

Climate Change

The world's climate is changing. Scientists estimate that Ontario may warm an average of 2 to 5 degrees Celsius during the next 75 to 100 years. The United Nations Intergovernmental Panel on Climate Change has concluded climate change is already happening, is unequivocal and this change can now be firmly attributed to human activity.



More extreme weather with intense storms and flooding is one impact of climate change

So, what has created climate change? Our atmosphere is full of invisible gases, some of which are greenhouse gases (water vapour, carbon dioxide and methane), which insulate the Earth. They trap the sun's heat and keep our planet in the right temperature range to sustain life.

Some greenhouse gases in our atmosphere do exist naturally. But a large portion of the greenhouse gases in our atmosphere today have been, and continue to be, created by us. This means that more of

the sun's heat is being trapped than is desirable. In fact, too much heat is being trapped, and the planet is warming too much. This is what is known as global warming.

Global warming is affecting weather patterns all over the world, and this effect is what is known as climate change. This includes temperature changes (warming in some places and cooling in others) and altered rainfall patterns, as well as more frequent occurrences of hazardous weather events like violent thunder storms, floods, drought, and prolonged heat waves.

The United Nations Intergovernmental Panel on Climate Change (IPCC) estimates that the risk of increased severe weather will rise with a global average temperature increase of between 1 and 2 degrees Celsius above 1990 levels. Adaptation to climate change is vital; its impacts are already happening, and will worsen in the future.

Climate change may be irreversible but we can mitigate its impact by taking actions now. Along with adaptation,

Summary

Conservation Halton's viewpoint underscores the fact that changing climates pose risks to the health and safety of people, wildlife, forests, farms, and water supplies. This is why it's so important for us to take action to alleviate its potential impacts.

mitigation is important as it involves actions we take to reduce the emissions of greenhouse gases at the source or enhance their removal from the atmosphere by “sinks.” A “sink” refers to forests, vegetation, or soils that can reabsorb carbon dioxide.

Impact of Climate Change on our Watershed

Climate change is already causing more extreme weather related events like floods, droughts, and storms. It may also be impacting local ecosystems by reducing biodiversity, increasing the spread, and effects of invasive species, reducing water and air quality, and increasing erosion. This all leads to poor forest and wetland health. These factors will adversely impact more than just our environment. They will strongly influence our society, economy, and personal health. Such weather events are projected to increase in frequency and intensity as climate change evolves.

What is Conservation Halton doing about Climate Change?

Conservation Halton will provide leadership at the community level in preparing for the potential impacts of climate change on the local watershed. It will:

- Continue to assess the potential impacts of climate change by reviewing scientific research.
- Prepare for the potential impacts of climate change as it may affect flooding and erosion within the watershed and update current flood and erosion hazard programs as necessary.
- Implement an action plan aimed at reducing greenhouse gas emissions in its own operations.
- Promote measures through education and community outreach to help the community in reducing greenhouse gas emissions to help create a healthy environment.

- The containment of urban sprawl is a good way to reduce greenhouse gas emissions. Sprawl has extremely harmful effects on the quality of air, water, and soil, and therefore the health of the watershed.

- Champion the protection, restoration, and expansion of natural ecosystems in the watershed, along with effective water conservation strategies to help offset some impacts of climate change and make our environment more resilient.

- Grow, maintain, and manage healthy forests and green spaces in the watershed as trees store carbon, clean the air, and reduce greenhouse gas levels.

- Enhance the current outreach, education, and communications programs to raise awareness of climate change in the watershed communities.

- Conservation Halton has long term environmental monitoring programs in place to help detect the impacts of climate change and make informed, science-based decisions to mitigate its impacts and build environmental resilience.

Ways You Can Help Combat Climate Change

Whether at home, work, school, or in our community, there are steps we can all take to benefit our environment. Look for opportunities to reduce your ecological footprint such as using less water and electricity, by installing low-flow showerheads, and choosing energy-efficient appliances.

Other actions include reducing the amount of waste going to our landfills by practicing the 3 R's – Reduce, Re-use, and Recycle. Plant more trees around your home or volunteer for a community tree planting staged by organizations like Conservation Halton. We all have the ability to demonstrate good stewardship practices to conserve and protect the natural environment in our community.

Conservation Halton Natural Champion for a Healthy Watershed



Conservation Halton is the community based environmental agency that protects, restores and manages the natural resources in its watershed. Conservation Halton has staff that includes ecologists, land use planners, engineers, foresters and educators, along with a network of volunteers, who are guided by a Board of Directors that includes municipally elected and appointed citizens. Conservation Halton is recognized for its stewardship of creeks, forests and Niagara Escarpment lands through science based programs and services.

For more information about Climate Change contact Conservation Halton:

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