

Introduction



Corporate Asset Manager Published Author Instructor Workshop Facilitator Speaker





Canada's House of Commons has declared a national climate emergency June 17, 2019

- The motion describes climate change as a "real and urgent crisis, driven by human activity";
- Canada commits to meeting its national emissions target under the Paris Agreement and to making deeper reductions in line with the Agreement's objective of holding global warming below two degrees Celsius and pursuing efforts to keep global warming below 1.5 degrees Celsius."

CTV News





Town of Halton Hills - Climate Change Emergency, May 6 2019



THEREFORE BE IT RESOLVED that The Town of Halton Hills declare a Climate Emergency in the knowledge that this is an emergency with no foreseeable conclusion which will require permanent robust changes in how the Corporation conducts its business and a resetting of goals with respect to Engineering, Planning, Building, Recreation, Parks Libraries, Fire and Transportation Services;



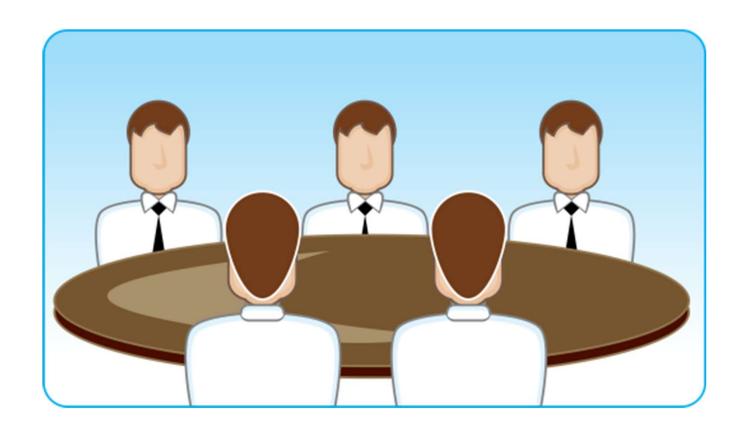






Mural attributed to Banksy (London, England, April 2019)

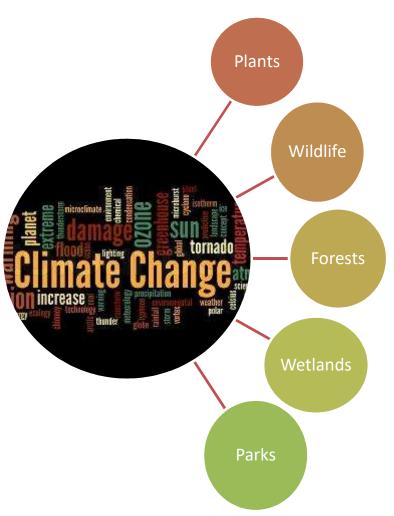








Climate Change and Natural Assets

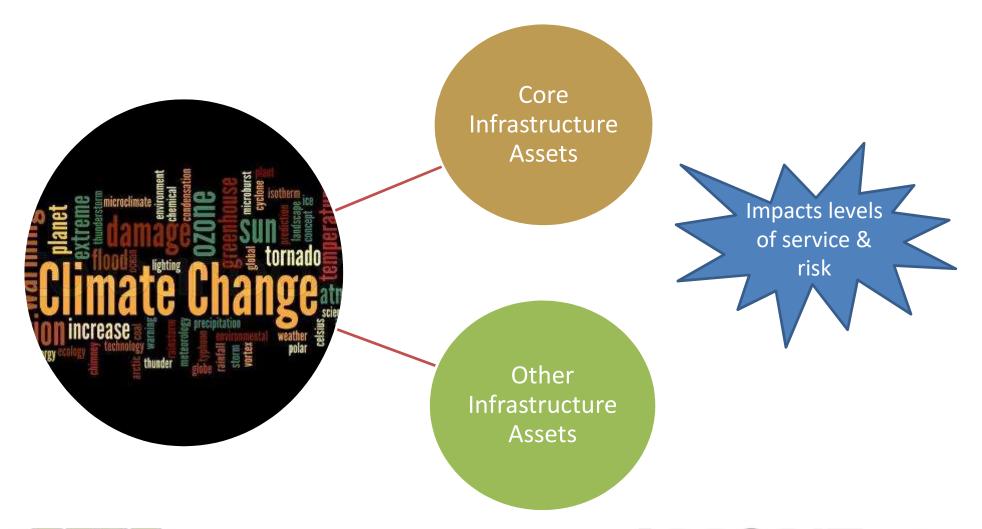








Climate Change and Infrastructure Assets

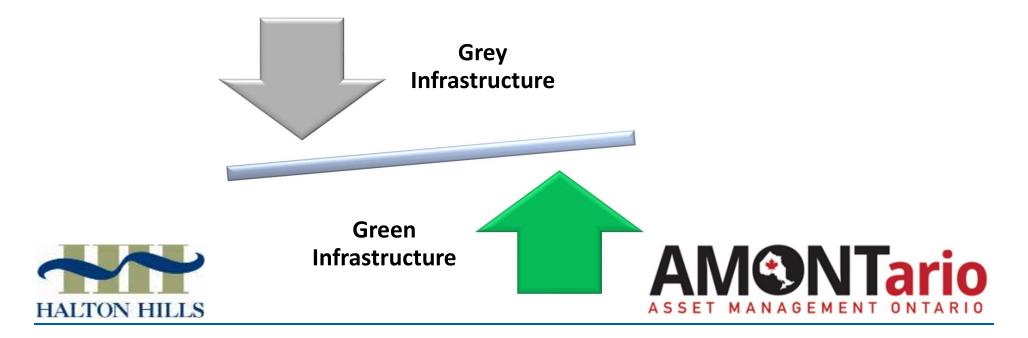






Key Considerations

- Climate change impacts in Asset Management Plans
 - Core Assets
 - All other assets
- Include Natural Assets in Asset Management Planning
- Leverage the services between grey & green infrastructure to realize best Value



Ont. Reg. 588/17 – The Regulation







Ont. Reg. 588/17 and Natural Assets

Definitions:

- <u>'municipal infrastructure asset'</u> means an infrastructure asset, **including a green infrastructure asset**, *directly* owned by a municipality or included on the consolidated financial statements of a municipality;
- 'green infrastructure asset' means an infrastructure asset consisting of natural or human-made elements that provide ecological and hydrological functions and processes and includes natural heritage features and systems, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces and green roofs;

Source: Ont. Reg. 588/17 Asset Management Panning for Municipal Infrastructure





Ont. Reg. 588/17 and Climate Change

Section 5. The municipality's commitment to consider, as part of its asset management planning:

- 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,
 - operations, such as increased maintenance schedules,
 - levels of service, and
 - lifecycle management,
- II. The anticipated costs that could arise from the vulnerabilities





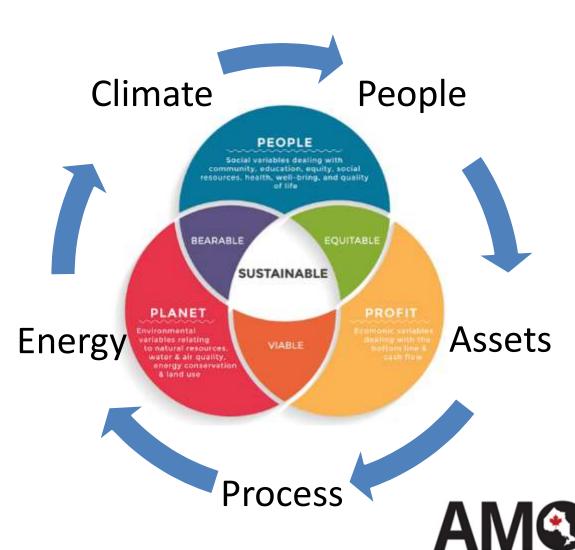
Ont. Reg. 588/17 and Climate Change

- 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.





Asset Management & Sustainability





Asset Whole Lifecycle Approach

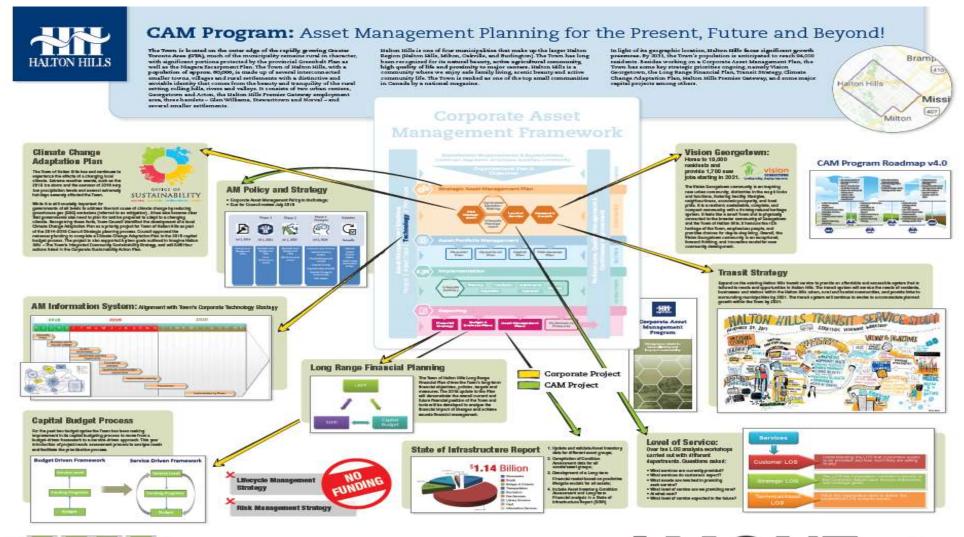
- Planning (more frequent interventions/long-term solutions)
- Designing (more resilient, capacity)
- Procuring (standards, specifications)
- Building/Constructing (building codes, materials)
- Operations/Levels of service (performance standards)
- Maintenance (type/frequency)
- Lifecycle costs
- Disposal (environmentally friendly)







What should AM Practitioners do?







Integration Opportunities

- Levels of Service Framework FCM-led Program
- Vulnerability Assessment Risk assessment framework and outcomes
- State of Infrastructure Report Include in Financial LRFP
- Climate Change Adaption Plan Include actions in operational & capital plans
- Natural Assets Inventory & Valuation Services & Management strategies
- Optimized Decision Making Framework Include Climate Change & Energy Management considerations
- Naturalized Stormwater management pilot project
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Potential Challenges

- Not enough focus on natural assets inventory assessment;
- Difficulties to evaluate natural assets and services they provide;
- Integrate natural assets in the financial accounting system;
- Paradigm shift in evaluating green assets vs. grey assets services;
- Resources and expertise to handle natural assets management;





Thank You

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