

Climate lens for municipal decision making

January 30th, 2020



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Context

- Many municipalities declaring climate emergencies
- Climate lens approach common for infrastructure projects
- Focus tends to be on adapting to future climate
- GHG reduction largely ignored
- Municipal scale largely ignored
- Gap observed around creation of municipal climate lens tool



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Definitions

‘For the City, the climate lens is the consideration of greenhouse gas mitigation and adaptation requirements in all decision making’ (City of Victoria)

‘Climate lens is intended to incent behavioral change and consideration of climate impacts into the planning of infrastructure projects with a view to implementing Canada's mid-century goals of a clean growth low-carbon economy’ (Infrastructure Canada)



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Potential

- Mainstream climate change as a municipal priority
- Demonstrate municipal leadership
- Facilitate interdepartmental engagement
- Increase transparency in municipal decision making
- Reduce GHGs
- Increase resilience



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What a lens will and will not do

- Will help analyze if decision will affect climate
- Will help analyze if decision be affected by climate
- Will not estimate emission associated with a decision
- Will not estimate vulnerability to climate
- Will not provide direction for addressing climate change through GHG reduction or building resilience



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Required characteristics

- Ease of use
- For use by staff with little or no knowledge of climate change
- Must be quick
- Must require little interpretation
- Must require little assistance
- Must direct staff-person to assistance where needed



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Red Cross Climate Smart Programming Checklist



Climate Smart Programming Checklist
For practitioners and programme planners

- Seeks to mainstream mitigation and adaptation into programming
- Checklist designed for practitioners and program planners
- Applied at various program stages
 - 1. Situation and problem analysis
 - 2. Program design
 - 3. Implementation
 - 4. Monitoring, evaluation and sharing
- Asks questions related to a variety of contexts including environmental, socio-economic, cultural, institutional
- Link [HERE](#)

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www.ifrc.org
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International Federation
of Red Cross and Red Crescent Societies



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Infrastructure Canada

Programs and Streams	GHG Mitigation Assessment	Climate Change Resilience Assessment	When to Submit
Investing in Canada Infrastructure Program (Integrated Bilateral Agreements)			
Green Infrastructure – Climate Change Mitigation sub-stream	All projects* (Demonstrates alignment with sub-stream outcome)	If total eligible project costs are \$10M or greater	GHG Mitigation Assessment due at time of application. Climate Change Resilience Assessment due before first federal payment, if required.
Green Infrastructure – Adaptation, Resilience and Disaster Mitigation sub-stream	If total eligible project costs are \$10M or greater	All projects (Demonstrates alignment with sub-stream outcome)	Climate Change Resilience Assessment due at time of application. GHG Mitigation Assessment due before first federal payment, if required
Other streams and Sub-streams (Environmental Quality, Public Transit, Community, Culture and Recreation, Rural and Northern Communities)	If total eligible project costs are \$10M or greater	If total eligible project costs are \$10M or greater	Both assessments due before first federal payment

Programs and Streams	GHG Mitigation Assessment	Climate Change Resilience Assessment	When to Submit
National Programs			
Disaster Mitigation and Adaptation Fund	All projects	The Climate Change Resilience Assessment is built into the DMAF application guide	To be submitted as part of the project application
Smart Cities Challenge	If total eligible project costs are \$10M or greater and project is a climate change mitigation project	If total eligible project costs are \$10M or greater and project is a climate change adaptation, resilience or disaster mitigation project	For DMAF projects, GHG Mitigation assessments are due before first federal payment

- Link [HERE](#)

West Coast Environmental Law – checklist for local governments

- Link [HERE](#)
- Appendix D – adaptation strategies checklist for local governments
- 11 page checklist for detailed review of climate change impacts, risks and vulnerabilities – focus areas include
 - Regional & Provincial context
 - Official Community Plan
 - Community Infrastructure
 - Asset Management
 - Emergency Planning
 - Financial Planning
 - Insurance
 - Staff Training



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Halton Hills

- Required reporting on 'Sustainability Implications' since 2011
- Sustainability encompasses cultural vibrancy, economic prosperity, environmental health and social well-being
- Contains a one page introduction followed by fillable electronic worksheet
- Link [HERE](#)



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Introduction: Sustainability Implications Worksheet

The Town of Halton Hills is committed to taking practical local actions that lead to a higher quality of life. Sustainability objectives are part of many Town initiatives, including its Strategic Plan, Economic Development Strategy, Official Plan, Cultural Master Plan, Green Plan and Community Sustainability Strategy. The Town is a partner in the Strategy's implementation, where our joint Vision to 2060 is:

"In 2060, the urban and rural communities of Halton Hills balance economic prosperity with a deep commitment to the natural environment, while retaining viable local agriculture and small-town feel, and being socially equitable, culturally vibrant and strongly connected."

Achieving this Vision is a joint responsibility that requires decisions to support the Community Sustainability Strategy. Five strategic questions are posed through the Worksheet that will assist you in establishing a relationship between your actions and the Strategy. An "action" can be a new policy, procedure or plan. It can be a new equipment purchase or facility expansion. It can be a planning recommendation, Terms of Reference for your project, a Town event or many other types of action.

The Community Sustainability Strategy positions the Town as a sustainability leader. It helps integrate sustainability into the Town's decision making, plans, policies and other initiatives. The Strategy is divided into four 'pillars of sustainability': (i) Cultural Vibrancy; (ii) Economic Prosperity; (iii) Environmental Health and (iv) Social Well-Being. It has 167 goals.

The Worksheet is a practical tool designed to help you. It should take approximately 10 minutes to complete. These five steps can help:

1. Browse the Community Sustainability Strategy.
2. Contact the Office of Sustainability with any questions.
3. Complete the Worksheet (five simple steps – see the Worksheet).
4. Briefly summarize your findings in the "Sustainability Implications" section of your report.
5. Keep a copy of the completed Worksheet for your records.

Resources:

- Community Sustainability Strategy: www.haltonhills.ca/initiatives/Sustainability-Strategy.php
- Green Plan: www.haltonhills.ca/initiatives/greenplan.php
- Strategic Plan: www.haltonhills.ca/initiatives/strat-plan.php
- Youth Needs Study: www.haltonhills.ca/initiatives/YouthStudy.php
- Cultural Master Plan: <http://www.haltonhills.ca/initiatives>
- Mayor's Community Energy Plan: www.haltonhills.ca/initiatives/CommunityEnergyPlan.php
- Green Building Standard: www.haltonhills.ca/initiatives/GreenBuildingStudy.php
- Cycling Master Plan: www.haltonhills.ca/initiatives/cyclingMP.php
- Economic Development Strategy: www.haltonhills.ca/initiatives/EconomicDevelopmentMP.php
- Pedestrian Charter: www.haltonhills.ca/initiatives/PedestrianCharter.php
- Official Plan: www.haltonhills.ca/officialplan/index.php
- Transportation Master Plan: www.haltonhills.ca/initiatives/tmp.php

Halton Hills



Part 2 of 3



Worksheet: Sustainability Implications

Please complete this Worksheet in the early stages of your project. Follow these five simple steps:

Step 1: How does your recommended action(s) support the Vision of the Community Sustainability Strategy? (If you find it easier, you may wish to complete Steps 2 to 5 first, and then return to Step 1)



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Step 2: Which pillar(s) of sustainability does your recommended action(s) support?

Which Themes and Goals are being supported? Check all that apply.

- | | |
|---|--|
| <input type="checkbox"/> Cultural Vibrancy | → If yes, check applicable Themes below. |
| <input type="checkbox"/> Economic Prosperity | → If yes, check applicable Themes below. |
| <input type="checkbox"/> Environmental Health | → If yes, check applicable Themes below. |
| <input type="checkbox"/> Social Well-Being | → If yes, check applicable Themes below. |

CULTURAL VIBRANCY

- ☐ Strong Sense of Community
- ☐ Highly Engaged Citizens
- ☐ Inclusive to Youth
- ☐ Vital Arts & Culture Sectors
- ☐ Inviting Parks and Trails
- ☐ Diverse Recreation & Sports
- ☐ Valued Heritage Legacy
- ☐ Leading Edge Libraries

ECONOMIC PROSPERITY

- ☐ Diversified & Resilient Economy
- ☐ Vibrant Food & Agricultural Sector
- ☐ Tourism
- ☐ Balanced Tax Base
- ☐ Knowledge-Based Industry, Research, Innovation
- ☐ Active & Vibrant Creative Sector
- ☐ Live-Work Opportunities
- ☐ Green Economy
- ☐ Infrastructure

ENVIRONMENTAL HEALTH

- ☐ Natural Heritage
- ☐ Water
- ☐ Air Quality & Greenhouse Gas Emissions
- ☐ Land Use
- ☐ Biodiversity
- ☐ Natural Resources
- ☐ Consumption & Waste Generation
- ☐ Energy

SOCIAL WELL-BEING

- ☐ Housing
- ☐ Transportation
- ☐ Seniors
- ☐ Social and Health Services
- ☐ Poverty
- ☐ Comfort, Safety and Inclusion
- ☐ Learning

Step 3: Does this action represent a good financial investment from a sustainability perspective? Financial decisions sometimes favour purchasing products and services with the lowest initial purchase price. However, a product that may have a lower initial purchase price may have a higher cost over its lifetime due to higher operating and maintenance costs. In recommending your action(s), did you consider:

Initial purchase price, alternative approach or best practice	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Long-term operating/maintenance costs	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Disposal costs	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Payback period	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Availability of incentives	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Overall, does this action represent a good financial investment	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

Step 4: Measuring progress helps achieve success. How have or will you measure the success of your proposed action(s)?

Step 5: Overall, how would you rate the alignment of your proposed action(s) with the Community Sustainability Strategy?

<input type="checkbox"/> Excellent	<input type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input type="checkbox"/> Fair
Your action(s) supports all four pillars of sustainability, advances at least one goal and/or theme from each of the four pillars, and supports at least one other existing sustainability-related Town plan, policy, procedure or initiative.	Your action(s) supports three of the four pillars of sustainability and at least one goal and/or theme from each of these pillars. Other Town plans, policies, procedures and/or initiatives may also be supported.	Your action(s) supports one to two of the four pillars of sustainability and at least one goal and/or theme from each of these pillars. Other Town plans, policies, procedures and/or initiatives may also be supported.	Your action(s) supports at least one existing sustainability-related Town plan, policy, procedure or initiative, but does not have a direct relationship to the Community Sustainability Strategy.

- ➔ *If you selected “Fair”, you may want to reconsider your action(s) and explore alternatives.*
- ➔ *If the proposed action may hinder the Strategy’s implementation, describe the actions which you have taken to minimize such impacts. For example, did you: (i) select different supplies; (ii) changed the project process; (iii) completed additional analysis; (iv) purchased a more efficient vehicle; (v) other?*
- ➔ *The “N/A” option should only be used in rare circumstances. For example, for reports that are not required to complete the Worksheet. See report PDS-2014-0011 for applicable report types. If you select “N/A”, please explain why in the staff report section.*

SUSTAINABILITY IMPLICATIONS:

The Town is committed to implementing our Community Sustainability Strategy, Imagine Halton Hills. Doing so will lead to a higher quality of life. The relationship between this report and the Strategy is summarized below:

Do the report's recommendations advance the Strategy's implementation?

☐ Yes ☐ No ☐ N/A

Which pillar(s) of sustainability does this report support?

☐ Cultural Vibrancy ☐ Economic Prosperity ☐ N/A

☐ Environmental Health ☐ Social Well-Being

Briefly summarize the results of your Sustainability Implications Worksheet.
If you have selected "N/A", please briefly explain why. ←[Delete this wording upon completing this section]

Overall, the alignment of this report with the Community Sustainability Strategy is:

☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ N/A

When to use Halton Hills Checklist

Not Applicable

Routine reports

Administrative, litigation, legislated reporting, personnel matters, day-to-day operational matters, basic information reports

Minor awards of tender

Minor planning applications

Applicable

Substantial reports

Major projects, studies, policies, initiatives

Major RFPs



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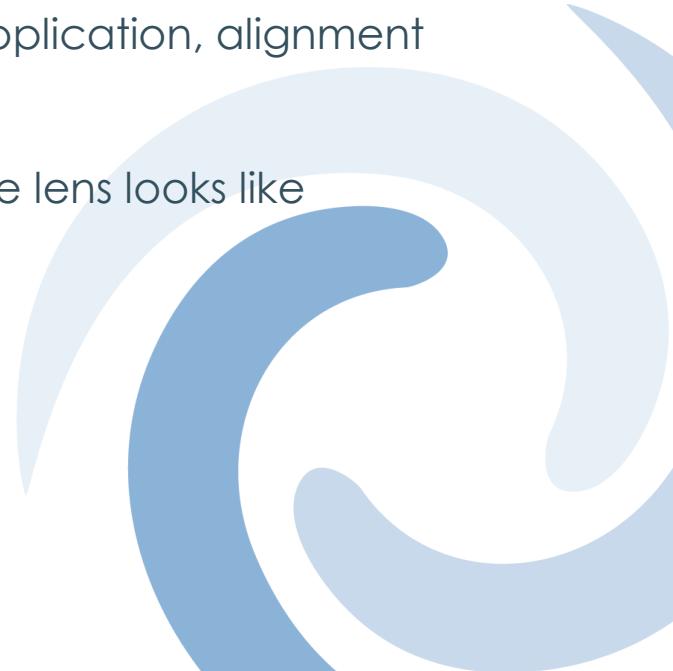


Victoria, BC

- City of Victoria – November 14, 2019. Application and Integration of the Climate Lens
- Excellent content on background, potential application, alignment with municipal priorities
- Not yet implemented – no example of what the lens looks like available
- Link [HERE](#)



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When to apply it

- OP amendments
- New policies
- Reporting requirements
- New guidelines
- Planning tools
- Departmental programs, projects and services

(City of Victoria, 2019)



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Climate Change Aspect			
A. Mitigation	Yes	No	Maybe/ Uncertain
1. Does the <i>construction or creation</i> of the Project require additional direct emissions of GHGs? (i.e. <i>construction project - Burning diesel fuel in construction equipment = Yes</i>)			
Comments/Notes (Justification for "Yes" answer):			
2. Does the <i>operation or use</i> of the Project require or promote additional direct emissions of GHGs? (i.e. <i>completed project includes diesel-powered equipment = Yes</i>)			
Comments/Notes (Justification for "Yes" answer):			
3. Does the <i>construction or creation</i> of the Project require additional indirect emissions of GHGs? (i.e. <i>emissions from manufacture and shipment of materials</i>)			
Comments/Notes (Justification for "Yes" answer):			
4. Does the <i>operation or use</i> of the Project require or promote additional indirect emissions of GHGs? (i.e. <i>project requires additional electricity for continued use/implementation = Yes</i>)			
Comments/Notes (Justification for "Yes" answer):			



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5. Does the completion of the project result in the reduction of existing GHG emissions? <i>(i.e. Yes = replacement of diesel-powered equipment with electrically-powered equipment; change in policy to encourage low-carbon alternative (i.e. active transportation); capture of otherwise released GHGs)</i>			
Comments/Notes (Justification for "No" answer):			
6. Does the project involve a net increase in vegetated land? <i>(i.e. removal of vegetated, natural area to facilitate a non-vegetated land use = No)</i>			
Comments/Notes (Justification for "No" answer):			
7. Are there opportunities within the Project to incorporate the addition of carbon sinks (tree planting, habitat restoration, innovative sources of carbon sequestration)?			
Comments/Notes (Justification for "No" answer):			

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Climate Change Aspect			
A. Adaptation	Yes	No	Maybe/ Uncertain
1. (Water) Does the Project create the requirement for additional municipal stormwater management? <i>(i.e. creating ground surfaces that do not allow stormwater infiltration = Yes)</i>			
Comments/Notes (Justification for "Yes" answer):			
2. (Water) Does the Project create potential danger for people or property during a severe downpour event? <i>(i.e. significant low-lying or contained areas under stormwater control; project in floodplain = Yes)</i>			
Comments/Notes (Justification for "Yes" answer):			
3. (Biodiversity) Does the Project require or promote the disconnection of established vegetated corridors? <i>(i.e. planning for disconnected natural areas = Yes)</i>			
Comments/Notes (Justification for "Yes" answer):			



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4. (Freeze/Thaw) Does the Project have any specific material or design vulnerabilities regarding freeze-thaw cycles? <i>(i.e. open channel flows, weather-exposed materials that will wear faster = Yes)</i>			
Comments/Notes (Justification for "Yes" answer):			
5. (Heat) Does the Project exacerbate the urban heat island effect? <i>(i.e. project design blocks prevailing winds or cool air flow from watercourse; adds asphalt or other heat-absorbing surfaces = Yes)</i>			
Comments/Notes (Justification for "Yes" answer):			
6. (Biodiversity) Are there opportunities within the Project to incorporate the addition of carbon sinks (tree planting, habitat restoration, innovative sources of carbon sequestration)?			
Comments/Notes (Justification for "No" answer):			



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Questions?

- When should the climate lens be applied?
- What are the 'must have' outcomes the tool must serve?
- What are the 'would like' outcomes the tool could serve?
- What are the essential functions the tool must perform (outputs)?



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Next Steps

- Create an online climate lens reporting structure
- Already in conversation with software developer
- Looking for munis to beta test it
- Hoping to go live in Q1 2020



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