm renewable energy (See L3)			Future Action
	Identify opportunities for low GHG fuel use in the community such as hydrogen and renewable natural gas			Future Action
P7	Explore potential sites for a district energy system			Future Action
	Create a municipal energy map			Future Action
	Conduct an initial assessment to identify local fuel sources such as biomass or biogas products (See L3)			Future Action
P8	Provide learning and training opportunities for residents, developers, building owners, and businesses on renewable energy options such as ground mount solar, rooftop PV, geothermal, and renewable natural gas			Future Action
	Promote financing opportunities for neighbourhood level energy generation and ownership, such as solar installations			Future Action

IN OUR BINS
2021 HIGHLIGHTS

Although waste only accounts for 2% of Dufferin's total GHG emissions, the County can continue to support waste initiatives to increase the reduction of organic waste and support local circular economy initiatives. In 2021, Dufferin County:

Composted 3,200 tonnes of organics through Dufferin Waste's Green Bin program.

Engaged over 100 people through Dufferin Waste's Plan to Save, Reduce Food Waste campaign, in which participants built skills to reduce food waste in their households.

#	ACTION			STATUS
W1	Work with Waste Services to increase rates of, and participation in, composting through educational campaigns			Ongoing
	Work with Waste Services to support food waste reduction efforts			Ongoing
	Develop organic waste diversion educational opportunities for ICI stakeholders			Future Action
W2	Support individuals, businesses, and industry efforts to reduce waste through circular economy initiatives			Future Action
	Work with community stakeholders to increase knowledge of and participation in circular economy initiatives			Future Action

DID YOU KNOW?

Dufferin Waste's Take it Back directory is a one-stop guide for residents to take back items for reuse, recycling or proper disposal at local retailers, vendors, and organizations.

Contribute to a circular economy by taking back unwanted items for reuse, recycling, or proper disposal!

Visit dufferincounty.ca/waste or download the Dufferin Waste App to use the "Which Bin?" tool to find a Take it Back location near you!

EMPOWERING OUR COMMUNITY
2021 HIGHLIGHTS

The County is committed to building community capacity, addressing systems of inequality inequality, and, ultimately, empowering all community members to participate in and benefit from climate action. In 2021, Dufferin County:

Launched the Climate Hub an online platform for residents to access tools, resources, and local stories that support community greenhouse gas reduction goals.

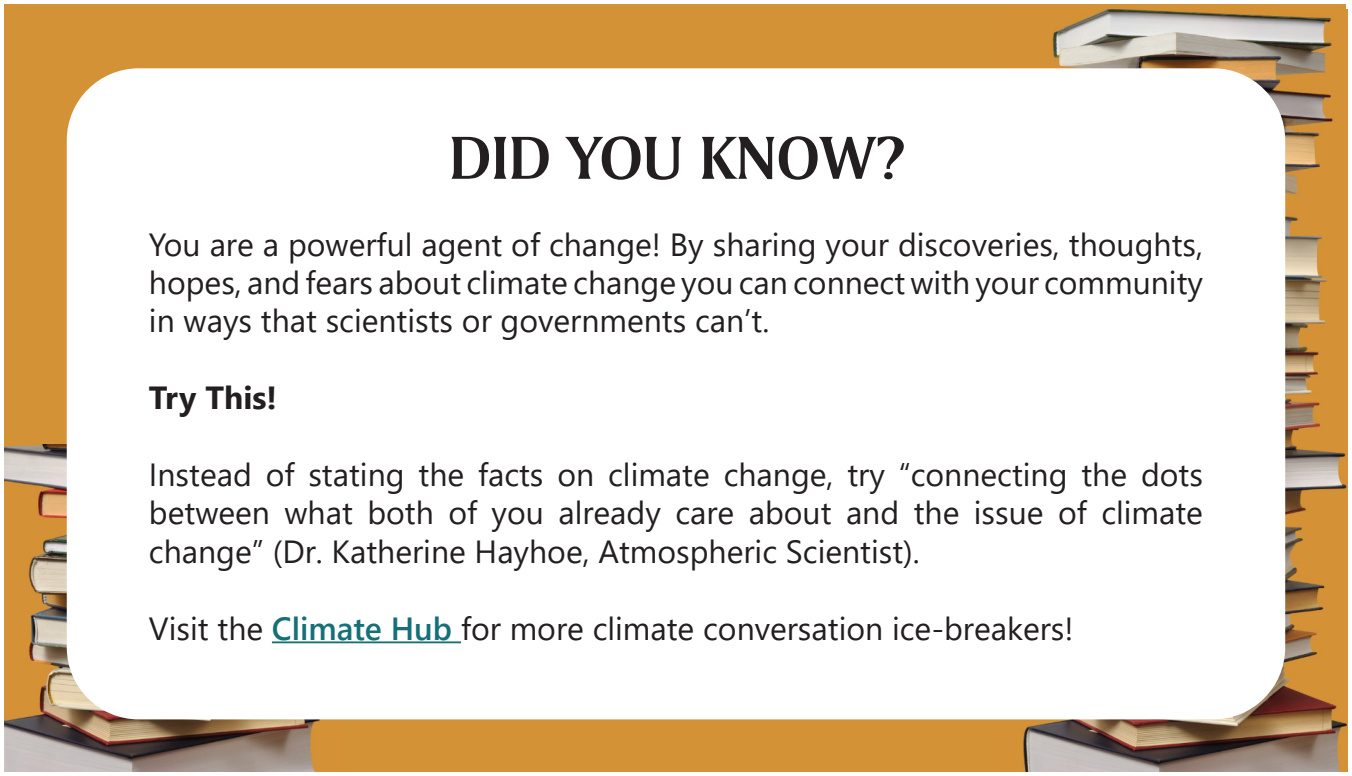
Developed a Climate Engagement Strategy to empower residents to participate in the implementation of the Dufferin Climate Action Plan.

Spotlighted local climate champions through the Climate Stories of Dufferin Project, featuring residents, business owners, and students.

Launched Climate Action in Dufferin e-newsletter to connect residents to local events, resources, and opportunities for engagement.

Saved 3,500 pounds of carbon dioxide and took 753 climate actions through the Earth Month Ecochallenge, led with Headwaters Communities in Action and Sustainable Orangeville.

#	ACTION		STATUS
C1	Provide resources and learning opportunities for residents with detailed information on tools, resources, and supports to reduce GHG emissions		Ongoing
	Create a "Community Climate Fund" to support existing programs in the community for organizations undertaking environmental or social justice work		Ongoing
	Develop a climate change toolkit for businesses to assist with climate change impact analysis and continuity planning for extreme weather		Delayed (COVID)
	Develop a green procurement guide for ICI stakeholders		Future Action
C2	Create a "Climate Engagement and Cultural Plan" with diverse community groups, particularly with equity and sovereignty seeking groups		Complete
	Conduct market research to identify barriers and motivations for desired sustainable behaviours		Delayed
	Promote educational campaigns to encourage sustainable behaviours, such as supporting local food and farming		Ongoing
	Promote local stories and highlight success in the community		Complete
	Establish a multi-level Climate Ambassadors Program to facilitate the inclusion of all community members in climate action initiatives		Behind



DID YOU KNOW?

You are a powerful agent of change! By sharing your discoveries, thoughts, hopes, and fears about climate change you can connect with your community in ways that scientists or governments can't.

Try This!

Instead of stating the facts on climate change, try "connecting the dots between what both of you already care about and the issue of climate change" (Dr. Katherine Hayhoe, Atmospheric Scientist).

Visit the Climate Hub for more climate conversation ice-breakers!

LOOKING AHEAD

Looking ahead to 2022, the Climate and Energy Division will be moving forward the following priority actions:

Advancing Adaptation

The County of Dufferin is currently participating in a program called Advancing Adaption. Delivered by the International Council for Local Environmental Initiatives (ICLEI) Canada, the Advancing Adaptation program will support Dufferin in becoming a climate ready community.

Phase 1 was completed in March 2022 and applied local climate projections to assess our community's vulnerability to climate risks in a Climate Vulnerability and Risk Assessment Report. Phase 2 runs from May to December 2022. It will support Dufferin in identifying goals, actions, and implementation details for a community-wide climate change resilience strategy.

An interdisciplinary working group that includes County and local municipal staff, representatives from external organizations, and community members is collaboratively leading this initiative.

The County's Climate and Energy Division anticipates requiring a Resilience Officer in the coming years to meaningfully implement the forthcoming resilience strategy, knowing that the scale of funds and efforts necessary to advance climate action today is far less than the costs associated with delayed action and damages from climate change impacts down the road.

Youth Volunteer Programming

The County values the meaningful and sustained involvement of young people in local climate action. In 2022, the Climate and Energy Division will design a volunteer program to engage and empower Dufferin youth (16 – 25) to be active participants in the implementation of the Dufferin Climate Action Plan.

Strengthening Relationships with Local Municipalities

The County will work alongside local municipalities to develop green development standards with local planners, explore options for a residential energy retrofit financing program, and create local climate implementation plans that advance the actions outlined in the Dufferin Climate Action Plan that fall under local municipal spheres of control. The creation of a Municipal Community of Practice to build capacity and share resources will support these initiatives.

Other Priorities for 2022:

- Development of regional electric vehicle charging network strategy with partner municipalities
- Delivery of Experimental Acres Pilot to support farmers adopt regenerative agriculture practices
- Development of equity criteria to advance climate justice
- Community engagement and capacity building

The Dufferin Climate Action Plan is ambitious, but with meaningful action from local municipalities, businesses, organizations, schools, and individuals we can create a prosperous future for the current and future generations of Dufferin County.

A net-zero community is dynamic community that embraces low-carbon transportation options, supports and enhances local agriculture, grows sustainable and vibrant urban centers, protects land, water, and air, stimulates local economies, creates healthy and equitable neighbourhoods, and is resilient in the face of climate change.

THE CLIMATE IS CHANGING. SO MUST WE.