

Climate and Agricultural Protection and Financial Sustainability Implications of Growth Management Decisions



February 3rd, 2022
We will get started at 7 PM
Thanks for joining the
discussion!!!



Joining you from the *traditional territories of the Erie, Neutral, Huron-Wendat, Haudenosaunee and Mississaugas.*

This land is covered by the Dish With One Spoon Wampum Belt Covenant, which was an agreement between the Haudenosaunee and Anishinaabek to share and care for the resources around the Great Lakes.

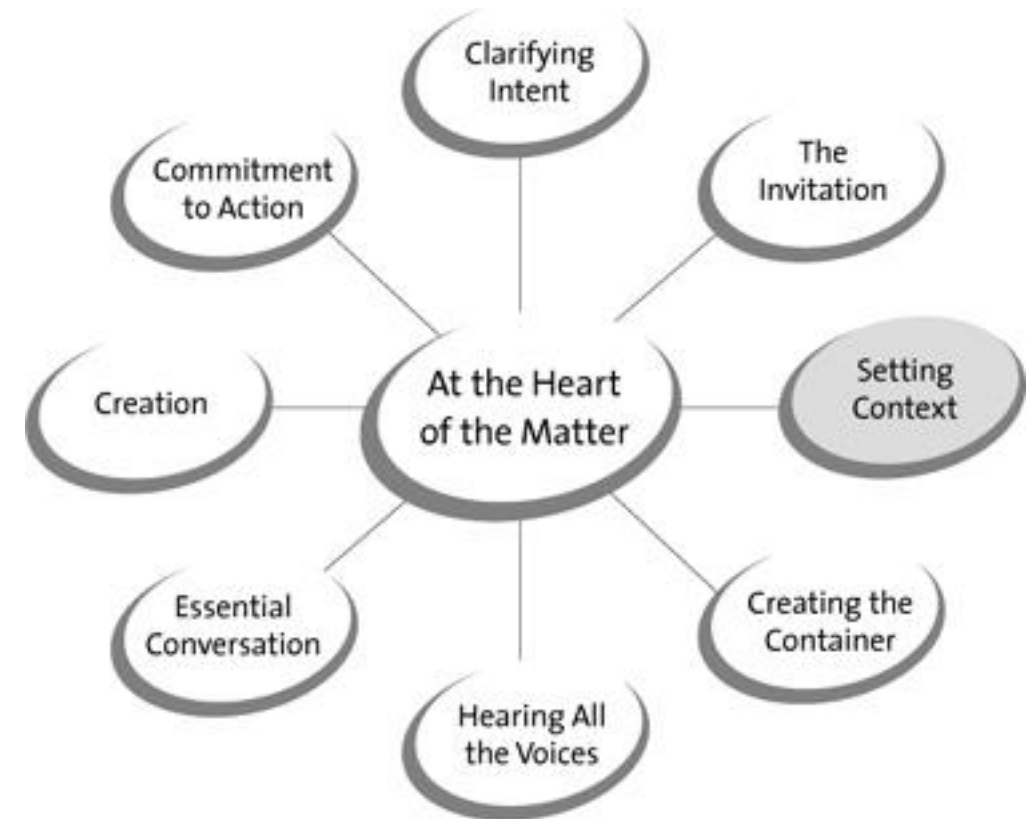


<https://www.youtube.com/watch?v=b1E-3Hb1-WA&t=46s>



Presentations:

- Gabriella Kalapos, Clean Air Partnership: Official Plan and Climate Action Planning: Why it Matters and What it Means
- Mark Reusser, OFA Vice-President: Growth Management, Climate Change and Agricultural Protections
- Krista Long, Executive Director, NFU
- Stephanie Goertz, 50by30 Waterloo Region



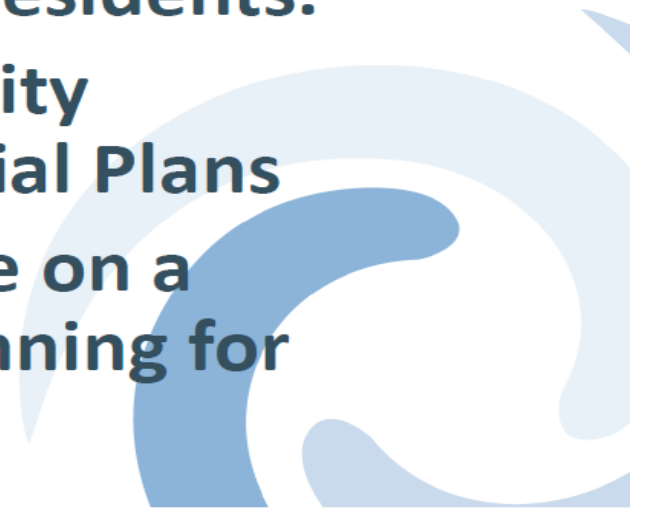
Break Out Group Discussion Questions and Rules of Engagement

1. How are the climate and agricultural implications of Official Plan updates and growth management for your community being explored/advanced?
2. What risks do you see coming from lack of climate change and agricultural land protections being incorporated into OPs and growth management decisions?
3. What are some of the opportunities for OPs to advance climate and agricultural protections within your community?
4. What do you think are actions that can enable municipalities to better improve upon their understanding of the long-term financial considerations of their growth management decisions?
5. These questions will be provided in the chat for each of the break out groups
6. Rules of engagement: Be respectful, try and give everybody time to provide their input, if someone in the group hasn't shared yet ask them if they would like to add anything. If there is disagreement, just note the area of disagreement, you don't have to reach consensus, it is about the dialogue and hearing different perspectives. Treat others as you would like to be treated.



Bringing Climate Change into Official Plans – Emerging Leading Practices

- **Local decisions about growth management significantly influences the amount of energy used, and has energy and cost implications for local governments, businesses, institutions, and residents.**
- **Local decisions about land use and community energy needs are laid out in Municipal Official Plans**
- **Considerations on impacts of climate change on a community should be considered when planning for growth and infrastructure.**





Growth Costs and Who Pays for What

- Land Use and density will impact infrastructure costs:
- To build infrastructure (new infrastructure, existing infrastructure, upgrading infrastructure) – development fees and property tax bill
- To service development (road maintenance, water services, utility services, transit, etc...) - property tax base
- To rehabilitate the infrastructure when that time inevitably comes - property tax base (possible other levels of government contributions)
- Need to bring in property tax revenue for different land types and compare to the costs of servicing and rehabilitating those land types. Costs/Income per hectare. Break down of different land use archetypes in municipality
- Thus far Growth Cost Studies have focused on building infrastructure. More focus need to take place on servicing and rehabilitation and include property tax and costs across land use archetypes.



Plan It Calgary

- Land required in 25% smaller in Recommended direction than Dispersed Scenario
- Recommended direction is 33% less expensive than dispersed scenario
- Recommended direction would be less expensive to operate and maintain over the next 60 years.
- Costs to build, maintain and replace aging streets has the largest impacts on costs. Recommended direction provides a 36% cost savings
- Reduced greenfield growth results in a 55% cost savings for water and wastewater
- <http://www.reconnectingamerica.org/assets/Uploads/planitcalgarycoststudyanalysisaprilthird.pdf>



Costs and Benefits of Alternative Growth Scenarios - Halifax

- Hypothetical Scenario A: 40% Regional Centre, 40% Suburban, 20% Rural
- Hypothetical Scenario B: 50% Regional Centre, 30% Suburban, 20% Rural
- Link to Report:
<https://www.halifax.ca/sites/default/files/documents/about-the-city/regional-community-planning/HRMGrowthScenariosFinalReportJuly82013.pdf>



Table 9.3 Summary of Scenario Costs (\$000s), HRM, 2009-2031

Service	Cumulative Costs to 2031				Differences from Post RMPS Trend			
	RMPS Goals	Post RMPS Trend	Scenario A	Scenario B	RMPS Goals	Post RMPS Trend	Scenario A	Scenario B
Water, Wastewater, and Stormwater								
- Municipal System Capital	\$1,602,853	\$1,549,469	\$1,382,235	\$1,058,255	\$53,384	\$0	-\$167,234	-\$491,214
- Municipal System O&M	\$124,708	\$120,554	\$107,543	\$82,336	\$4,153	\$0	-\$13,011	-\$38,218
- Private Water and Septic O&M	\$57,733	\$80,025	\$47,215	\$47,215	-\$22,292	\$0	-\$32,809	-\$32,809
Transportation Services								
- Local Road Capital	\$1,698,837	\$1,736,524	\$1,382,557	\$1,079,829	-\$37,687	\$0	-\$353,967	-\$656,695
- Local Road O&M	\$514,672	\$531,886	\$418,681	\$334,556	-\$17,214	\$0	-\$113,204	-\$197,330
- Regional Road Capital	\$211,680	\$239,940	\$198,360	\$172,320	-\$28,260	\$0	-\$41,580	-\$67,620
- Regional Road O&M	\$45,651	\$54,813	\$41,333	\$32,872	-\$9,161	\$0	-\$13,479	-\$21,941
- Additional Peak Trip Time	\$1,809,114	\$2,259,602	\$1,500,300	\$1,090,934	-\$450,488	\$0	-\$759,303	-\$1,168,668
- Additional Peak Trip Distance	\$971,176	\$1,196,728	\$932,052	\$757,904	-\$225,552	\$0	-\$264,676	-\$438,823
- Additional Transit Use	\$29,324	\$22,259	\$55,934	\$54,926	\$7,064	\$0	\$33,675	\$32,667
- Active Transportation	-\$19,765	-\$18,469	-\$21,170	-\$21,840	-\$1,297	\$0	-\$2,702	-\$3,371
Solid Waste Management								
- Added Solid Waste O&M	\$184,704	\$185,429	\$183,495	\$183,014	-\$724	\$0	-\$1,934	-\$2,415
- Recycling Depots Travel Distance	\$42,625	\$43,390	\$38,893	\$37,732	-\$765	\$0	-\$4,497	-\$5,658
Fire and Emergency								
- Added Service	\$232,510	\$239,899	\$220,194	\$214,981	-\$7,389	\$0	-\$19,705	-\$24,918
Police								
- Added Service	\$249,169	\$256,819	\$236,418	\$231,785	-\$7,650	\$0	-\$20,401	-\$25,034
Community Facilities and Parks								
- Added Users Travel Time	\$11,359	\$12,231	\$10,893	\$10,506	-\$873	\$0	-\$1,338	-\$1,726
- Added Users Travel Distance	\$3,748	\$4,036	\$3,595	\$3,467	-\$288	\$0	-\$442	-\$570
- Parkland Supply	\$309,400	\$199,900	\$523,700	\$715,900	\$109,500	\$0	\$323,800	\$516,000



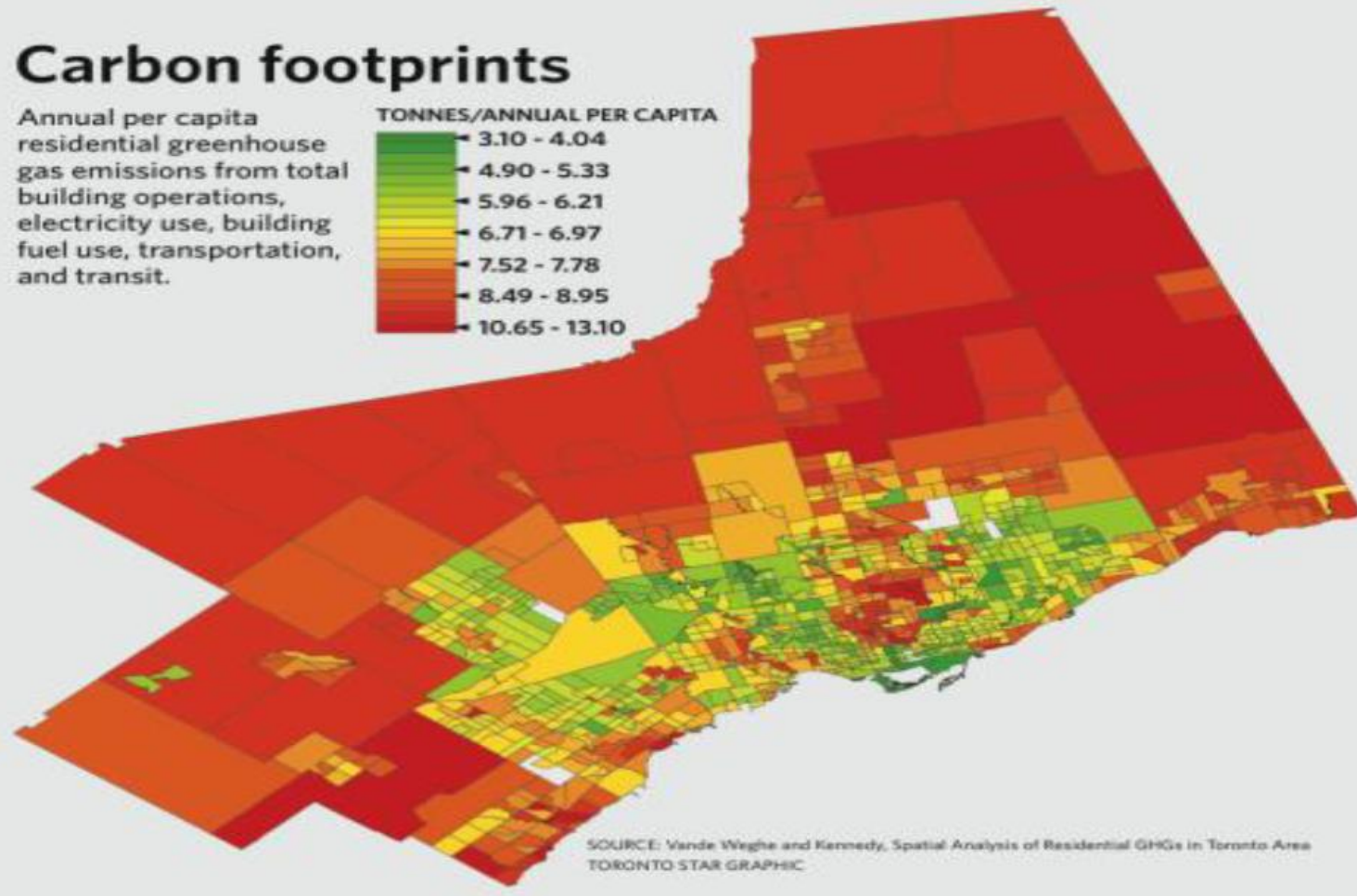
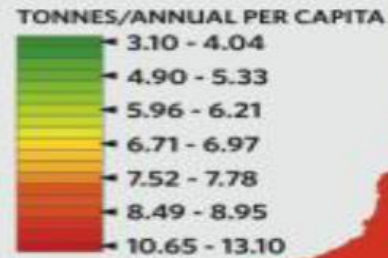
Table 9.3 Summary of Scenario Costs (\$000s), HRM, 2009-2031 (cont.)

Service	Cumulative Costs to 2031				Differences from RMPS			
	RMPS Goals	Post RMPS Trend	Scenario A	Scenario B	RMPS Goals	Post RMPS Trend	Scenario A	Scenario B
Libraries								
- Added Users Travel Time	\$29,616	\$32,089	\$25,976	\$24,597	-\$2,473	\$0	-\$6,113	-\$7,492
- Added Users Travel Distance	\$9,773	\$10,590	\$8,572	\$8,117	-\$816	\$0	-\$2,017	-\$2,472
Schools								
- User Travel Distance	\$262,365	\$275,654	\$231,179	\$223,785	-\$13,289	\$0	-\$44,475	-\$51,869
Health and Environment								
- Added User Distance	\$249,194	\$307,068	\$239,155	\$194,470	-\$57,874	\$0	-\$67,913	-\$112,598
- GHG Emissions	\$2,655,633	\$2,738,363	\$2,597,721	\$2,548,083	-\$82,730	\$0	-\$140,642	-\$190,280
- Other Health & Environment	\$135,924	\$167,492	\$130,448	\$106,075	-\$31,568	\$0	-\$37,043	-\$61,417
Private Utilities								
- Electric/Communication Capital	\$21,275	\$23,451	\$16,533	\$15,412	-\$2,176	\$0	-\$6,918	-\$8,039
- Electric/Communication O&M	\$13,068	\$14,405	\$10,155	\$9,467	-\$1,337	\$0	-\$4,249	-\$4,938
- Natural Gas Capital	\$14,831	\$10,231	\$14,972	\$17,182	\$4,600	\$0	\$4,741	\$6,952
- Natural Gas O&M	\$3,037	\$2,095	\$3,065	\$3,518	\$942	\$0	\$971	\$1,423
- Natural Gas vs. Alternatives	-\$15,254	-\$13,971	-\$17,570	-\$19,347	-\$1,283	\$0	-\$3,599	-\$5,376
Residential Construction								
- Singles and Semis	\$14,992,187	\$14,912,586	\$14,270,092	\$13,593,575	\$79,601	\$0	-\$642,495	-\$1,319,011
- Multiple unit	\$3,953,867	\$3,879,691	\$4,552,707	\$5,197,157	\$74,176	\$0	\$673,016	\$1,317,466
TOTAL COSTS	\$30,405,014	\$31,074,778	\$29,345,232	\$28,008,785	-\$669,764	\$0	-\$1,729,546	-\$3,065,993



Carbon footprints

Annual per capita residential greenhouse gas emissions from total building operations, electricity use, building fuel use, transportation, and transit.

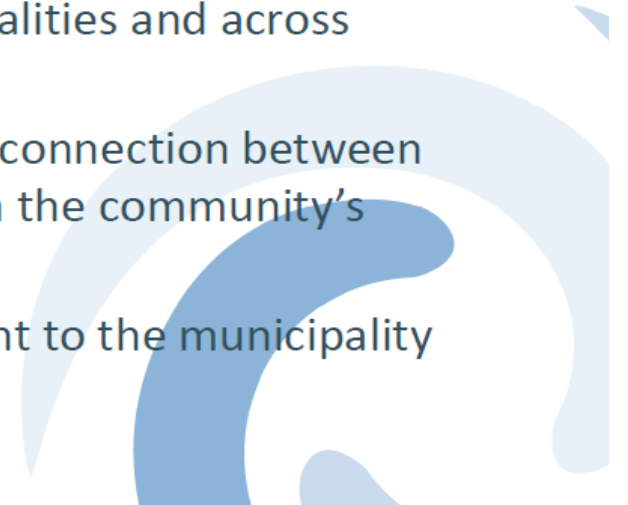


SOURCE: Vande Weghe and Kennedy, Spatial Analysis of Residential GHGs in Toronto Area
TORONTO STAR GRAPHIC



Bringing Climate Change into Official Plans – Emerging Leading Practices

- The principle of incorporating climate change into municipal decision making has been identified as a policy direction at the municipal, provincial and federal level, many municipalities are seeking additional guidance to better understand how to put this into practice.
- Clean Air Partnership organized workshops to convene municipal sustainability, planning, climate change, energy and public health staff in 2019 and 2021 to gather their input to better understand commonalities and differences in perspectives across municipalities and across departments.
- Official Plans could serve as an education opportunity for highlighting the connection between land use and growth management and the GHG emissions associated with the community's chosen land use.
- Official Plans should reference language for why climate action is important to the municipality and the importance of incorporating Climate Change into Official Plans.





Bringing Climate Change into Official Plans – Emerging Leading Practices

- Official Plans should define what climate change means to the municipality and what they see as their role, what actions would they take, and how they will report on the actions they commit to.
- There was some differentiation in perspective between planning and climate staff relating to the level of detail that the general climate change language and municipal commitment and information on priority actions.





Bringing Climate Change into Official Plans – Emerging Leading Practices

If the municipality does not yet have a Council direction to develop a Climate Action or Community Emissions Plan, then the OP should state that the municipality will develop one that will commit them to:

- Undertake an energy and greenhouse gas emission inventory;
- Set a greenhouse gas reduction target (as well as other associated targets that the municipality deems important (ex. energy avoided costs target);
- Develop a plan that outlines actions that the municipality and its stakeholders have prioritized for implementation;
- Identification of indicators on progress made towards actions and/or emissions reductions;
- The monitoring and reporting framework in place for the Plan and the timeframe associated with progress reporting; and
- Time frame and process for evaluation and updating of the Plan.





Bringing Climate Change into Official Plans – Emerging Leading Practices

If the municipality does not yet have a council direction to develop a Climate Adaptation Action Plan. The Official Plan should state the direction to develop such a Plan. The Plan itself should include:

- The context and rationale for why the municipality needs to address climate change adaptation and resilience (i.e. impacts of severe weather events);
- The scope the Plan will focus on: departmental/corporate-wide/community/sector-specific (e.g. agriculture, infrastructure);
- The Plan itself should then identify the actions that will be undertaken to mitigate risk and vulnerabilities and build resilience to climate changes impacts;
- The monitoring and reporting framework in place for the Plan and the timeframe associated with progress reporting; and
- Timeframe and process for evaluation and updating of the Plan.





Bringing Climate Change into Official Plans – Emerging Leading Practices

If a Municipality already has a council approved Climate Mitigation/Adaptation Plan then the Climate Change integration into appropriate sections of the OP could include any of the following:

- **Possibilities for mitigation plans:** Summarize community energy and emissions; GHG targets (and any other corresponding targets); The actions that the municipality has prioritized in the Climate Action Plan; The monitoring, evaluation, progress reporting, and Plan update plan and schedule.
- **Possibilities for adaptation:** Summarize the priority risks and the priority actions to address and mitigate risk; actions; progress report and adaptation plan progress reporting, evaluation and update process and schedule.
- **Climate and Planning staff just discuss the various pros and cons of what should and should not be incorporated into the OP from the Climate Action Plans**





Beyond Official Plans: Incorporating Climate Change into Municipal Decisions Making

- While Climate Mitigation and Adaptation Plans are a critical step for municipalities, there was consensus from across municipalities and departments that that step was wholly insufficient towards the goal of integrating climate change into municipal decision making.
- Recognized that while it is very important for climate change to get integrated into OPs, that step will not be sufficient to ensure that climate change is being brought into overall municipal decision making
- Climate Change Integration into Municipal Plans
- Climate lens and Carbon Budgeting also emerging as a leading practice for Incorporating Climate Change into Official Plans





Plan Integration List

- Sustainability Plans
- Corporate and Community Energy Plans
- Air Quality Plans
- Asset Management Plans
- Strategic Plans
- Transportation and Active Transportation Plans
- Active Transportation Plans
- Water Management Plans (Stormwater Plans, Watershed Plans, Water and Waste Water Plans)
- Growth Management Plans (Growth Plan; Brownfield Plans; Urban Design Guidelines; Green Development Standards; Secondary Plans; Development Cost Studies; Community Hub/Improvement Plans)
- Natural Capital Plans: Natural Heritage Plans; Urban Forestry Plans; Invasive Species Plan
- Health Plans: Public Health Plans; Extreme Weather/Emergency Management Plans
- Economic Development Plans





Reintegration into Official Plans

- **Consultation need to occur across municipal departments to better understand the level of re-integration of climate change into OPs from each of the various municipal Plans.**
- **What is worth of OP inclusion, what is too much detail that can lead to a PITA re OP amendments.**
- **How does OP inclusion support implementation and progress monitoring and reporting?
Additional consultations need to help inform these questions.**





- You will be sent a proceedings via email.
- Thank you so much for joining tonight and providing your insight and input.

