

Kitchener 2051

A Green City

Summary of Background & Technical Data

April 2025

Prepared by Urban Strategies for the City of Kitchener



A Green City

How We Plan for the Planet & Local Resiliency

A Green City is about charting our path to creating more sustainable, healthy, and resilient communities.

It is about working together to enhance our parks and protect our natural environment while transitioning to a low-carbon future.

Background & Technical Data Summary

In 2019 the City of Kitchener declared a climate emergency. The Official Plan is one tool that the City can use to respond to the climate emergency. The *Kitchener 2051 Climate and Energy Technical Study* was completed to help shape new and responsive policies which respond to climate change.

The *Climate and Energy Technical Study* examined the factors affecting Kitchener's ability to reduce greenhouse gas emissions and adapt to climate change.

It also reviewed:

- The latest climate science
- Related government policy (at all levels)
- Kitchener's unique climate risks



What is Climate Change?

Climate change is driven by the release of greenhouse gas (GHG) emissions, largely from the combustion of fossil fuels. To combat these emissions and their resulting warming effects, Canada was among the 195 countries that signed the Paris Agreement to work towards keeping the global average temperature below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C.

November 2024 marked the first time global temperatures averaged above 1.5°C for a 12-month period. The result of this global temperature change has and will continue to cause disruptions which are experienced right down to the local level, causing billions of dollars of damages, exacerbating poverty, refugee flows, political disruption, and health impacts.

Preliminary Key Findings

Kitchener's climate is expected to experience harsher conditions and more often, leading to:



Rising Temperatures:

More heatwaves and seasonal shifts in warm weather



Unpredictable Precipitation:

Increased risk of severe storms and flooding



More Extreme Weather:

Hotter summers with potential droughts, and more rain and snow in fall, winter, and spring

Since the 2014 Official Plan, new provincial, regional, and local policies now require the City to address climate change and greenhouse gas (GHG) emissions in planning decisions.

The study identified three main areas of risk for Kitchener:



Ecological Impacts:

Heat stress, flooding, invasive species, and impacts on existing infrastructure



Social & Health Impacts:

Extreme weather events, worsening air quality, food and water-borne illnesses, and mental health impacts



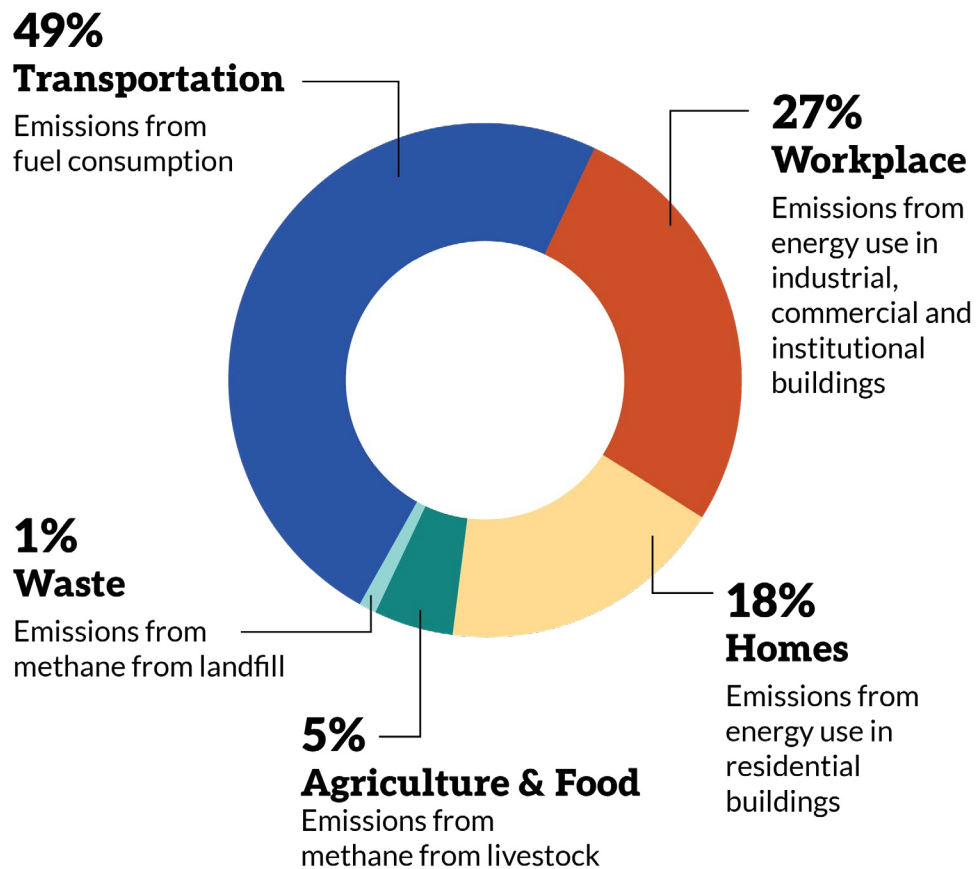
Economic Impacts:

Rising costs of inaction, insurance challenges, and business disruptions

How Can the Official Plan Respond?

As we set out to write a bold and action-oriented Official Plan that responds to the climate crisis, we will continue to ask several important questions:

- Do our policies align with current science and innovative practices?
- How can we build today, so that we can be prepared for the challenges and opportunities of tomorrow?
- Are we incorporating different ways of knowing, including Traditional Indigenous Knowledge?
- How can we ensure we protect our natural environment?
- Do our policies support transition to cleaner types of energy and reduce our reliance on fossil fuels?



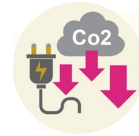
**Waterloo Region's Emissions breakdown by sector,
from 2015 data**

Policy Direction

The way we hope to direct our policy is routed in the state of climate science and our local context. The *Climate and Energy Study* has set out recommendations for our new Official Plan with this priority, and a focus on identifying targets, establishing a framework, and key actions which can be implemented.

The proposed targets focus on climate mitigation, or ways to lessen our contributions to climate change by cutting our Greenhouse Gas (GHG) emissions. Based on the current science, a target of reaching an equal balance between greenhouse gas emissions and greenhouse gases removed from the atmosphere by 2050 is recommended, along with a carbon budget tool to track our progress. A carbon budget is a tool that establishes our local amount of GHG emissions that can be released in the community.

The policy recommendations of the Climate and Energy Study prioritize:



Efficiency - which means avoiding emissions by reducing demand



A Consumption-Based Emissions Inventory - which considers the energy it takes to make the products we use, and the fuel it takes for them to get to us



Planning for Adaptation and Resilience - which means building in the ability to withstand the impacts of climate change



Acting Now - which means making changes now to avoid the costs and impacts of action later

The Climate and Energy Study recommendations fall into the following topic areas:

1. Municipal Leadership
2. Natural Environment
3. Energy Transition
4. Connected Communities
5. Energy Efficient Buildings
6. Sustainable Consumption
7. Resiliency
8. Preparing for Emergencies
9. Monitoring Progress

A Green City

- DRAFT Big Idea and Focus Areas



Big Idea: Our Environment

We value, protect and conserve our natural environment so that Kitchener is a place where you and your family can be safe, healthy, and comfortable for generations to come. Kitchener will emit almost no greenhouse gases and our communities, built and natural environments will be ready for hotter days and more intense storms. We will learn from Indigenous land-based cultural practices and stewardship in the spirit of reconciliation to build a stronger community, based on a mutual understanding of each other and the environment.

We're focusing on:

- Protecting the countryside as a critical ecological landscape.
- Planning for housing and jobs that support sustainable transportation options and makes better use of existing land and infrastructure.
- Driving emissions to zero and building resiliency with every decision we make.
- Connecting people with each other, the land, the air, and the water, and helping people stay safe and comfortable in neighbourhoods across the City.

Related Policy & Initiatives

- [TransformWR](#), Waterloo Region's community-wide response to the climate crisis. Endorsed by all area municipalities in 2021, the plan sets the target of 80% greenhouse gas emissions reduction by 2050.
- [Corporate Climate Action Plan](#), guides Kitchener's internal climate action through corporate policies which are intended to cut emissions.



