



CITY OF HAMILTON
PUBLIC HEALTH SERVICES
Health Protection Division

TO:	Mayor and Members Board of Health
COMMITTEE DATE:	October 19, 2015
SUBJECT/REPORT NO:	Community Climate Change Action Plan (BOH15025) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Brian Montgomery (905) 546-2424, Ext. 1275
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RECOMMENDATION

- (a) That Appendix “A” attached to Report BOH15025 be endorsed; and
- (b) That Public Health Services staff be directed to work with staff from other City departments, and community members toward implementing actions identified in the Hamilton Community Climate Change Action Plan.

EXECUTIVE SUMMARY

Climate change is the altering of long-term patterns of weather from the natural and man-made releases of substantial amounts of greenhouse gases (GHGs), such as carbon dioxide, methane, nitrous oxide, etc. Human influences on the climate have significantly increased in correlation with rapid growth in industrialization.

Addressing climate change requires two types of complimentary actions; mitigation and adaptation. ‘Mitigation’ is actions taken to reduce GHGs. ‘Adaptation’ is actions taken that minimize citizen and infrastructure vulnerability to the impacts of climate change.

Hamilton has established community GHG emission reduction targets of 20% of 2006 levels by 2020, 50% reduction of 2006 levels by 2030, and 80% reduction of 2006 levels by 2050. The community has achieved the 2020 targets and community GHG emissions have been reduced by 29% (16,571,696 tonnes) in 2012 compared to 2006 GHG emissions of 23,351,712 tonnes.

We have seen climate change occur through the changes in temperature, precipitation, wind and other indicators that have already been affecting the Hamilton community – and we can expect changes in climate to continue in the future.

The Community Climate Change Action Plan outlines an approach to address climate change by the Hamilton community. It is organized into nine themes that have emerged as important areas of focus to address climate change locally (Figure 1). All themes are related and interdependent – actions supporting one area should be consistent and compatible with those in the other areas to limit unintended consequences.



Figure 1: Nine themes to address climate change in Hamilton

The Plan establishes long-term goals and directions within each of the themes to guide the community on taking climate change action. Ten priority actions have been identified for community action in the next 1 to 3 years.

The Plan cannot be implemented by one organization alone; it requires collaboration amongst multiple organizations and ongoing partnerships. The top ten priority actions are a start, but not an ends to addressing climate change in Hamilton. Ongoing efforts will be required to continually work towards achieving the GHG reduction targets and preparing the community for climate change.

Alternatives for Consideration – See Page 9

FINANCIAL – STAFFING – LEGAL IMPLICATIONS (for recommendation(s) only)Financial:

An economic analysis undertaken on the ten priority actions indicates a positive outcome on the local and regional economy of the Plan (see Appendix “B” to Report BOH15025). The local tax base would increase by \$40.9 million as Hamilton and the Province would receive tax revenues on the positive impacts. The local government is expected to increase its revenues by \$3.3 million annually. Hamilton’s income would increase by \$97.2 million while Ontario’s income would rise by \$133.5 million total. The number of expected full-time equivalent jobs is 1,643.6 FTEs in Ontario, of which 1,123.5 FTEs would be in Hamilton. The total estimate of avoided costs, which exceed \$69.1 million, represents savings to households, businesses and governments.

The development of the Community Plan was partially funded through a grant of \$46,300 under the Federation Canadian Municipalities (FCM) Green Municipal Fund (GMF Project: 13120). The full funding will not be provided unless Council approves the final Plan.

Staffing:

Currently, the Air Quality and Climate Change Co-ordinator (1.0 FTE) in Hamilton PHS coordinates and tracks the emissions reduction work in Hamilton through a Community Greenhouse Gas Emissions Inventory. This position supported by LURA Consulting undertook 14 months of community engagement on developing the Community Climate Change Plan.

A number of City departments are involved in actions that address climate change. The Air Quality and Climate Change Coordinator spends approximately half their time to support the climate change file in the City. The Community Plan recommends that an additional part-time coordinator position be established, with the overall responsibility to oversee and act as the single point of contact, based out of the City or a local community group, for the implementation of the Community Climate Change Action Plan. The formation and support of a community climate change action committee would be part of this position’s responsibility.

Staff recommend that coordination support for the Community Plan continue to be provided within the existing staff complement.

Legal:

Under legislation at both the Federal and Provincial level, the City of Hamilton is required to take action to prevent, mitigate or respond to threats to human health and safety, public property and the environment.

Thee Ontario Public Health Standards (2008) require the Board of Health to assist community partners to develop healthy policies related to reducing exposure to health hazards including air quality, extreme weather and climate change; as well as increase public awareness of air quality and climate change.

Similarly the “duty of care” incumbent up on municipalities could add weight to the argument that a municipality might be held liable for failing to consider the implications of climate change where such failure could increase the risk to its citizens. Currently two municipalities in Ontario are facing class action suits seeking damages relating to storm water management decisions and flooding impacts due to changes in climate.

HISTORICAL BACKGROUND (Chronology of events)

In December 2013, Council endorsed the development of a Community Climate Change Action Plan identified under the City of Hamilton 2012-2015 Strategic Plan (BOH13204).

Community engagement and development of the Community Climate Change Action Plan began in July 2014 and was completed in September 2015. LURA Consulting was retained to assist staff in the community engagement work and a steering committee of community members was formed in May 2014.

In July 2014, the “Let’s Talk About the Weather” community engagement campaign began with over 100 attendees helping to launch a Community Discussion Paper. The Plan had over 280 followers on Twitter through the @ClimateConvo twitter page, and more than 200 citizens were engaged in community climate change conversations at coffee shops, libraries, workshops and events throughout Hamilton in the summer and fall of 2014.

The Community Plan received support for development in the form of a grant of \$46,300 under the Federation Canadian Municipalities (FCM) Green Municipal Fund (GMF Project: 13120) (received March 2015). However, the full funding not be received until Council has approved the Plan.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Addressing climate change is recognized in the following Corporate Strategic Directions and policies:

Vision2020 – addresses the goals of improving air quality and personal health and well-being outlined in Vision 2020. The 2012 – 2015 Corporate Strategic Plan, Strategic Objective 6.1- Enhance Overall Sustainability - development of a community-based Climate Change Action Plan. Vision 2020 is currently being renewed as Our Future

Hamilton, the activities identified in the Community Climate Change Action Plan supports the community visioning of Hamilton.

PHS Departmental Business Plan – addresses the implementation of public health initiatives to support community preparedness for and response to public health emergencies (PHS Departmental Business Plan 2013 - Strategic Objective 1.6 Development of a Community Climate Change Action Plan).

City of Hamilton Official Plan - Section 3.6.2 Air Quality and Climate Change component of the City's Official Urban Plan recognizes the reduction of GHGs through several goals and policies. Recognition of adaptation to climate change is through actions or planning to minimize a city's vulnerabilities to the impacts of climate change.

Corporate Air Quality & Climate Change Strategic Plan – addresses the air quality and reduction of air pollutants and protecting health components of the Corporate Strategic Plan.

Corporate Energy Policy - targeted energy reductions in energy intensity of City-owned facilities and operations of 60% by 2050 and an interim target of 45% by 2030; Fuel efficiency in City's fleet vehicles - 20% improvement by 2030; Greenhouse Gas emissions – 80% reduction by 2050 and the interim target of 50% by 2030.

Actions on climate change also support the goals and actions of other City policies and plans including the Transportation Master Plan, the Cycling Master Plan, the Pedestrian Mobility Plan, the Water & Wastewater Master Plan, the Solid Waste Master Plan, the Hamilton Food Strategy, the Ten Year (2015 to 2024) Local Transit Strategy, the Rapid Transit Strategy, LEEDing the Way Community Improvement Project Areas, Protective Plumbing Program Grants, the Street Tree Planting Program, Hamilton Tree By-Law, and the Hamilton Vehicle Idling By-Law.

RELEVANT CONSULTATION

As described in the "Background" extensive community consultation occurred. Over 400 individuals and 91 neighbourhood associations, business and community organizations signed up and were kept informed of the process through notifications, invitations and on-line newsletters. From this engagement, over 65 individuals representing partners and citizens in Hamilton volunteered their time, energy, interest and knowledge over 10 months in developing the local actions identified in this Plan to address climate change.

The top community responses related to mitigation and response to climate change included:

- Increased education and awareness,
- More renewable resources usage and reducing emissions,

- Better infrastructure and reduction of sprawl,
- More political intervention, and
- We can do nothing.

Council and City staff members were kept informed of the process through Information Reports provided in 2014 and 2015. A draft of the Community Climate Change Action Plan was shared with Council and City Staff in August 2015.

ANALYSIS AND RATIONAL FOR RECOMMENDATION

Green House Gases (GHGs) and Hamilton

In 2012, Hamilton's main sources of GHGs were (from highest to lowest): industrial energy use, steel industry, residential energy use, transportation, and commercial energy use. Agriculture, water, and waste also generate GHG emissions, but are lower than the main sources of emissions. The Government of Ontario and the Government of Canada primarily lead regulations and programs to reduce or direct industrial GHG emissions and energy usage. Areas where we may want to focus local community action include residential energy usage, transportation and commercial energy usage (Figure 2).

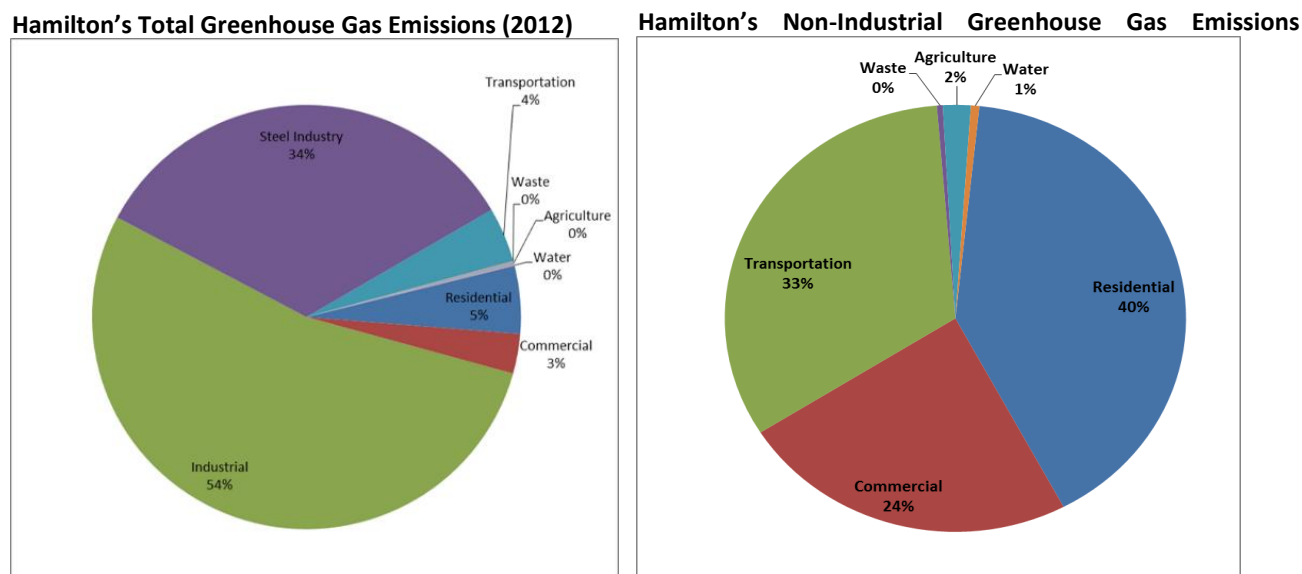


Figure 2: Hamilton's GHG Emissions breakdown, 2012

Hamilton has established community GHG emission reduction targets of 20% of 2006 levels by 2020, 50% reduction of 2006 levels by 2030, and 80% reduction of 2006 levels by 2050. Community GHG emissions have steadily declined since 2006 and have achieved the 2020 targets (Figure 3).

Community GHG emissions have been reduced by 29% (16,469,284 tonnes) in 2012 compared to 2006 emissions of 23,351,712 tonnes. These emission reductions are a result of the province's energy changes of phasing out coal generated electricity, increased energy conservation programs in electricity and natural gas, and the idling or decline of major manufacturing in Hamilton.

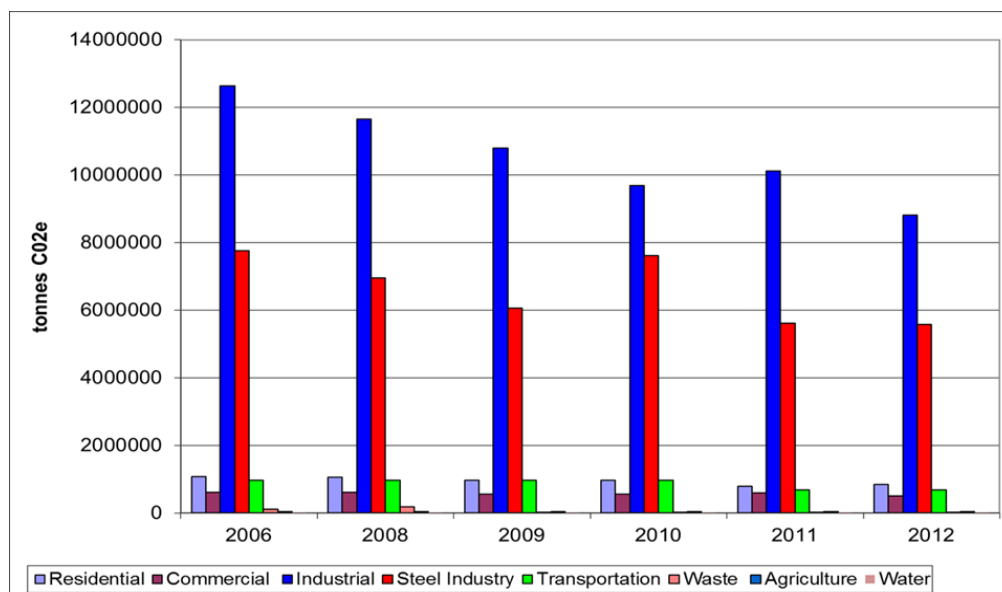


Figure 3: Trends in Hamilton's GHG Emissions 2006 to 2012

While Hamilton is making good progress on reducing GHG emissions, as evidenced by meeting 2020 targets early, this achievement is not sufficient to halt climate change; ongoing actions are necessary.

Actions identified

There are three principles of action on climate change that the Community Climate Change Action Plan addresses:

Mitigation – moderation of climate change disruption by reducing contributions to emissions (reducing emissions)

Resiliency – social and natural systems being able to respond to and recover from climate change events (flexibility)

Adaptation – adjustments to social and ecological systems to reduce vulnerability to changing situations from climate change impacts (lower risks)

The Plan identifies ten priority actions to be undertaken in the community within the next 1 to 3 years to address climate change. These are:

- Support local food production/consumption and integrate climate change mitigation/adaptation strategies into existing farm and food plans and initiatives;
- Establish an ongoing community education and awareness program/campaign for climate change;
- Develop a Community Energy Plan to guide the Hamilton community's energy future;
- Revise and update municipal infrastructure guidelines to prioritize Low Impact Development (LID) as a preferred method for storm water management;
- Establish variable development charges to reflect real costs of buildings and maintaining infrastructure;
- Create an accessible toolkit for businesses to assist with impact analysis and business continuity planning;
- Conduct a local community vulnerability assessment of public health impacts from climate change;
- Expand public transit services to include dedicated rapid transit lanes where possible;
- Secure property that serves as source water storage or preserves wildlife corridors within the catchment; and
- Establish an ongoing oversight and coordination body to guide implementation of the Hamilton Climate Change Action Plan and report back on community progress and success.

Implementation of the priority actions identified in the Plan will result in significant GHG reductions as well as increased benefits to the provincial and local Hamilton economy. A dollar spent on a local program such as on expansion of local food production or on renewable energy circulates and re-circulates within the economy, multiplying the effects of the original expenditures on overall economic activity.

The expected results of the implementation of the ten priority actions are a total annual gross reduction of about 283,467 tonnes of CO₂. The net reduction is of about 202,920 tonnes of CO₂. The difference between the gross and net reductions arises on account of added emissions by the new economic expansions generated by the expenditures on the actions and/or their savings of energy and water that are re-spent. The reduction in CO₂ gases is not the only environmental positive impact. The increased vegetation and improvement in air quality and health are also predictable outcomes of these actions.

Equally significant is the total number of full-time equivalent jobs that are expected from the impacts of the programs estimated at 1,643.6 FTEs in Ontario, of which 1,123.5 FTEs will be in Hamilton. The local tax base is expected to increase by \$40.9 million as all levels of government will reap tax revenues on the positive impacts. The local government is expected to increase its revenues by \$3.3 million annually. Local

incomes (City of Hamilton) will increase by \$97.2 million while Ontario's income would rise by \$133.5 million through the implementation of these actions.

A major indicator to note is the total estimate of avoided costs. These will exceed \$69.1 million and will represent savings to households, businesses and governments. The full economic analysis of the priority actions is attached as Appendix "B" of Report BOH15025.

Implementation

The actions and opportunities described in the Community Plan require the efforts of many members of the Hamilton community. The Plan cannot be implemented by a single organization, business, industry, or the City alone – to succeed, the Plan must be implemented by all members of the Hamilton community – and its community partners.

The Plan suggests that the City and community committee work together in a shared partnership to act as facilitators and process stewards. The role of this partnership is to guide the overall process, annual work planning and action prioritization process. This role can be supplemented through the establishment of a City Climate Change coordinator, either within the City or in a community organization.

The Partnership will coordinate and facilitate a Climate Change Action Plan (CCAP) committee of community partners that meet on a regular basis each year to reflect on the actions and opportunities completed, GHG emission reductions achieved and to look at opportunities in the future work planning and prioritizing. The committee would consist of stakeholders with broad representation across the themes within the Plan and will include those partners leading community GHG emission reduction actions.

The Plan recommends the establishment of a part-time coordinator, with the overall responsibility to oversee and act as the one-window point of contact, based out of the City or a local community group, for the implementation of the Community Climate Change Action Plan.

ALTERNATIVES FOR CONSIDERATION

(Include Financial, Staffing, Legal and Policy Implications and Pros and Cons for each alternative)

(a) Do not approve the Community Climate Change Action Plan, continue corporate actions.

Financial: Actions on climate change can have increased costs, but also result in financial savings (e.g. energy actions). Future costs of impacts of climate change will increase if no actions are undertaken.

Staffing: No change. A number of City departments are involved in actions that address climate change.

Legal: No change. Potential for future liability.

Policy Implications: Supports only actions and policies that reduce GHGs (less than 1% of local sources) and vulnerability of assets of the Corporation of the City of Hamilton.

Pros: City continues to address Corporate GHG emissions.

Cons: Corporate actions only address 1% of the GHG emissions in the community. Council endorsed undertaking and working with the community to develop the Plan. Community would see not endorsing and supporting the community on action as not supporting community concerns

This option is not recommended.

(b) Do not approve the Community Climate Change Action Plan, discontinue all City actions on climate change.

Financial: Cost savings. Future costs of impacts of climate change will increase if no actions undertaken.

Staffing: Current PHS staff complement of 0.5 FTE would be used to meet compliance under the Health Hazards Prevention and Management standard of the *Ontario Public Health Standards (2008)*.

Legal: Potential for liability.

Policy Implications: Does not support any actions and policies to reduce GHGs and vulnerability of Hamilton to climate change. Does not support commitments to actions under partnerships with other municipalities (i.e. FCM Partnership for Climate Protection, GTA Clean Air Council) or with other levels of government (i.e. Province).

Pros: None.

Cons: Does not address climate change at the local level where action can take place. Community would not support a withdrawal from action on climate change. Loss of potential investment opportunities and economic attraction of City by other levels of government and would not support the actions on climate change that the City has committed to through FCM and other multi-jurisdictional and global municipal initiatives.

This option is not recommended.

ALIGNMENT TO THE 2012 – 2015 STRATEGIC PLAN

Strategic Priority #1

A Prosperous & Healthy Community

WE enhance our image, economy and well-being by demonstrating that Hamilton is a great place to live, work, play and learn.

Strategic Objective

- 1.2 Continue to prioritize capital infrastructure projects to support managed growth and optimize community benefit.
- 1.4 Improve the City's transportation system to support multi-modal mobility and encourage inter-regional connections.
- 1.5 Support the development and implementation of neighbourhood and City wide strategies that will improve the health and well-being of residents.
- 1.6 Enhance Overall Sustainability (financial, economic, social and environmental).

Strategic Priority #2

Valued & Sustainable Services

WE deliver high quality services that meet citizen needs and expectations, in a cost effective and responsible manner.

Strategic Objective

- 2.2 Improve the City's approach to engaging and informing citizens and stakeholders.

Strategic Priority #3

Leadership & Governance

WE work together to ensure we are a government that is respectful towards each other and that the community has confidence and trust in.

Strategic Objective

- 3.1 Engage in a range of inter-governmental relations (IGR) work that will advance partnerships and projects that benefit the City of Hamilton.
- 3.2 Build organizational capacity to ensure the City has a skilled workforce that is capable and enabled to deliver its business objectives.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" - The Hamilton Community Climate Change Action Plan

Appendix "B" - The Economic Impact of Climate Action Priorities