



Hamilton

**CITY OF HAMILTON**

**PUBLIC HEALTH SERVICES  
Health Protection Division**

<b>TO:</b> Mayor and Members Board of Health	<b>WARD(S) AFFECTED:</b> CITY WIDE
<b>COMMITTEE DATE:</b> October 21, 2013	
<b>SUBJECT/REPORT NO:</b> Climate Change Actions 2012 (BOH13024) (City Wide)	
<b>SUBMITTED BY:</b> Elizabeth Richardson, MD, MHSc, FRCPC Medical Officer of Health Public Health Services Department	<b>PREPARED BY:</b> Brian Montgomery (905) 546-2424 Ext. 1275
<b>SIGNATURE:</b>	

**RECOMMENDATION**

- (a) That the City increase Hamilton’s greenhouse gas emissions targets to 80% by 2050;
- (b) That Public Works with support from the City Manager’s Office enhance the Corporate Climate Change Action Plan (PED06336(a)) to set new targets and report on progress;
- (c) That Public Health Services in partnership with community groups be directed, pending identification of a funding source, to lead the development of a Community Climate Change Action Plan to set new targets and report on progress; and

- (d) That the City Manager's Office, with support from Public Works, Emergency and Community Services, Public Health Services, Planning and Economic Development, form a working group to undertake a climate change vulnerability study and risk assessment of services and operations impacted by extreme weather events (e.g. flooding, increased temperatures, increased storms) and report back on the assessment and actions to reduce these risks.

## **EXECUTIVE SUMMARY**

Climate Change refers to the long term change in average weather patterns resulting from the release of substantial amounts of greenhouse gases (GHGs), such as carbon dioxide, methane, nitrous oxide, etc., into the planet's atmosphere. These emissions alter the chemical composition of the atmosphere, resulting in intensification of the earth's natural greenhouse effect. Scientific consensus has been reached that increased fossil fuel use and permanent forest loss since pre-industrial times has resulted in atmospheric concentrations of GHGs growing significantly, leading to accelerated changes in our climate.

Addressing climate change requires two types of complimentary actions; mitigation and adaptation. Mitigation is actions taken to reduce GHGs. Adaptation is; actions taken that minimizes citizen and infrastructure vulnerability to the impacts of climate change. Actions to date in Hamilton have been mitigative.

This report provides an update with regard to progress by the Corporation in 2012 and by the community in 2011 on reducing greenhouse gas emissions and meeting these targets and commitments under the Hamilton Community Climate Change Action Charter.

Hamilton has Corporate emission targets of a 10% reduction of 2005 GHGs levels by 2012, followed by a further 20% reduction of 2005 GHGs levels by 2020 under the Corporate Air Quality and Climate Change Strategic Plan (PED06336(a)). Community targets were established of a 10% reduction of 2006 GHGs levels by 2012 followed by a further 20% reduction of 2006 GHGs levels by 2020.

The Corporation has achieved the 2012 and 2020 targets and has reduced its emissions by 19.7% (108,433 tonnes) in 2012 compared to the 2005 emissions of 135,038 tonnes. The community has achieved the 2012 and 2020 targets and has reduced emissions by 23.1% (17,835,696 tonnes) in 2011 compared to 2006 emissions of 23,351,712 tonnes.

As 2020 corporate and community emission reduction targets have been achieved early, the City of Hamilton should support increasing of greenhouse gas emissions targets to continue its progress and leadership on climate change and energy conservation actions.

According to the Intergovernmental Panel on Climate Change (IPCC) and other international organizations, climate change is underway and the impacts of climate change are and will be severe. Even if worldwide greenhouse gas emissions were reduced immediately, global temperatures would continue to increase leading to further severe extreme weather events and impacts for cities. In Hamilton, impacts seen include extreme weather events, flooding, and increased temperatures leading to increased health risks and financial costs.

A number of local and regional governments have begun to address the risks and potential costs of extreme weather events and climate impacts through vulnerability studies and undertaking adaptive planning to identify and prepare for these impacts. A specific gap identified under the Corporate Air Quality and Climate Change Strategic Plan (PED06336(a)) was undertaking adaptive planning to reduce the risks of climate change in policies and actions.

In an effort to prepare for the effects of climate change, the City should convene a staff working group to examine the range of impacts that climate change and extreme weather events will have on the infrastructure, assets and services within the City and develop options to address the most severe of the identified impacts.

***Alternatives for Consideration – See Page 16***

<b>FINANCIAL / STAFFING / LEGAL IMPLICATIONS (for Recommendation(s) only)</b>
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**Financial:**

Public Health Services (PHS) has submitted a 2014 Capital Budget request for \$140K over two years (2014/2015) to engage and work with the Hamilton community to develop a Community Climate Change Action Plan. Denial of this Capital Budget request means no Community Climate Change Plan can be undertaken.

Staff will seek matching funding for development of Community Climate Change Action Plan through Federation of Canadian Municipalities (FCM) Green Municipal Funds. However the application requires matching funds from the municipality to apply.

Costs of developing Climate Change Community Plans in Ontario municipalities that received matching funding from FCM, ranges from \$100 to \$400K for work undertaken over 2 years.

**Staffing:**

The Air Quality and Climate Change Co-ordinator (1.0 FTE) in Hamilton PHS coordinates and tracks the emissions reduction work in Hamilton through the Corporate and Community Greenhouse Gas Emissions Inventories. No new staff is required for Hamilton PHS in developing a Community Climate Change Action Plan.

Investigation of vulnerability to climate change and adaptation requires a group of individuals to investigate and co-ordinate response to in an integrative manner that current resources can address but requires direction from Council.

**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.

For example, the City's Glanbrook Landfill Site and Woodward Avenue water and wastewater treatment facilities report on greenhouse gas emissions to the Federal and Provincial governments through the National Pollutant Release Inventory (NPRI) as required under Section 46 of the Canadian Environmental Protection Act, 1999, and Provincially under Ontario Regulation 452/09 "Greenhouse Gas Emission Reporting" enacted under the Environmental Protection Act.

Ontario Public Health Standards (2008) requires 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.

In 2011, the Province introduced new regulations (Regulations 397/11) under the Green Energy Act, 2009 for the submission of annual energy and greenhouse gas emissions by public agencies (including municipalities, municipal service boards, post-secondary educational institutions, public hospitals and school boards) as part of their energy conservation and demand management plans. Reporting by public agencies began by July 1, 2013 for 2011 operations.

As Federal and Provincial laws are subject to change, City operations and plans, including the Corporate Air Quality and Climate Change Plan may have to be updated in the future.

Similarly the "duty of care" incumbent upon 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.

The City of Hamilton is also a signatory to the Hamilton Climate Change Action Charter. The Charter is a voluntary agreement in the community.

### **HISTORICAL BACKGROUND** (Chronology of events)

In 2008, the City adopted Corporate emission targets of a 10% reduction of 2005 GHGs levels by 2012, followed by a further 20% reduction of 2005 GHGs levels by 2020 under the Corporate Air Quality and Climate Change Strategic Plan (PED06336(a)). Community targets were established of a 10% reduction of 2006 GHGs levels by 2012 followed by a further 20% reduction of 2006 GHGs levels by 2020.

In 2011, the City of Hamilton endorsed and signed the Hamilton Community Climate Change Action Charter (PED11150). This endorsement recognized Hamilton as the first municipality in Ontario with a community Climate Change Action Charter. The Hamilton Climate Change Action Charter is a voluntary agreement that outlines the need for local action and a commitment to take action on climate change from individuals, organizations and businesses of all types and sizes in Hamilton.

In 2013, the City of Hamilton achieved Milestone 5 of the FCM Partners for Climate Change Protection (PCP) Program for its corporate activities to reduce GHGs emissions. This recognition places the City of Hamilton with 15 (6%) of its peers amongst 239 members in the PCP program.

In 2013, Council requested that staff investigate revised emissions targets for greenhouse gas emissions and energy (General Issues Committee Report 13-016).

### **POLICY IMPLICATIONS/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*.

*2012 – 2015 Corporate Strategic Plan* - Strategic Objective 6.1 Enhance Overall Sustainability. The development of a community-based Climate Change Action Plan.

PHS Strategic 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

*2013 Public Health Services Departmental Business Plan - 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 20% of 2005 levels by 2020. The City's Energy Policy makes a significant contribution to achieving the goal of 20% reduction of 2005 greenhouse gas emissions by the year 2020.

Actions on climate change also support the goals and actions of other City policies including the Green Fleet Policy, Corporate Smog Response, the Transportation Master Plan, the Cycling Master Plan, the Pedestrian Master Plan, the Water & Wastewater Master Plan, and the Solid Waste Master Plan.

## **RELEVANT CONSULTATION**

The report was circulated for review and comment to Public Works (Transportation, Energy and Facilities, Operations and Waste Management, Environment and Sustainable Infrastructure), Planning and Economic Development (Planning Policy), Community and Emergency Services (Emergency Planning, Sustainability). Comments received were incorporated into the report.

## **ANALYSIS / RATIONALE FOR RECOMMENDATION**

(include Performance Measurement/Benchmarking Data, if applicable)

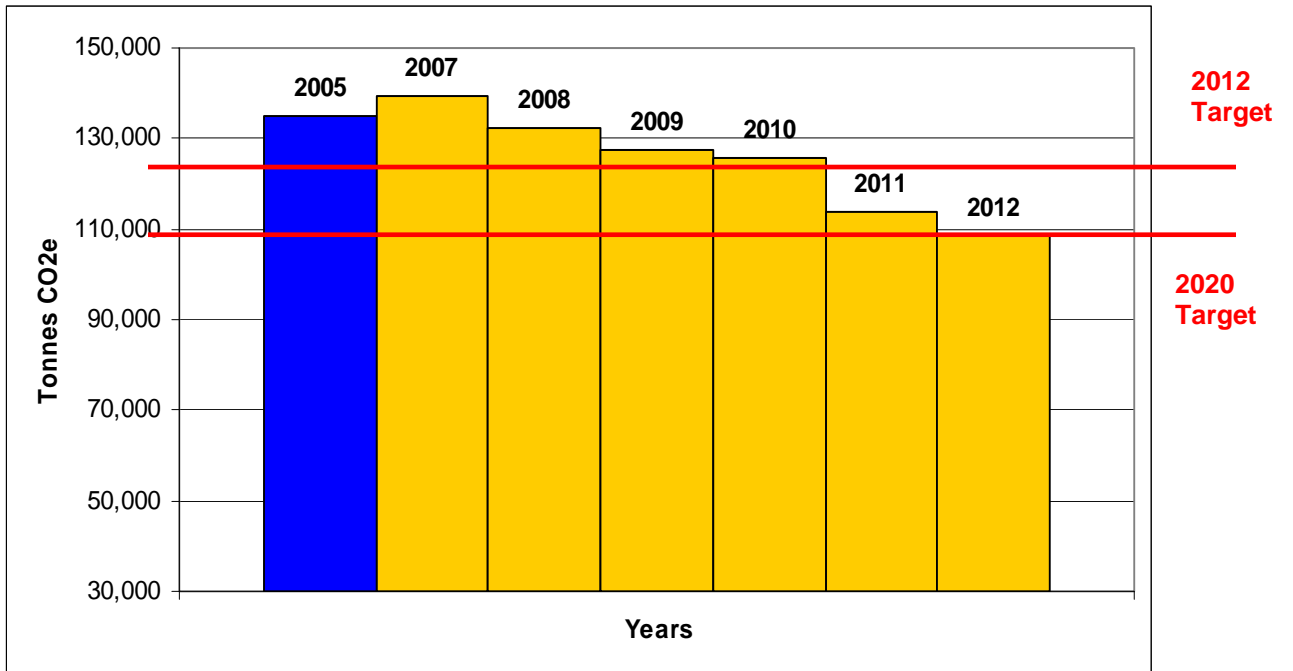
### **Mitigation**

#### ***Corporate Emission Reductions***

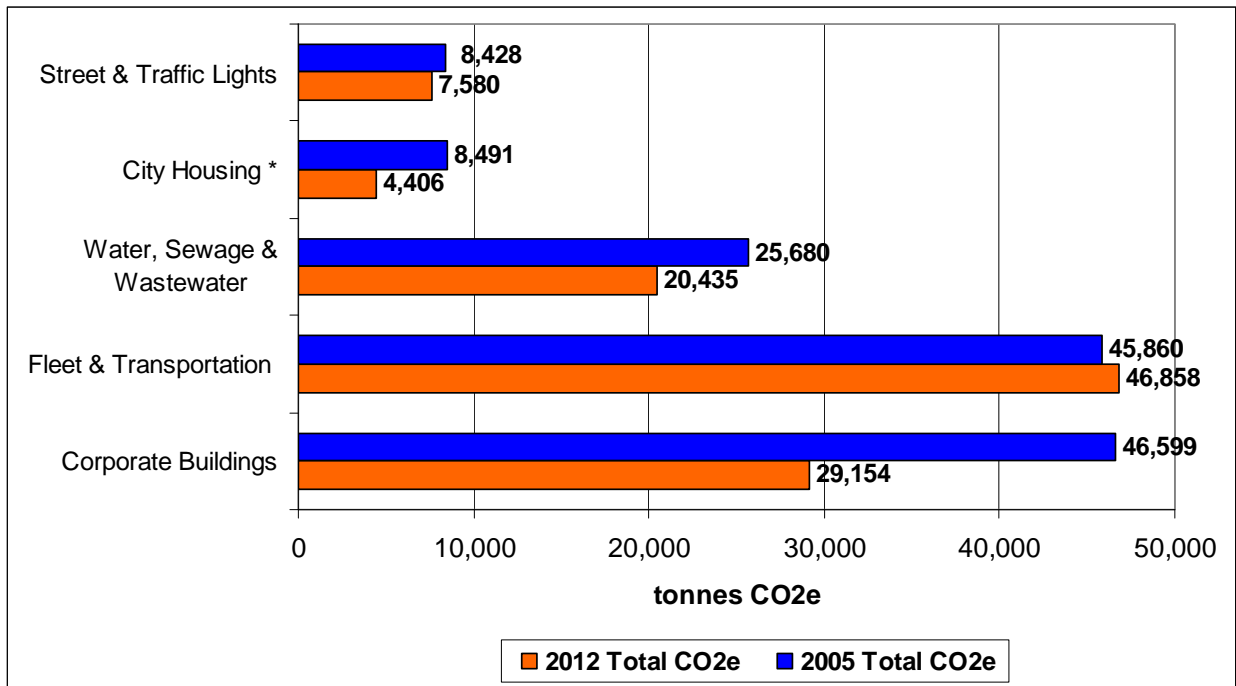
The Corporation reduced its emissions by 19.7% (108,433 tonnes) in 2012 compared to the 2005 emissions of 135,038 tonnes. This indicates that the City has exceeded its

2012 targets and is meeting its 2020 targets. The overall trend over the past six years has shown emissions declining as show in Figure 1.

**Figure 1: Municipal Emissions Yearly Trends: 2005 – 2012**



**Figure 2: Corporate Reductions on Greenhouse Gas Emissions: 2005 – 2012**



As shown in Figure 2, significant reductions have been made through energy conservation and efficiency in corporate buildings, street and traffic lighting, water and wastewater through the Corporate Energy Plan (PW07127). Since 2005, the City has reduced its energy intensity of building operations by 17% passing the 2012 targets of 7.5% and moving forward to achieving the 2020 targets of a 20% reduction (PW13033). It should be noted that facilities from Public Works, Community Services, Fire/EMS, Libraries, HECFI and Police all contribute to the energy intensity target reduction achievements. In 2012, City Housing began introducing energy saving initiatives (Report #12027 and Report #12039) that will contribute to further reductions and energy savings.<sup>i</sup>

Transportation emissions associated with the fleet have increased slightly since 2005. Fuel usage by the City fleet has increased due to increased travel distance and demands for City business and program delivery by staff. Fleet emissions are likely to continue to increase as the City has responsibility for managing and operating the Hamilton Street Railway public transit fleet. However, increased usage of public transit is an action that reduces transportation emissions in the larger Hamilton community.

The City has a number of transportation demand management programs available to employees to reduce emissions (secure bicycle parking, employee transit passes, car pooling, car sharing) (PW11069). However, very few of these programs capture measurable data in terms of emissions reductions from participants. Since 2009, employees using the Smart Commute Hamilton’s carpooling program have reduced



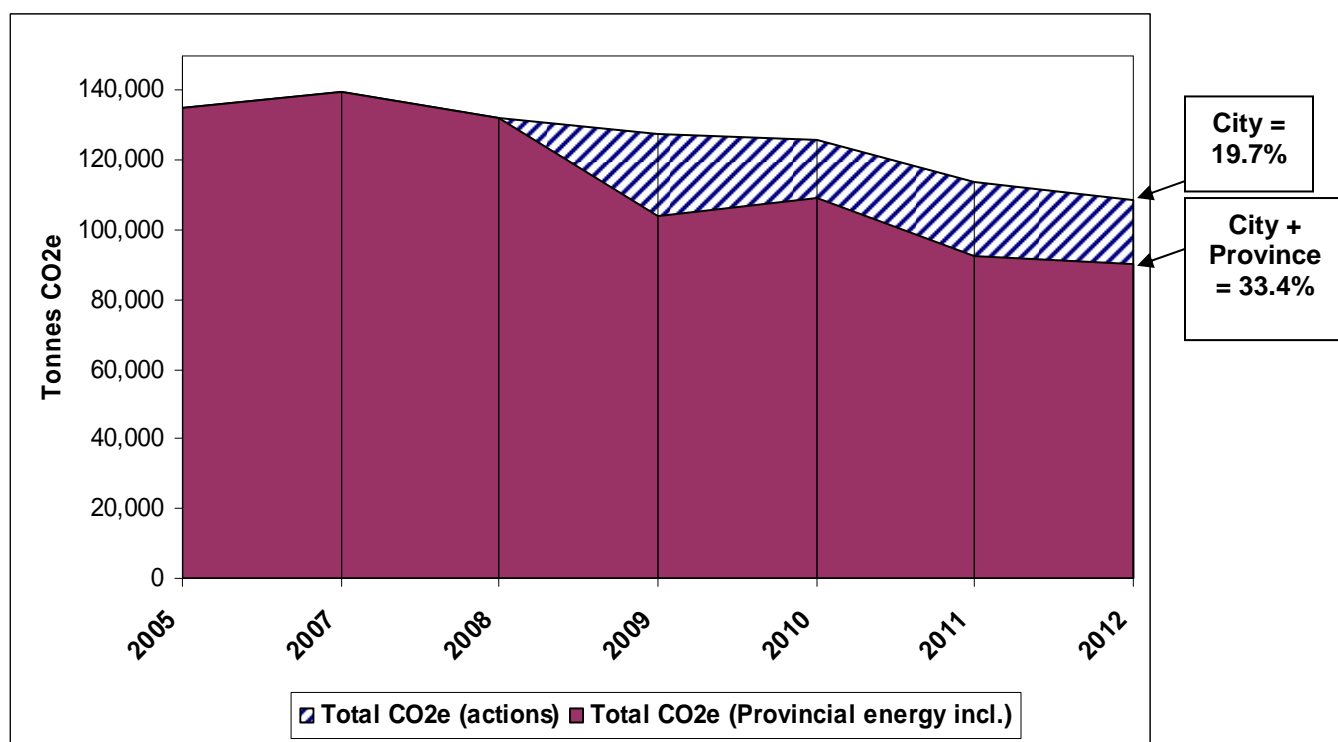
their emissions by 46 tonnes CO<sub>2</sub>e. Emissions associated with work related travel (through mileage claims) have also been reduced by 140 tonnes CO<sub>2</sub>e since 2005.

Smart Commute Hamilton should consider undertaking a survey and inventory of City of Hamilton employees active and sustainable commuting habits (such as transit, cycling and walking) to determine the emissions reduction achievements achieved by the City through all the Transportation Demand Management programs offered.

**Provincial Energy influence**

The province of Ontario continues to move away from coal-based power toward greener energy options. This compliments climate change initiatives in City operations and facilities and in the broader community. A comparison of City actions and without the changing energy mixture shows the co-benefits of actions and encouraging green energy resulting in the City exceeding the 2020 reduction targets (Figure 3).

**Figure 3: Corporate Actions on Greenhouse Gas Emissions (with and without the Provincial Energy mixture)**



However, energy mixture and usage fluctuates on a year-by-year basis. From 2005 to 2012, the average emission factor associated with the generation of electricity in the Province decreased from 0.00021 to 0.00010 t CO<sub>2</sub>e/kWh. On an annual basis, these

emission factors can change substantially. Therefore, these changes must be considered when interpreting the changes in emissions from year to year for sources consuming electricity. Figure 3 separates corporate actions from the Provincial energy mixture to identify where the Corporation’s actions alone are resulting in 19.7% emissions reductions compared to 33.4% emissions reductions with the inclusion of the Province’s energy mixture.

The 2012 drop in emissions has been heavily influenced by a reduced demand for electrical energy due to energy conservation, peak demand pricing and the movement away from coal-generated energy sources. Overall in Ontario total energy demand, measured in TWh = terawatt hour or  $10^{12}$ , was - 0.14% (141.3 TWh) in 2012 and - 0.35% (141.5 TWh) in 2010 compared to -3.8% (151 TWh) in 2006.<sup>ii</sup> The 2012 Provincial energy mixture (Table 1) showed coal generated energy dropping to 2.8% compared to 14.5% in 2008.

**Table 1: Ontario Energy Mixture 2008 to 2012 by Percentage**

Year	Nuclear	Hydro	Coal	Gas	Wind & Other
<b>2012</b>	56.4%	22.3%	2.8%	14.6%	3.8%
<b>2011</b>	57.0 %	22.0 %	3.0 %	15.0 %	3.4 %
<b>2010</b>	55.0 %	20.4 %	8.3 %	13.6 %	2.7 %
<b>2009</b>	55.2 %	25.5 %	6.6 %	10.3 %	2.4 %
<b>2008</b>	53.0 %	24.1 %	14.5 %	6.9 %	1.5 %

Source: <http://www.ieso.ca/>

Compared to 2006, coal-generated energy is decreasing while nuclear, hydro, natural gas, wind and other sources are increasing resulting in some reductions of harmful air and greenhouse gas pollutants.

Hamilton electricity consumption appears to have steadily declined 12.5% from 2006 to 2011 due to energy conservation and demand programs while customer levels have increased. Trends in natural gas consumption show an increase up to 2009 and then a decline matching 2006 consumption levels in 2011.

According to the Government of Canada, the year 2011 witnessed an increase in demand for industrial output when compared to 2010, and hence an increase in greenhouse gas emissions from manufacturing, particularly in Ontario. However, over the same period emissions from the electricity sector in Ontario decreased by 4,800,000

tonnes (24%). Overall, Ontario's electricity sector experienced a decrease of 19,000,000 tonnes (56%) from its 2005 emissions, largely due to the closures of coal plants.<sup>iii</sup>

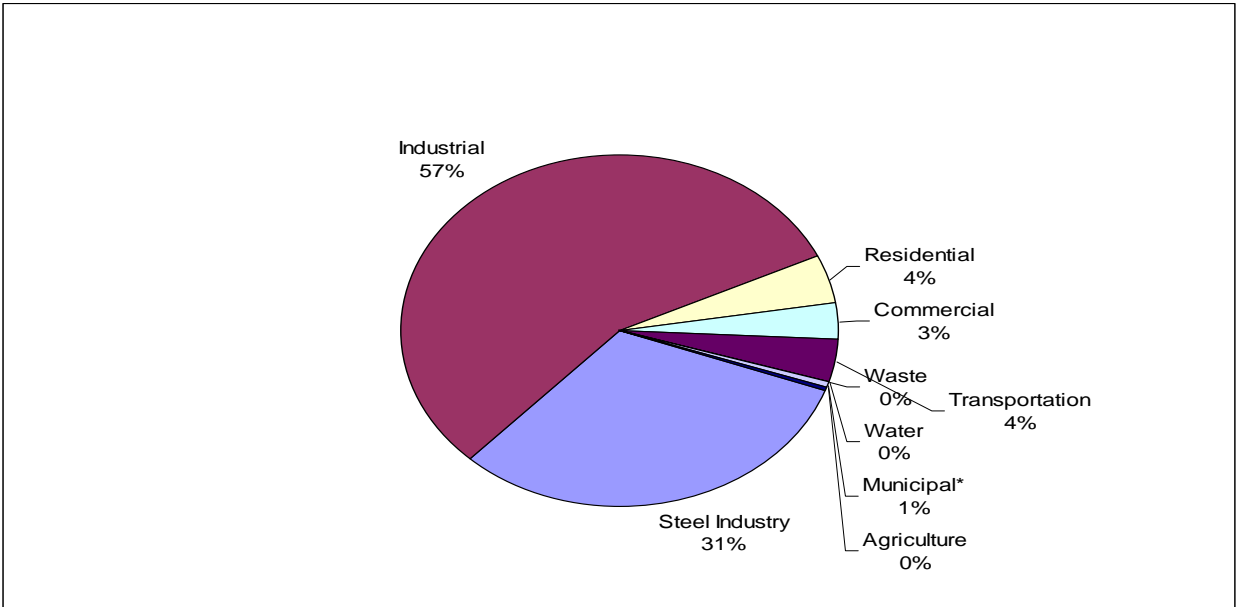
**Community Emission Reductions**

In 2011 community emissions were estimated at 17,835,696 tonnes, a reduction of 23.1% from 2006 emissions levels (estimated at 23,351,712 tonnes). These changes occurred due to the capturing of energy from methane emissions from the Glanbrook landfill, reduced energy demand and shifting of energy from coal as part of the Province's actions towards the phasing out of coal in Ontario's energy mixture sources by 2014, a reduction in steel manufacturing, and changing commuting habits and locations of employment.

Translated into per capita emissions, the Hamilton community has decreased its emissions by 26% from an estimated 46 tonnes CO<sub>2</sub>e/person in 2006 to an estimated 34 tonnes CO<sub>2</sub>e/person in 2011 while population has increased 3%.

Figure 4 identifies the sources of local greenhouse gas emissions and includes both community and municipal emissions. Municipal operations represent only 1% of the total emissions in the community. However, municipal policies influence greenhouse gas emissions from waste, transportation, residential, commercial and industrial buildings.

**Figure 4: Total Greenhouse Gas Emissions Corporate and Community, 2011**



As seen in Figure 5, greenhouse gas emissions have dropped since 2006 in all sectors.<sup>iv</sup>

**Figure 5: Changes in Community Emissions from 2006 to 2011**

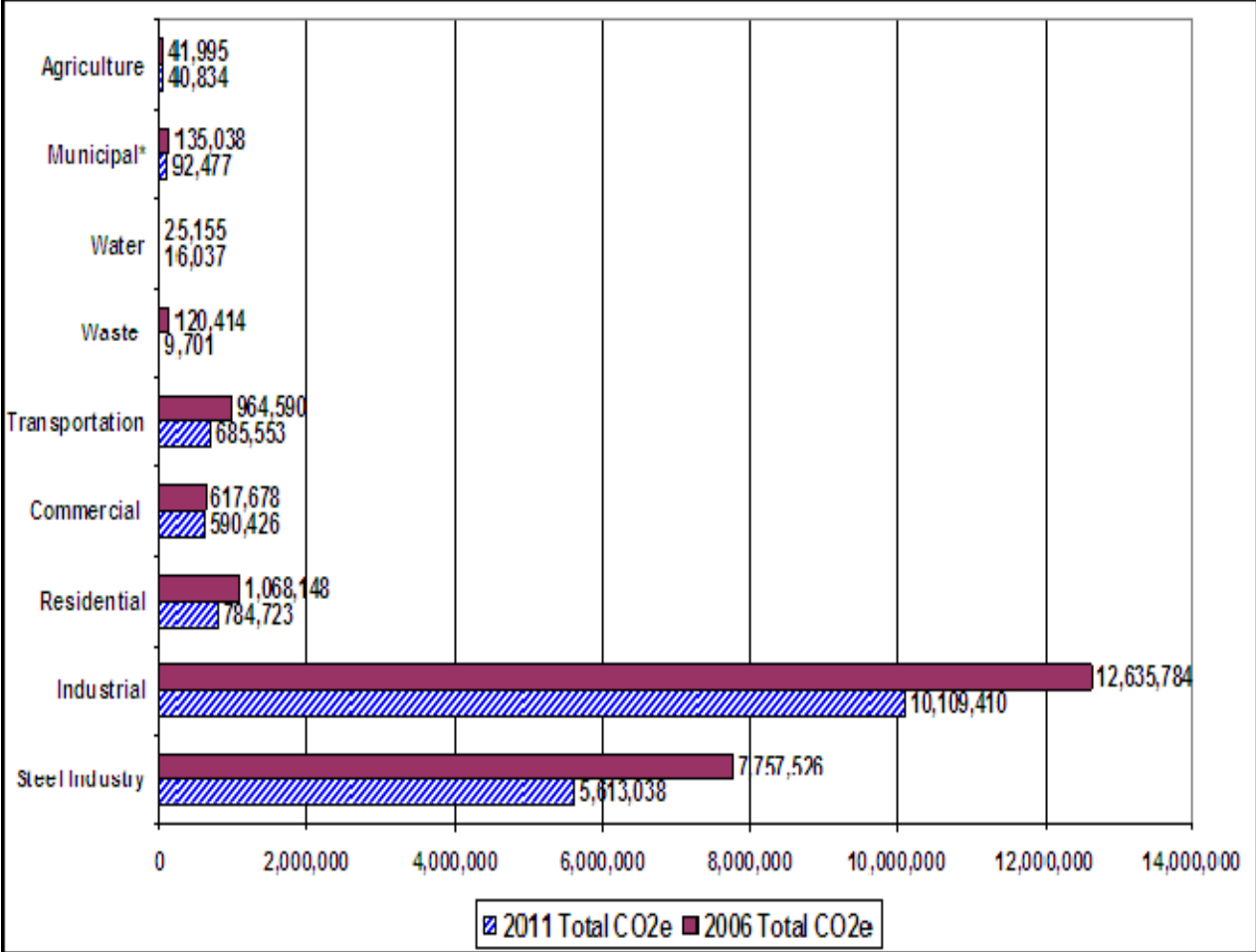
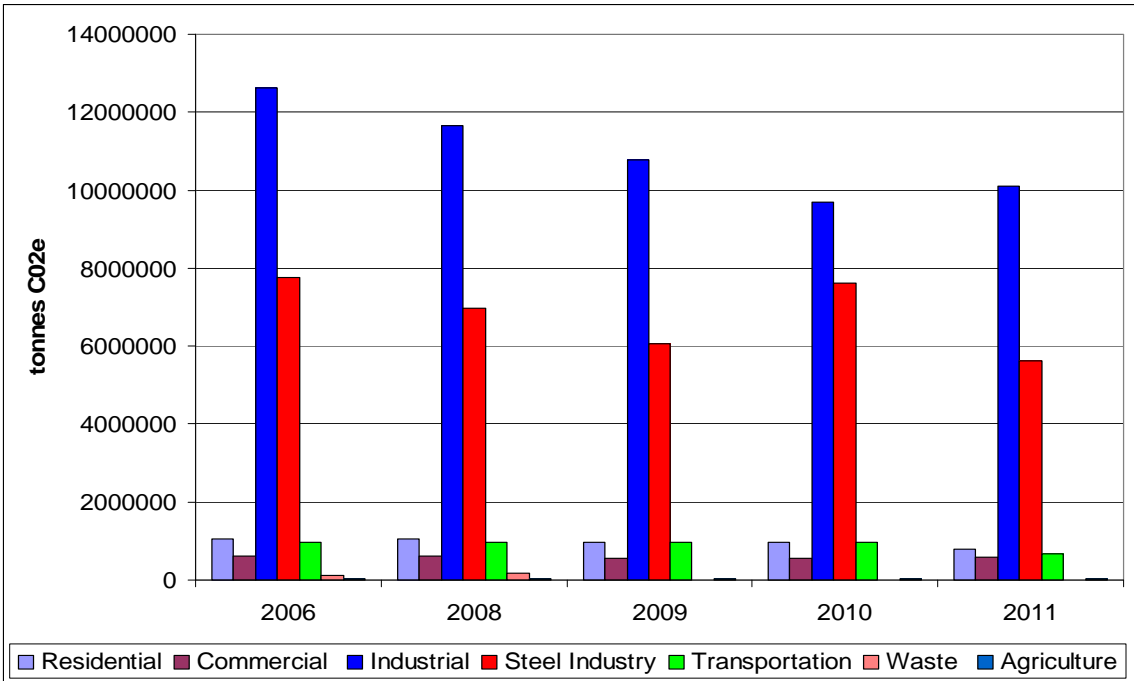


Figure 6 shows the trends in greenhouse gas emissions since 2006 in all sectors.

**Figure 6: Trends in Community Emissions 2006 – 2011**



While there was a decrease in emissions from 2006 to 2010 in the industrial sector, 2011 saw a slight increase in emissions as a result of increased economic activity and associated energy use in goods production. Overall emissions were still lower in 2011 than in 2006 and have helped achieved the 2020 emissions targets.

Ontario’s main sources of greenhouse gas emissions in order from highest to lowest contributors by sector are: transportation, industry, buildings, electricity, agriculture and waste. Hamilton’s main sources in order from highest to lowest in 2011 are: industrial, steel industry, transportation, residential, commercial, waste and agriculture.

**Hamilton Community Climate Change Charter**

In 2011, the City of Hamilton endorsed the Hamilton Community Climate Change Charter (PED 11150).

The Hamilton Climate Change Action Charter is a voluntary agreement that outlines the need for local action and a commitment to take action on climate change from individuals, organizations and businesses of all types and sizes in Hamilton. Endorsing and participating in the actions outlined in the Charter are voluntary.

The Charter is meant to increase citizens' awareness on climate change, seeks leadership and commitment to act from key organizations in the City, and provides a starting point for community action and measurements of progress on combating climate change in Hamilton. Since 2011, 47 organizations and over 200 individuals in Hamilton have endorsed the Charter. Signatories of the Charter are recognized as Hamilton Climate Change Champions and organizational signatories are listed on-line at: <http://climatechangehamilton.ca/charter-signatories>

Since 2009, the City of Hamilton and community has held an annual Climate Change Action Month in October to encourage individuals and organizations to take action on climate change locally. Several organizations in the community hold events and workshops during this month to educate and highlight the activities in the community that are addressing climate change and to inform others of the need for action. October 2013 is Hamilton's 5<sup>th</sup> Climate Change Action month and the second year that signatories will report on their actions under the community Charter.

### ***Hamilton Carbon Map***

In 2013, the McMaster Centre for Climate Change in collaboration with community partners under the Hamilton Climate Change Action Charter developed and launched a community Hamilton Carbon Map. The purpose of the Map is to engage and record actions taken in the community to address climate change and impacts the community may have felt with regards to climate change.

The Hamilton Carbon Map provides a visual record of the community that encourages the undertaking and sharing of actions in Hamilton by individuals and organizations. The Map increases the awareness, support and the ability for increased local action in areas such as energy, transportation, business practices, buildings, water, and buildings.

The Hamilton Carbon Map is available at: <http://www.mapclimatechange.ca/>

The Hamilton Carbon Map can also serve as an engagement tool with the community in developing a Hamilton Community Climate Change Action Plan.

### ***Hamilton Community Climate Change Action Plan***

The development of a community-based Climate Change Action Plan is identified in Council's approved 2012-2015 Strategic Plan - Strategic Objective 6.1 Enhance Overall Sustainability.

Under the FCM Partnership for Climate Protection Program, a community-based climate action plan should include:

- 1) Input from the public through public consultations;
- 2) A greenhouse gas emissions inventory and an emissions reduction target;
- 3) Existing and new or proposed actions to reduce emissions and meet target; and
- 4) Implementation strategies and measures including reporting on progress.

Funding for developing a Community Climate Change Action Plan is available through the FCM Green Municipal Funds (GMF) and applies to developing an emissions inventory, setting an emissions target and developing a local action plan. A municipality that has approved undertaking a community plan and providing funding for the development of the community plan can apply for matching funding through the GMF.

In 2014, PHS staff will begin to work and engage with the community and stakeholders on developing the Community-based Climate Change Action Plan. A 2014 Capital Budget request has been submitted to support this two-year work. Denial of this Capital Budget request means no Community Climate Change Plan can be undertaken.

### ***Revising Greenhouse Gas Emissions Targets***

Results of Corporate and community activities indicates that targets adopted by Hamilton have been achieved in 2011 and 2012. Examination of new targets and measures is warranted based on these results. Council has requested that staff investigate revised emissions targets for greenhouse gas emissions and energy (General Issues Committee Report 13-016).

The Intergovernmental Panel on Climate Change (IPCC) and other international organizations have recommended a science-based target of 80% reductions of greenhouse gas emissions by 2050. The Province, several Canadian municipalities, and Greater Toronto Area municipalities have adopted these emissions targets in their respective climate change plans.

### **Adaptation**

Adaptation is planning or introducing measures to reduce the vulnerability of natural and human systems against actual or expected climate change effects. Adaptation includes technical adaptation (i.e. new technology or resources that reduce dependency on non-renewable natural resources and energy constraints); environmental adaptation (i.e. responding to the changes in natural systems such as water, air, and forests); and

social adaptation (i.e. changes in personal behaviour and social/community support services).

Climate change poses impacts across City departments and services to the community. Responses to the risks associated with climate change requires a strategic and risk management focus through a policy, planning, health, engineering, financial and emergency response lens.

In recent years, Hamilton has experienced extreme weather events such as increased precipitation and increased flooding resulting in insurance losses and infrastructure damage. These extreme weather events have created an increased awareness and calls for action on climate change locally.

Hamilton has some programs in place that begin to address the risk of climate change in the areas of extreme precipitation, flooding and extreme heat. However, a more comprehensive and collaborative understanding of climate change and responses is needed to prepare the City to continue to provide services in a changing climate of increased extreme weather frequency.

The City could convene a working group to examine the range of impacts that climate change and extreme weather events will have on the infrastructure, assets and services within the City and develop options to address the most severe of the identified impacts.

**ALTERNATIVES FOR CONSIDERATION**  
(include Financial, Staffing, Legal and Policy Implications and pros and cons for each alternative)

- (a) Continue actions under the Corporate Air Quality and Climate Change Strategic Plan to reduce greenhouse gas emissions without investigating actions to address risks and vulnerabilities associated with climate change.**

**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 undertaken.

**Staffing:** No change.

**Legal:** No change. Potential for future liability.



**Policy Implications:** Supports actions to reduce GHG emissions, but does not support the adaptation components set out in the Corporate Air Quality and Climate Change Strategic Plan (PED06336(a)).

**Pros:** This will continue to support actions to reduce emissions and meet the Corporate targets set out under the Corporate Air Quality and Climate Change Strategic Plan and Corporate Strategic Plan.

**Cons:** It will not meet the adaptation recommendations set out under the Corporate Air Quality and Climate Change Strategic Plan (PED06336(a)). This would be seen by the community as addressing only half of the issue of climate change. Could increase future risk exposure of the City and community to climate change financial impacts.

- (b) **Continue corporate actions to reduce greenhouse gas emissions and not support actions or engage the community on climate change.** This would not help address the larger community emissions in Hamilton. The City has committed to undertaking a Community Climate Change Plan under the Corporate Strategic Plan.

**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 undertaken.

**Staffing:** No change.

**Legal:** Does not support Ontario Public Health Standards on reducing exposure to health hazards and increasing public awareness of climate change. Potential for future liability.

**Policy Implications:** Does not support the City's commitment to undertaking a Community Climate Change Plan under the Corporate Strategic Plan.

**Pros:** City continues to address Corporate GHG emissions.

**Cons:** This would not help address the larger community emissions and sources in Hamilton. The City has committed to undertaking a Community Climate Change Plan under the Corporate Strategic Plan. This would be seen as not working with and supporting the community on climate change and would not be supported.

**(c) Discontinue the Corporate Air Quality and Climate Change Strategic Plan and actions to reduce greenhouse gas emissions.** This would not support the continuing leadership of Hamilton on addressing climate change.

**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 undertaken. Potential for future liability.

**Staffing:** No change.

**Legal:** Does not support actions under the Regulation 397/11 of the Green Energy Act. Potential for future liability.

**Policy Implications:** Supports actions to reduce GHG emissions, but does not support the adaptation components set out in the Corporate Air Quality and Climate Change Strategic Plan (PED06336(a)).

**Pros:** None

**Cons:** This would not support the continuing leadership of Hamilton on addressing climate change.

**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**

- 1.4 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.

## **APPENDICES / SCHEDULES**

No Appendices

### **References**

<sup>i</sup> 2012 Data collected from City Housing in Figure 2 represents actual billing that could be obtained. 2006 baseline data was obtained through modelling.

<sup>ii</sup> Total Energy Demand in Ontario from 1997 to 2012 can be found at [http://www.ieso.ca/imoweb/media/md\\_demand.asp](http://www.ieso.ca/imoweb/media/md_demand.asp)

<sup>iii</sup> Government of Canada, National Inventory Report 1990-2011: Greenhouse Gas Sources and Sinks - <http://www.ec.gc.ca/ges-ghg/default.asp?lang=En&n=68EE206C-1>