

Durham Community Climate Adaptation Plan – Status Report

Presentation to the Natural Environment
Climate Change Collaborative SUMMIT

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Service Excellence for our Communities

Two Streams of Activity

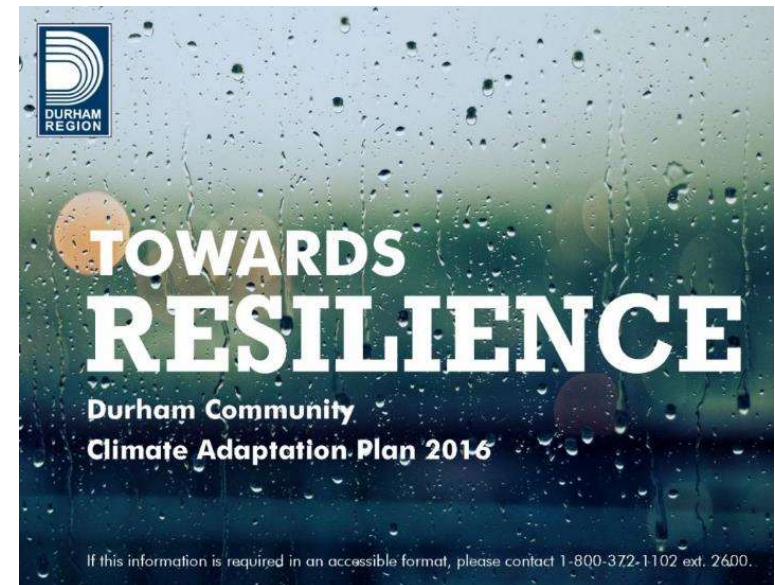
- Climate Mitigation – reducing our GHG emissions to the atmosphere
- Climate Adaptation – preparing for the inevitable changes to climate

“Climate adaptation is about managing the un-avoidable; climate mitigation is about avoiding the un-manageable”



Background

- DCCAP won FCM national climate award in February 2018
- 18 programs to be further jointly developed for approval and funding by responsible agencies; 56 next steps
- Working Groups created in June 2017 to prepare programs for consideration
- Steering Committee created in September 2017 to coordinate approvals



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Future Climate in Durham (Whitby) 2040s compared to 2010s: SENES Study



- **Warmer:** 4 °C warmer overall; 5.8 °C average in winter; 2.6 °C in summer; heat wave temps 7.1 °C warmer; humidex readings up to 54 °C
- **Wetter:** 16% more precipitation overall; 50% increase in one day max. rainfall; 100% increase in days with over 25 mm rainfall; 72% more rain in July and 79% more in Aug.; 217% more rain and 75% less snow in Feb.
- **Wilder:** more intense rainfall; 15% increase in pot'l for violent storms and 53% increase in pot'l for tornados
- Changes are locked in; typical for southern Ontario



Programs for Approval and Funding in 2018 / 2019

Five programs ready to move forward:

- Durham Climate Resilience Standard for New Houses
- Storm Water Management Fee and Credit Program
- Natural Environment Collaborative
- Maximum Temperature Regulation in Rental Units
- Roads Vulnerability Mapping

Approved by DRRCC, June 8, 2018

Approved by Steering Committee, June 14, 2018

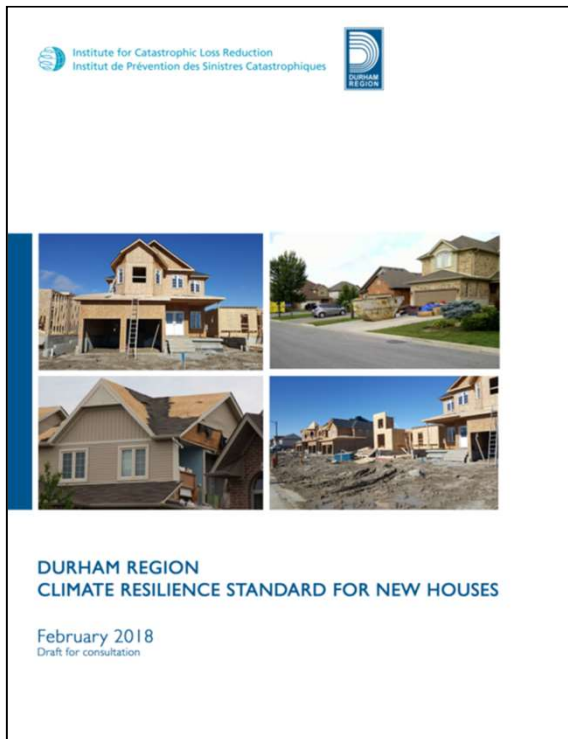
Authorized by CAOs on June 29, 2018



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1. Climate Resilience Standard for New Houses



- Proposed Standard prepared by ICLR in fall 2017
- Addresses flooding, wind and heat in new low-rise residential buildings; 42 proposed measures
- Held discussions with Durham CBOs and others
- Region has been in consultation with DRHBA, OHBA, BILD-Durham on these measures since April 2018
- Ongoing discussion with the home building industry
- Intend to return to Councils (Regional and local) in 2019 with a recommended program



2. Storm Water Management Fee and Credit Program



- This is a program to raise revenues for municipal storm water management programs
- Transfer storm water funding from property tax base to a differential user-fee on Regional water bill
- Effect is to raise SW budgets and transfer burden from residents to industrial, commercial, institutional sector
- Similar programs in Mississauga, Markham, London, Waterloo, Ottawa and Brampton
- Currently have a Regional/local municipal committee working to develop program design
- Return with detailed program design in 2019



3. Natural Environment Collaborative

- NE Collaborate is the governance structure to leverage existing knowledge and resources across the region on CC and Natural Environment
- Composed of senior staff from the Region, the 5 CAs and the 8 municipalities
- Fulfills 2 of the Next Steps in NE Program; working on other 2 next steps
- Currently underway through support of a coordinator
- Requires budget of \$50 K per year from the Region



4. Maximum Temperature Regulation in Rental Units

- To protect tenants from excessive heat (esp. in conditions of no A/C) e.g. Quebec
- Program will have to be phased in, perhaps with assistance to landlords
- Study undertaken by LURA in 2017 of maximum temperature regulation for apartments (presented to DRRCC on February 9, 2018)
- Science supports a standard of 26°C indoor temperature
- Toronto working on a sweeping program



- Note Urban Heat Island booklet – laying the groundwork
- Currently have a Regional/municipal committee working to design the program and draft model bylaw for consideration by each municipality
- Return with detailed program design in 2019



5. Roads Vulnerability Mapping

- Compiling an inventory to assess the vulnerability of Regional bridges and culverts to flooding due to climate change (see current maps)
- Developing an approach to **prioritize** bridge and culvert maintenance and replacement, including:
 - Capacity and condition
 - Emergency evacuation routes
 - Flood prone areas
 - Vulnerable populations
 - Road use / density
- This work will be integrated into Regional Works operations and compiled into a report that will be distributed to local municipalities so they may assess and prioritize their own bridges and culverts starting in 2019
- Major investments to come beyond 2019



Additional Sectors About to be Addressed

Agriculture Sector Plan almost ready

- Will be brought forward this Spring

Food Security Sector Plan under development

- Will be brought forward later this year



Issues with Implementation

- Shift from Task Forces to Working Groups has not maintained the momentum
- May be facing the “limits of voluntarism”
- “Mainstreaming” of climate adaptation activities needs to be the medium-term goal
- In short-term, need new staff resources dedicated to adaptation in regional and local governments starting in 2019
- Need consulting budgets in short-term for program design and development (~\$ 500 K in 2019 at Region)
- Need increased capital and operating budgets starting in 2020
- Need to maintain unity among local municipalities
- Need to identify next set of programs to bring forward





Durham Region Natural Environment Climate Change Summit

Brought to you by: the Natural Environment
Climate Change Collaborative, with support from
the Region of Durham and Enbridge

thank you

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