

Did you know?

Greenhouse gases are gases that absorb and emit thermal infrared radiation; it is this physical property that causes the greenhouse effect.

In Ontario, the transportation, electricity, industrial, and residential sectors account for approximately 85% of greenhouse gas emissions. The remaining 15% is generated from agricultural, commercial, waste and other sectors.

Green infrastructure refers to natural or engineered systems that mitigate potential impacts of existing and future development. Examples include: grassy swales and rain gardens to promote infiltration; roadside curb cuts to direct runoff to grassy swales and rain gardens; permeable pavement and green roofs to reduce runoff; rock pits, catch basins, and detention ponds to reduce peak runoff flows; and water and energy conserving infrastructure.

The Ontario Building Code plays a role in combating climate change by limiting greenhouse gas emissions through energy efficiency requirements, supporting green technologies (e.g., renewable energy) and promoting water conservation and efficiency standards. For more information, visit: www.obc.mah.gov.on.ca

This InfoSheet provides an overview of Planning Act tools that can help municipalities address climate change by planning for more efficient and sustainable communities.

Climate Change: What Does It Mean For Ontario's Municipalities?

Increasing global surface temperatures, melting glaciers and rising sea levels are indications of global climate change impacts resulting from greenhouse gas emissions from human activities. In Ontario, climate change impacts that are felt at local and regional scales include:

- more variable and extreme local weather events such as heavy rains and prolonged droughts
- stressed and vulnerable ecosystems, wildlife and their habitats
- additional private and public costs associated with industries such as tourism and agriculture
- public health risks from an increase in hotter weather, more flooding, and insect-borne diseases
- increased damage to public infrastructure such as sidewalks, roads and bridges

Moving forward, municipalities need to respond to climate change impacts in order to reduce economic costs and potential environmental, social and health risks through actions that:

- **mitigate climate change** - actions that reduce greenhouse gas emissions that cause climate change
- **adapt to climate change** - actions that prepare for changes that are occurring, or are likely to occur, in the future.



In Ontario, climate change is likely to cause more damage from extreme weather events

Climate Change and the Provincial Land Use Planning System

Greenhouse gas emissions and climate change impacts are being addressed through the province's Go Green: Ontario's Action Plan on Climate Change. Ontario's land use planning system supports this plan through the Provincial Policy Statement, 2005, provincial plans (e.g., the Greenbelt Plan and the Growth Plan for the Greater Golden Horseshoe) and a range of Planning Act tools that municipalities can use to guide development practices that minimize greenhouse gas emissions and contributes towards more sustainable, healthier and economically strong communities.

Key Planning Act Tools to Support Climate Change Action

Official Plans – Section 16-27

Municipal official plans are the primary vehicle for articulating a community's sustainable vision and overall planning policy direction. Municipalities may incorporate climate change policies into their official plans to identify specific actions to be taken to achieve climate change objectives. These policies can complement other municipal programs and initiatives that address climate change and reduce greenhouse gases (e.g., programs for tree planting, green building and energy efficiency incentives, water conservation and car pooling).

Protection of Settlement Area Boundaries – Sections 22, 34

Council refusal or non-decision regarding proposals for expanding a settlement boundary or establishing a new settlement area cannot be appealed to the Ontario Municipal Board. By building more compact communities, greenhouse gases associated with auto-dependent commutes can be reduced. Focusing development within existing boundaries helps to maintain those natural and agricultural areas that store carbon and buffer against extreme weather.

Complete Application Requirements – Subsections 22(5), 34(10.2), 51(18), 53(3)

Municipalities can establish the required information, material, or studies needed to assess planning applications for official plan amendments, zoning amendments, subdivisions and consents. These could include studies that are relevant to the proposed development with respect to a changing climate (e.g., stormwater management plans that address on-site mitigation of intense precipitation events).

Community Improvement Plans (CIPs) – Section 28

CIPs target parts of a community for strategic development or redevelopment. Municipalities can acquire, hold, clear, lease and sell land in designated areas and provide grant and loan incentives for landowners to undertake activities that address climate change mitigation and adaptation (e.g., building retrofits for energy efficiency, renewable and district energy systems, water conservation and efficiency systems and brownfield site remediation). In addition, prescribed upper-tier municipalities may develop plans related to affordable housing, infrastructure and transit corridors and upper and lower-tier municipalities may participate in each others grant and loan programs that facilitate the integration of community improvement programs related to climate change.

Zoning by-laws – Section 34

Municipalities may prohibit the use of land or erecting buildings and structures within areas that are significant features, hazard lands and areas prone to flooding (e.g., floodplains or valleylands). Prohibiting development in natural areas and hazard lands promotes ecological services that address climate change mitigation and adaptation (e.g., carbon sequestration and storm water retention and infiltration, while reducing economic, health and safety costs and risks).

Zoning by-laws promote more efficient land use patterns by allowing a greater mix of uses within a specified area to create the conditions for shorter commutes between workplaces and residences and by regulating heights, densities and lot sizes in order to achieve more compact neighbourhoods and communities. Through specification of setbacks and building envelopes, zoning by-laws can also promote more energy-efficient buildings.

