

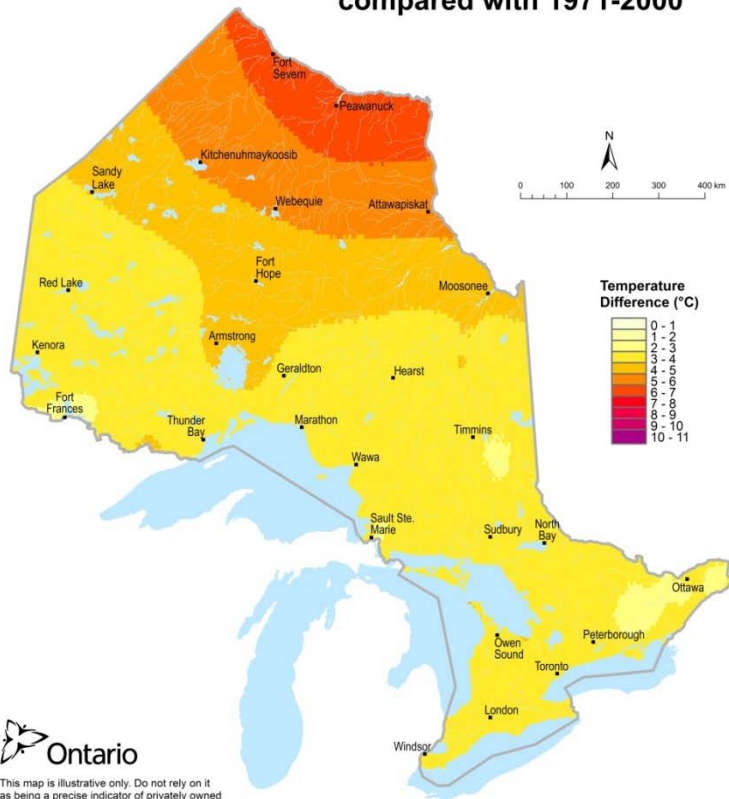


Climate Change and Ontario's Municipalities
Northwestern Regional Conference
September 22, 2016

Ministry of the Environment and Climate Change

ONTARIO'S CLIMATE CHANGE CHALLENGE

Projected difference in average winter temperatures in the 2050s compared with 1971-2000



- If no action, dramatic impacts across Ontario expected by 2050.
- Winter temperatures in the north will increase by up to 7 degrees, impacting urban, rural, and remote communities across the Province.
- Global action to reduce emissions can significantly reduce risks, but adaptation action is also critical to ensuring Ontario is resilient to impacts from climate change
- Municipalities are a key partner in both mitigation and adaptation action



This map is illustrative only. Do not rely on it as being a precise indicator of privately owned land, routes, locations of features, nor as a guide to navigation. This map may also contain cartographic errors or omissions.

Projection: MNR Lambert Conformal Conic
Datum: North American 1983

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CLIMATE CHANGE IMPACTS ARE ALREADY BEING FELT IN ONTARIO



Extreme events

- More frequent intense freezing rain and ice events, more sleet storms
- More/larger wildfires, longer fire season
- Larger and more frequent floods



Infrastructure

- More frequent extreme events is having a real impact on infrastructure in Ontario
- Historical data no longer adequate for design of infrastructure.



Forests/agriculture

- Food security impacted (including availability of traditional subsistence species)
- Forest species composition changes
- Seasonal variability impacts on agriculture



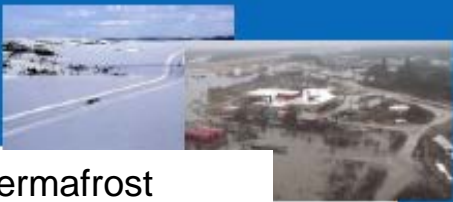
New Vector-borne illnesses

- Increase in tick-borne illnesses (Lyme disease, Ehrlichia)
- Mosquitoes (West Nile Virus, Dengue Fever, Malaria)

Impacts of Climate Change in Ontario



Spread of Spruce Budworm

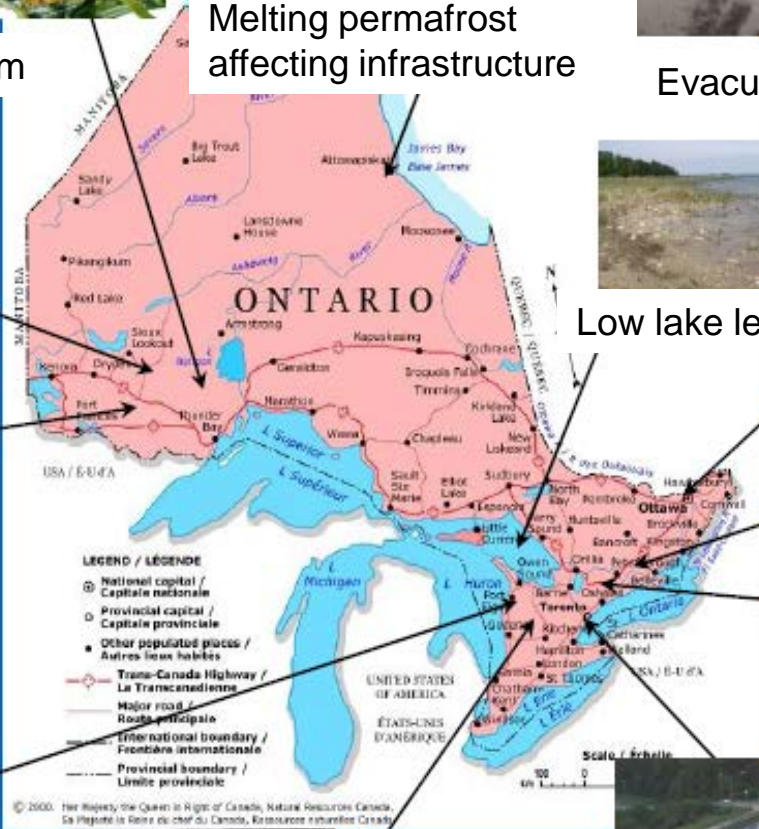


Melting permafrost affecting infrastructure

Evacuation



Dam failure



Increased forest fires



Low lake levels



Power outages



Increased flooding



West Nile Virus



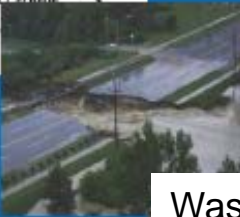
Lyme Disease



Reduced winter tourism



Crop failure



Washed out roads



Urban heat waves



ACTION TO REDUCE EMISSIONS

Ontario's Climate Change Action Plan and Cap and Trade Program

CONTEXT

- Ontario has legislatively enshrined provincial GHG targets as follows:
 - 2020 target: 15 per cent below 1990 level
 - 2030 target: 37 per cent below 1990 level
 - 2050 target: 80 per cent below 1990 level
- Ontario has already undertaken action to reduce GHG emissions. However, additional effort is required in order to reach its targets:
 - 19Mt gap to close for 2020
 - 62Mt gap to close for 2030
- Ontario's Climate Change Strategy (the Strategy), released in November 2015, outlines areas where actions need to take place and identifies the need to
 - Reduce Emissions from Key Sectors, including Transportation and Buildings
 - Demonstrate Government Collaboration & Leadership
 - Achieve Resource Efficiency & Productivity
 - Support Industry and Innovation
 - Support Adaptation and Resilience

CLIMATE CHANGE MITIGATION & LOW-CARBON ECONOMY ACT, 2016

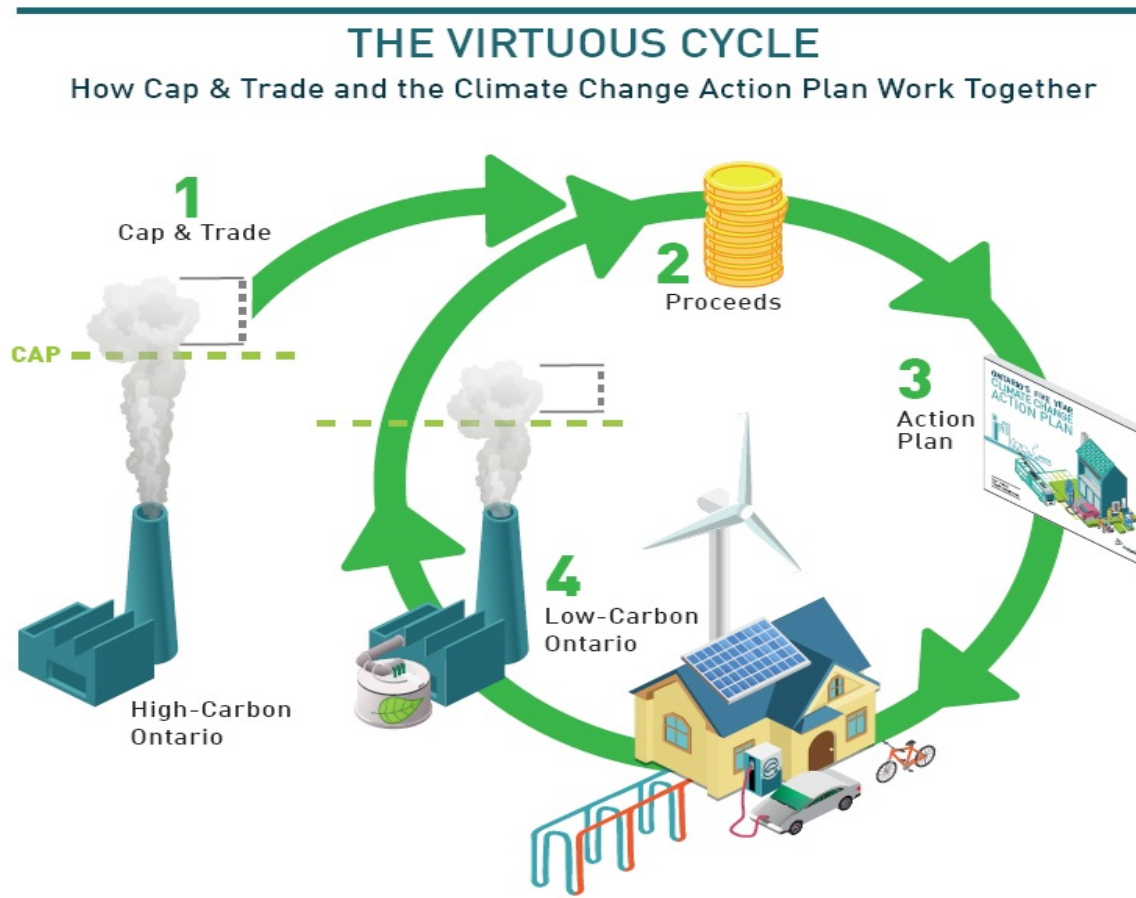
- The Climate Change Mitigation and Low-carbon Economy Act (the Act) received royal assent on May 19, 2016.
- The Act establishes a long-term framework for climate action, sets out the framework for the cap and trade program, and ensures accountability and transparency. Specifically, the Act:
 - Establishes GHG targets in a statute for 2020, 2030 and 2050.
 - Embeds government action and accountability in a statute to ensure participants and the public are fully informed through the development of an action plan.
 - Prescribes content that must be included in each action plan including:
 - Timetable for implementing each action;
 - Estimated reduction in greenhouse gases resulting from each action;
 - Assessment of the cost per tonne of the potential reduction in greenhouse gases; and
 - If an action could be funded, in whole or in part, from cap and trade program proceeds, the estimated amount of any such funding.

CAP AND TRADE AND REPORTING REGULATIONS

- On May 19, 2016 two regulations that form the backbone of the cap and trade program became law – the Cap and Trade Program Regulation (O.Reg. 144/16) and the Quantification, Reporting and Verification of Greenhouse Gas Emissions Regulation (O.Reg. 143/16),
 - The Cap and Trade Program Regulation is effective July 1, 2016
 - The Quantification, Reporting and Verification of Greenhouse Gas Emissions Regulation takes effect January 1, 2017
- The final Cap and Trade Program Regulation (O.Reg 144/16) outlines a number of program elements, including: Caps; Auction and sale rules; Strategic reserve of allowances; Market rules; Allocations.
- The new quantification, reporting and verification regulation (O.Reg 143/16):
 - Facilitates the opt-in provisions for facilities with annual emissions of 10,000-25,000 tonnes;
 - Refinements to support implementation of the Cap and Trade Regulation (e.g., process and energy use information to support the calculations for free allowances)

CLIMATE CHANGE ACTION PLAN

- The Action Plan will complement the cap-and-trade program by guiding the reinvestment of proceeds to achieve GHG reduction and manage cost impacts.



BUILDINGS & HOMES

- **Existing Buildings** – funding for energy retrofits for social housing, schools, hospitals, post-secondary institutions, heritage buildings, and in multi-tenant residential buildings, rebates for low-carbon technologies in homes, wood stove replacement program, and maximizing the degree to which new incentive programs will provide an increased benefit to low-income households.
- **New Buildings** – changes to the Building Code to increase energy efficiency now, a trajectory for achieving net zero energy efficiency in small buildings by 2030, rebates for new homes built with zero or near zero emissions.
- **Energy Use** – including prioritizing GHG reductions in the next Long-Term Energy Plan, establishing renewable natural gas requirements, expanded Green Button initiative, directing a portion of proceeds back to ratepayers, and developing options to reduce the impact on residential tenants of increased energy costs from cap and trade.
- **Market Readiness** – Home Energy Rating and Disclosure requirements, support for labour training, and expanded curricula for training and credentialing in the low-carbon buildings sector.

TRANSPORTATION

- **Lower-carbon fuel** - including boosting renewable content, assisting fuel distributors and piloting waste and agricultural methane as a fuel source
- **Electric Vehicles** – through rebates for EVs and home charging stations, HST relief, free overnight charging, older vehicle replacement program for low- and moderate-income households, significant investment in public charging stations, EV-ready homes and workplaces, showcase facility for EVs, and Electric and Hydrogen Vehicle Advancement Program.
- **Cycling and walking** – through accelerating Ontario’s Cycling Strategy, improved commuter cycling networks, increased cycling facilities and bike parking, and requiring cycling infrastructure be considered for all road and highway construction projects.
- **Low-carbon trucks and buses** – a low-carbon fuelling infrastructure initiative, a program to encourage the purchase of low-carbon commercial vehicles, and finding ways to increase the use of short-line railways.
- **Transit and Transportation Demand Management** – GO Regional Express Rail and funding for transportation demand management plans for municipalities and large employers.

LAND USE PLANNING

- **Climate Change Policies and Practices** – including empowering municipalities, prioritizing climate change in planning decisions, requiring climate change considerations in municipal official plans, and eliminating minimum parking requirements.
- **Municipal and other stakeholder climate action** – including establishing a GHG reduction challenge fund, facilitating community energy planning and mapping.
- **Reduce congestion and improve economic productivity** – help municipalities with pilot congestion management plans, reduce single passenger vehicle trips by providing grants to implement transportation demand management plans.

INDIGENOUS COMMUNITIES

- **Support First Nations communities' transition** to non-fossil fuel energy in a way that minimizes impact on the community.
- **Connect** remote communities to the provincial electricity grid.
- **Develop advanced micro-grid** solutions in First Nation communities.
- **Funding program for community-level greenhouse gas pollution reduction projects** and for community energy and climate action planning.
- **Establish First Nation and Métis Climate Change Tables** to ensure ongoing, regular discussion on shared priorities between Ontario and First Nations, and between Ontario and Métis communities.

WORKING WITH MUNICIPALITIES

- The Climate Change Action Plan envisions a significant role for municipalities in the fight against climate change.
- The Plan announced up to \$325 million to support municipal and stakeholder climate action, including:
 - Challenge Fund: a greenhouse gas emission reduction challenge fund or program
 - Community Energy Planning: funds available for development of community energy plans and climate action plans
 - Community energy mapping and platforms: government will support collaborative, community-based and data-driven approaches to carbon reduction
- Ontario will work to ensure municipalities are empowered through amendments to the Municipal Act and Planning Act, including:
 - Allowing for municipalities to change requirements for parking, including requiring electric vehicle infrastructure
 - Municipalities would be able to pass bylaws related to green standards in areas other than building construction
 - Make climate change a provincial interest, which would ensure climate change is taken into account when planning decisions are made
 - Make climate change mitigation and adaptation mandatory in official municipal plans

WORKING WITH MUNICIPALITIES (CON'T)

- Ontario will further work with municipalities to ensure they have the tools they need to pilot congestion management plans and low emission zones
- The province is also supporting municipalities in providing information on the benefits of walking and creating walkable communities, encouraging municipalities to build cycling infrastructure and larger sidewalks
- Ontario is developing guidance material to support the implementation of municipal climate change policies and will provide information on how to consider climate change in municipal programs and policies.

NEXT STEPS

Climate Change Action Plan Policy and Program Development

- Detailed policy and program design is underway for a large number of initiatives under the Action Plan.
- The public and stakeholders will be consulted and engaged on the details of initiatives to solicit their feedback.

Cap and Trade

- Finalizing amendments to Cap & Trade regulation, continuing discussions on linking and post-2020 program design.

Adaptation

- The Action Plan includes a commitment to the future release of Climate Ready (2016-2020): Progress Report and Action Plan which will highlight details on the Climate Modeling Collaborative.
- The adaptation action plan will be developed this year, and released in 2017.
- Ontario will look to work with municipalities and the Federal government to enable support for adaptation actions.

Thank You!