BOH19022

HAMILTON'S CLIMATE CHANGE EMERGENCY AND ACTIONS

Board of Health (BOH19022) June 17, 2019

Hamilton's Climate Change Emergency

WHAT DOES IT MEAN?

Climate change is a global and local emergency. In March 2019, Hamilton joined 435 municipal councils across the world representing 36 million citizens to declare that we need immediate action to achieve the transformative change required for our planet to prevent global averages temperature rise of 1.5°C.



GLOBAL SCIENTIFIC CONSENSUS

97% of climate scientists around the world agree that 1.5°C is the upper limit of warming we can tolerate before impacts become so great as to threaten the stability of human civilization.

They also warned, in an <u>International Panel on Climate Change (IPCC) report in October 2018</u>, that if global carbon emissions are not halved by 2030 and eliminated by 2050, we will have lost the opportunity to hold warming to that level.

WHAT'S THE BIG DEAL WITH A FEW DEGREES?

1.5°C doesn't seem like a big change, does it? But much like a human fever or disease, it doesn't take a big change in average temperature to indicate a serious problem. Similar to a fever or disease if left untreated it could become fatal.

This informative video from leading atmospheric scientist Dr. Katharine Hayhoe demonstrates why: What's the Big Deal With a Few Degrees?

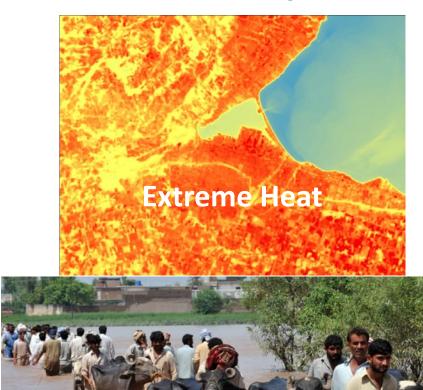




Climate Change Impacts



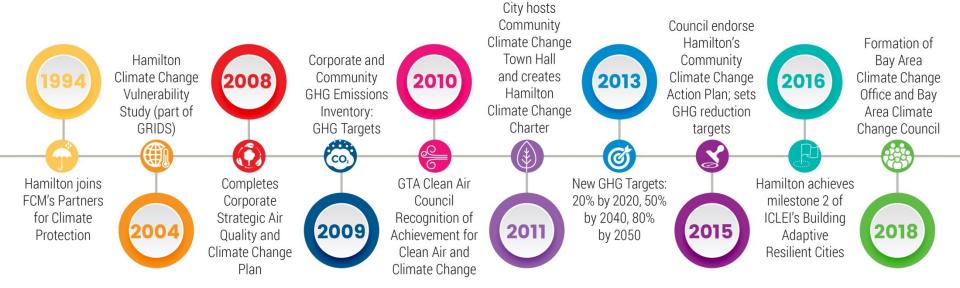




Climate Refugee Migration?



Hamilton's Climate Change Actions

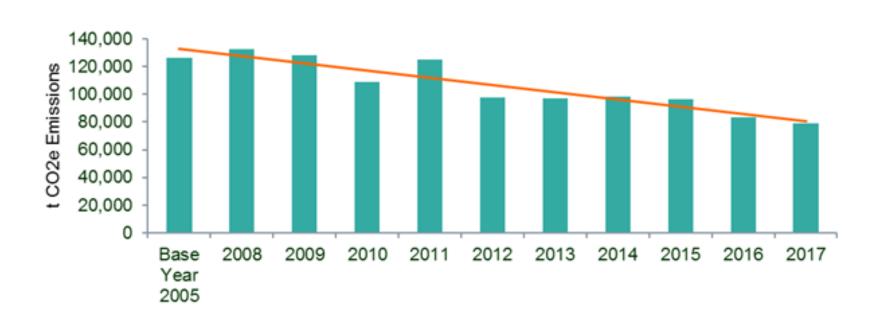


1994 2019



Hamilton's Corporate Mitigation Achievements

City of Hamilton Corporate GHG Emissions Annual Trends





Corporate Climate Change Task Force Framework

Reporting Structures

Transportation

Climate Adaptation

Industry

Planning

Procurement

Buildings

Financing

Education & Awareness



Proposed Reporting Framework

Public Works

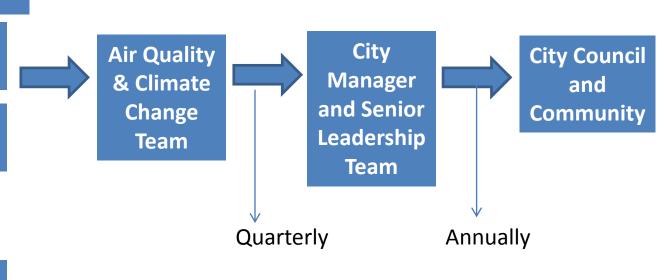
Planning & Economic Development

Healthy and Safe Communities

Finance and Corporate Services

CityHousing Hamilton

Hamilton Conservation Authority





Climate Change Adaptation







Planning

- □ Corporate Climate Change Task Force will participate in MCR and GRIDS 2 update
- Preparing to amend Urban Hamilton's Official Plan (UHOP) and Rural Hamilton's Official Plan (RHOP)

BARCELONA **ATLANTA** POPULATION The spatial configuration of a community determines its current and future GHG emissions. The durability of the patterns of built **URBAN AREA** environment and the associated infrastructure results in a phenomenon called lock-in or path dependence **EMISSIONS** 0.7 tCO2e/person (public & private transportation) (public & private transportation) Source: Transit Density: Atlanta, the United States and Western Europe. Bertaud and Richardson,

Prioritizing a complete transit connected and walkable built environment that reduces GHG emissions and improves the health of the population

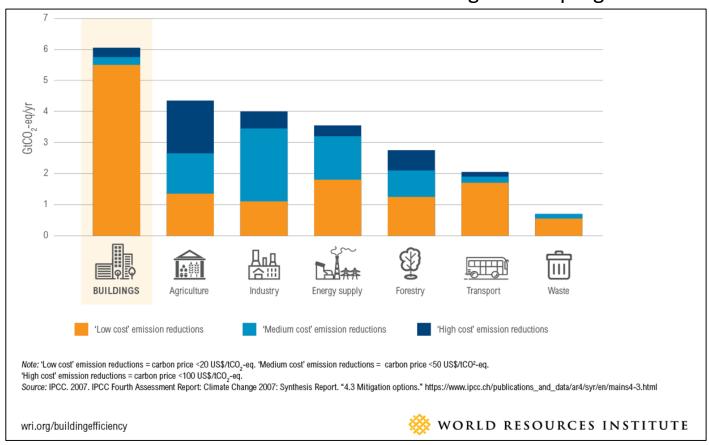


Buildings

City-Wide Community Energy Plan:

☐ Develop Green Development Standards

☐ Develop Local Improvement Charge (LIC) building retrofit program

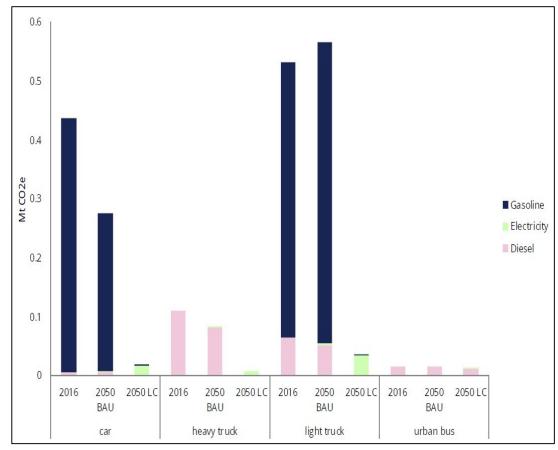




Transportation

- □ Transportation Master Plan addresses several factors towards reducing GHG emissions and improving health through:
 - ✓ Complete-Liveable-Better (CLB) Streets;
 - ✓ The Role of Health in the Built Environment
 - ✓ Future Travel Demand Modelling;
 - ✓ Sustainable Mobility Program Review; and
 - ✓ Cycle Master Plan Review
- ☐ City can lead through the Corporate Energy Plan and prioritization of zero emission vehicles

Transportation Emissions by Source & Vehicle Type



Prioritize public and active transportation networks to improve modal shift away from personal vehicles

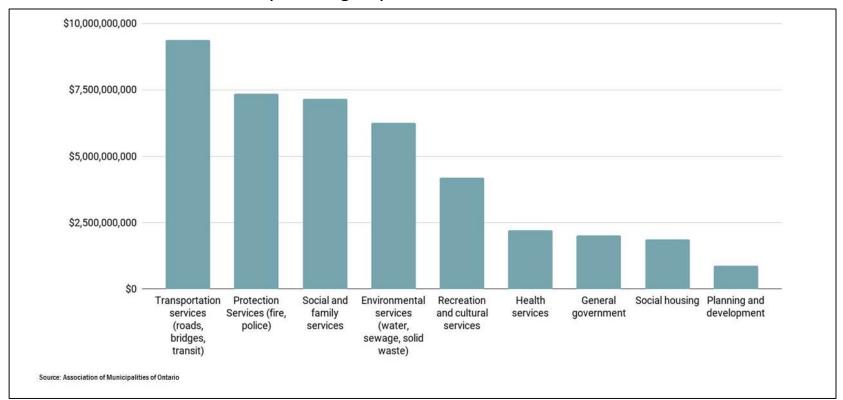




Procurement

- ☐ Social and Environmental Strategic Procurement
- Procurement process as strategic function to support city and community priorities

2015 Local Government Operating Expenditures: \$41.4B

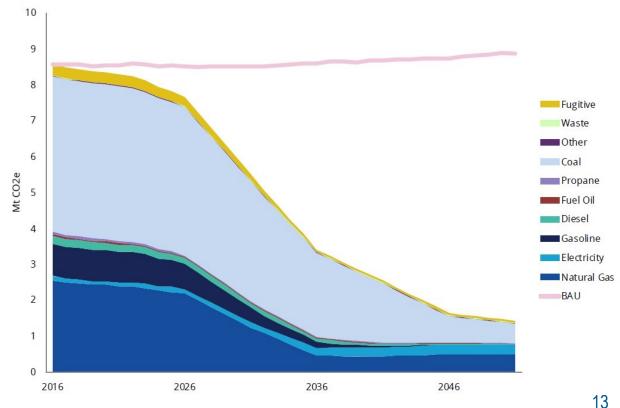




- Industrial emissions regulated by Provincial and Federal Governments
- ☐ Steel directly employs 10,000 people \$2B local procurement
- Important to partner and advocate together to higher levels of government for funding
 - ☐ Innovative low carbon solutions
 - ☐ Bio-carbons as fuel source
- Waste Heat Feasibility Study with Hamilton Chamber & Industrial partners

Industry

Projected LC Emissions (MtCO₂e) by Source, in Hamilton 2016-2050





Financing

North America

- Verizon Green Bond
- CIBC Women in Leadership Bond
- City of Toronto Green
- Debenture
- City of Ottawa Green
 Debenture
- Manulife Financial Green Bond
- Ontario Power Generation Green Bond
- Apple Inc. Green Bond
- New York MTA Green Bond
- Mexico City Government (CDMX) Green Bond
- Nacional Financiera Green & Social Bonds
- Port of Los Angeles Green Bond
- State of Connecticut Water Revolving Fund Green Bond
- Starbucks Corporation Sustainability Bond
- University of Vermont Medical Center Green Bond
- · Renovate America Green Bond

(Slide Adapted from Sustainalytics Bay Area Climate Change Summit, March 2019)

- ☐ \$8.3B of Green Bonds issued in Canada
- □ ESG Green Bond Market 128% between 2018 and 2019
- ☐ Finance key stakeholder in finding alternative financing mechanism for our zero carbon transition and climate adaptation work such as;
 - ☐ ESG Green Bond
 - ☐ Stormwater Utility Fee
 - ☐ Local Improvement Charge Program



Education and Awareness

- Bay Area Climate Change Office Community Engagement Seminar and Educational Series
- Youth Challenge International: Local Youth Climate Opportunity
- City of Hamilton Climate Change Website Development
- Utilization and Collaboration with Bay Area Climate Change Council:

Hamilton Health Sciences	Burlington Economic Development Corp
Hamilton Conservation Authority	Conservation Halton
Hamilton Industrial Environmental Association	Burlington Sustainable Development Committee
Hamilton Chamber of Commerce	Clean Air Hamilton
Environment Hamilton	Burlington Green
Sustainable Hamilton Burlington	United Way Halton & Hamilton

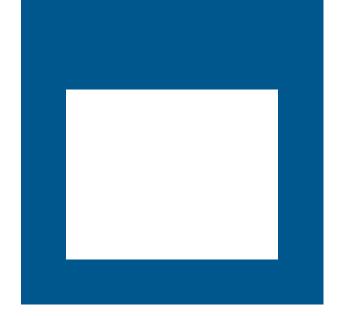


Regional Collaboration

На	milton/Burlington Communi	ity	City of Hamilton		City of Burlington
	Bay Area Climate Change Council Priority Climate Change Action Plan		☐ Updating Climate Action Plan		New Burlington ClimateAction Plan
	Bay Area Climate Change Council Priority Climate Change Action Plan		☐ New Community Energy Plan		Existing Community Energy Plan
	Bay Area Climate Change Implementation Team for Buildings		☐Green Development Standards		Green DevelopmentStandards
	Bay Area Climate Change Implementation Team for Buildings		☐ Building Energy Retrofit Program		Building Energy Retrofit Program
	Bay Area Climate Change Implementation Team for Transportation		☐ Enhancing Regional Transit Connections	†	Enhancing Regional TransitConnections
	Bay Area Climate Change Office Community Engagement Campaign	1	☐ City of Hamilton community awareness required	=	City of Burlington community awareness required

Bay Area Climate Change Partnership allows City's to leverage and advance ongoing and future climate change action





THANK YOU

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