Appendix C

Climate Change Discussion Paper
Town Responses to Discussion Questions

The following Discussion Questions are from Halton Region's Technical Questionnaire posted at halton.ca/ropr.

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?

For more information on this topic, please see pages 12-15 of the Climate Change Discussion Paper.

Response: As part of its participation through ICLEI's Showcase Cities pilot program, Oakville is updating its climate risk assessment https://icleicanada.org/project/gcom-and-showcase-cities-project/.

This work provides an in-depth look at the risks posed to the town by a wide range of climate change related weather. In addition to using the most up to date climate data and models, the town is conducting a consultation program in Fall 2020 with both town staff and the public to further build out the assessment, including input on which impacts are of most concern.

This work will be completed by September with a final document that will be publicly accessible by October 2020. The town would be pleased to share this information.

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.

Response: Page 17 of the Discussion Paper notes that climate change will not have a separate policy section but will have policies dispersed throughout the Regional Official Plan (ROP) in five sections: Growth Management, Transportation, Energy & Utilities, Agriculture and Natural Heritage & Environmental Quality.

To highlight the importance of climate change to the Region, Town staff recommends that the Region consider a stand-alone climate change section in the ROP in addition to the dispersed policies. This section should include a general explanation, objectives, overarching guiding policies and statements on how the other ROP sections noted

above connect to the overarching climate change section. This approach will help the Region to provide a cohesive overview on its approach to addressing climate change.

While there can be overlap between mitigation and adaptation efforts, town staff recommendations are divided as follows:

Mitigation

- Coordinate with, and support municipalities to meet local GHG targets.

- 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;

- Require 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).

- Encourage climate change planning through collaborative partnerships with all levels of government, as well as public and private organizations.

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

- Encourage the identification and implementation of greywater technologies

- Encourage the adaptive reuse of existing building stock and encourage the reuse /recycling of building materials in the development process

Adaptation

The Region should 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).

The Region should encourage progressive stormwater management planning, including low impact development and green infrastructure, to increase community resiliency to extreme weather.

The Region should encourage consideration for 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.

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.

Response: Compact urban form and complete communities are at the core of land use planning policies that support addressing climate change. Comments on this are primarily provided through the town's responses to the Regional Urban Structure and Natural Heritage papers.

Town staff points 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 also 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 development, consider policies that encourage municipalities to require planning studies related to climate change mitigation and impacts (e.g. energy plans, GHG impacts, green infrastructure opportunities, etc.). This could be incorporated as part of a climate lens or sustainable development guidelines/standards at a neighbourhood/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.

Response:

The ROP should encourage all municipalities to have plans in place to demonstrate how they will address climate change at the local level.

The ROP policies should encourage the inclusion of electric vehicle (EV) infrastructure and encouraging EV stations in new development, as well encourage the electrification of public transportation systems and retrofitting and enhancements to existing building stock to enhance energy efficiency.

The ROP policies should encourage sustainable development guidelines / standards for new development and require/encourage municipalities to include 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 ROP policies.

The ROP policies should encourage energy master plans for all major developments and encourage near Net Zero development. This could be integrated as part of policies encouraging and/or coordinating local level sustainable development guidelines / standards.

Town staff recommends the Region review the 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.

Response: In Oakville, natural gas, primarily through the heating of buildings, produces almost half of the town's GHG's. ROP policies should encourage support for local renewable energy sources (solar, wind, geothermal) are strongly encouraged as a means to help mitigate climate change.

It is not just the type of energy that is used, but also developing greater efficiency in delivering it. Policies should be included that are enabling and supportive of small-scale energy infrastructure (such as district energy systems), particularly in strategic growth areas as identified in the local municipal urban structure.

Policies should encourage adoption of sustainable development guidelines/standards 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) and low-impact development stormwater management.

Policies should encourage 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.

ROP policies should encourage comprehensive community energy planning at the regional and by local municipalities and outline how the region will work collaboratively with local municipalities to support community and regional energy planning.

Policies should encourage the integration of energy planning and design in the development patterns of communities.

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.

Response:

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.

The Region may wish to consider urban agricultural opportunities within the urban boundary as a source of local food security and to assist in reducing GHG's through its role in carbon capture.

For example: 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.

Response: The ROP should include policies that define green infrastructure and highlight the role it plays in both mitigating and adapting to the effects of climate change. Green Infrastructure Ontario (GIO) provides resources around land use planning and policies which other regional governments like York, Waterloo and Peel have all included this their Official Plans.

The ROP should identify regional scale green infrastructure systems and encourage local municipalities to conduct an inventory/assessment at a local level.

The ROP should require the watershed and sub-watershed studies and plans to address climate change and extreme weather.

The ROP should require the implementation of low impact development and green infrastructure stormwater management practices in accordance with provincial requirements and guidelines.

Policies should encourage and support the local municipalities to use sustainable development guidelines/standards to promote sustainable development and building practices including objectives and metrics related to extreme weather and climate change adaptation.

Policies should 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.

Response: Local air quality is largely impacted by transboundary pollution and therefore out of the control of local governments. There could be policies encouraging collaboration with other levels of government to advocate and support solutions at provincial, federal and/or trans-national levels.

Local 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.

There should be policies that encourage 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.

Town staff is recommending that the Region 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 Modelling staff report.