



Climate Change Integration into Municipal Plans

Consultation Guide Discussion

Presenters:

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A Land Acknowledgement



- Clean Air Partnership acknowledges that the stolen land on which we operate is the traditional territories of the Anishinaabe - the [Mississaugas of the New Credit](#), the [Chippewas](#), the [Haudenosaunee](#), and the [Huronne-Wendat](#) peoples.



1. History and Rationale for Climate Change Integration Consultation Guide
2. Climate Change and Official Plan Integration – Updates on Examples and Approach
3. Strategic Plans
4. Asset Management Plans
5. Stormwater Plans
6. Watershed Plans
7. Water Management Plans (Water Treatment, Pumping and Wastewater)

Climate Change Integration is One of the On-Ramps to Climate Accountability



Climate Emergency
Declaration

Climate Action Plans
(Corporate, Community,
Mitigation, Adaptation
– or all together)

Climate Implication
Section in Council
Reports and Climate
Integration

Climate Lens
Application

Carbon Budgeting






Climate-related
Financial Disclosures
(TCFD) for
Municipalities

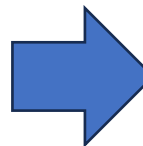




- [Integrating Climate Change into Official Plans Primer](#)
- **Case Studies of:**
- York Region
- Durham Region
- Peel Region
- Burlington
- Toronto
- Ottawa
- Any other OP updates that incorporated climate change???



-  Identify Plans that would benefit from climate change integration
-  Develop rationale for climate change integration and questions for teasing out climate implications and opportunities
-  Identify which municipalities are integrating climate change into which plans
-  Gather input on value of discussion across municipalities re climate integration in specific Plans (would cohorts be of value?)
-  Develop consultation guide rationale, questions and primer



Climate Integration/Theory of Change



6.



Facilitate sharings across CAC network on climate change integration approach across different plans

7.



Document what makes for robust climate change integration across various Plans

8.



Climate Implications in Council reports helps until climate integration in mainstreamed

9.



Increase municipal decisions that are consistent with climate commitments

10.



Integrate climate decision making into financial/budget reviews & statements (carbon budgeting and TCFD)

Climate Change Integration Inherent – we don't need to dig into these?



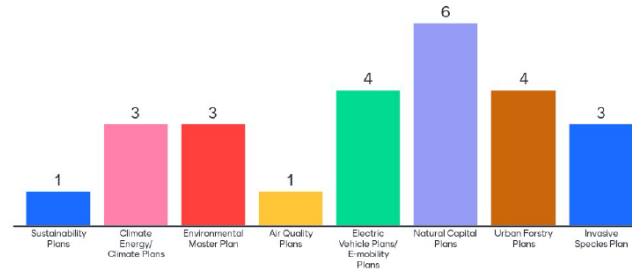
1. Sustainability Plans
2. Community Energy Plans
3. Climate Action Plans (corporate, community, mitigation and resilience)
4. Environmental Master Plans
5. Air Quality Plans
6. Electric Vehicle and E-Mobility Plans
7. Natural Capital Plans
8. Urban Forestry Plans
9. Invasive Species Plans
10. Feeling is that we don't need to work on incorporating climate change into these plans as the link is easy to make, and have a good sense of what climate change integration looks like?
11. Is that assumption true or not true?





- That assumption seems to be incorrect and that there is value in bringing the CAC network together to identify what climate change integration looks like across at least:
- Natural Capital, Urban Forestry and Electric Vehicle/E-Mobility Plans

Do you think any of the below plans need supports/guidance for climate change integration?





How do you feel about the climate change integration effort and your role in it?





- **Strategic Plans**
- **Asset Management Plans**
- **Water Management Plans: Stormwater Plans, Water and Wastewater Plans, Watershed Plans**
- **Transportation Plans: Master Plans, Active Transportation Plans, Public Transit Plans, Parking policies, Complete Streets, Vision Zero**
- Growth Management Plans and Development Cost Studies
- Community Improvement Plans
- Community Benefits Plans
- Economic Development Plans
- Other Plans that should be on the climate change integration to do list???

Strategic Plans – Climate Change Integration Rationale



1. Identifies priorities to guide municipal priorities and resource allocation and decisions.
2. Updated to correspond to council terms.
3. Ideal for climate change integration.
4. Often high level – so it isn't a Climate Action Plan, but having climate change in SP can add power to climate change considerations in Council and across departments.
5. Why else does it make sense to have climate change integrated into Strategic Plans?



Question for Advancing Climate Change Integration in Strategic Plans



1. Is climate change already mentioned in SP? If so how? How well does the SP already incorporate climate change? Strengths and weaknesses so far from perspectives across SP team.
2. Is there already a council approved Climate Action Plan? If so, how has/can Plan commitments be incorporated into the Strategic Plan? What level of detail makes sense for integration? What level is too much detail? Why? If there isn't a Climate Action Plan, should the SP identify that the municipality will develop one? What is the value of bringing that to do into the SP? Does it provide additional value over a council direction to develop a Climate Action Plan? If so, how?
3. How does the SP action climate integration? Is there reference to that in the SP? If so that would increase accountability/credibility. What level of detail/content makes sense and why?
4. Driving climate considerations at the Executive Team level. Can SPs play a role in influencing climate change integration across executive teams? If so how?
5. How can incorporating climate change into an SP help with council and senior management acting on climate change?

What Makes for a Robust CC Integration in SPs?



- A vision of our future community – what it looks like, feels like, how it functions, etc.
- One that included a climate team member in the SP team.
- One that reflects the need for an all of government approach on climate change responsibilities/integration. Thereby increasing the recognition that climate change is the responsibility of all municipal departments. And high-level themes and actions that reflect efforts across departments.
- SMART goals – transparency and clarity on the goal and actions that will be advanced to achieve stated goal.
- Values that reflect climate change are prioritized
- At this level, agree that it should not be too detailed but there should be some high-level outcomes, how it will be pushed down into actions/incorporated into decision making and how it will be reported on.
- It should focus on specific issues rather than concepts (for example focusing on specific vulnerabilities like wetlands and design specific actions to address that vulnerability).
- Incorporate commitment to decision making that incorporates a climate lens.
- Sharing of examples across the network would be of significant value.

Examples of Strategic Plans that Have Incorporated Climate Change



- City of Toronto: Climate Change identified as a priority: Tackle climate change and build resilience; and identified qualitative hoped for outcomes.
- <https://www.toronto.ca/wp-content/uploads/2019/10/9886-DS-19-0438-Corporate-Strategic-Plan-V4-MG1.pdf>
- Toronto survives, adapts, and thrives in the face of climate change; Reduce local greenhouse gas emissions, fight climate change, improve our health, grow our economy, and improve social equity; The City protects and invests in its ecosystems, natural spaces, land, air, and water; Public and private assets, infrastructure, and buildings are responsibly managed in light of the risks posed by our changing climate and are built and maintained to reduce greenhouse gas emissions; Residents and businesses take action to tackle climate change and build resilience in their neighbourhoods; A more circular economy diverts waste from landfill, reduces greenhouse gas emissions and is resilient to future challenges.
- Then identified all the Plans that serve as workplans for climate integration, action advancement.
- **Strengths and weaknesses of this approach?**



- [Durham Region: High level at first, but then drills down into actions, targets and KPIs.](#)
- Goal 1: Environmental Sustainability
- 1.4 Demonstrate leadership in sustainability and addressing climate change
- [Dashboard](#) and [pdf](#)
- Strengths and weaknesses of this approach?



- Which municipalities have updated their Strategic Plan that incorporates climate change?
- Are you willing to share your municipal approach with others?
- Which municipalities are in the process of updating their Strategic Plan to incorporate climate change? City of Waterloo, Wellington County, City of Waterloo
- Would a SP and CC integration cohort be of value.
- This could consist of meetings where municipalities share their approach and rationale for that approach.
- Halton Region and Waterloo Region were suggested as good examples to share.
- **There wasn't considered to be significant value in a SP and CC cohort but there was interest in sharings across the network on how CC has been incorporated into municipal SPs and what difference that can make to supporting climate action implementation.**
- **But municipal staff were interest in: How to ensure that climate staff person in engaged in SP update process?**



Strategic asset management policy

- 3. (1) Every municipality shall prepare a strategic asset management policy that includes the following:
...
- 5. The municipality's commitment to consider, as part of its asset management planning,
 - i. the actions that may be required to address the vulnerabilities that may be caused by climate change to the municipality's infrastructure assets, in respect of such matters as,
 - A. operations, such as increased maintenance schedules, B. levels of service, and C. lifecycle management,
 - ii. the anticipated costs that could arise from the vulnerabilities described in subparagraph i,
 - iii. adaptation opportunities that may be undertaken to manage the vulnerabilities described in subparagraph i,
 - iv. mitigation approaches to climate change, such as greenhouse gas emission reduction goals and targets, and
 - v. disaster planning and contingency funding.

Also, because it just makes sense to consider climate impacts for infrastructure that will be with us for the next 50 – 75 years, and impacts to services that can be affected by extreme weather and the need to be proactive in identifying and acting on risks.



- [FCM Guide for Integrating Climate Change Considerations into Asset Management](#)
- [AMONTario Asset Management Ontario](#)
- Will be working in partnership with AMONTario to bring together climate and asset management staff.
- **Corporate Energy Plans – Net Zero Emissions Plans – Asset Plan Integration is critical to building the business case for net zero emission builds and retrofits.**
- **Green Infrastructure and Natural Capital Integration into Asset Management**
- **The above bullets were identified as two logical places to start re CC and AM Plan integration.**
- Other areas/topics that should be prioritized?

Questions to Start the Conversation



- How is climate considered in asset management at present?
- What is the goal we are trying to achieve via climate change and asset management integration?
- What future climate data is used or should be used to inform asset management?
- How does climate risk modeling get brought into asset management?
- At what stage of the climate change and asset management integration road map is your municipality?
[See FCM Guide](#)
- How will it sequence the integration journey?
- How do corporate energy plans get integrated with asset management plan?
- How do natural capital assets get brought into asset management plans?
- If it is not incorporated, what is the time frame for incorporation?
- What other questions would be good to start the conversation?
- How does integration of climate change into assets integrate with capital forecasts and financing?
- What direction from Council could strengthen climate change integration into asset management plans?



- Transportation is a significant source of GHG emissions, recognized in Climate Action Plans, but Transportation Plans are rarely aligned with CAP reduction targets.
- Identifying the gap between GHG reduction targets and Transportation Plans is critical.
- Empowering Transportation Plans to achieve needed GHG reductions from the transportation sector.
- Integration between different Transportation Plans (AT, Transit, Parking Policies, Complete Streets, Vision Zero, EV and E-Mobility Plans).
- Incorporating climate change into Transportation Plans helps to improve land use planning decisions.



- Will this plan be a transportation master plan, or will there be separate transportation plans? If separate, how will they integrate?
- How does the transportation plan advance climate action plan transportation reductions? How aligned are the plans? What needs to be done to better align them?
- Has the Transportation Plan been quantified regarding GHG implications? That requirement can be added to RFPs.
- Has a transportation vulnerability assessment been undertaken? If not, how and when can that be undertaken? What needs to happen for it to be undertaken? Can that be integrated into a Transportation Plan RFP or is it too different from Transportation Plan consultants?
- How is transportation and land use planning being brought together?
- [London Climate Lens](#) for transportation capital decisions.
- Additional questions???



- Which municipalities feel their Transportation Plan is aligned with their Climate Action Plan transportation emission targets?
- Transform WR Transportation Subcommittee may have a case study to provide.
- Which municipalities are updating their Transportation Plans to incorporate climate change? (Richmond Hill; Region of Waterloo – Integrated Mobility Plan as an update on the Transportation Master Plan; Oakville; Halton Region (integrated Plan for transportation, wastewater and water); Kitchener, others?)
- Would a cohort be of value? If so what actions/approach do you think would provide value? (still not sure a cohort across municipalities would be of value)



How do you feel about the climate change integration effort and your role in it now? any difference?

great workshop

not crazy

more work to do

united

on the right track



- Past weather will not be future weather, future climate projections need to be brought into Stormwater Plans to reduce flood risk.
- Permeable surfaces are being lost due to development, increase impermeable surfaces need to be considered in stormwater plans.
- Stormwater ponds are found to not be as effective as hoped for re stormwater management.
- Increased recognition of the value of green infrastructure in providing stormwater services. And that with development pressures on green infrastructure these services, if lost, need to invest in increased grey infrastructure.
- Increased recognition of the role of green infrastructure in the stormwater system.
- Provincial changes to wetland protections can have an impact on the municipal stormwater system. What are the implications for the municipality?

Questions for Climate Change Integration into Stormwater Plans



- How is climate change already considered in the stormwater management plan? Strengths and weaknesses of the integration thus far from different perspectives?
- If climate change is considered (but deemed to not be robust enough) or has not yet not yet considered in your stormwater management plans, what is the timeline for integrating climate change? What approach may make the most sense and why?
- How has future climate projections been incorporated thus far into stormwater plan? What improvements would be of value and why? If it hasn't what has stopped the municipality from incorporating them.
- How would it be best to bring in future climate projections into the stormwater plan? Why do you think that approach makes the most sense?
- What level of storm events (5-year, 10-year, 25-year, 50-year, 100-year) is your stormwater infrastructure currently prepared for? What level of storm event should it be prepared for future investments?
- What extreme weather vulnerabilities currently exist in your stormwater infrastructure?
- Has your stormwater infrastructure undergone a lifecycle cost analysis, considering future climate data and its impact on maintenance schedules/severe storm events?
- Has the stormwater plan looked at the role that green infrastructure plays in the system? Can play in the system? Has cost comparisons between green and grey infrastructure been considered/calculated?



- Which municipalities think their Stormwater Plan has done a good job of in integrating climate change?
- Which municipalities are now in the process of updating their Stormwater plan to better incorporate climate change?
- What value would a cohort/sharing across those municipalities present. What may be of value to your CC integration updates? What supports may be of value?



- Takes the water plans to the system level. Explores dependencies across the watershed that can impact stormwater management as well as water quantity and quality issues.
- Looks at water management from an ecosystem perspective and looks at inter-dependencies.
- Natural features and green infrastructure provide ecological services which can mitigate impacts of climate change, and such features are typically cheaper to protect and manage compared to the lifecycle costs of traditional grey infrastructure approaches. Those natural features may be beyond the geography of a municipality, but upstream changes will impact downstream municipalities.



- Does your municipality have a watershed/sub-watershed plan? Please identify your municipality.
- If the municipality has a watershed plan does it incorporate climate change?
- If your municipality doesn't have a watershed plan, what rationale has then been for not having a watershed plan?
- Do you know of examples of watershed plans that have done a good job of incorporating climate change? If so please let us know about those examples and what you think makes it a good example of climate change integration.



- Guides development across the municipality. Inherent climate implications from development that should be considered. Ex. GHG emissions, flood risk, etc. Determines where growth will occur and where it won't occur.
- Guides density within the community. Density and land use has huge GHG implications.
- Local decisions about growth management significantly influence the amount of energy used, and has energy and cost implications for local governments, businesses, institutions and residents.
- Has environmental and financial sustainability implications that are often not considered thus far.
- Will influence permeable versus impermeable surfaces within the municipality.
- Protection of ecosystem services. Oh so many more reasons.....
- What do you think are the most important reasons???

What Costs are Considered Thus Far – Not specifically related to climate change but has financial implications that can support climate outcomes



- **Cost # 1:** To build infrastructure (new infrastructure for new growth –upfront capital costs) –Paid for by developments costs (various views on cost recovery: around 70 –90%).
- **Cost # 2:** To service development (road maintenance, water services, utility services, transit, etc.) – paid for by the property tax base.
- **Cost # 3:** To rehabilitate the infrastructure when the time inevitably comes –largely paid for by the property tax base (may also have some contributions from other level of government, but largely the property tax base).
- What about comparing those costs to property tax revenue? Which land use archetypes cover their costs? Which don't? Not simply averaging costs across the municipality (present approach). Break it down into different land use archetypes across the municipality.
- Thus far..... Growth Costs Studies have focused on upfront costs of building infrastructure. More focus needs to take place on servicing and rehabilitation costs and include property taxes and costs across land use archetypes.
- Development Cost Studies' scope can be expanded to include analysis related not only to Cost # 1 but also bring in Cost # 2 and especially Cost # 3. Not just averaged across the municipality but exploring differences across land use archetypes.



- What is the difference between an Official Plan and a Growth Plan?
- Has your municipality applied a Climate Lens to its Growth Plan? Is it aligned with Climate Action Plans? What would be required to align them?
- Do you have examples of where that climate integration into a Growth Plan has occurred? Ex. GHG quantification of the growth plan. Flood implication being considered?
- What has limited your municipality's climate integration into growth plan?
- Has climate change integration been identified within municipal growth plan RFPs? If so which municipalities?
- Is your municipality updating its Growth Plan?
- Has your municipality incorporated Low Impact Development into Development Cost Studies?
- What climate implications/costs can be incorporated into Development Costs? Ex. LID, transportation to move people, rather than vehicles, other specific considerations?



- Ontario Climate Change and Health Vulnerability and Adaptation Assessment Guidelines.