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COUNTY OF SIMCOE
LAND USE PLANNING COMMUNITY
CLIMATE CHANGE STRATEGY

Final May 2024

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GLOSSARY

Climate Action – "Climate action" refers to specific actions taken by governments, public and private organizations, and communities to address climate change and its impacts. For example, climate actions to mitigate climate change are those intended to reduce energy use and emissions, such as generating renewable energy in communities; and climate actions for adapting to climate change are those intended to help communities respond to extreme weather, such as property improvements to avoid basement flooding. Climate action is a United Nations Sustainable Development Goal.

Climate Change Adaptation – The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects.

Climate Change Mitigation – Human intervention to reduce the sources or enhance the sinks of greenhouse gases (GHGs). Includes human interventions to reduce the sources of other substances which may contribute directly or indirectly to limiting climate change, including, for example, the reduction of particulate matter emissions that can directly alter the radiation balance (e.g., black carbon) or measures that control emissions of carbon monoxide, nitrogen oxides, volatile organic compounds and other pollutants that can alter the concentration of tropospheric ozone which has an indirect effect on the climate.

Greenhouse Gas Emissions – Emissions of greenhouse gases due to human activity that cause global warming. Gases in the atmosphere such as water vapour, carbon dioxide, methane, and nitrous oxide absorb infrared radiation and trap heat in the atmosphere, causing the "greenhouse effect".

Green Infrastructure – Refers to natural and engineered greenspace and relates to natural vegetative systems and green technologies that collectively provide society with a multitude of economic, environmental, health, and social benefits.[1]

Low-Carbon Community – A broad term that refers to a community with land use and development patterns that support a culture of conservation including energy conservation and efficiency as well as the use of renewable energy systems and low-carbon alternative

[1] As defined by the Green Infrastructure Ontario Coalition

energy systems. “Low carbon” refers to carbon emissions from fossil fuels and does not encompass all types of GHG emissions. The concept of low carbon is not intended to refer to quantified emissions reduction targets.

Municipal Comprehensive Review – As defined by the Growth Plan, “a new official plan, or an official plan amendment, initiated by an upper- or single-tier municipality under section 26 of the *Planning Act* that comprehensively applies the policies and schedules of this Plan”.

Net-Zero Energy – Refers to buildings that consume no more energy than is produced on a given site.

Net-Zero Emissions – Refers infrastructure and technologies that produce onsite, or procure, carbon-free renewable energy in an amount to offset the annual carbon emissions associated with operations.

Resilience – The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning and transformation.

Vulnerability – Refers to the ways in which climate change may either alter the exposure of human beings, their livelihoods, and assets to weather-related risks or may herald new forms of risk. Vulnerability may be influenced by economic well-being, health and education status, preparedness and coping ability with respect to particular hazards. Vulnerability reduction is a core common element of adaptation and disaster risk management.[2]

[2] Cardona, O.D., M.K. van Aalst, J. Birkmann, M. Fordham, G. McGregor, R. Perez, R.S. Pulwarty, E.L.F. Schipper, and B.T. Sinh, (2012). Determinants of risk: exposure and vulnerability. In: *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. *A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change* (IPCC). Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 65-108; Brooks, N., (2003). *Vulnerability, risk and adaptation: A conceptual framework*. Tyndall Centre Working Paper No. 38. Norwich, UK.

1. THE CONTEXT FOR INTEGRATING CLIMATE CHANGE POLICIES INTO THE COUNTY OF SIMCOE OFFICIAL PLAN

A. INTRODUCTION

The rapid increase of carbon dioxide and other greenhouse gases (GHGs) caused by modern human activity has intensified the natural phenomenon of trapping the sun's heat within the atmosphere. Increases in GHGs have caused changes in climate patterns resulting in extreme weather such as unseasonal high and low temperatures (resulting in increased usage of heating and cooling for buildings, which often creates GHGs), major localized rainfall and storm events, and even drought. Municipal governments can play an important role in helping to prevent further consequences of increased GHGs. This municipal role in climate change adaptation and mitigation focuses on two perspectives:

1. The corporate perspective includes those areas for which the municipality has direct control and responsibility, including emissions attributable to municipal operations, public services, and municipal assets such as vehicle fleets; and
2. The community perspective refers to the broad perspective of the use of land and the activities that take place across all sectors within a municipality and is closely related to land use planning.

As municipalities own and operate most of the infrastructure in Ontario; they influence 50 per cent of Canada's overall GHGs. From a corporate perspective, municipalities from around the world are stepping forward, identifying ambitious targets to reduce GHGs, and protecting their populations from the impacts of climate change.

From a corporate perspective, the County of Simcoe joined the Federation of Canadian Municipalities Partners for Climate Protection (PCP) Program as of 2018. The program publicly commits to reducing GHGs and to implementing long-term strategies to mitigate and adapt to climate change impacts. Milestone 1 of the five-step PCP Plan was approved by County Council in 2021, which recognizes the creation of GHG emission inventories and forecasts. Thanks to the on-going efforts of the County's Sustainable Operations Team, Milestone 2, setting emissions reduction targets and Milestone 3, developing the County of Simcoe Corporate Climate Action Plan, of the five-step PCP Plan was approved and then ratified by County Council in November 2023. With this latest approval, the Corporation of

the County of Simcoe has committed to a target of 44% corporate GHG emissions reduction below 2021 levels by 2030, and Net Zero corporate GHG emissions by 2050. The Corporate Climate Action Plan will be integrated into the County's Strategic Plan.

From a community perspective, the land use planning framework in Ontario has undergone significant changes in the past decade to include climate change mitigation and adaptation. Increasing awareness of the role local governments can play in climate action is now clearly reflected in provincial legislation and policy. The County of Simcoe and its local municipalities are required under planning legislation to update their own policies and plans to guide development and redevelopment in a changing climate. Land use planning can play an important part in helping communities adapt and become more resilient. Land use planning can address the impacts of extreme weather, especially flooding and wind damage, extreme temperatures, air quality, agriculture, and water systems. This Land Use Planning Community Climate Change Strategy can support reducing community carbon emissions.

The combination of the Corporate Climate Action Plan and the Land Use Planning Community Climate Change Strategy can be used as key guiding documents to ensure climate change goals and objectives regarding built and natural environments are considered together with the corporate energy and emissions goals and objectives in Official Plans. Climate change responsibilities will be identified in Official Plans with both energy and emission reductions and adaptation as issues.

B. REPORT OUTLINE

This report was prepared by Hemson and Laura Taylor Designs (LTD), with the assistance of County planning staff, as required by the Province in the Municipal Comprehensive Review process. It provides an initial framework for considering climate change in the context of the County of Simcoe's role in land use planning, focusing on providing a foundation for the development of municipal Official Plan policies. It is expected that this strategy and the recommendations contained herein will evolve over time.

The report begins with a brief description of the Municipal Comprehensive Review (MCR) process, where the County is updating its Official Plan to ensure conformity with provincial policies. Comprehensive climate change planning for mitigation and adaption will not be completed within the relatively short timeframe of the MCR process, however this report sets out a process to do so. The report reviews County of Simcoe's climate forecast, identifies the five-step PCP process that is currently being followed by the County's

Sustainable Operations Team to address the Climate Change requirements from a corporate perspective, discusses how climate change is being integrated into land use planning including eight best practices for the County of Simcoe to consider going forward, acknowledges the impressive work that has already been done by municipalities, conservation authorities, organizations, and community members, and recommends a process for planning for climate change at the County level following the MCR. The Strategy concludes with sample climate change policies which can be incorporated into the County of Simcoe and considered for integration into local municipal official plans as well. The proposed policies are intended to meet minimum legislative requirements (essential policies) as well as progressive policies developed based on a review of municipal best practices.

C. COUNTY OF SIMCOE CONTEXT AND LEGISLATIVE REQUIREMENTS

1. Location and County of Simcoe Responsibilities

The County of Simcoe is an upper-tier municipality located just north of the Greater Toronto Area, to which it is connected by Highway 400. It contains approximately 4,900 km^2 of land located around Lake Simcoe, Georgian Bay, the Niagara Escarpment, and the Oak Ridges Moraine. Sixteen lower-tier municipalities are within the County, each with a distinct pattern of settlement and growth management plans. Furthermore, the separated cities of the Barrie and Orillia are within the geographic boundaries of the County, however they remain administratively separate from the County and its 16 lower-tier municipalities. The County of Simcoe exhibits a wide range of urban and rural land uses, a diverse economy that includes agricultural, industrial, and tourism-related employment, and a rich natural heritage system. Regional services such as paramedics, long-term care, social housing, waste management, regional transit and arterial roads infrastructure are generally provided by the County of Simcoe while lower-tier municipalities are responsible for other local services, including the delivery of water and wastewater infrastructure. Land use planning is closely coordinated, with the County of Simcoe being responsible for guiding overall growth and development primarily through its Official Plan while approval authority for many planning approvals has been delegated to local municipal authorities.

The following map identifies the County of Simcoe and its lower-tier municipalities, including the existing primary settlement areas that are designated by the Province.

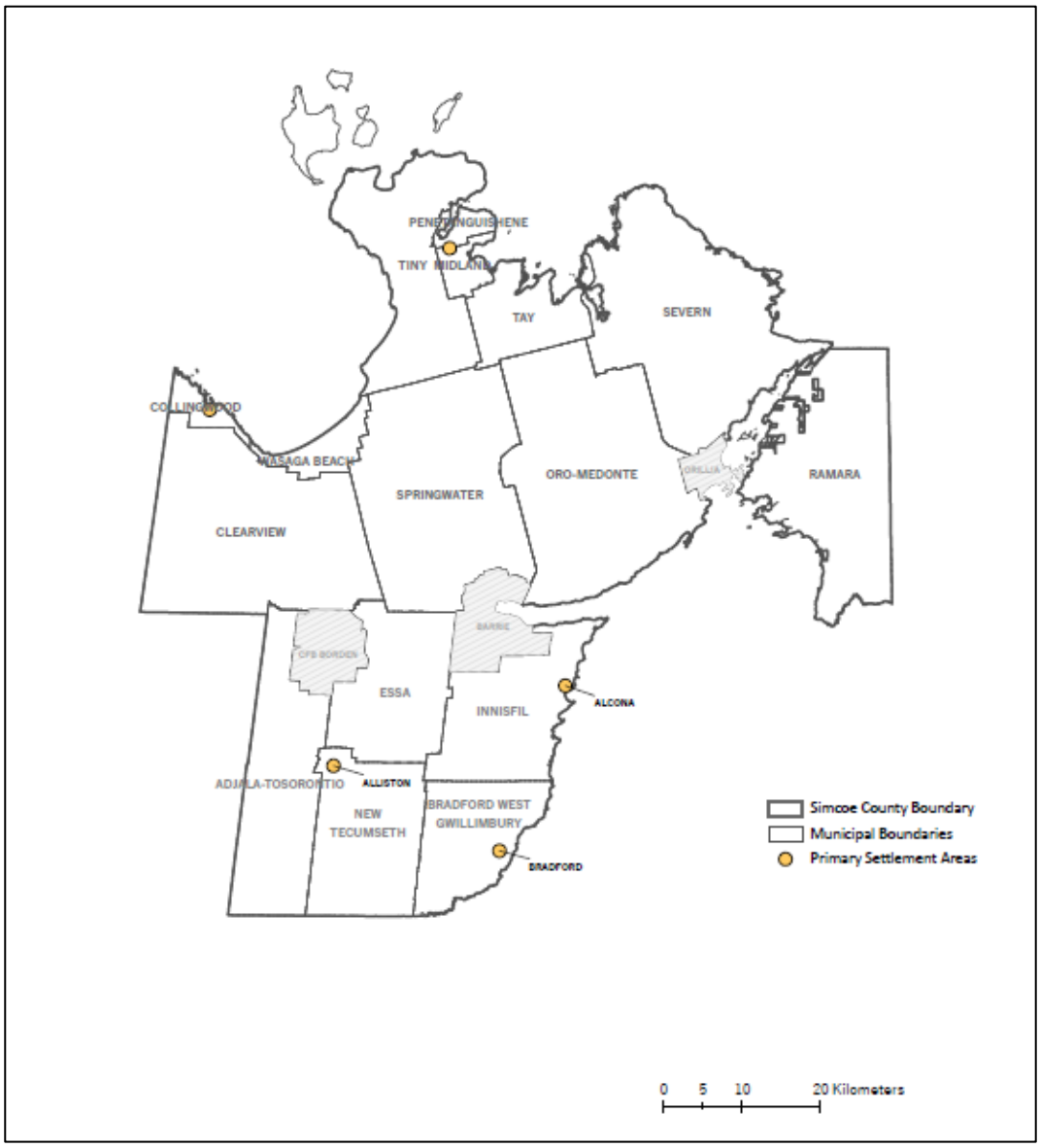

Figure 1: Map of County of Simcoe (Source: Hemson Consulting, 2021)

2. Growth Plan Requirements

The County of Simcoe is currently undertaking a comprehensive update to its Official Plan (a Municipal Comprehensive Review or MCR). The update is required to ensure the Official Plan is consistent with provincial policies and conforms with provincial plans. These policies and plans—particularly the Provincial Policy Statement 2020 (PPS) and A Place to Grow – Growth Plan for the Greater Golden Horseshoe (Growth Plan 2020)—have undergone substantial revision in recent years. Of great importance is that the Growth Plan now requires that the County of Simcoe plan for a time horizon to 2051. Section 6 of the Growth Plan includes

specific policies for managing growth in the Simcoe Sub-Area, which includes the County of Simcoe and its 16 lower-tier municipalities.

The County of Simcoe is located within the Outer Ring of the Greater Golden Horseshoe (GGH) as defined by the Growth Plan. The Growth Plan includes detailed policies for planning for future population and employment and establishing settlement area boundary expansions and official plan reviews. All County of Simcoe Council decisions made in respect of these matters must conform to these policies. As such, the Growth Plan is the crucial policy document guiding the MCR.

Schedule 3 of the Growth Plan requires that the County of Simcoe plan to achieve a minimum population of 555,000 and employment of 198,000 by 2051. This represents population and employment growth of about 55% and 69% respectively from today (see Table 1).

Table 1: County of Simcoe Population and Employment Forecast to 2051

	POPULATION	EMPLOYMENT
2021	361,000	117,000
2051	555,000	198,000
Growth 2021-2051	**194,000 (54%)**	**81,000 (69%)**

3. Overview of County of Simcoe's Municipal Comprehensive Review Process

Through the MCR process, the County of Simcoe's Official Plan will be brought into conformity with the Growth Plan. The scale of the work involved is necessarily broad. The updated Official Plan establishes the overall pattern of development and environmental stewardship in the County of Simcoe and sets the stage for substantial and more detailed planning by local public bodies.

Phase 1 Growth Management of the MCR was undertaken from January 2021 to August 2022, concluding with an adopted Official Plan Amendment (No. 7) that is awaiting final approval by the Minister of Municipal Affairs and Housing. Phase 1 included a review of Provincial policies and plans and associated technical studies to support the updated Official Plan policies related to Growth Management, including a Population and Employment land needs assessment (LNA). In addition, other matters as follows are underway, although are not yet finalized:

- refinements to the Provincial natural heritage system mapping;

- refinements to the Provincial agricultural system mapping;
- climate change [this study]; and
- watershed planning.

The MCR is being closely coordinated with the lower-tier municipalities. Lower-tier municipalities will play a key role in identifying appropriate locations for future urban lands and impacts on the agricultural system, natural heritage system, watersheds, and infrastructure requirements.

Throughout the MCR, the County of Simcoe is engaging with Indigenous communities and a range of stakeholders including the lower-tier municipalities, Provincial staff, public agencies, County of Simcoe residents, environmental groups, representatives of the agricultural community, developers, and community associations. The technical studies are available to these groups and the general public on the County of Simcoe's website for review.

D. THE PURPOSE OF THE LAND USE PLANNING COMMUNITY CLIMATE CHANGE STRATEGY

The County of Simcoe's updated Official Plan will need to include expanded climate change policies to ensure conformity with the provincial planning framework. Currently, the County of Simcoe's Official Plan makes some reference to the impacts of climate change, however, does not outline specific climate change goals and objectives and targets. The purpose of this report is to identify provincial policy requirements for climate-related land use planning policies in Ontario and County of Simcoe.

Moreover, this report recommends a "made in Simcoe" approach which reflects not only the policy requirements of the County of Simcoe but will also guide the local municipalities in updating climate change goals, objectives, and policies within their own Official Plans and related policy tools.

2. WHY CLIMATE CHANGE MATTERS IN THE COUNTY OF SIMCOE

The County of Simcoe is already experiencing the impacts of climate change including more frequent and severe extreme weather events such as flooding, damaging winds, and ice storms, which have resulted in property destruction and significant financial impacts. Climate change will continue to impact the health and well-being of existing and future residents and businesses in the County of Simcoe.

A. ONTARIO AND CANADA CLIMATE ACTION TIMELINE

As part of Simcoe County's Official Plan update through the MCR process, the County of Simcoe will plan to a horizon of 2051. This long-term planning horizon should be considered within the context of federal and provincial climate change objectives and targets (as shown in Figure 2). For example, Canada is one of 196 parties who signed the Paris Agreement in 2012, a legally binding global treaty on climate change. The treaty is intended to address global warming by limiting GHG emissions and ultimately achieving "net-zero emissions" by 2050 (see Glossary). In developing its new Official Plan and future climate change policies, and in collaboration with the County of Simcoe's corporate work on energy and emissions through the PCP program, the County of Simcoe may wish to align with this objective by 2050 or sooner.

As part of the PCP work, other important considerations include an anticipated shift in the production and purchasing of fossil-fuel burning vehicles to electric which do not emit GHGs. From a corporate perspective, the County of Simcoe has already purchased three electric vehicles and is hoping to purchase more as needed to reduce its corporate emissions. Further, it is anticipated that by 2030, Ontario's Building Code will require that all new construction be net-zero energy ready meaning that the facility is so efficient that a renewable energy system can offset most or all its energy consumption, for example through on-site solar panels.

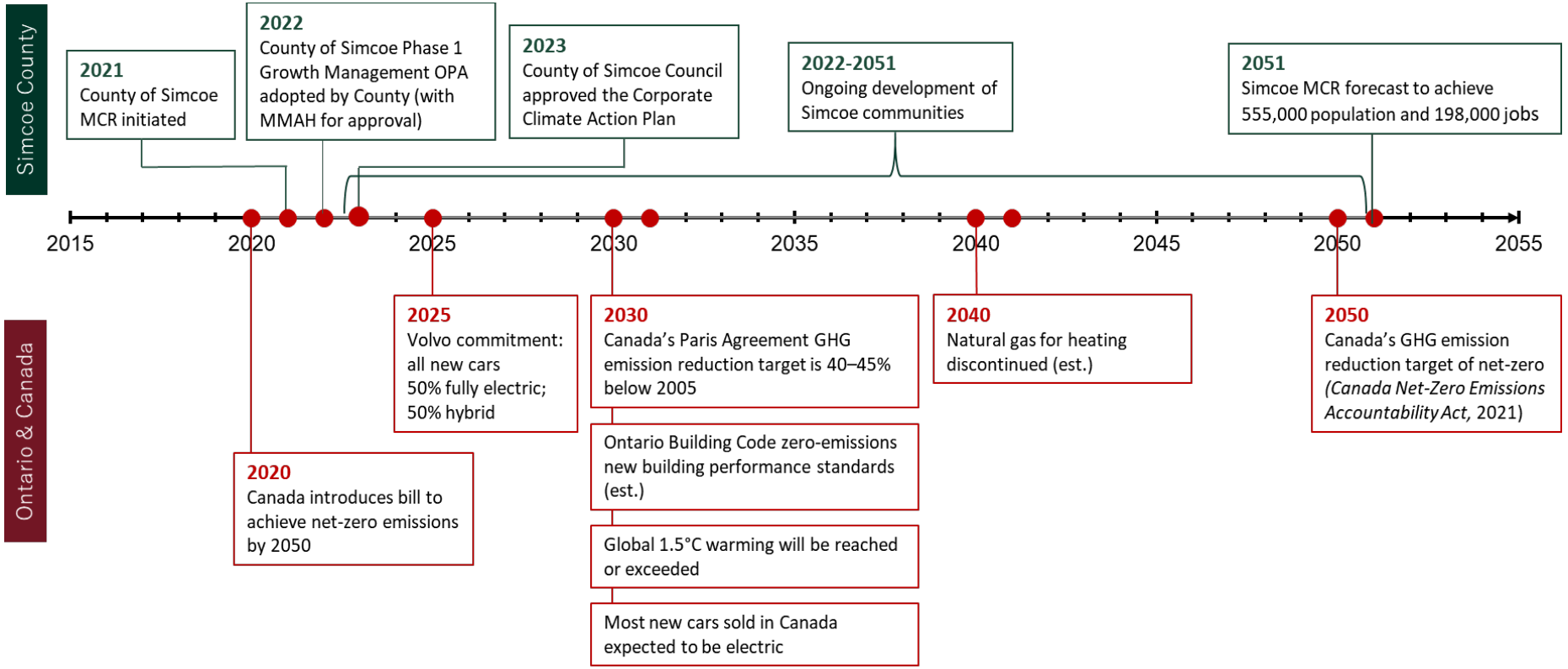

Figure 2: Timeline County of Simcoe MCR and Canada and Ontario Climate Action (Source: Hemson and LTD, 2023)

B. COUNTY OF SIMCOE CLIMATE FORECAST AND GHG EMISSIONS

In the County of Simcoe, it is expected that average annual temperatures will increase by approximately 3.5 degrees Celsius by 2050 resulting in a climate similar to that of the state of Kentucky,[3] which has relatively hot, humid, rainy summers, and more moderate cold and rainy winters.[4]

The 2021 report by the Intergovernmental Panel on Climate Change (IPCC), which is the United Nations body for assessing the science related to climate change, confirms that human-induced climate change is already affecting many weather and climate extremes in every region across the globe with observed changes in extremes such as heatwaves, heavy precipitation, and droughts.[5] The IPCC uses the language of "extremes" to draw attention to the idea that while global warming is occurring, local communities will experience extremes in temperature and precipitation, with swings between very hot and very cold, and drier and wetter days and seasons.

Figure 3 illustrates forecast precipitation, average temperature, very hot days, very cold days, frost-free days and other variables for the Lake Simcoe Region. Two scenarios are shown—a high-carbon climate future where high levels of GHGs continue and a low carbon climate future where a dramatic reduction in GHGs occurs (due to global efforts to reduce emissions) allowing the amount of emissions in the atmosphere to stabilize by the end of the century. These scenarios represent the models of possible future development pathways known as Shared Socio-economic Pathways (SSPs), which make complex assumptions about how efforts to mitigate GHG emissions may change over the next century (e.g., "continue at the current rate" vs "much reduced") and therefore how much global warming may be expected.

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[3] Anticipated increase in temperatures has been identified by the Simcoe Muskoka Health Unit

[4] https://www.weather-us.com/en/kentucky-usa-climate

[5] IPCC, 2021: Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [MassonDelmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press. In Press.

RCP 8.5: High Carbon climate future

GHG emissions continue to increase at current rates

Variable	Period	1976-2005	2021-2050			2051-2080		
		Mean	Low	Mean	High	Low	Mean	High
Precipitation (mm)	annual	884	777	941	1116	802	970	1151
Precipitation (mm)	spring	209	157	229	312	166	244	331
Precipitation (mm)	summer	219	139	222	315	135	218	316
Precipitation (mm)	fall	245	175	256	342	171	258	355
Precipitation (mm)	winter	212	167	233	307	179	250	327
Mean Temperature (°C)	annual	6.4	7.1	8.5	9.9	9.2	10.7	12.5
Mean Temperature (°C)	spring	5.1	4.5	7	9.6	6.5	9	11.8
Mean Temperature (°C)	summer	18.7	19.3	20.8	22.4	21.1	23.1	25.1
Mean Temperature (°C)	fall	8.4	8.9	10.6	12.3	10.8	12.6	14.4
Mean Temperature (°C)	winter	-7	-7.4	-4.6	-1.6	-5	-2	1
Tropical Nights	annual	2	3	9	19	11	25	44
Very hot days (+30°C)	annual	9	9	25	41	25	49	74
Very cold days (-30°C)	annual	1	0	0	1	0	0	0
Date of Last Spring Frost	annual	May 8	April 9	April 28	May 12	March 30	April 18	May 6
Date of First Fall Frost	annual	Oct. 6	Oct. 2	Oct. 19	Nov. 4	Oct. 15	Oct. 31	Nov. 19
Frost-Free Season (days)	annual	148	148	172	200	168	193	222

RCP 4.5: Low Carbon climate future

GHG emissions much reduced

Variable	Period	1976-2005	2021-2050			2051-2080		
		Mean	Low	Mean	High	Low	Mean	High
Precipitation (mm)	annual	885	777	927	1082	773	956	1137
Precipitation (mm)	spring	209	155	223	299	157	230	312
Precipitation (mm)	summer	220	142	223	318	140	225	324
Precipitation (mm)	fall	245	172	253	342	176	264	363
Precipitation (mm)	winter	211	164	230	302	172	238	309
Mean Temperature (°C)	annual	6.4	7	8.3	9.7	7.7	9.3	11
Mean Temperature (°C)	spring	5.1	4.6	6.9	9.3	5.4	7.8	10.5
Mean Temperature (°C)	summer	18.7	19	20.5	22	19.7	21.6	23.5
Mean Temperature (°C)	fall	8.4	8.6	10.4	12.1	9.4	11.2	13
Mean Temperature (°C)	winter	-7	-7.6	-4.8	-1.9	-6.5	-3.5	-0.5
Tropical Nights	annual	2	2	8	16	3	13	27
Very hot days (+30°C)	annual	8	7	22	39	12	33	55
Very cold days (-30°C)	annual	1	0	0	1	0	0	1
Date of Last Spring Frost	annual	May 8	April 11	April 28	May 13	April 5	April 25	May 12
Date of First Fall Frost	annual	Oct. 6	Oct. 1	Oct. 17	Nov. 2	Oct. 7	Oct. 22	Nov. 7
Frost-Free Season (days)	annual	148	145	168	193	150	177	207

Figure 3: High and Low Carbon Climate Future

(Source: Climate Atlas Canada, Region–Lake Simcoe, 2019)

According to the 2018 Local Climate Change Action Plan prepared by Sustainable Severn Sound for six local municipalities in central and north County of Simcoe and one municipality from the District of Muskoka, the majority of community GHG emissions in the region are related to the transportation (52%) and residential (25%) sectors (Figure 4). "Community GHG emissions" refers to activities from people and businesses in communities and are related to transportation, residential, solid waste, commercial and institutional, and industrial uses.

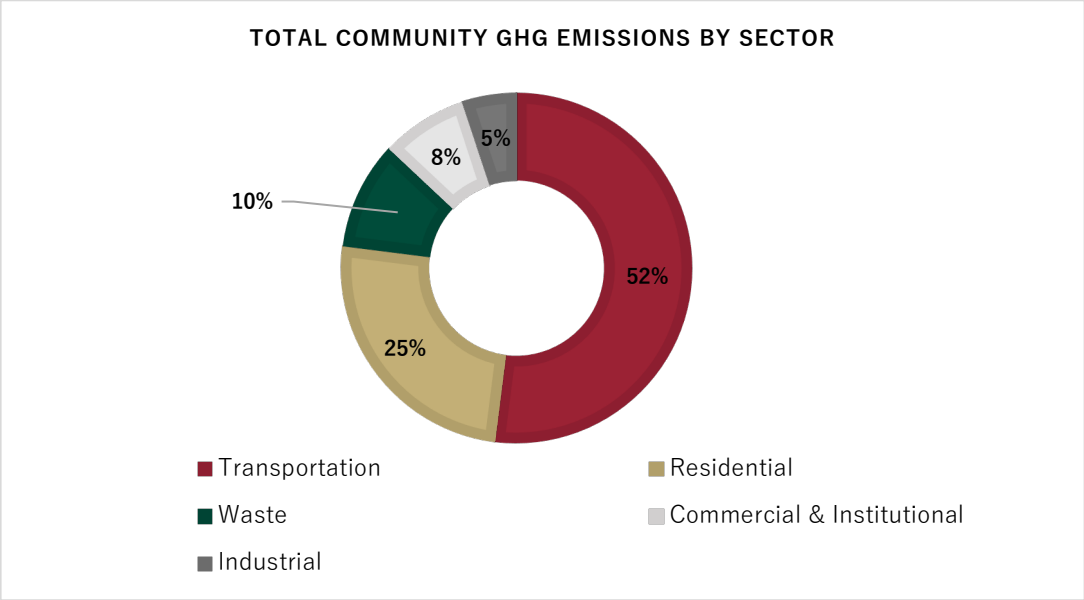


Figure 4: Community GHG Emissions
(Source: SSS, 2018)

Note that compared to emissions from buildings and transportation, emissions from agriculture in most southern Ontario municipalities are very low (about 1% to 5%) based on modelling exercises in other municipalities, except those, such as Essex County at 41%, with many greenhouses[6].

Corporate emissions from the internal operations of the municipality of the County of Simcoe are also predominantly related to buildings and transportation. Milestone 1 of the five-step PCP Plan recognized the creation of GHG emission inventories and forecasts by the County's Sustainable Operations Department and was approved by County Council in

[6] Windsor-Essex Climate Change Collaborative (2020). *Essex County Regional Energy Plan: Report #2 Analytical Summary.*

2021. A further update to those emission inventories was approved by County Council in 2023 as noted in Figure 5 below.

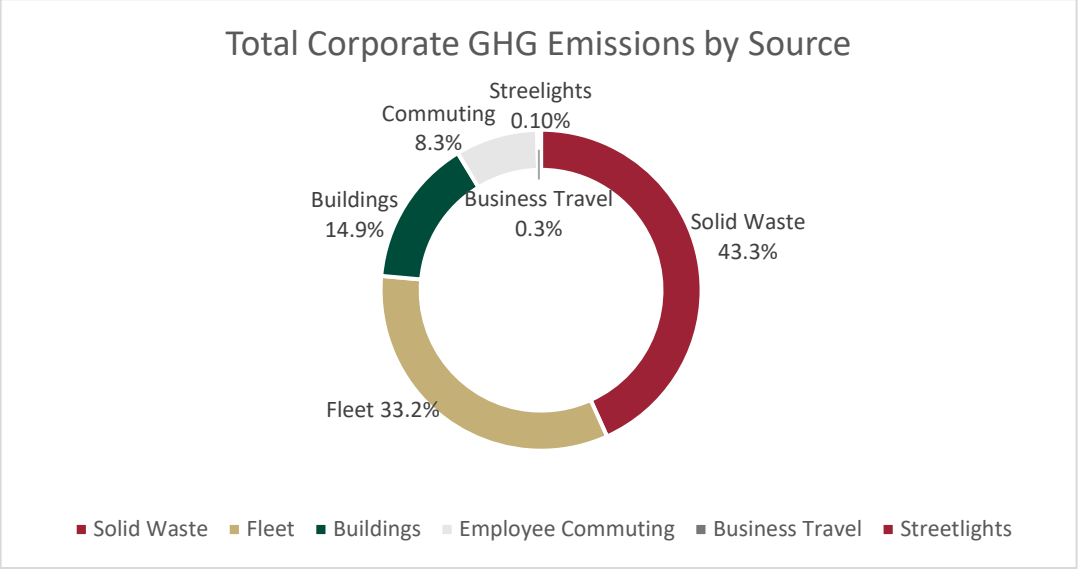


Figure 5: County of Simcoe Corporate Greenhouse Gas Emissions (tCO2e) by Source 2023 (Source: Simcoe Sustainable Operations, CCW-2023-093)

This baseline of GHG emissions provides important context to climate change in the County of Simcoe. Solid Waste, Fleet and Buildings are the County's big three GHG source emitters targeted for reduction, by understanding which sectors are the highest contributors of GHG emissions, policies and interventions can be created to reduce these emissions in a targeted and meaningful way.

C. CLIMATE CHANGE AND LAND USE PLANNING

Efforts to address environmental impacts of development are not new to land use planning and are part of the overall planning process in Ontario. For example, stormwater management and water quality improvement efforts have long been undertaken by the province, municipalities, and by Conservation Authorities. Other examples include air quality and ecosystem health. Climate change raises the threat of extremes related to these issues, for example through more frequent and heavier rainfall events potentially leading to flooding and conversely more frequent and hotter heat days throughout the year, potentially leading to drought, wildfire risk, and negative impacts to human health. In other words, climate change is already and will continue to negatively impact communities in the future due to the destruction of property, loss of natural ecosystems and habitats that both

humans and wildlife depend on, health impacts due to easier spread of diseases through insects, reduced air quality, and other effects.

Low-density, automobile-dependent communities reliant on long stretches of linear infrastructure contribute to increased GHG emissions and negative impacts on human health and natural systems. Making direct connections between land use planning and climate change presents opportunities to develop mitigation and adaptation actions. Examples of these opportunities to help reduce GHG emissions and increase climate resiliency include Official Plan policies for compact, complete communities supported by public transit, active transportation, and green infrastructure, which also helps reduce risks associated with natural hazards, protect and enhance natural heritage, water resource systems, and agricultural lands.

Climate change planning adds a sense of urgency and immediacy to municipalities' capacity to respond to extremes in weather, requiring reliance on policy direction and support from the province, greater inter-municipal and inter-organizational cooperation and collaboration, and greater efforts by residents and business to support and implement policies.

The County of Simcoe has experienced significant development pressure in recent years and is forecast to grow considerably, based on the population and employment forecasts prepared for the Growth Plan (see Chapter 1). The County of Simcoe must plan to accommodate future people and jobs while creating a meaningful policy framework to address climate change considerations. The current provincial climate change guidance reviewed in this report, and climate change guidance generally, is focused on adaptation and mitigation measures for cities, with small towns and rural communities not yet being given sufficient attention.

The County of Simcoe is unique in that its communities include a wide range of urban fully serviced communities (e.g., Bradford, Alcona, Midland, Alliston, Collingwood, etc.) to more rural areas (e.g., Adjala-Tosorontio, Ramara, Tiny, etc.). The diverse biophysical landscape gives each community in the County of Simcoe its distinctive character based on its location relative to Georgian Bay or Lake Simcoe or smaller lakes and rivers, distinctive bedrock formations, forests, and farmland.

All communities in the County of Simcoe are unique and will face different threats or opportunities. Some communities in the southern part of the County of Simcoe are at the urbanizing edge of the Greater Toronto Area whereas others derive their "cottage country" character from lakes and forests, and are dominated by tourism and second homes, facing increased development pressure of uses related to recreation and potential destruction of

amenities that attract investment. Some places are historic towns and hamlets serving the larger area, with some potential for intensification and more of a mix of uses, and a greater focus for transit. Residents and businesses across the County of Simcoe are motivated by different ideas about living and working in their communities and may celebrate enhanced policies to improve environmental conservation and protection, and potential investment opportunities that come with sustainable land use planning, such as green tourism and renewable energy projects. Some communities and groups of people are disproportionately impacted by climate change. Land use planning must address these social equity issues.

Local municipalities and organizations have taken action on climate change, many of these actions relate to land use planning, which are described in Appendix 2.

Climate action is discussed in terms of adaptation (responding to the changing climate) and mitigation (reducing emissions to prevent further change). In practice, many co-benefits arise from an integrated approach to climate action.

1. Climate Change Adaptation

Climate change adaptation (see Glossary) is addressed in large part by watershed and natural heritage system planning.[7] Resilience to climate impacts can be addressed to ensure that residents and businesses are protected against future risks and vulnerabilities such as flooding, drought, access to emergency services and management of potential air, soil, and water pollutants. Ecological changes are occurring, resulting in changes to existing habitats, potentially causing the loss of some existing species and the introduction of new ones.

The County of Simcoe's natural and cultural heritage and its scenic landscape attract and retain residents and businesses. The County of Simcoe's landscape is also key to responding to impacts of climate change. Adaptation involves actions that respond to climate change while also taking advantage of any benefits. For example, adaptation through greater reliance on green infrastructure strategies means that the landscape also absorbs rainwater and prevents flooding.

[7] Please refer to separate technical studies on watershed and natural heritage systems being undertaken as part of the MCR process

Other benefits also arise including protecting the natural environment, agricultural lands, and biodiversity, improving local food systems, and community design that achieves public health benefits by encouraging active transportation and daily contact with nature.

2. Climate Change Mitigation

Climate change mitigation (see Glossary) is a relatively new consideration for integration into land use planning. It requires the inclusion and implementation of goals and objectives for GHG emission reduction. As described in Chapter 1, the County of Simcoe's community GHG emissions are mostly caused by heating buildings and by transportation. Energy is emerging as part of the planning-related community issues that need to be addressed by proposed development such as how to minimize energy needs through better design and management of buildings and through transportation, especially through reducing vehicle kilometres travelled by car. While public transit and active transportation networks do not yet cover all areas throughout the County of Simcoe, efforts to expand them do continue. Focused attention to offer alternatives to personal vehicles to commute to work, shop, or take part in recreational activities should be considered to help in reduce GHG emissions. From a corporate perspective, the County's Sustainable Operations Team has started to adopt this practice by integrating electrical vehicles into their Fleet, and charging stations are also being introduced throughout the County as part of the Corporate Climate Action Plan.

Carbon sequestration supports mitigation through protecting greenspaces and increasing tree cover, such as Simcoe County forests and wetlands, as well as tree planting in more urban areas.

The largest part of the corporate emissions for the County of Simcoe are from solid waste landfill gases. County residents can help reduce these emissions by diverting organics and recycling from landfill.

Land use planning can support efforts for climate mitigation. All land use decisions should be made using a climate change and general health lens. Supportive policies and decision-making include compact urban form and complete community design to encourage higher densities and a mix of uses in settlement areas, efficient low-carbon building and site design, natural environment protection, as well as sustainable transportation systems.

3. Best Practices and Lessons Learned from Other Jurisdictions

Local governments around the world are addressing climate change in their land use planning policy frameworks. In this section, we have distilled best practices tailored to the County of Simcoe as an upper-tier municipality sharing responsibility for climate change planning with the province and its local municipalities based on climate change research completed by Hemson and LTD. Table 1 provides a summary of the identified climate change best practices.

Table 1: Summary of Climate Change Best Practices

NO.	BEST PRACTICE
1	Integrate Climate Change into all Areas of Municipal Responsibility
2	Adopt a Stand-Alone Climate Change Action Plan
3	Adopt Emissions Targets
4	Plan for Resiliency
5	Political Support
6	Monitor Policies Over Time
7	Focus on Public Education and Consultation
8	Support Collaboration

Adapted from: Boswell, Michael R., Adrienne I. Greve, Tammy L. Seale. 2019. *Climate Action Planning*. Island Press.

In Chapter 5, we provide our recommended considerations for the MCR process, based on these best practices.

A. Eight Best Practices for Municipal Climate Planning

1. Integrate Climate Change into all Areas of Municipal Responsibility

Climate change is often included as a strategic vision for municipalities. For example, many municipalities in Canada have declared a climate emergency to draw attention to the climate crisis and to signal climate as a priority issue. A municipal official plan is a good document to express the municipality's strategic vision and to link that vision with goals and objectives for managing land use planning. This is often referred to as "mainstreaming",

where a climate change lens is applied across all areas of municipal responsibility. In considering climate change policies in official plans, it is recommended to:

- Include climate change as an overall priority in the Official Plan, ideally as part of the overall vision for the Plan, an "umbrella" vision, and to identify planning for climate change as a guiding principle.

- For example, the City of Ottawa's New Official Plan (August 2021) identifies climate change as a major challenge at the outset of the Plan (Section 1.1 Context), with emissions targets clearly illustrated:

  "... Ottawa's growth will need to align with Council approved community and corporate greenhouse gas emissions reduction targets and take steps to adapt to a changing climate. We will need to find new ways to ensure we can weather crises - be they health, environmental or economic. We will also need to find ways to harness rapid technological change to support local economic development and quality of life. We will need to create an affordable supply of options across the city for different household types and income groups. And we will need to find ways of supporting urban and rural neighbourhoods as healthy, inclusive, and vibrant places."

- Integrate climate adaptation and mitigation goals to better demonstrate co-benefits. Climate change mitigation and adaptation are the common ways of distinguishing between those actions that reduce GHG emissions that cause global warming and actions that respond to impacts already being experienced. The danger if mitigation and adaptation goals are not integrated is that energy and emissions reduction strategies and resilience strategies will not be visible as a coherent approach to climate change. A best practice is to ensure that overall climate change goals and objectives for planning built, and natural environments be seen together and that co-benefits, as well as potential areas of conflict, are articulated.

- For example, in Ottawa's New Official Plan, climate change responsibilities are identified across all areas of responsibility. The Official Plan identifies climate change as a "cross-cutting issue" (Section 2.2), identifying both energy and emissions reductions and adaptation as issues.

2. Adopt a Stand-Alone Climate Change Action Plan

Municipalities should prepare stand-alone climate change action plans to collect data as a baseline for current emissions from both the municipal corporation (fleets, buildings, operations) and the community (transportation, buildings, industry, agriculture, and waste) and then to determine appropriate targets for emissions reduction and then strategies to achieve those targets. Plans can also identify areas of vulnerability to climate change and address ways to adapt in the future. They can also identify community partners needed to undertake this work.

One of the first Climate Change Action Plans in southern Ontario was undertaken by the Region of Durham, approved by regional council in 2012, the result of a three-year study and consultation process.

Many use the Federation of Canadian Municipalities' Partners in Climate Protection (PCP) Plan, which is a guide to climate action planning. As previously discussed in this report, the County of Simcoe has been a member of the program since 2018. The County of Simcoe has successfully completed Milestone 3 of the five-step PCP Plan, with Council approval of the Corporate Climate Action Plan in 2023Milestone 4 is implementing the Corporate Climate Action Plan and Milestone 5 is Monitoring the Impact.

Buildings and transportation are the two largest emitters of GHGs in Ontario

Building emissions are mostly caused by hot water and space heating with natural gas, which can be reduced through district and distributed energy sources which rely on renewable energy sources. Why shift to district and distributed energy?

- Ontario's system is centralized; therefore, a substantial loss of energy is experienced through heat loss during transmission over long distances from source to user.
- Nuclear and hydro are not without negative impacts.
- Local economic development benefits of constructing and maintaining energy infrastructure within the local community.

Transportation emissions can be reduced by:

- Drastically reduce trips in fossil-fuel burning vehicles:
- phase-out fossil-fuel burning vehicles
- phase-in electric vehicles
- reduce trip length for commuting and everyday activities
- increase trips by public transit

The County is an engaged partner with organizations and networks addressing local climate change and climate impacts, including the Simcoe Muskoka District Health Unit and the

Simcoe Muskoka Climate Change Exchange. The Simcoe Muskoka Climate Change Exchange was created in 2018 with many partners across the County of Simcoe and the District of Muskoka. The organization has developed a Terms of Reference (TOR) to guide climate action in the region and has created the following documents in draft form:

- Regional Climate Change Charter
- Consolidating Ideas: Planning to Action

3. Adopt Emissions Targets

Reducing GHG emissions requires an understanding of the current state of emissions and then setting goals for reduction. The most progressive municipalities in Canada have emission reduction strategies for their corporate operations and for the community broadly. All types of municipalities have sought to lead the way in adopting emissions targets as appropriate for their areas including upper-tier, single-tier, and lower-tier municipalities. Adopting targets connects land use decisions to reduce GHG emissions.

The first step is to undertake GHG emissions modelling (see Community Emissions Reduction Planning: A Guide for Municipalities, 2018). Most southern Ontario municipalities have found that the greatest amount of emissions are caused by buildings and transportation, with lesser amounts from industrial operations, waste, and agriculture. Carbon sequestration is important, especially because of co-benefits with adaptation, but has less of an impact than reducing emissions in the first place.

- Reducing **corporate carbon emissions** across all municipal service areas may include buildings, road and bridge construction and maintenance, paramedic services, waste management, social housing, and a wide range of community services including child and senior services, long-term care, and libraries.

  The County of Simcoe is currently working on reducing corporate emissions through the PCP Plan. Milestone 1 of the five-step PCP Plan was approved by County Council in 2021, which recognizes the creation of GHG emission inventories and forecasts. Milestones 2 sets emissions reduction targets. Through Milestone 3, the County of Simcoe's Corporate Climate Action Plan has been approved.

- Reducing **community carbon emissions** may include retrofitting existing buildings to be more efficient, using a range of federal and provincial programs to continue to support renovations, and transitioning away from natural gas heating to renewable energy sources; as well as supporting the transition away from fossil-fuel-powered

vehicles by encouraging car sharing, active transportation, public transportation, and the adoption of electric vehicles by making infrastructure available. Land use planning can support reducing community carbon emissions.

With targets in place, the next step is to plan for energy, where land use planning can support eliminating GHG emissions from the energy supply, moving away from fossil-fuels (especially natural gas to heat buildings and oil and gas for internal combustion vehicle engines) to renewable energy supplies. District energy systems, which are low carbon thermal energy networks, are increasingly preferred with energy locally captured and distributed through communities. Many communities are adopting community energy plans, as overall policy statements and then requiring integrated energy plans to accompany development approvals. For example, the City of Brampton recently approved a Community Energy and Emissions Reduction Plan for the entire city.

4. Plan for Resiliency

Municipalities should also plan for resiliency by protecting natural systems, providing innovative green infrastructure, ensuring proper stormwater management practices, community design standards, habitat changes, changes to farming practices, etc. Municipalities can plan for resilience through strategies that protect and promote, health and wellbeing, equity and social justice and strengthening the social and ecological determinants of health.

In climate change planning, resiliency is a useful concept as it may be applied to many types of planning challenges. The idea of resiliency draws from ecology and engineering where resiliency is related to the ability of a system to bounce back from natural disasters.

Resiliency has more recently been related to equity planning to address risks and vulnerabilities related to climate change. Some communities, based on their location and socioeconomic status, may be more susceptible to harm and have a lack of capacity to adapt to climate change. Municipalities need to consider where communities are at the greatest risk for adverse consequences from a climate-related hazard, and proactively plan to address these challenges. For example:

- The City of Burlington mapped the location of seniors living in areas of potential flood vulnerability from a high rainfall event.
- The City of Toronto's Resilience Strategy follows the 100 Resilient Cities process to engage the public in adapting to climate change.

- The Region of Peel's budget directly addresses climate impacts in its operations and capital plans.

5. Political Support

Climate change mitigation and adaptation must be undertaken immediately but are longer-term goals that exceed any one Council's tenure. Political support across the community for climate action must be fostered. This can be done through Council's priority goals and objectives and/or strategic vision for their term as well as municipal mission statements which are typically updated and reviewed each time a new Council is elected.

For example, the Region of Durham's Strategic Plan 2020-2024 identifies "Environmental Responsibility" as a corporate value and "Environmental Sustainability" as a goal to protect the environment for the future by demonstrating leadership in sustainability and addressing climate change.

The County of Simcoe's Strategic Plan to 2025 includes the core value of "Stewardship: Responsible Guardians for a Sustainable Future" and includes "Environmental Sustainability" as one of six strategic directions. This political support can be further reinforced by including climate change policies in other master plans and policies such as transportation master plans, official plans, design guidelines etc.

A stronger version of this would be to identify "Leadership" or "Champions" as a best practice. For example, the Lake Simcoe Region Conservation Authority (LSRCA) includes "Leadership" as the first goal in their climate mitigation recommendations. County of Simcoe planners are in an appropriate position to take on a leadership role in terms of political support for climate action.

6. Monitor Policies Over Time

Successful climate change policies are visible as incremental changes aggregated at a large scale, with measurable objectives linked to a timeline. Achieving climate-related goals and objectives set out in policy requires a range of implementation measures and monitoring tracks progress towards achieving those goals and objectives. The best monitoring processes are designed to track performance measures.

For example, Milestone 5 of the PCP program recommends "monitoring progress and reporting results". The idea is that municipalities assess their progress reducing corporate or community emissions. An example of such a report is the Region of Waterloo's Progress Report: Corporate GHG Emissions Reduction Plan completed in 2013.

Such reports help municipalities remain accountable to their commitments and identify potential areas where improvements may be needed. County of Simcoe's ongoing participation in the PCP program will support the objective of monitoring the impact of climate change policies over time.

7. Focus on Public Education and Consultation

The successful implementation of climate policy requires the support of civic and business organizations, environmental non-governmental organizations, and residents of all ages, abilities, and socioeconomic status. Public awareness of the impacts of climate change and of the ways in which residents and business owners can address climate change through their choices and local leadership to support public awareness is important.

Examples of public education and consultation in other jurisdictions include:

- The City of Toronto's Resilience Strategy uses a variety of methods to communicate with the public about climate change. This is an example of a comprehensive approach to engage people who are not yet involved in climate action. Their webpage provides links to scientific data as well as stories of resilience and opportunities for residents to get involved.

- Another excellent example of public engagement is the City of Cambridge (UK) Climate Change Charter, which "gives everyone the opportunity to find out more about their carbon emissions and how to reduce them, and to make a pledge to take action". Such a Charter can be a meaningful public engagement approach, and one that is results-oriented, too.

  The Simcoe Muskoka Climate Change Exchange (CCE) has drafted a Climate Change Charter. Initiated by the Simcoe Muskoka District Health Unit, the CCE includes the County of Simcoe as a member. County of Simcoe staff will be looking to County Council for support and recognition to take actions.

8. Support Collaboration

Upper-tier municipalities can play an important role in supporting collaboration amongst local municipalities and organizations as it relates to climate action. Vision and leadership by upper-tiers can facilitate partnerships with communities and may help in terms of organizing roles and responsibilities and overcome potential barriers. Although climate change plans and strategies are often considered a local municipal responsibility, a broad,

collaborative perspective by an upper-tier municipality is helpful to achieve high level buy-in and ensure that climate change action is coordinated throughout the region.

Examples of climate change collaboration already exists within the County of Simcoe. Initiated by the Simcoe Muskoka District Health Unit, the Simcoe Muskoka Climate Change Exchange states in its terms of reference that its purpose "is to reduce climate change risk across Simcoe Muskoka, by supporting collaboration on climate change mitigation and adaptation actions among stakeholder organizations and municipalities across the region. The Simcoe Muskoka Climate Change Exchange provides an opportunity to work collaboratively toward a cohesive, coordinated regional approach to climate change that enables knowledge and resource sharing, to assist with capacity building to expand successful climate change action, to reduce overlapping efforts, and to use resources efficiently".

The County of Simcoe can further support the objectives of the Simcoe Muskoka Climate Change Exchange and provide guidance to local municipalities in producing their own climate change policies and related plans. For example, through the County of Simcoe's PCP process to develop the Corporate Climate Action Plan, quarterly meetings were arranged with member municipalities to provide support on sustainability initiatives.

B. BEST PRACTICES ARE STILL EMERGING

In the GGH region, best practices for climate change planning are still emerging, especially navigating between upper- and lower-tier municipalities. Very few have truly come to grips with the relative responsibilities of the regional- or county-level plans and local plans. In many cases lower-tier municipalities have completed their own climate change plans, sought membership in global initiatives, such as 100 Resilient Cities and ICLEI (among many more), and have hired staff to oversee the climate change policymaking and implementation. Many have identified goals, objectives and targets for the municipal corporation itself (developing, maintaining and operating municipal buildings and fleets). Efforts by lower-tier municipalities in the County of Simcoe are discussed in Chapter 4. Upper-tier municipalities have a role to play in setting the stage for climate change education and consultation and encouraging collaboration across its jurisdiction and lower-tier municipalities.

C. RECOMMENDATIONS FOR THE COUNTY OF SIMCOE ARISING FROM BEST PRACTICES

Based on the review of best practices, short and long-term climate change recommendations for the County of Simcoe have been prepared (as shown in Table 2). The short-term considerations can be implemented through the County of Simcoe's Official Plan update, whereas the long-term considerations would be addressed through policies and initiatives once the County of Simcoe's new Official Plan is enacted. It is anticipated that the County of Simcoe's amended Official Plan will include climate change policies that will guide the future development including the development of Official Plan policies for the lower-tier municipalities. The recommendations provided are to be considered draft and will evolve overtime with the needs of the County of Simcoe in responding to climate change.

Table 2: Short vs. Long-Term Climate Change Recommendations

SHORT VS. LONG-TERM	RECOMMENDATIONS
Short-term considerations for the MCR update	▪ Use provincial policy and guidance to establish climate change policies in the Official Plan ▪ Encourage local municipalities to establish climate change policies in their own Official Plans ▪ Commit to a future process to confirm the vision, goals and policy objectives related to climate change to support future Official Plan policy development and coordination of efforts across the County of Simcoe and local municipalities ▪ Develop a community-wide GHG emissions inventory for the County of Simcoe's current sectors (e.g., buildings, transportation, industry, etc.). The County's Corporate GHG emissions inventory has been completed through the PCP process. ▪ Continue exploring the general roles of the County of Simcoe, local municipalities, and other organizations in climate change action.

SHORT VS. LONG-TERM	RECOMMENDATIONS

Long-term considerations following approval of the new Official Plan is approval (5-years +)	▪ Commit to a planning process to create a County of Simcoe climate change approach that moves beyond general and broad policies
	▪ Follow the identified best practices (or other framework) and/or consider modelling of future GHG emissions which recognizes:
	  ▪ The Ontario Building Code is expected to require all new buildings to be net zero by 2035
	  ▪ Existing buildings will be retrofitted overtime to achieve net-zero emissions and municipalities can play a role in implementing these initiatives
	  ▪ New cars and light-duty vehicles are expected to be mostly electric by 2030
	  ▪ Highlight and educate the public and developers on co-benefits of climate change initiatives. For example, enhance design concepts for energy efficient housing, retrofitting existing homes which will reduce homeowners' energy costs, and active transportation that promotes health benefits
	▪ Clearly identify the roles of the County of Simcoe, local municipalities, and other organizations in climate change action and consider implementing coordinated action to maximize benefits

4. Proposed Strategy for Integrating Climate Change into a County of Simcoe Land Use Planning Framework

The County of Simcoe Official Plan must be updated to conform to provincial policies. Given what is at stake in terms of the climate crisis, the Official Plan should take a robust approach to climate change policy. Following the MCR, the County of Simcoe should decide how to integrate climate change into land use planning processes more broadly and how to continue its efforts to support climate change initiatives across the County.

A. Provincial Policy Framework Provides Guiding Principles for Official Plan Policies

Figure 5 provides an overview of the plans and policies that guide land use planning in Ontario with specific reference to climate change. The County of Simcoe and local municipalities are required to address resilience, energy, and emissions-related policies.

In the land use planning process, policies must be consistent with and/or conform to the requirements of the *Planning Act*, PPS and other Provincial land use plans, including the Growth Plan and the Greenbelt Plan. The County of Simcoe must also conform/not conflict with the requirements of the *Lake Simcoe Protection Act* and the Lake Simcoe Protection Plan.

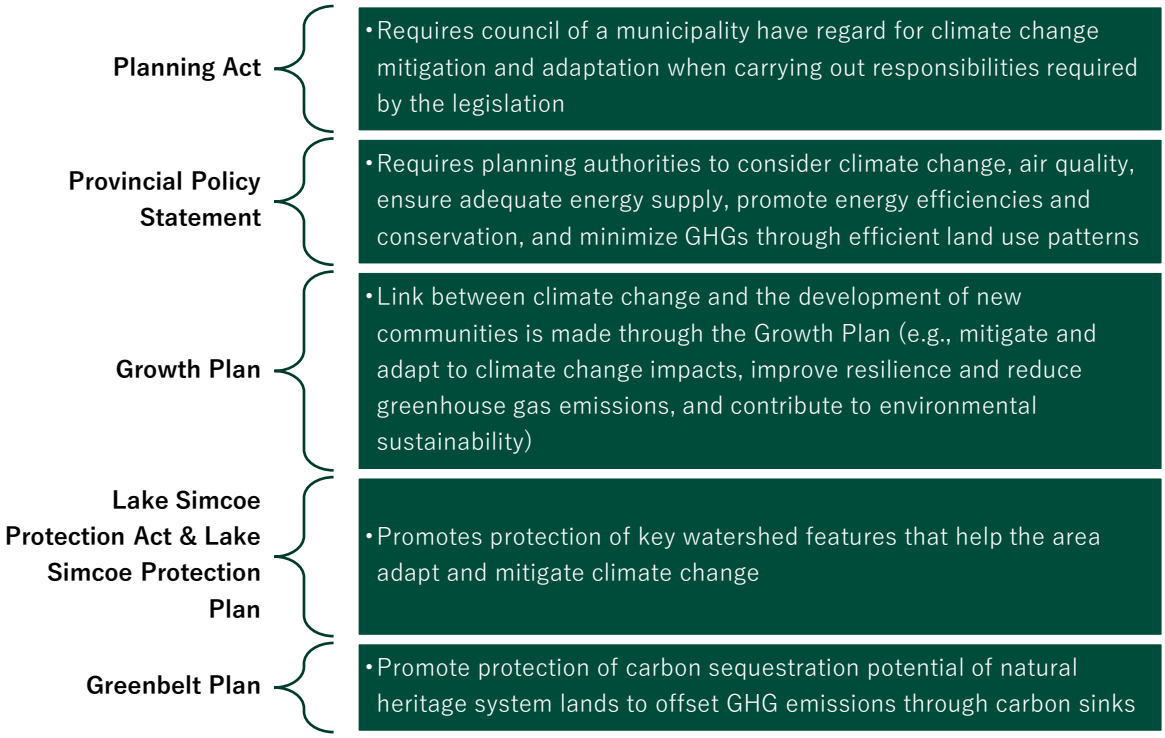


Figure 5: Policies and Plans related to Climate Change in the County of Simcoe (Source: Hemson, 2021)

A goal of the MCR process is to update the County of Simcoe's Official Plan to be in conformity with provincial policies. Municipalities develop official plan policies and secondary plans that are consistent with the provincial plans and policies. Official plans often inform various master plans (e.g., infrastructure, transportation, green space and natural heritage, climate change, energy) and vice versa. In particular, official plans and secondary plans may refer to design guidelines for building and community design. Official plan policies inform detailed and site-specific land use regulation through municipal zoning by-laws and implementation through the development application and review process, though plans of subdivision and site plan approvals.

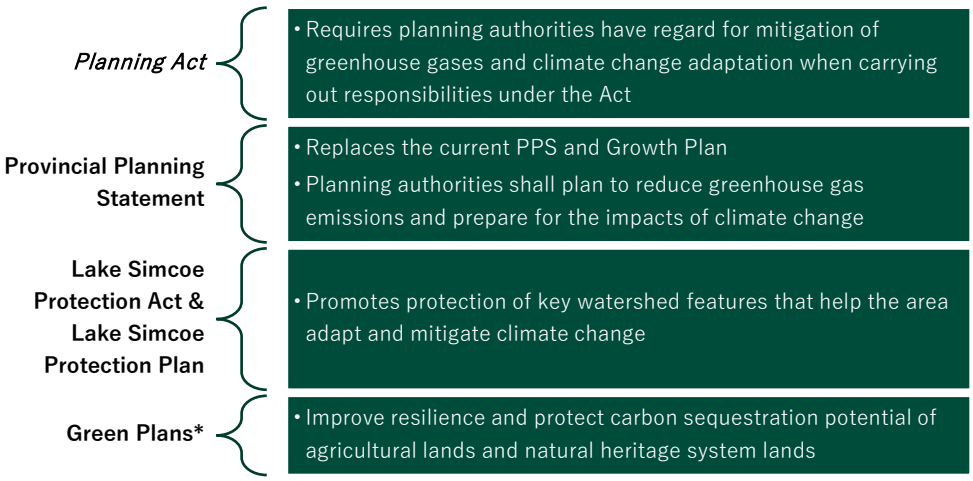
B. COMMENTARY ON RECENT LEGISLATIVE CHANGES

At the time of writing this report, the province was in the midst of introducing significant changes to the land use planning policy regime in Ontario. Although not all these changes are currently in force, it is assumed these changes will need to be considered by both the

County and local area municipalities over the coming months as Official Plan policies are developed. The following provides an overview of these changes.

In November 2022, the *Planning Act* was amended to allow the province to shift upper-tier planning responsibilities to lower-tier municipalities. The province proposed that the responsibilities be shifted in the County of Simcoe and the Regions of York, Peel, Durham, Halton, and Waterloo by 2025. This proposal is not yet in force. Subsequent legislation regarding Peel Region went further, with the regional municipality now to being considered for dissolution by 2025. As part of the package of planning reforms, the Ontario government also proposed far-reaching changes to the existing provincial policy framework. These changes are intended to support the implementation of the *Housing Supply Action Plan*, with the goal to construct 1.5 million homes by 2031. The proposed new policy guidance (announced April 2023) would combine *A Place to Grow: Growth Plan for the Greater Golden Horseshoe* (Growth Plan) and the Provincial Policy Statement (PPS) into a new land use policy document to be referred to as the Provincial Planning Statement (still PPS), as shown in Figure 2. While the land use planning considerations related to climate change remain, the responsibilities for planning for climate change in the most populous and fastest-growing part of the province have been devolved to lower-tier municipalities.

Figure 2: Proposed Future Provincial Policy Framework for Climate Change



* Greenbelt Plan, Oak Ridges Moraine Conservation Plan, Niagara Escarpment Plan, Lake Simcoe Protection Plan

1. County of Simcoe MCR Process to Ensure Provincial Climate Change Policy Requirements are Met

The purpose of a MCR is to bring the County of Simcoe Official Plan into conformity with the provincial policy framework, including the Growth Plan. The County of Simcoe Official Plan establishes the overall pattern of development and environmental management in the County and sets the stage for more detailed local planning. At a minimum, the County of Simcoe Official Plan must conform to the provincial policy framework, however policies can be more proactive or detailed.

The first task with respect to climate change is to ensure the County of Simcoe Official Plan considers climate change conformity with the provincial policy framework.

The current MCR process will enable the County of Simcoe to conform to and be consistent with provincially mandated plans and policies that relate to climate change. Appendix 1 provides an overview of the relevant sections of the *Planning Act*, PPS, Growth Plan, *Lake Simcoe Protection Act,* Lake Simcoe Protection Plan and Greenbelt Plan that relate to climate change which need to be addressed through Official Plan policies. This appendix acts as a "check list" and reference for writing the County of Simcoe's new Official Plan policies.

From a natural heritage systems and watershed planning perspective, impacts on the County of Simcoe's watersheds will also be addressed in detail by other technical reports.

2. Current Official Plan Policies

The County of Simcoe's Official Plan provides an extensive overview of the legislation and policies that shape future growth of County of Simcoe and its local municipalities. Currently, the County of Simcoe's Official Plan makes some reference to the impacts of climate change however does not outline specific climate change goals and targets.

Incorporating climate change policies into the County of Simcoe's Official Plan through the current MCR process is required to meet provincial policy requirements. The impacts of climate change such as extreme heat, potential flooding, and erosion must be addressed when thinking of the future of the County of Simcoe. The overall climate change policy objective is to build a resilient County that supports forward-thinking decisions that will make the County of Simcoe less vulnerable and be able to withstand extreme climate change conditions. In addition, policy objectives regarding mitigating and adapting to the built and natural environments are essential.

Climate change is referenced in section 3.13 Lake Simcoe Protection Plan. This section outlines the provincial plan to protect and restore the ecological health of Lake Simcoe and its watershed. The Lake Simcoe watershed has experienced pressure from invasive species and anthropogenic activity that exacerbates the impact of climate change. Section 4.5 Resource Conservation also requires that local municipalities consider the potential impacts of climate change that may increase the risk associated with natural hazards. To address these concerns, the new Official Plan policies should ensure that the health of Lake Simcoe and the surrounding watershed are key policy considerations.

C. CLIMATE ACTION IS UNDERWAY IN SIMCOE COUNTY LOCAL MUNICIPALITIES

Local municipalities have an important role to play in addressing climate change. To better understand how the County of Simcoe's Official Plan policies can help the local municipalities achieve their climate change goals and objectives, a review of current climate change initiatives was undertaken and are summarized in the following sections.

1. Local Municipal Climate Change Plans and Strategies

A summary of climate change plans and policies prepared by County of Simcoe local municipalities is provided below. Where an "N/A" has been identified in the table, it means that we were unable to identify stand-alone strategies or plans that explicitly address climate change.

Collingwood, Innisfil, Penetanguishene and Wasaga Beach councils have declared states of climate emergency.

Table 3: Local Municipal Climate Change Plans and Strategies (as of December 2023)

MUNICIPALITY	RELEVANT CLIMATE CHANGE DOCUMENTS
County of Simcoe	▪ 2023 Corporate Climate Action Plan
Bradford West Gwillimbury[1]	▪ 2019 Corporate Energy Management Plan
Collingwood	▪ 2023 Greener Collingwood Corporate Climate Change Action Plan ▪ 2019 Energy Conservation & Demand Management Plan ▪ 2008 Sustainable Community Plan

MUNICIPALITY	RELEVANT CLIMATE CHANGE DOCUMENTS
Innisfil[1]	▪ Coming Soon: 2023 Integrated Sustainability Master Plan (ISMP)
Midland[2]	▪ 2018 Midland's Climate Change Action Plan ▪ Local Climate Change Action Plan
New Tecumseth	▪ 2022Community Climate Action Plan
Penetanguishene[2]	▪ 2019 Penetanguishene's Climate Change Action Plan ▪ Local Climate Change Action Plan
Wasaga Beach	▪ N/A
Adjala-Tosorontio	▪ N/A
Clearview	▪ N/A
Essa	▪ 2017 Energy Consumption and Gashouse Emissions Report
Oro-Medonte[2]	▪ Local Climate Change Action Plan
Ramara	▪ N/A
Severn[2]	▪ Local Climate Change Action Plan
Springwater[1]	▪ 2023 20-Year Community-Based Strategic Plan
Tay[2]	▪ Local Climate Change Action Plan
Tiny[2]	▪ Local Climate Change Action Plan

[1] Members of the PCP Program

[2] Midland, Penetanguishene, Oro-Medonte, Severn, Tay & Tiny all participated in the development of the "Local Climate Change Action Plan" prepared by Sustainable Severn Sound (SSS).

In addition to the review of relevant climate change documents, other plans and policies were studied at the local municipal level. A review of asset management plans indicates that some environmental services such as water and wastewater services include climate in their budgeting. However, financial budgets to combat GHG emissions, retrofitting of buildings, accommodations of electric vehicles, and sustainable infrastructure have generally not yet been discussed in climate change plans at the local level.

2. Conservation Authorities and Other Organizations Addressing Climate Change

Conservation Authorities and other organizations in the County of Simcoe play an important role in addressing climate change.

There are several Conservation Authorities which have jurisdiction within the County of Simcoe, these include:

- Lake Simcoe Region Conservation Authority (LSRCA)
- Nottawasaga Valley Conservation Authority (NVCA)
- Toronto and Region Conservation Authority (TRCA) (small portion located in the southern edge of the County of Simcoe)
- Grey Sauble Conservation Authority (GSCA) (small portion of watershed located along the western edge of the County of Simcoe)

LSRCA has produced two plans: Climate Change Adaptation and Climate Change Mitigation (2020). These documents include extensive data and research and discuss the challenges faced by communities in the Lake Simcoe watershed.

Similarly, the NVCA has completed a Climate Change Strategy and Action Plan in accordance with three of the five milestone framework set out by PCP program. The plan identifies strategic goals and objectives to protect life and property, increase watershed resilience, enhance knowledge of the watershed, ensure lands are responsive to climate change etc.

In addition to the Conservation Authorities, other organizations have taken action, for example the Severn Sound Environmental Association (SSEA), Simcoe Muskoka District Health Unit, Simcoe Muskoka Climate Change Exchange, and the County of Simcoe Environmental Youth Alliance. These organizations are described in Appendix 2.

3. Other Initiatives in Simcoe County

In addition to the aforementioned plans and strategies, some local municipalities have developed initiatives to address climate change. Most of these initiatives involve raising awareness and supporting climate change adaption and mitigation. These activities range from advocacy to waste reduction, water conservation efforts, and environmental projects. Please refer to Appendix 2 for the list of local initiatives.

D. INTEGRATING CLIMATE CHANGE INTO THE MCR PROCESS AND BEYOND

Climate change is a complex issue that requires transformative change across virtually all municipal sectors. The County must adopt policies that require the integration of climate action into all decisions. For instance, all MCR, Official Plan and/or Master Plan documents need to incorporate a climate change lens to help mitigate the impacts of a changing climate. Although the purpose of this report is to focus on land use

planning, it is recognized that climate change considerations also impact other municipal responsibilities including infrastructure planning. The inclusion of climate change policies in the County of Simcoe's Official Plan can shape how future infrastructure planning responds to and addresses climate change. This can be done through design standards that complement and help achieve these objectives, by planning for servicing capacity that addresses anticipated changes in future weather patterns (noting that the County of Simcoe is not responsible for water and wastewater services) and creating transportation master plans that support a reduction in GHG emissions by achieving higher mode shares of walking, cycling and transit usage. Responding to climate change also results in fiscal considerations for municipalities. Consideration must be given to required capital and operating expenditures of infrastructure that can withstand the impacts of the changing climate as well as asset management requirements which plan for the eventual repair and replacement of infrastructure and the amount of money required to do so. These financial considerations impact municipal budgets and the ability to deliver services.

Finally, there are external policies and practices which help achieve climate change policies and objectives. For example, the Ontario Building code may require that all new buildings be "net zero" by 2030, thus supporting reduced GHG emissions from future development. Voluntary standards and urban design guidelines to promote net zero construction, the use of renewable energy sources and resilient building design can also be useful. With increased pressure to respond to climate change mounting from politicians and future home buyers, some developers are exploring innovative ways to reduce their carbon footprint through strategic partnerships with energy providers. For example, developers in Brampton, Ontario are working with a third-party provider to supply new subdivisions with green infrastructure and allowing renewable district energy to be integrated into all new buildings.

Figure 6 below provides a high-level summary of municipal sectors and responsibilities related to climate change. The summary is illustrative of how climate change may be integrated into all areas of municipal responsibility, as a starting point, and is not exhaustive.

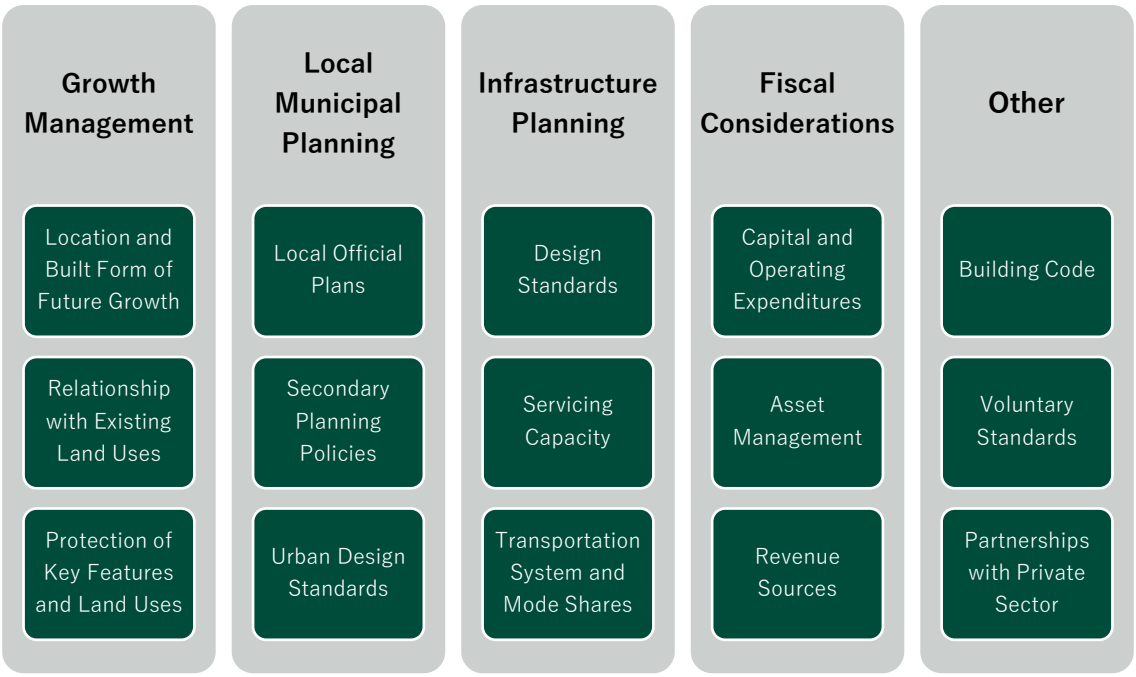


Figure 6: Climate Change and Municipal Activities (Source: Hemson, 2021)

Of course, planning is one piece of a much larger puzzle. While land use planning policies are required to reduce GHGs and plan for the impacts of climate change, the transitions are through changes in societal activities and behaviours and not just from land use planning. The certainty of results also varies by scale. For example, County plans provide an overall vision while local plans are better able to put goals into action. Local-level plans (e.g., official plans, secondary plan, site plan control, etc.) and design requirements encourage green building, ensure the proper location of active transportation infrastructure, and identify easements for new utility models as well as the location of charging infrastructure for electric vehicles. The County must adopt policies that require the integration of climate action into all decisions across departments.

5. Conclusions & Next Steps:

The immediate next step to the climate change strategy is to update Official Plan policy to conform to the provincial climate change policy framework and to set a course for future action.

In developing Official Plan policies for the County of Simcoe and in thinking about long-term climate change recommendations previously mentioned, we recommend the following:

1. Update the County of Simcoe's Official Plan to conform to Provincial Climate Change Policies

- The County Official Plan should provide a strong land use planning policy framework at the upper-tier and lower-tier levels to support climate change mitigation, adaptation, and resilience. These policies will also provide a climate lens to consider settlement area boundary expansions in the short-term as part of the Phase 2 component of the MCR. The policies will provide guidance to municipalities on integrating climate change considerations into planning and managing growth in settlement areas.

- Appendix 1 of this report may be used as a "checklist" to ensure that the County of Simcoe's proposed Official Plan is in conformity with Provincial planning requirements.

2. Climate Change Action Collaboration and Innovation

- The County of Simcoe should determine its role in climate change planning. As reviewed in this report, several organizations and local municipalities have undertaken climate change studies, identifying anticipated impacts on human health and natural systems. The County should clarify how collaboration with these groups will most effectively achieve climate change actions.

- The role of the County of Simcoe could be to act to coordinate resources County-wide, such as preparing a community-wide GHG emissions modelling/base line inventory, through collaboration with the local municipalities, so the range of options to reduce energy use and GHG emissions are monitored and understood at both the County and local level.

- Encourage the local municipalities to establish climate change policies into their own Official Plans. Refer to Section 6B for sample policies.

- Consider assessing all land use development applications using a climate change lens and develop criteria to determine if developments are incorporating appropriate climate action principles.

- The County of Simcoe may consider formally recognizing the Climate Change Charter prepared by the Simcoe Muskoka Climate Change Exchange which would highlight their contributions and commitments to climate action, while supporting this collaborative group.

- The County of Simcoe may support local efforts of climate change adaptation and resiliency throughout our community.

- The County of Simcoe may coordinate the development of Green Development Standards that could be used throughout our community and local municipalities.

3. Potential Future Commitments

- Following the MCR process, the County should align the Corporate Climate Action Plan and the Land Use Planning Community Climate Change Strategy to develop a full suite of mitigation and adaptation tools to ensure that the overall climate change goals and objectives regarding built and natural environments and GHG emissions can be fully implemented and integrated throughout the County and local municipalities.

4. Other General Considerations

In developing policies for the County of Simcoe's Official Plan and other climate change commitments, consideration should also be given to:

- Vulnerable communities and their adaptive capacity to deal with climate change risks, where their capacity may be influenced by economic well-being, health and education status, preparedness, and coping ability with respect to particular hazards.
- Supporting existing settlements and designing new development to be sympathetic. To existing road and settlement patterns to reduce vehicle kilometres travelled and to make walking and cycling easier.
- Woodland retention to prevent flooding.
- Food security, such as support for local food systems.

- Carbon sequestration of greenspaces, especially tree cover.

While the focus of this report has been on integrating climate change and land use planning through the MCR process, the implementation of these policies can only be successful with coordination within the County of Simcoe between municipal departments including: Sustainable Operations, Planning, Solid Waste Management, Transportation & Engineering, Corporate Performance, and Health & Emergency Services, and collaboration with all other local municipalities and organizations as discussed in this report.

6. SAMPLE OFFICIAL PLAN POLICIES RELATED TO CLIMATE CHANGE

Climate change considerations should permeate various aspects of land use planning, encompassing policies relating to transportation, energy, land use, urban design, and municipal infrastructure. Moreover, incorporating references to pertinent studies, plans, and ongoing analyses that align and support climate change objectives leads to stronger policies. For instance, if a municipality has completed a Community Energy Plan, it should be cited within the Official Plan as a strategy to address climate change concerns. As climate change policies evolve, they should become more specific and incorporate quantifiable targets such as the reduction of GHGs within a defined timeframe. Existing climate change plans and analyses can serve as reference points within Official Plan policies, while also identifying areas that require further attention.

Developing effective climate change policies requires consideration of responsibilities (e.g., Chief Administrative Officer's office, the Planning Department, or Engineering Services) and how funding is allocated through municipal budgets.

While provincial planning policies outline the minimum legislative requirements, many municipalities will seek to incorporate policies that go above and beyond these minimums. The purpose of this section is to provide policies for use by Simcoe County and the local area municipalities. It is recognized that adherence to legislative requirements is imperative, with conformity being achieved through the adoption and approval of Official Plans. However, Official Plan policies represent just one facet of a broader vision; their implementation is realized through Secondary Plans, urban design guidelines, infrastructure plans, and even economic development initiatives which implements climate change policies.

A. SAMPLE POLICIES FOR THE COUNTY OF SIMCOE OFFICIAL PLAN

To facilitate the implementation of climate change policies in the County's Official Plan, draft sample policies are listed below. These policies have been informed by a review of proposed provincial planning requirements (the newly proposed PPS), best practices from scholarly and grey literature as described in Chapter 3 above, and from additional detailed review of policies from other jurisdictions across Canada.

As outlined in Chapter 3, Section A of this report, municipalities with advanced climate change policies typically include an overarching vision statement that identifies climate change as a significant issue for planning. This vision is supported by climate change policies in relevant sections of the Official Plan, including transportation, energy, built form, natural heritage systems and others. The key is to integrate climate adaptation and mitigation goals throughout the Official Plan to demonstrate co-benefits of various policy approaches.

The County of Simcoe is a unique municipality, encompassing local area municipalities with urban and rural communities and related planning policy objectives. The following policies are designed to offer guidance to the County when embarking on the Official Plan update and can be further refined to reflect the specific needs of the local municipalities within the region.

1. Vision Statement

The following provides a sample vision statement for the County's Official Plan to identify the overall strategic direction of land use planning policies and climate change.

- Climate change is recognized as a significant issue in the County of Simcoe. In order to adapt to a changing climate, the County will work to reduce GHGs and plan for resiliency to climate impacts by protecting natural systems, providing innovative green infrastructure, ensuring proper stormwater management practices as well as supporting community design standards and sustainable changes to farming practices.

- The County will continue to work closely with climate change partners to address local climate change impacts and support collaboration, including but not limited to the Simcoe Muskoka District Health Unit and the Simcoe Muskoka Climate Change Exchange.

- The County has completed Milestone 1, 2 and 3 of the PCP framework creating an inventory of corporate GHG emissions and a Corporate Climate Action Plan for implementation. The County will support the development of a community-wide GHG emissions inventory.

- The County will promote public education and consultation on climate change and collaborate with civic and business organizations, environmental non-governmental organizations, and residents of all ages, abilities, and socioeconomic status. Public

awareness of the impacts of climate change will support the implementation of official plan policy including the ways in which residents and business owners can address climate change through their choices and local leadership.

2. Strategic Climate Change Policies

In addition to an overarching vision statement, potential climate change policy objectives and policies have been developed for the County of Simcoe. Defined terms are ***bolded and italicized*** and are described in Section D. Additional commentary on policy considerations is **bolded in blue.**

a) Policy Objectives

We recommend the County include clear policy objectives in the Official Plan. Examples of such objectives include:

- Ensure reduction of GHG emissions and other air pollutants generated by the County's corporate activities and functions [**with the ultimate goal of achieving net-zero corporate emissions**].
- Promote resilient and sustainable communities that support climate change adaptation and mitigation in collaboration with local area municipalities, ***climate change partners*** and stakeholders.
- Implement practices that support climate change mitigation and adaptation while protecting and enhancing the County's Natural Heritage / Greenlands System.
- Promote improved air quality through active transportation, energy efficiencies, the protection and enhancement of Natural Heritage / Greenlands System and ***compact built form***.
- Promote energy conservation and efficiency through ***district energy*** as well as ***renewable energy sources***, including solar, wind, and geothermal.
- Design and construct transportation infrastructure to reduce GHG emissions, mitigate the effects on the natural environment and climate, and to be more resilient by adapting and/or mitigating the effects of climate change.
- Support municipal infrastructure standards which consider the ***impacts of a changing climate*** to build resiliency.

b) Policies

The following policies can be integrated into the County's Official Plan, with any necessary modifications. The intent of the draft policies is to provide high-level strategic direction and set the foundation for climate change policies within the local area municipalities' Official Plans. The policies meet the minimum requirements of the legislative and also support progressive climate change objectives.

- County Council will consider and endorse community and corporate GHG emissions reductions targets to mitigate climate change.
- Local area municipalities will be encouraged to develop and implement community-wide and corporate GHG reduction targets and to provide policies and programs which support such targets.
- The County will consider climate change and health implications when making land use decisions and encourage the local area municipalities to do the same.
- The County will work with the local area municipalities and ***climate change partners*** to support shared goals and objectives. [**If appropriate, reference the Regional Climate Change Charter prepared by the Simcoe District Climate Change Exchange**].
- The County will integrate the goals, objectives and recommendations from both the Corporate Climate Action Plan and the Land Use Planning Community Climate Change Strategy .
- The County will encourage and support policies and programs which reduce energy consumption and GHGs.
- The County will support energy planning and opportunities for ***district energy*** and help facilitate energy efficiencies and energy reduction initiatives with the local area municipalities.
- The County will reduce GHG emissions from vehicle use by enhancing opportunities for active transportation (e.g., walking, cycling, public transit, etc.) through ***compact built form.***
- The County will encourage sustainable and green design standards which help to achieve climate resilience including:

- *Green infrastructure* and other *low impact development* measures;
- Energy conservation in the rehabilitation and upgrading of existing buildings and underutilized sites, including building retrofits;
- Planting of native species of trees and plants; and
- Passive building design.

- The County will support the local area municipalities in developing infrastructure standards / engineering design guidelines which respond to climate change mitigation and adaptation.

B. SAMPLE POLICIES FOR INCLUSION IN LOCAL AREA OFFICIAL PLANS

The following policies are intended to support the high-level climate change vision that will be outlined by the County of Simcoe in its new Official Plan. These policies have been developed based on a comprehensive review of best practices by municipalities leading the field of climate change and the requirements of the legislation. Local area municipalities in Simcoe County can incorporate these policies based on their own individual needs, which may range from the adoption of "essential" to more "progressive" policies. Essential policies are intended to represent minimum legislative requirements whereas the progressive policies are meant to further enhance the identified essential policies.

The description and policies below can be used in local area municipal Official Plans, modified to reflect the unique needs of each municipality. Defined terms are ***bolded and italicized*** and are described in Section D. Commentary on additional policy considerations are **bolded in blue.**

1. Climate Change

Responding to climate change requires strategies related to mitigation and adaptation. Mitigation involves human intervention to reduce the sources or enhance the sinks of GHGs. Adaptation refers to the process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities.

Climate Change Policy Objective: To increase community resiliency to climate change.

Essential Policies:

- The **[Municipality]** shall consider additional approaches to reduce GHGs such as working with community organizations, ***climate change partners*** and other levels of government to prepare a comprehensive climate change **[adaptation/mitigation/both]** strategy.

Progressive Policies:

- The **[Municipality]** will establish policies and undertake programs to reduce annual GHGs by **XX%** per capita **[or some other measure]** by **[year].**
- The **[Municipality]** will implement urban design and development standards to reduce climate change impacts on infrastructure including but not limited to roads, bridges, water and wastewater systems and energy distribution systems.

2. Protection of Human Health

Environmental conditions can provide hazards to human health and property. These conditions include floods, soil conditions, contaminated sites, as well as anticipated changes in the environment arising from climate change.

Climate Change Policy Objective: To consider the implications of climate change and existing environmental conditions on human health to prevent injury, loss of life and damage to property.

Progressive Policies:

- The built environment in the **[Municipality]** should be developed to provide protection against extreme heat, reduce the urban heat island effect, build climate resiliency and promote safe outdoor recreation and active transportation.
- The **[Municipality]** will work with Conservation Authorities and other organizations to identify climate change vulnerable areas including flooding. This will include identification of areas where the depth of flooding on a roadway exceeds limits for safe access during a climate change scenario flood.

3. Energy & Buildings

Buildings are high emitters of GHGs. Minimizing building energy consumption and optimizing renewable energy sources will help to achieve climate change objectives.

Buildings are to be designed with shape, scale, location, and orientation to reduce incidences of energy loss and demand.

Climate Change Policy Objective: Reduce GHGs from buildings through community energy, energy efficiency, environmental design, and increasing the supply of energy through renewable systems and alternative energy systems.

Essential Policies:

- The **[Municipality]** will support energy conservation and efficiency by identifying opportunities for ***renewable energy systems*** and alternative energy systems through establishing land use patterns that encourage and support energy efficiencies and the use of ***district energy.***

Progressive Policies:

- Provide increased access to electric vehicle charging stations through the **[Municipality]**.
- The **[Municipality]** will support preferred parking for low carbon vehicles.
- The **[Municipality]** will establish targets for energy conservation and reduction in GHGs as part of a Community Energy Plan or equivalent study.
- The **[Municipality]** will require Energy Plans for Secondary Plan Areas.
- The **[Municipality]** will support energy efficiencies by ensuring that municipal facilities demonstrate leadership in energy efficiency.
- The **[Municipality]** will set targets for, plan for, implement and monitor improvements in energy efficiency and GHGs associated with municipal assets.
- Rooftop designs or interventions that promote climate and energy resiliency such as greenhouses, green roofs or rooftop gardens will be encouraged through design standards and guidelines.
- The **[Municipality]** will investigate opportunities to retrofit existing buildings and improve energy efficiencies.
- The **[Municipality]** will focus on main streets for investment and redevelopment; use municipal tools to redirect proposals into existing areas to reuse existing

materials, cluster buildings for energy efficiency and potential district energy (e.g., geothermal), encourage residential with retail and office commercial, and prevent further sprawl.

4. Transportation

The **[Municipality's]** transportation system will be designed to service existing and proposed land uses to facilitate efficient, safe, energy efficient movement of people and goods. Transit-supportive development, active transportation options and compact built form can reduce auto trips and therefore reduce GHGs.

Climate Change Policy Objective: To reduce the amount of energy used for transportation and emissions. **[If possible, identify a quantified target e.g., XX% by year].**

Essential Policies:

- The **[Municipality]** will encourage shorter trip distances primarily through the development of ***compact built form, transit-supportive*** and ***complete communities***.

Progressive Policies:

- The **[Municipality]** will prioritize ***active transportation***, **[public transit]** and increased vehicle occupancy, where appropriate.
- The **[Municipality]** will separate walking and cycling routes and trails from major roads and highways to prioritize the safety of pedestrians and cyclists.

5. Natural Heritage / Greenlands

The Natural Heritage / Greenlands network benefits residents in **[Municipality]** by providing access to nature and improving resilience to climate change by promoting biodiversity of ecosystems, absorbing carbon dioxide through carbon sequestration, supporting climate regulation by reducing impacts of heatwaves as well as providing erosion and flood control.

Climate Change Policy Objective: To support the ongoing monitoring and management of the Natural Heritage / Greenlands System to ensure its long-term sustainability and resilience in relation to the impacts and stresses associated with climate change.

Progressive Policies:

- The **[Municipality]** will increase access to natural heritage systems and greenlands by expanding woodlands, parks, greenspaces, and trails.
- The **[Municipality]** will increase the amount of native plants to create biodiversity within the natural heritage features and greenlands.
- The **[Municipality]** will increase the trail and park system **[If possible, identify a quantified target e.g., XX% by year]**.
- The **[Municipality]** will increase the tree canopy cover and urban forest **[Urban Forest may only apply to select municipalities]**.

6. Municipal Services and Infrastructure

Municipal services and infrastructure are important to addressing the impacts of climate change and building resiliency. Ensuring infrastructure is planned and designed to withstand changes in climate conditions will allow residents and employees within the **[Municipality]** to receive adequate levels of service and ensure financial sustainability.

Climate Change Policy Objective: To ensure municipal services and infrastructure minimize vulnerabilities to the impacts of climate change.

Essential Policies:

- The **[Municipality]** will promote *green infrastructure*, *low impact development,* and active transportation to protect the environment and improve air quality.
- The **[Municipality]** will incorporate climate change considerations when planning for municipal infrastructure.

Progressive Policies:

- The **[Municipality]** will require permeable paving instead of asphalt for parking and/or retaining run-off on-site (to prevent local area flooding and to protect downstream water quality).
- The **[Municipality]** will prioritize *green infrastructure* and *low impact development projects*, where feasible as part of municipal lead projects.

- The **[Municipality]** will explore opportunities to improve the energy, water, and stormwater management performance of new construction of municipal infrastructure.

7. Urban/Rural Design

Urban/rural design relates to the built form and public realm including buildings, landscape, parks, streets all of which connect people and places to each other. [**An Urban Design Framework will be developed to support initiatives including developing resilience to climate change**].

Climate Change Policy Objective: Encourage design practices and technologies in site planning and building design which align with climate change mitigation and adaptation goals and objectives.

Progressive Policies:

- The **[Municipality]** will prepare green design standards to achieve climate change objectives and encourage new development to incorporate these principles into their design.

- The **[Municipality]** shall assess opportunities to conserve energy, reduce peak demand and provide resilience to power disruptions as part of new development. Local integrated energy solutions that incorporate renewable energy such as *district energy* in high-thermal density areas, geothermal and waste heat energy capturing systems and energy storage are supported.

C. SAMPLE DEFINITIONS FOR OFFICIAL PLANS

Sample definitions are provided in support of the draft policies identified in Sections A and B. Where possible, definitions align with provincial plans and policies. In particular, reference has been made to the proposed Provincial Planning Statement (PPS). Although this document has not yet been enacted, the consultation period closed in early August 2023 and could come into force prior to the County and local area municipalities adopting their Official Plans. As such, the definitions in the new PPS are referenced below and should be considered when drafting the official plans.

See also definitions provided in the Glossary at the beginning of this report.

Climate Change Adaptation: Adaptation refers to the process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects. *Source: Simcoe County Land Use Planning Community Climate Change Strategy Report (see Glossary)*

Climate Change Mitigation: Mitigation involves human intervention to reduce the sources or enhance the sinks of greenhouse gases (GHGs). Includes human interventions to reduce the sources of other substances which may contribute directly or indirectly to limiting climate change, including, for example, the reduction of particulate matter emissions that can directly alter the radiation balance (e.g., black carbon) or measures that control emissions of carbon monoxide, nitrogen oxides, volatile organic compounds and other pollutants that can alter the concentration of tropospheric ozone which has an indirect effect on the climate**.** *Simcoe County Land Use Planning Community Climate Change Strategy Report (see Glossary)*

Climate Change Partners: includes organizations or interested parties which provide guidance and input to climate action in the County. Such partners include but are not limited to, Simcoe Muskoka District Health Unit and the Simcoe Muskoka Climate Change Exchange. *Source: Hemson and LTD.*

Compact Built Form: means a land use pattern that encourages the efficient use of land, walkable neighbourhoods, mixed land uses (residential, retail, workplace, and institutional) all within one neighbourhood, proximity to transit and reduced need for infrastructure. Compact built form can include detached and semi-detached houses on small lots as well as townhouses, duplexes, triplexes and walk-up apartments, multi-storey commercial developments, and apartments or offices above retail. Walkable neighbourhoods can be characterized by roads laid out in a well-connected network, destinations that are easily accessible by transit and active transportation, sidewalks with minimal interruptions for vehicle access, and a pedestrian-friendly environment along roads. *Source: Proposed Provincial Planning Statement (new PPS).*

Complete Communities: means places such as mixed-use neighbourhoods or other areas within cities, towns, and settlement areas that offer and support opportunities for equitable access to many necessities for daily living for people of all ages and abilities, including an appropriate mix of jobs, a full range of housing, transportation options, public service facilities, local stores, and services. Complete communities are inclusive and may take different shapes and forms appropriate to their contexts to meet the diverse needs of their populations. *Source: Proposed Provincial Planning Statement (new PPS).*

Green Infrastructure: means natural and human-made elements that provide ecological and hydrological functions and processes. Green infrastructure can include components such as natural heritage features and systems, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces, and green roofs. *Source: Proposed Provincial Planning Statement (new PPS).*

Low Impact Development: means an approach to stormwater management that seeks to manage rain and other precipitation as close as possible to where it falls to mitigate the impacts of increased runoff and stormwater pollution. It typically includes a set of site design strategies and distributed, small-scale structural practices to mimic the natural hydrology to the greatest extent possible through infiltration, evapotranspiration, harvesting, filtration, and detention of stormwater. Low impact development can include, for example: bio-swales, vegetated areas at the edge of paved surfaces, permeable pavement, rain gardens, green roofs, and exfiltration systems. *Source: Proposed Provincial Planning Statement (new PPS).*

Natural Heritage System: means a system made up of natural heritage features and areas, and linkages intended to provide connectivity (at the regional or site level) and support natural processes which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species, and ecosystems. These systems can include natural heritage features and areas, federal and provincial parks and conservation reserves, other natural heritage features, lands that have been restored or have the potential to be restored to a natural state, areas that support hydrologic functions, and working landscapes that enable ecological functions to continue. The province has a recommended approach for identifying natural heritage systems, but municipal approaches that achieve or exceed the same objective may also be used. *Source: Proposed Provincial Planning Statement (new PPS).*

Impacts of a Changing Climate: means the present and future consequences from changes in weather patterns at local and regional levels including extreme weather events and increased climate variability. *Source: Proposed Provincial Planning Statement (new PPS).*

Renewable Energy Source: means an energy source that is renewed by natural processes and includes wind, water, biomass, biogas, biofuel, solar energy, geothermal energy, and tidal forces. *Source: Proposed Provincial Planning Statement (new PPS).*

Renewable Energy System: means a system that generates electricity, heat and/or cooling from a renewable energy source. *Source: Proposed Provincial Planning Statement (new PPS).*

Transit-Supportive: regarding land use patterns, means development that makes transit viable, optimizes investments in transit infrastructure, and improves the quality of the experience of using transit. It often refers to compact, mixed-use development that has a high level of employment and residential densities, including air rights development, in proximity to transit stations, corridors and associated elements within the transportation system. *Source: Proposed Provincial Planning Statement (new PPS).*

APPENDIX 1

PROVINCIAL CLIMATE CHANGE POLICY REQUIREMENTS

Purpose of This Appendix

The current MCR process will enable the County of Simcoe to conform to and be consistent with provincially mandated plans and policies that relate to climate change. This Appendix provides an overview of the relevant sections of the *Planning Act*, PPS, Growth Plan, Lake Simcoe Protection Plan, and Greenbelt Plan and how these policies will be addressed through the MCR process. This acts as a "check list" and provides reference to be used to inform the development of the County of Simcoe's new Official Plan policies.

This section is for reference only. Please refer to the policy documents themselves to ensure accuracy.

Note that other technical studies for the County of Simcoe's MCR will be dealing with detailed policy review and recommendations for refinements to the Provincial natural heritage system and for watershed planning.

PLANNING ACT

The *Planning Act* (herein referred to as the "Act") is the central piece of legislation that guides land use planning in Ontario. Section 2 of the Act identifies matters of provincial interest and requires that the council of a municipality have regard to these matters when carrying out responsibilities required by the legislation. Climate change and energy are matters of Provincial interest. The *Planning Act* identifies climate change policies that should be identified in Official Plan objectives to mitigate greenhouse gases and increase resiliency.

SECTION	POLICY
2(e)	**Provincial Interest** Matters of provincial interest include "the supply, efficient use and conservation of energy and water".
2(s)	**Provincial Interest** "the mitigation of greenhouse gas emissions and adaptation to a changing climate" is identified as a matter of "provincial interest"
16(14)	**Climate Change Policies** "An official plan shall contain policies that identify goals, objectives and actions to mitigate greenhouse gas emissions and to provide for adaptation to a changing climate, including through increasing resiliency".

PROVINCIAL POLICY STATEMENT, 2020

The Provincial Policy Statement (PPS) provides provincial policy direction regarding matters such as land use, housing, environmental protection, agricultural lands, economic development and job creation, infrastructure and municipal servicing, and growth management. The County of Simcoe's Official Plan policies "shall be consistent with" the policies of the PPS.

Several sections of the PPS require planning authorities to consider climate change, air quality, ensure adequate energy supply, promote energy efficiencies and conservation, and minimize GHGs through efficient land use patterns. Policies which are relevant to the County of Simcoe are identified below. Other climate change related policies may be applicable to local municipalities based on their service delivery responsibilities (e.g., Water).

SECTION	POLICY
1.1.1	**Managing and Directing Land Use to Achieve Efficient and Resilient Development and Land Use Patterns** i) Preparing for the regional and local impacts of changing climate.
1.1.3.2	**Settlement Areas** c) minimize negative impacts to air quality and climate change, and promote energy efficiency; d) prepare for the impacts of a changing climate; e) support active transportation f) are transit-supportive, where transit is planned, exists or may be developed
1.6.1	**Infrastructure and Public Service Facilities** Infrastructure and public service facilities shall be provided in an efficient manner that prepares for the impacts of a changing climate while accommodating projected needs.
1.6.2	Planning authorities should promote green infrastructure to complement infrastructure.
1.6.11.1	**Energy Supply** Planning authorities should provide opportunities for the development of energy supply including electricity generation facilities and transmission and

SECTION	POLICY
	distribution systems, district energy, and renewable energy systems and alternative energy systems, to accommodate current and projected needs.
1.7.1	**Long-Term Economic Prosperity** j) promoting energy conservation and providing opportunities for increased energy supply k) minimizing negative impacts from a changing climate and considering the ecological benefits provided by nature
1.8.1	**Energy Conservation, Air Quality and Climate Change** Planning authorities shall support energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions, and preparing for that impacts of a changing climate through land use and development patterns
3.1.3	**Natural Hazards** Planning authorities shall prepare for the impacts of a changing climate that may increase the risk associated with natural hazards.

A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2020

The County of Simcoe is located within the Outer Ring of the Greater Golden Horseshoe (GGH) as defined by the Growth Plan. The Growth Plan includes detailed policies for planning for future population and employment to a 2051 growth horizon and establishing settlement area boundary expansions through official plan updates. All County Council decisions made in respect of these matters must conform to these policies. As such, the Growth Plan is the crucial policy document guiding the MCR.

The Growth Plan outlines the importance of protecting and conserving natural resources and provides policy direction on how municipalities should address climate change and build resilience. Reducing greenhouse gas emissions and adaptive climate change measures to support provincial environmental goals is also a policy requirement.

SECTION	POLICY
1.2.1	**Guiding Principles** Integrate climate change considerations into planning and managing growth such as planning for more resilient communities and infrastructure – that are adaptive to the impacts of a changing climate – and moving towards environmentally sustainable communities by incorporating approaches to reduce greenhouse gas emissions.
2.1	**Where and How to Grow** Complete communities support climate change mitigation by increasing the modal share for transit and active transportation and by minimizing land consumption through compact built form. Building compact and complete communities, and protecting agricultural lands, water resources and natural areas will help reduce greenhouse gas emissions and ensure communities are more resilient to the impacts of a changing climate. Ontario has recently affirmed its commitment to reduce greenhouse gas emissions by 30 per cent below 2005 levels by 2030 in Preserving and Protecting our Environment for Future Generations: A Made-in-Ontario Environment Plan. This target aligns Ontario with Canada's 2030 target under the Paris Agreement.

SECTION	POLICY
2.2.1	**Managing Growth** f) mitigate and adapt to the impacts of a changing climate, improve resilience and reduce greenhouse gas emissions, and contribute to environmental sustainability; g) integrate green infrastructure and appropriate low impact development
3.2.1.2	**Integrated Planning** Planning for new or expanded infrastructure will occur in an integrated manner, including evaluations of long-range scenario-based land use planning, environmental planning and financial planning, and will be supported by relevant studies and should involve: d) considering the impacts of a changing climate.
3.2.1.4	Municipalities will assess infrastructure risks and vulnerabilities, including those caused by the impacts of a changing climate, and identify actions and investments to address these challenges, which could be identified as part of municipal asset management planning.
3.2.2.2	**Transportation – General** c) Be sustainable and reduce greenhouse gas emissions by encouraging the most financially and environmentally appropriate mode for trip-making and supporting the use of zero- and low-emission vehicles.
3.2.7.1	**Stormwater Management** d) Examine the cumulative environmental impacts of stormwater from existing and planned development, including an assessment of how extreme weather events will exacerbate these impacts and the identification of appropriate adaptation strategies e) Incorporate appropriate low impact development and green infrastructure
4.2.9.1	**A Culture of Conservation** Municipalities will develop and implement official plan policies and other strategies in support of the following conservation objectives: b) Energy conservation for existing buildings and planned developments, including municipally owned facilities.
4.2.10.1	**Climate Change** Upper- and single-tier municipalities will develop policies in their official plans to identify actions that will reduce greenhouse gas emissions and address climate change adaptation goals, aligned with other provincial plans and policies for environmental protection, that will include:

SECTION	POLICY
	a) supporting the achievement of complete communities as well as the minimum intensification and density targets in this Plan; b) reducing dependence on the automobile and supporting existing and planned transit and active transportation; c) assessing infrastructure risks and vulnerabilities and identifying actions and investments to address these challenges; d) undertaking stormwater management planning in a manner that assesses the impacts of extreme weather events and incorporates appropriate green infrastructure and low impact development; e) recognizing the importance of watershed planning for the protection of the quality and quantity of water and the identification and protection of hydrologic features and areas; f) protecting the Natural Heritage System for the Growth Plan and water resource systems; g) promoting local food, food security, and soil health, and protecting the agricultural land base; h) providing direction that supports a culture of conservation in accordance with the policies in subsection 4.2.9; and i) any additional policies to reduce greenhouse gas emissions and build resilience, as appropriate, provided they do not conflict with this Plan.
4.2.10.2	In planning to reduce greenhouse gas emissions and address the impacts of a changing climate, municipalities are encouraged to: a) Develop strategies to reduce greenhouse gas emissions and improve resilience through the identification of vulnerabilities to climate change, land use planning, planning for infrastructure, including transit and energy, green infrastructure, and low impact development, and the conservation objectives in policy 4.2.9.1 b) Develop greenhouse gas inventories for transportation, buildings, waste management and municipal operations. c) establish municipal interim and long-term greenhouse gas emission reduction targets that support provincial targets and reflect consideration of the goal of low-carbon communities and monitor and report on progress made towards the achievement of these targets.

Provincial Planning Statement (Not Yet in Force)

In April 2023, the province revealed its latest policies in support of the Housing Supply Action Plan. The proposed new policy would combine *A Place to Grow: Growth Plan for the Greater Golden Horseshoe* (Growth Plan) and the Provincial Policy Statement (PPS) into a new land use policy document to be referred to as the Provincial Planning Statement (still PPS). The following provides a summary of the relevant climate change policies

SECTION	POLICY
Vision	The wise use and management of resources will be encouraged including natural areas, agricultural lands and the Great Lakes while providing attention to appropriate housing supply and public health and safety. Potential risks to public health or safety or of property damage from natural hazards and human-made hazards, including the risks associated with the impacts of climate change will be mitigated. This will require the province, planning authorities, and conservation authorities to work together
2.9	**Energy Conservation, Air Quality and Climate Change** 1. Planning authorities shall plan to reduce greenhouse gas emissions and prepare for the impacts of a changing climate through approaches that: a) support the achievement of compact, transit-supportive, and complete communities; b) incorporate climate change considerations in planning for and the development of infrastructure, including stormwater management systems, and public service facilities; c) support energy conservation and efficiency; d) promote green infrastructure, low impact development, and active transportation, protect the environment and improve air quality; and e) take into consideration any additional approaches that help reduce greenhouse gas emissions and build community resilience to the impacts of a changing climate.

LAKE SIMCOE PROTECTION ACT AND LAKE SIMCOE PROTECTION PLAN

The *Lake Simcoe Protection Act* (2008) is legislation to protect and restore the ecological health of the Lake Simcoe watershed. The Lake Simcoe Protection Plan (2009) was prepared and approved under the requirements of this Act.

The Lake Simcoe Protection Plan outlines objectives to protect, restore or improve the ecological health of the Lake Simcoe watershed. The Plan addresses climate change concern of reducing the amount of phosphorus and other nutrients in Lake Simcoe. The Plan focuses on building resilience and adapting Lake Simcoe's watershed to future impacts of climate change.

LAKE SIMCOE PROTECTION ACT

SECTION	POLICY
4	**Objectives of Plan** 4 The objectives of the Lake Simcoe Protection Plan are, (a) to protect, improve or restore the elements that contribute to the ecological health of the Lake Simcoe watershed, including, (i) water quality, (ii) hydrology, (iii) key natural heritage features and their functions, and (iv) key hydrologic features and their functions; (b) to restore a self-sustaining coldwater fish community in Lake Simcoe; (c) to reduce loadings of phosphorus and other nutrients of concern to Lake Simcoe and its tributaries; (d) to reduce the discharge of pollutants to Lake Simcoe and its tributaries; (e) to respond to adverse effects related to invasive species and, where possible, to prevent invasive species from entering the Lake Simcoe watershed; (f) to improve the Lake Simcoe watershed's capacity to adapt to **climate change**; (g) to provide for ongoing scientific research and monitoring related to the ecological health of the Lake Simcoe watershed;

SECTION	POLICY

(h) to improve conditions for environmentally sustainable recreational activities related to Lake Simcoe and to promote those activities;
(i) to promote environmentally sustainable land and water uses, activities and development practices;
(j) to build on the protections for the Lake Simcoe watershed that are provided by,
(i) provincial plans that apply in all or part of the Lake Simcoe watershed, including the Oak Ridges Moraine Conservation Plan and the Greenbelt Plan, and
(ii) provincial legislation, including the Clean Water Act, 2006, the Conservation Authorities Act, the Ontario Water Resources Act and the Planning Act; and
(k) any other objectives set out in the Lake Simcoe Protection Plan. 2008, c. 23, s. 4.

LAKE SIMCOE PROTECTION PLAN

SECTION	POLICY
7.11-SA	Within two years of the date the Plan comes into effect, the MOE, in collaboration with the MNR, the MAFRA, the First Nations and Métis communities, the LSRCA, municipalities, and interested academic institutions, will develop a climate change adaptation strategy for the Lake Simcoe watershed. The climate change adaptation strategy will identify key recommended adaptation actions needed to increase the resiliency of the Lake Simcoe watershed to the impacts of climate change; identify roles and responsibilities for relevant parties; and identify potential amendments to the Plan to ensure the recommended actions are undertaken. As new information becomes available, the strategy will be amended, as necessary. To support the development and implementation of the strategy, at a minimum, the following tasks will be undertaken by the MOE and collaborators specified above: a. assess and evaluate the risk of climate change impacts on the watershed; b. promote, conduct and support additional research to better understand the impacts of climate change in the watershed, including impacts on

SECTION	POLICY
	wetlands, aquatic life, terrestrial species and ecosystems, headwaters, conservation of life cycles, groundwater temperature, and water table levels; c. develop an integrated climate change monitoring program to inform decision making and model the impacts of climate change on the watershed; and d. begin the development of climate change adaptation plans and promote the building of a Lake Simcoe watershed community of practice in adaptation planning.

THE GREENBELT PLAN

The Greenbelt Plan (2017), together with the Growth Plan, establishes the land use planning framework for the Greater Golden Horseshoe region. The Plan includes policies to reduce GHG emissions, where emissions can be offset by carbon sinks found in the Greenbelt, which can include agricultural lands, green infrastructure, and other natural areas.

SECTION	POLICY
	Vision
1.2.1	The Greenbelt is a broad band of permanently protected land which: ▪ Builds resilience to and mitigates climate change.
1.2.2.6	**Climate Change** a) Integrating climate change considerations into planning and managing the Agricultural System, Natural Heritage System and Water Resource System to improve resilience and protect carbon sequestration potential, recognizing that the Natural Heritage System is also a component of green infrastructure; b) Integrating climate change considerations into planning and managing growth that includes incorporating techniques to reduce greenhouse gas emissions, and increasing the resilience of settlement areas and infrastructure within the Greenbelt.
3.2.1	**Natural System** The Protected Countryside contains a Natural System that provides a continuous and permanent land base necessary to support human and ecological health in the Greenbelt and beyond. The Natural System policies protect areas of natural heritage, hydrologic and/or landform features, which are often functionally inter-related and which collectively provide essential ecosystem services, including water storage and filtration, cleaner air, habitat, support for pollinators, carbon storage and **resilience to climate change**. The Natural System policies contribute to conserving Ontario's biodiversity and maintaining the ecological integrity of the Greenbelt.
3.3.1	**Parkland, Open Space and Trails** A system of parklands, open spaces, water bodies and trails across the Greenbelt is necessary to provide opportunities for recreation, tourism and appreciation of cultural heritage and natural heritage. They serve as an important component of complete communities and provide important

SECTION	POLICY
	benefits to support environmental protection, improved air quality and climate change mitigation. This system currently supports a variety of passive and active uses as well as health, economic and other quality of life benefits within the Greenbelt. A system of parklands, open spaces, water bodies and trails help address the causes and impacts of climate change by capturing and storing carbon, recharging aquifers and protecting biodiversity and sensitive areas.
3.4.2	**General Settlement Area Policies** Municipalities shall integrate climate change considerations into planning and managing growth in settlement areas in accordance with the policies in subsection 4.2.10 of the Growth Plan
4.1.3	**Developed Shoreline Area Policies** The developed shoreline areas of Lake Ontario, Lake Simcoe, Lake Scugog and other inland lakes contain substantial amounts of both seasonal and permanent residential development. The developed shoreline areas of lakes (including their littoral zones) are particularly important and sensitive because they include key natural heritage and hydrologic features and functions, benefits to water quality and quantity, cultural heritage resources, vital human services and recreational opportunities, including trail systems. **Climate change** is expected to be an important consideration in shoreline management given projected declines in Great Lakes water levels.
4.2	**Infrastructure** Climate change also poses a challenge for maintaining existing infrastructure and planning for new infrastructure. By increasing resiliency of infrastructure and encouraging the use of green infrastructure, municipalities can reduce the risk of harm to life and property and decrease the need for costly repairs or replacement resulting from extreme weather events. Identifying infrastructure risks and vulnerabilities and undertaking climate change adaptation strategies can help mitigate the impacts of climate change

APPENDIX 2

SUMMARY OF CLIMATE CHANGE ACTIVITIES IN THE COUNTY OF SIMCOE

ORGANIZATION	CLIMATE CHANGE INITIATIVES
County of Simcoe Sustainable Operations	The County of Simcoe is currently working on reducing corporate emissions through the PCP Plan. Milestone 1 of the five-step PCP Plan was approved by County Council in 2021, which recognizes the creation of GHG emission inventories and forecasts. Milestones 2 and 3 was approved in October 2023, which commits the County to GHG reduction targets as per Growth Plan policy 4.2.10.2c and develops a Corporate Climate Action Plan. Corporate efforts include solar installations, electric vehicle charger installations, energy efficiency design for construction, solid waste programs such as organics, textiles, battery collection.
Simcoe Muskoka District Health Unit - is a public health agency that offers a variety of programs and services in collaboration with partners and municipalities to promote and protect health and wellbeing for all in Simcoe Muskoka.	A Changing Climate: Assessing Health Impacts & Vulnerabilities Due to Climate Change within Simcoe Muskoka (2017) with an interactive map which identifies the findings from the climate change vulnerability assessment. Assessing health impacts and vulnerabilities due to climate change within Simcoe Muskoka: A GIS Story Map. Planning For Health initiative Healthy Community Design Policy for Official Plans including – Healthy Community Design Policy Statements for Official Plans Climate change identified as a priority public health issue. SMDHU is directly engaged in activities that work to identify and address climate change impacts that influence health and wellbeing. SMDHU also indirectly works to increase adaptive capacity and resilience to climate change through addressing social and ecological determinants of health, and health equity. SMDHU collaborates provincially and locally with partners and municipalities on climate change action initiatives.
Simcoe Muskoka Climate Change Exchange - An organization that was	**Climate Change Charter** – created to support climate change collaboration in the region. The Charter includes guiding principles (environmental, social, economics, socio-

ORGANIZATION	CLIMATE CHANGE INITIATIVES
established to support local climate change mitigation, adaptation, and support opportunities to address climate change throughout the region. The organization include, but is not limited to, representatives from Simcoe Muskoka District Health Unit, watershed-based planning and environmental agencies, education and training institutions, Indigenous organizations and communities, regional, lower, single, and upper tier municipalities.	environmental, socio-economic, and environmental economic) as well as identification of climate change pillars and tools. **Climate Change Terms of Reference** – guiding document for the organizations which sets out the purpose, goals and objectives, values, membership, roles and responsibilities, and overall structure of the committee.
Severn Sound Environmental Association (SSEA) - A joint service board representing a partnership between federal, provincial, and municipal partners. The objective of SSEA is to "sustain environmental quality and to ensure continued protection	**Sustainable Severn Sound (SSS)** – A special project of the SSEA intended to support climate action including greenhouse gas mitigation and the development of sustainable communities. Climate Change Action Plan: The first plan in the County of Simcoe with the participation of local municipalities in central and north County of Simcoe and one municipality from the District of Muskoka, which includes an inventory of GHG emissions, emissions reduction targets, etc.

ORGANIZATION	CLIMATE CHANGE INITIATIVES
through wise stewardship of Severn Sound and its tributaries."	
Simcoe County Environmental Youth Alliance - A youth group organization which advocates for climate change, tree planting, and raises awareness about environmental issues.	**Public education** - The group has partnered with Electronic Recycling Associate (ERA) for the Simcoe Tech Recycling event to promote how to properly recycle electronics without harming the environment. In partnership with the Simcoe County Greenbelt Coalition, SCEYA in 2021 conducted on online survey of Simcoe County youth about climate change and local mitigation/adaptation efforts, and priorities for what they want their communities to look like in the future: 75% are "extremely" or "very" concerned about climate change; about half said climate change is affecting their lives "a great deal" or "a lot".
Town of Midland	**Bee City -** This pilot project is meant to test the outcome no-mowing or reduced-mow zones in the area. By allowing these areas to grow, the hope is to create sustainable landscapes, save energy, and reduce GHG emissions.
Town of New Tecumseth	**Low-Flush Toilet Rebate Program** - To conserve water, this program provided eligible residents with discounts if they switch to water-efficient toilets. This rebate will only be allowed for homes that were built before 1996. **Rain Barrel Rebate Program** – To conserve water.
Town of Penetanguishene	**Various Environmental Projects** ▪ Ecology garden – a community partnership with The Karma Project ▪ Energy efficiency – light and heating system upgrades within the Town ▪ Electric Vehicle charging stations ▪ Naturalization of Town parks ▪ Designation as "Bee City" ▪ Trees – tree planting and implementation of Urban Woodlands Study

ORGANIZATION	CLIMATE CHANGE INITIATIVES
	▪ Salt Management – long term solution for snow storage, expansion of pre-wet system ▪ Low Impact Development / Sustainability initiatives at plan of subdivision ▪ Affordable and Sustainable Housing CIP (anticipated 2024) – sustainability component related to climate change (e.g., retrofitting old heating systems)