

HALTON REGION OP REVIEW PHASE 2 - Halton Environmental Network- Official Comments

CLIMATE CHANGE PAPER – Climate Action submission, October 2020

1. Have you felt the impacts of climate change on your community? What impacts are of most concern to you in the next 20 years?

As part of our daily work we have multiple examples of Climate Change in our community. We know it is getting windier, wilder, and wetter. We have seen flooding on the lakefront of Oakville, costing our community millions of dollars. In Burlington, one rain effect impacted hundreds of residents with flooded basements and roads. Ice storms and wind events impact large trees and power lines, sometimes resulting in power outages. These power outages impact the most vulnerable people in our community, causing challenges in their day-to-day lives. Extreme heat events have been on the increase, which again impact the most vulnerable people in our community. We have heard from the agricultural communities about drought, dry spells and then flooding in their fields. We have also seen the migration of vector-borne diseases, such as West Nile and Lyme disease due to our warmer and wetter climate. The impacts of climate are being felt in community. We have attached a map that documents some of the impacts. The Towns of Halton Hills, Oakville, and Burlington have highlighted these challenges on their websites and in communications, and all these communities are updating their risk assessment. ICLEI's Showcase Cities pilot program provides an in-depth look at the risks posed to the Town of Oakville and City of Burlington highlighting a wide range of climate change related weather <https://icleicanada.org/project/gcom-and-showcase-cities-project/>.

The Canadian government also has great resources documenting the impact for our community. Documenting changes in the Great lakes water levels, with implications for water management, hydro generation, transportation, and ecosystem sustainability. Other issues they have highlighted are extreme weather events and the impacts on our infrastructure, our health and agriculture. Please review this site for more details:

<https://www.nrcan.gc.ca/environment/resources/publications/impacts-adaptation/reports/assessments/2008/ch6/10363>

We also want to highlight the Lancet report. We had the pleasure of attending the 2019 Canadian launch of the report with the CMA, Emergency Room physicians, epidemiologists and others and this report highlights all impacts: <https://www.cma.ca/2019-lancet-countdown-health-and-climate-change-policy-brief-canada>

The Region of Peel also has a transformative master plan highlighting challenges and opportunities - this document must be reviewed by our Region to ensure we are not spending dollars and time on duplication. Instead, by leveraging this research, we can replicate and implement solutions efficiently:

<https://www.peelregion.ca/climate-energy/pdf/Climate-Change-Plan.pdf>

2. How do you think the Regional Official Plan can help Halton respond to climate change? What mitigation and adaptation actions would you like to see embedded in the Regional Official Plan? For more information on this topic, please see pages 16-21 of the Climate Change Discussion Paper.

We know there are great opportunities within our community to mitigate and adapt to our changing climate. We need a Regional approach to addressing climate change that is cohesive, succinct, and holistic. We also need a Regional approach that supports all lower tier municipalities, aligning the work, looking for best practice and replicating advantageous programs to improve efficiency and effectiveness, to amplify and accelerate positive outcomes.

Having Green Development Standards (GDS) would support the Regional Official Plan (ROP) and the work in the municipalities. Creating and implementing a Regional GDS would ensure consistency, efficiency and equity. GDS are a policy tool for municipalities to achieve their GHG reduction targets, ensure their Official Plan goals, as well as goals in many areas of sustainability and climate change. By having a GDS within the ROP we could not only respond to climate change, but also address numerous environmental challenges and opportunities. GDS provides a range of benefits that impact community members over multiple generations by creating healthy, complete, and sustainable communities that offer residents a high-quality of life. GDS are comprehensive principles to guide development at a level of planning and design that focuses on the community as a whole, which would support the OP.

We need to review the policy sections of each area of the entire ROP, looking for all climate change challenges and opportunities. We need a comprehensive strategy that will support green infrastructure and growth and set us up for outside funding opportunities to support our unified plans. Growth Management, Transportation, Energy & Utilities, Agriculture and Natural Heritage & Environmental Quality, all would be beneficial if climate change had its own section that would allow for the inclusion of a general explanation, objectives, overarching guiding policies and statements on how the other areas outlined above connect.

While there is overlap between mitigation and adaptation efforts, recommendations are divided as follows:

Mitigation

Coordinate with and support municipalities to meet local GHG targets.

Require a Regional level community energy plan including inventory, targets and mitigation plan for GHG emissions, to be coordinated with the municipalities and report back annually.

Require a climate lens (high level assessment of climate impacts and options for mitigating impacts) to be applied to infrastructure, including a requirement for risk and vulnerability assessments to identify risks and options for enhancing infrastructure resilience.

Requirement for a climate lens to be applied to development review and demonstrate how climate change is being addressed (required study/statement as part of a complete development application).

Direction to support climate change planning through collaborative partnerships with all levels of government, as well as public and private organizations, and non-governmental organizations. These Partnerships should be explored and developed, an example would be the Oakville Energy Taskforce with members like Ford Canada, Hatch, Mattamy, Halton Environmental Network, Halton District School Board, The Region of Halton, Community Members etc.

Encourage agricultural efforts to support mitigation, and explore opportunities to embed additional mitigation efforts with the local agricultural community.

Encourage more effective waste diversion and waste diversion education. This should include a food waste policy and education plan.

Encourage and explore the identification and implementation of energy from waste technologies (e.g. methane capture, gasification, anaerobic digestion) to recover resources from waste.

Support the adaptive reuse of existing building stock and encourage the reuse/recycling of building materials in the development process.

Adaptation

Consider including a policy to support work on climate change decision-support tools including collaborating further with Regional partners to build information and predict likely impacts for Halton (e.g. GHG emission reduction plans, risk and vulnerability assessments, feasibility of renewable and alternative energy systems and mapping, scenario planning, and projections).

Look to the agricultural community to support adaptation efforts.

Review Regional assets that could not only mitigate GHG but support adaptation efforts such as green infrastructure.

Support comprehensive stormwater management planning, including low-impact development and green infrastructure, to increase community resilience to extreme weather.

Consider the location and design of Regional human services facilities, including those related to communications, energy, and water infrastructure, to minimize vulnerabilities related to a changing climate.

Ensure the Regional health department is engaged in climate change. Create educational experiences for the Regional Health department staff, local physicians, and Hospital staff to understand, treat, and track the local health impacts of climate change. By creating a local inventory, we can create a plan to ensure a resilient community, prepared to respond and adapt to the impact of climate change on our health systems.

3. Halton's population is forecast to grow to one million people and accommodate 470,000 jobs by 2041. What do you think about policies to plan for climate change through more compact urban form and complete communities? In your opinion, are we growing in the right direction? For more information on this topic, please see pages 21-25 of the Climate Change Discussion Paper.

Hard urban boundaries between urban and rural areas are needed.

Compact urban form and complete communities are at the core of land use planning policies that support addressing climate change. We would point out that although intensification is critical to creating efficient, resilient and sustainable communities, this needs to be balanced by ensuring there is appropriate greenspace not only outside of the built environment but within it. The introduction of green infrastructure policies into the ROP would acknowledge the importance of healthy natural systems that function at multiple levels within the community that support climate resiliency including services such as stormwater management, carbon sinks, soil stabilization, management of air pollution management and mitigating urban heat island effects.

For new developments, GDS would support comprehensive policy that are easily understood, governed and implemented - policies that encourage municipalities to require planning studies specific to climate change mitigation and impacts (e.g. energy plans, GHG impacts, green infrastructure opportunities, etc.). These could be incorporated as part of a climate lens or sustainable development standards at a neighborhood and/or subdivision level.

4. What do you think the Region should do to help you reduce your greenhouse gas emissions? For example, if you typically commute by car to work or school every day, what would make you consider taking transit, biking or walking? For more information on this topic, please see page 21-27 of the Climate Change Discussion Paper.

Require all municipalities and the Region of Halton to have climate action plans in place to demonstrate how they will address both mitigation and adaptation plans for climate change at the local level.

Enabling and supportive policies for electric vehicle (EV) infrastructure and encouraging EV stations in new developments.

Support the electrification of public transportation systems.

Support the development of comprehensive cycling infrastructure and pedestrian pathways for safe and accessible active transportation.

Support retrofitting and enhancements to existing building stock to enhance energy efficiency.

Support and encourage green development standards (GDS) and encourage municipalities to include GDS in local level plans. There would be value in having a harmonized, though not one-size-fits-all, approach to green standards across the Region and the local municipalities. There is an opportunity for some coordination at a Regional level through its OP policies.

Support requirement of energy master plans for all major developments and encourage near Net Zero development. This could be integrated as part of GDS encouraging and coordinating local level sustainable development.

We would encourage a review of the Town of Oakville's recent "Community Energy Strategy" (CES) <https://www.oakville.ca/assets/general%20-%20environment/Community-Energy-Strategy.pdf> that was developed by a community-based task force that outlines priority projects that will be pursued to reduce energy use and decrease GHG emissions. Having Regional policies in place, that encourage and support implementation of these projects, will be valuable to ensure successful implementation.

5. Do you think the Region should encourage and support local renewable energy sources? If so, what should be considered? For more information on this topic, please see pages 28-29 of the Climate Change Discussion Paper.

Yes, the Region should encourage and support a local effort for renewable energy sources. The Region has assets such as the Regional Landfill that could be a great source of renewable energy.

Looking at district energy plans, both micro and macro, would be a good role for the Region, and ensure a collective, responsive alignment of all municipalities to make sure renewable sources are explored for Regional benefits.

Outline how the Region will work collaboratively with local municipalities to support community and Regional energy planning. Encourage the integration of energy planning and design in the development patterns of communities. Some examples of this collective work:

- Encourage adoption of GDS by the local municipalities and provide coordination outlining key areas to be addressed such as linking to district energy, energy efficiency in new developments (e.g. green/white roofs), low-impact development stormwater management.
- Developing greater efficiency in delivering energy. Policies should be included that are enabling and supportive of small-scale energy infrastructure (such as district energy systems), particularly in urban growth areas. The Region could consider encouraging the mapping/identification of land use areas that would support district energy systems.
- Support comprehensive community energy planning at the Region and by local municipalities
- Support clustering of community facilities and infrastructure that would support improved efficiency in both use of space from a community perspective (acting as community hubs in times of need for weather related emergencies) and for district energy opportunities.
- Ensuring policies that enable and support the production of local renewable energy sources (solar, geothermal) are strongly encouraged as a means to help mitigate climate change.

6. Can you provide examples of opportunities to address climate change as it relates to agriculture that you would like to see in Halton? For more information on this topic, please see pages 29-30 of the Climate Change Discussion Paper.

Promote the importance of locally produced products and the agri-food sector for food security.

Support the use of environmental farm management plans and encourage the application of low carbon and sustainable soil farming practices.

Ensure there is opportunity for the exploration of the value of GHG sequestration from local farms and urban agriculture.

Support studies on the sequestration values of the agri-sector, including soil, etc. Look for carbon offsets to support and ensure the sector has fair value.

Encourage local agricultural efforts to support mitigation, and explore opportunities to embed additional mitigation efforts with the local agricultural community.

Encourage plant-based urban agriculture opportunities within the urban boundary as a source of local food security and to assist in reducing GHGs through its role in carbon capture (for example, see <https://www.sciencedirect.com/science/article/pii/S0169204615000663>)

7. According to the Provincial Policy Statement, planning authorities are required to consider the potential impacts of climate change in increasing risks associated with natural hazards (e.g., fires and floods). How can Regional Official Plan policies be enhanced to address climate change impacts on natural hazards? For more information on this topic, please see pages 30-32 of the Climate Change Discussion Paper.

Include policies that define green infrastructure and the role it plays in both mitigating and adapting the effects of climate change. Having a Regional GDS would address potential impacts and support the mitigation of climate risk. Green Infrastructure Ontario (GIO) provides resources around land use planning and policies while York, Waterloo and Peel have all included this in their Official Plans.

Identify Regional level green infrastructure systems and encourage local municipalities to conduct an inventory/assessment at a local level.

Require watershed and subwatershed studies and plans to specifically address climate change and extreme weather.

Require the implementation of low impact development and green infrastructure stormwater management practices in accordance with provincial requirements and guidelines.

Encourage and support the use of GDS to promote sustainable development and building practices including objectives and metrics related to extreme weather and climate change adaptation.

Encourage and support the use of new Municipal Act and Planning Act tools for climate change (e.g. Climate Change By-laws requiring green roofs and/or alternative building standards).

8. Are there additional measures the Regional Official Plan should include to improve air quality? For more information on this topic, please see page 32 of the Climate Change Discussion Paper.

Local air quality is largely impacted by transboundary pollution and therefore out of the control of local governments. There could be policies supporting collaboration with other levels of government to advocate and support solutions at provincial, federal and/or trans-national levels. Local level sources of air pollution in Halton are primarily generated through transportation and heating/cooling of buildings. Policy areas that cover compact communities, transit supportive densities, efficiency of buildings and active transportation are in place and could be acknowledged for their role in supporting local air quality improvement.

Support integration and implementation of Active Transportation master plans between the Region and local municipalities. Expand the plans to include movement of goods in addition to people.

Develop an air quality management plan for the Region, in collaboration with the local municipalities, that includes monitoring and reporting of air quality and GHG emissions on a regular basis

It may be of interest to look at the [Peel Air Quality Discussion Paper](#) and their 2017 Air Quality Modeling staff report.