



Hamilton Community Climate Change Action Plan – Goals, Directions & Actions

Agriculture and Food

<p>Draft Goal Statement: We will have a sustainable food and agriculture system that minimizes greenhouse gas emissions while ensuring community food security</p>		
<p>PRIORITY ACTION Integrate climate change mitigation and adaptation into the Golden Horseshoe Agriculture & Agri-Food Strategy and the City of Hamilton Food Strategy</p>		
<p>Direction: Practice sustainable agriculture</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> Request that the Province extend the Golden Horseshoe Food and Farming Action Plan to fully integrate climate change impacts mitigation and adaptation strategies. Work with farming associations (OFA, NFU) to assess the need for further educational resources for farmers on mitigating causes and adapting to impacts of climate change 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> Examine issues/constraints of simplifying regulation and permitting for on-farm based energy generation Work with the Greater Golden Horseshoe Agricultural Committee, the University of Guelph, and the Vineland Research Station to investigate local production issues to create a Climate Change Risk And Opportunity Assessment For The Hamilton Agricultural Sector 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> Work with farming associations (OFA, NFU) to advocate for increased support for existing farm programs/plans that contribute to adaptation and mitigation (e.g. the Environmental Farm Plan) Explore opportunities to offer ecological service credits for farmers to provide further financial incentives to adopt mitigation/adaptation practices (e.g. Alternative Land Use Services) Work with the University of Guelph and the Vineland Research Station to undertake research to assess what produce will grow best in the Hamilton region given the possibility of warming temperatures and shifting weather patterns in the face of climate change
<p>Direction: Preserve local farmland</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> Develop public awareness campaign to increase public's awareness of the need for stronger farmland preservation/protection 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> Establish/strengthen land use policies that encourage farmland preservation 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> Explore financial and tax-based incentives for preserving or rehabilitating farmland such as an <i>Agricultural Gifts Program</i>



through policies such as the Green Belt		
Direction: Support and encourage local food producers and urban agriculture		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Undertake a community food system assessment to identify gaps and opportunities for local food production and consumption • Integrate climate mitigation and adaptation food related actions into the City of Hamilton Food Strategy (under development) • Review zoning obstacles to on-farm food processing, and for farmers markets, urban farms, hydroponics and aquaponics in non-residential zones • Encourage and support urban agriculture • Expand promotion of farm gate initiatives to promote sales (e.g. maps, tours, signage) • Extend the City tree planting programs to include edible fruit and nut trees • Identify suitable sites for additional community gardens, urban farms and urban greenhouses • Encourage citizens to purchase locally grown food at food co-ops, farmers markets and supermarkets • Encourage citizens to participate in and promote community-supported agriculture (CSA) 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Review how licensing supports on-farm food processing • Set targets for the municipal operations, universities, school boards and hospitals (MUSH) located in Hamilton to procure local food (e.g. as in Markham) 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> • Work with farming associations (OFA, NFU) to coordinate and link established farmers with those interested in entering farming to support sustainability of local agriculture



Direction: Reduce the amount of food that is wasted		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Conduct an assessment to Identify key points in Hamilton’s food system where waste occurs and create a plan to reduce waste • Explore the potential for recovering (gleaning) unused crops from farmers 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Implement a consumer education program on food waste in the home and how to avoid it • Explore elimination of retail food waste (e.g. sales incentives, ugly vegetables promotion) • Expand the Green Cart program to multi-residential buildings 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> • Conduct study into Industrial/Commercial/Institutional (ICI) food waste disposal practices to identify opportunities to reduce food wastage and better utilize food waste
Direction: Educate and raise awareness of the greenhouse gas impact of the food system		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Incorporate the GHG impact of food choices into food education programs • Extend community gardening opportunities between schools and the community 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Advocate for the integration of growing, cooking, and food preservation methods into school programs/ curriculum 	<p>Potential Long-Term Actions</p>



Awareness and Education

<p>Draft Goal Statement: We will have an informed and engaged public that understands potential impacts of climate change and that are ready to act to help mitigate and adapt to climate change</p>		
<p>PRIORITY ACTION</p> <p>Awareness & Education: Establish ongoing education and awareness program/source and resource for climate change</p> <p>Implementation & Coordination: 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</p>		
<p>Direction: Build community awareness related to climate change and what is being done and can be done to help reduce our impacts and prepare for changes</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Establish ongoing education and awareness campaign/program building on <i>Let's Talk About the Weather</i> to raise awareness and facilitate ongoing dialogue (face-to-face, online, etc.) • Establish media partnerships to include climate related coverage and linkages to local weather events 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Explore/develop “gamification” strategy as educational tool about mitigation and adaptation techniques and processes • Host regular events focus on climate change (speaker series, annual event, etc.) • Engage youth in an ongoing forum on climate action to raise awareness and motivate further action 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> • Host art competition to capture creative interpretations of sustainable living • Display artist renderings of positive visions of future sustainable ways to living in public spaces • Establish a coordinated knowledge sharing hub or mechanism to further communicate climate related events, activities, initiatives, etc.
<p>Direction: Engage community members in climate change related learning opportunities to encourage behavioural change and establish climate friendly social norms</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Expand/further promote the Climate Change Champions program to encourage more community champions and leadership • Organize/promote community clean-ups and tree planting events • Establish Hamilton as a Project Neutral community • Show energy use 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Prepare climate change resources guide with relevant information/resources for home owners/businesses • Develop a home adaptation audit program to provide guidance to homeowners on how to safeguard their homes from climate impacts, tap into program, incentives, 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> • Establish a household climate stewardship program to reward and encourage action • Identify specific behaviours to target for behaviour change and develop Community-Based Social Marketing programs to foster positive behaviour change



<p>comparisons with neighbours on utility bills</p>	<p>etc.</p> <ul style="list-style-type: none"> • Develop programs such as bike repairs at schools or library, recycling exchange, etc. • Organize field trips to conservation areas to relate impacts in these areas • Host series of reading events for kids at local libraries – themed book 	
<p>Direction: Foster collaboration and partnership to support action on climate change</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Seek buy-in and endorsement/support for the shared vision and goals of Community Climate Change Action Plan from existing groups and organizations in Hamilton • Establish oversight and coordination body for implementation of the Community Climate Change Action Plan • Current Issues • Advocate for political leadership on climate change through public engagement (e.g. how to contact MPs) 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Explore establishing a formal partnership program for implementation of climate actions • Host/facilitate networking opportunities amongst partners in climate action 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> • Establish a community project fund to encourage community groups to come up with projects (that support the CCAP vision and goals) and receive some funding to implement
<p>Direction: Communicate and demonstrate progress towards managing climate change</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Profile community members or organizations that have demonstrated success related to climate action • Develop an annual public report card to report on community GHG emissions, progress towards targets, and initiatives undertaken and/or planned 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Expand and further promote the Hamilton Climate Change Map initiative • Celebrate successes through the Hamilton Climate Change Charter 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> • Seek opportunities to establish or participate in a climate change learning forum/process to monitor and document changes and the learning process of adapting and changing to living in a new climate



Energy

Draft Goal Statement: We will be a world leader in all aspects of energy through our integrated smart energy network that reduces our overall energy intensity		
PRIORITY ACTION Develop a Community Energy Plan to guide the Hamilton community's energy future		
Direction: Plan for energy generation, distribution, and consumption through a coordinated and regional approach		
Potential Short-Term Actions	Potential Med-Term Actions	Potential Long-Term Actions
<ul style="list-style-type: none"> • Continue to map/monitor/measure and verify Hamilton's energy usage • Implement requirement for site-level energy planning for new developments 	<ul style="list-style-type: none"> • Develop a community energy plan • Develop a regional smart energy network strategy 	<ul style="list-style-type: none"> • Establish Hamilton as an energy neutral community only using the amount of energy that is produced
Direction: Foster a culture of energy conservation		
Potential Short-Term Actions	Potential Med-Term Actions	Potential Long-Term Actions
<ul style="list-style-type: none"> • Continue/expand consumption and demand management programs • Develop/expand education and awareness campaign on energy conservation 	<ul style="list-style-type: none"> • Develop rebate/incentive program to encourage conservation programs • Explore mechanisms to encourage the undertaking of energy audits before a transfer of property ownership takes place 	<ul style="list-style-type: none"> • Support neighbourhood energy conservation through grassroots initiative such as neighbour-to-neighbour, hubs, organizations • Examine Time-of-Use billing model rates and timing to further encourage off-peak energy use
Direction: Encourage the efficient use of energy		
Potential Short-Term Actions	Potential Med-Term Actions	Potential Long-Term Actions
<ul style="list-style-type: none"> • Advocate for more aggressive energy efficiency requirements in the Ontario Building Code • Establish an Operator Training program to educate building operators and managers on ways to improve building performance (e.g. BOMA) • Develop checklist/ 	<ul style="list-style-type: none"> • Establish a central source of expertise and advice to assist different sectors to improve energy efficiency • Undertake auditing of fleets to assess use and where efficiency improvements can be made • Develop coordinated residential energy 	



resources for homeowners and small businesses to assess their own energy use and level of efficiency	conservation and efficiency retrofit program to deliver existing/new initiatives to existing homes	
Direction: Use cleaner and more renewable energy		
Potential Short-Term Actions <ul style="list-style-type: none"> Conduct study to identify opportunities for local renewable energy generation (e.g. wind, solar, hydro, biomass, biogas) 	Potential Med-Term Actions <ul style="list-style-type: none"> Seek opportunities to expand renewable natural gas generation Develop pilot program for solar hot water heating through financing program (e.g. Halifax Solar City) 	Potential Long-Term Actions <ul style="list-style-type: none"> Explore opportunities for energy storage through multiple local channels (utilities, City, local neighbourhoods) Establish a target for local percentage of energy to be generated through renewable sources
Direction: Diversify and localize energy generation		
Potential Short-Term Actions <ul style="list-style-type: none"> Pursue opportunities associated with community-owned renewable energy initiatives as incented under Ontario's Feed-in Tariff program 	Potential Med-Term Actions <ul style="list-style-type: none"> Identify/establish community energy cooperatives Expand existing district energy systems 	Potential Long-Term Actions <ul style="list-style-type: none"> Explore feasibility of smart grid and micro-grids in Hamilton Expand natural gas infrastructure and natural gas transportation network
Direction: Encourage shift to more efficient vehicles that use cleaner sources of energy		
Potential Short-Term Actions <ul style="list-style-type: none"> Install electric vehicle charging stations to expand the electric vehicle charging network 	Potential Med-Term Actions <ul style="list-style-type: none"> Green corporate fleets to improve fuel and use more efficient fuels Require electrical vehicle charging outlets in parking lots for employee and customer use 	Potential Long-Term Actions <ul style="list-style-type: none"> Electrify transit, commuter rail and freight rail Explore wide-spread use of sustainable fuels such as compressed natural gas, electricity, hybrids



Infrastructure

<p>Draft Goal Statement: We will have a resilient and decentralized infrastructure network that maximizes long-term needs and benefits of our community</p>		
<p>PRIORITY ACTION Revise/update infrastructure guidelines to position low impact development as a first priority</p>		
<p>Direction: Transition to the use of green infrastructure to make use of natural ecological processes</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> Review city planning policy to encourage diversification and decentralization of infrastructure to make the systems more resilient and responsive to local needs 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> Update/revise infrastructure guidelines to encompass green infrastructure Integrate bio retention swales into new roadway/boulevard construction 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> Daylight and restore waterways as infrastructure is being replaced
<p>Direction: Build weather hardened infrastructure that is durable and can withstand anticipated climate changes over the long-term</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> Advocate Federal and Provincial governments for adequate funding to address infrastructure deficit Engage local and provincial political leaders to emphasize the importance of infrastructure in risk management 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> Establish collaborative mechanism/forum/dialogue to increase political awareness of climate impacts on infrastructure between the insurance industry and other stakeholders Restructure funding mechanism to separate stormwater rate from water rate Create equity between residential and commercial users in terms of infrastructure user fees 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> Increase infrastructure lifespan standards for new infrastructure Explore life-cycle accounting for decisions-making related to infrastructure investments
<p>Direction: Improve stormwater infrastructure to better manage more rainfall and flooding</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> Require existing downspouts be disconnected from stormwater system Develop updated flood 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> Establish a 250-year storm standard for stormwater system design to replace the 100-year storm standard (e.g. Stratford) 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> Upgrade capacity and separate combined sewer infrastructure Upgrade stormwater infrastructure (e.g. bridges,



<p>mapping and publicize to promote awareness of risks</p> <ul style="list-style-type: none"> • Conduct assessment of existing stormwater infrastructure to identify opportunities to improve (underway) 		<p>culvers, stormwater ponds, etc.) to increase capacity</p>
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Direction: Reduce strain on infrastructure by improving homes and businesses to better manage more rainfall and flooding

Potential Short-Term Actions	Potential Med-Term Actions	Potential Long-Term Actions
<ul style="list-style-type: none"> • Encourage use of rain barrels through outreach program/incentives • Further expand/promote the RAIN Home Visit Program • Enhance enforcement related to private storm systems • Develop and distribute a Business Adaptation Toolkit to help businesses become better storm-ready 	<ul style="list-style-type: none"> • Develop an incentive program to encourage rainwater capture systems on private properties or at the community scale • Further promote/encourage participation in the City's Protective Plumbing Program that provides grants for improvements to protect against flooding 	<ul style="list-style-type: none"> • Explore development of a stormwater credit system for all properties to encourage stormwater best management practices (e.g. Kitchener) • Expand City's Backflow Prevention Program to all residences to require property isolation from the water distribution system • Explore opportunities/promote rainwater capture systems at the community scale • Develop Low Impact Development retrofit program for homes and ICI sector

Direction: Reduce the impacts of new developments and manage stormwater runoff through low impact development

Potential Short-Term Actions	Potential Med-Term Actions	Potential Long-Term Actions
<ul style="list-style-type: none"> • Develop low impact development standard for all new developments • Showcase successfully implemented projects that used the City's Innovative Stormwater Source Control Policy (ICI land uses) 	<ul style="list-style-type: none"> • Develop commercial parking guidelines to integrate low impact design (e.g. permeable pavement, storm swales, source control, etc.) • Revise the City's commercial surface parking requirements to limit parking lot surface areas to encourage stacked parking rather than larger parking areas 	<ul style="list-style-type: none"> • Require some amount of Low Impact Development be incorporated into new developments



Land Use, Buildings and Built Form

<p>Draft Goal Statement: We will have a system of land use patterns and built form focusing on the human scale that minimizes the use of fossil fuels and allows us to adapt to known and unknown impacts</p>		
<p>PRIORITY ACTION Establish variable development charges and water rates to reflect real costs of buildings and maintaining infrastructure</p>		
<p>Direction: Reduce impacts of buildings by building net zero/net positive buildings</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Advocate for more aggressive requirements in the Ontario Building Code to support reduced GHG emissions • Require GHG assessments for buildings through incentives by refunding permit fees if thresholds met • Seek partnerships to build demonstration net zero/net positive buildings • Implement the ultra-high efficiency energy use scenarios for buildings (existing and new) as recommended in the City of Hamilton’s Integrated Energy Mapping Strategy (February 2011) 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Establish GHG targets that new developments have to meet • Establish operator training program to educate building operators and managers on ways to improve building performance • Educate/engage developers on emerging markets/consumer trends and how they can influence consumer behaviour through their product offerings • Require/encourage major new development areas (e.g. waterfront rail yards) to be energy neutral 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> • Establish recognition program for buildings that achieve net zero or net positive • Explore financial incentives to encourage net zero/net positive buildings • Retrofit existing buildings for ultra-high efficiency as per recommendations in the City of Hamilton Integrated Energy Mapping Strategy
<p>Direction: Align climate change adaptation and mitigation with land use and built environment management structures, processes, and decision-making</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Explore development of mechanisms/best practices to integrate climate adaptation and mitigation into the development review processes to ensure development proposals are consistent with GHG targets 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Require a GHG footprint assessment in support of building and land use proposals • Explore mechanism to have GHG impacts and adaptation impact considered in decision-making process (e.g. project scoping, staff reports, etc.) 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> • Structure development the decision making criteria and weighting to minimize fossil fuel use • Establish variable development charges and water rates to reflect real costs of buildings and maintain infrastructure



	<ul style="list-style-type: none"> • Integrated climate change analysis into the City's statutory Official Plan review and develop climate change policies • 	
Direction: Build an innovative and adaptive built form		
Potential Short-Term Actions <ul style="list-style-type: none"> • Required green roofs in new developments • Implement a design awards program to recognize sustainable innovation in building 	Potential Med-Term Actions <ul style="list-style-type: none"> • Implement green development standards for new construction to encourage high environmental standards • Review condominium rules to encourage efficiency and adaptation • Develop landscaping requirements to encourage adaptation best practices • Promote innovative buildings and flexible building designs / built forms that are resilient 	Potential Long-Term Actions <ul style="list-style-type: none"> • Reuse, renovate, retrofit and restore existing buildings in place of rebuilding • Develop program/ incentive to retrofits of current residential/commercial buildings
Direction: Plan for human scale with integrated land use patterns		
Potential Short-Term Actions <ul style="list-style-type: none"> • Maintain local scale institution and community facilities • Limit urban boundary expansion • Re-evaluate population growth projections and associated land requirements arising from the needs of environmental refugees and other migrants into Hamilton and southern Ontario as a result of adverse climate change impacts (i.e., droughts and sea level rise) elsewhere in North America and the world • Re-evaluate the land and policy requirements so as 	Potential Med-Term Actions <ul style="list-style-type: none"> • Encourage urban intensification and compact communities in conformity with the growth plan • Strengthen planning standards to encourage compact and transit-oriented communities • Increase minimum density requirements • Explore taxing parking lots at commercial property tax rates to encourage intensification • Advocate for/participate in cross-border collaboration/forms between southern Ontario municipalities and those of Great Lakes States to 	Potential Long-Term Actions <ul style="list-style-type: none"> • Review official plan, zoning and administrative provisions on an ongoing basis so as to make adjustments to meet the emerging needs this growth poses in order to accommodate these changes in as orderly and responsive manner as possible • Develop a climate change Community Improvement Plan (CIP) with incentives to adapt and mitigate climate change impacts on private development



<p>to accommodate the re-location of agricultural production and manufacturing activities arising from adverse climate change impacts (i.e., droughts and sea level rise) from elsewhere in North America and the world</p>	<p>address community, social, economic, housing and physical needs as migrants resettle and agricultural and manufacturing activities relocate in the Great Lakes Region</p>	
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Local Economy and Business

<p>Draft Goal Statement: We will have a diverse business community in Hamilton that embraces innovation and sustainable practices to achieve a thriving, resilient economy</p>		
<p>PRIORITY ACTION Create an accessible toolkit for businesses to assist with climate change impact analysis and business continuity planning</p>		
<p>Direction: Engaged the business community in understanding and being prepared for local climate change</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Create, maintain, and communicate a central resource of local climate change impact scenarios that is readily accessible to the business community (Conservation Authority, MOECC, City of Hamilton – Climate Change group, local NGOs) 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Educate and promote adoption of sustainable business practices (Sustainable Hamilton, Chamber of Commerce, Innovation Factory, Economic Development Department) • Build a toolkit for Hamilton businesses to assist with impact analysis and business continuity planning (Sustainable Hamilton, Innovation Factory, SBEC, McMaster or Mohawk students) <ul style="list-style-type: none"> ○ Set aside emergency funds as contingency ○ Conduct impact analysis and modelling ○ Create a business continuity plan for severe weather events 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> • Develop business continuity plans for extreme weather (Community Awareness and Emergency Response Group)
<p>Direction: Encourage business sustainability practices and measure outcomes</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Conduct ongoing review and research into leading business sustainability practices addressing both adaptation and mitigation (McMaster, Sustainable Hamilton, consultants, University of Waterloo – Climate Change Adaptation, Insurance companies) 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Conduct Green Team Audits to explore opportunities to reduce GHG emissions (green roofs, insulation, equipment efficiency) • Implement system to calculate, track, and report energy use and GHG emissions for local businesses 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> • Encourage business to set emissions reductions goals by leveraging/endorsing the Community Emission Reductions Targets • Develop business report card demonstrating progress towards GHG emission reduction goals



<ul style="list-style-type: none"> • Develop resource guide for businesses on benefits of sustainability, opportunities to improve efficiencies/reduce emissions, and cost savings (Sustainable Hamilton, MOECC, HIEA) • Provide guidance to businesses on establishing green teams and completing sustainability audits/plans 	<ul style="list-style-type: none"> • Initiate local and sustainable purchasing policies 	
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Direction: Facilitate collaboration and sharing amongst the Hamilton business community in support of sustainability and climate change

Potential Short-Term Actions	Potential Med-Term Actions	Potential Long-Term Actions
<ul style="list-style-type: none"> • Encourage businesses to sign onto the Hamilton Climate Change Charter (City of Hamilton and other supporters) • Hold an annual business climate change symposium – address all economic sectors, including input from scientific community, all levels of government, academia, and ensuring wide participation from all sectors of society (Sustainable Hamilton, Chamber of Commerce, Economic Development, City) • Support B Corps/seek B Corp certification 	<ul style="list-style-type: none"> • Encourage businesses to pursue B Corp certification to meet standards of social and environmental performance, accountability, and transparency • Create a “green” team/ committee to develop a coordinated approach to implementing sustainability strategies amongst businesses (e.g. energy reduction, purchasing, etc.) 	

Direction: Communicate and celebrate successes to generate greater awareness and buy-in to adoption of sustainable business practices

Potential Short-Term Actions	Potential Med-Term Actions	Potential Long-Term Actions
<ul style="list-style-type: none"> • Develop profiles/success stories (e.g. publication, at the annual symposium, other recognition events) (Sustainable Hamilton, Chamber of Commerce, City of Hamilton, 	<ul style="list-style-type: none"> • Measure and communicate/showcase results of carbon and other resource utilization and associated emissions as well as business benefits resulting from reductions 	



<p>Innovation Factory)</p> <ul style="list-style-type: none"> • Encourage businesses to communicate successes to stakeholders 	<p>and greater efficiencies (Sustainable Hamilton, MOECC, HIEA)</p>	
<p>Direction: Support and develop the local economy through sustainability focused economic development, research, and innovation in sustainability and climate change</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Conduct/obtain credible research on anticipated local climate change impacts (Conservation Authorities, MOECC, McMaster, Mohawk, consultants, City of Hamilton) 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Develop a shop local program/campaign to encourage Hamilton community members to purchase products/services locally in support of local businesses 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> • Explore opportunities to establish an eco-district for green industries



Transportation and Mobility

<p>Draft Goal Statement: We will have a more efficient transportation network that reduces the use of single occupancy vehicles and balances the needs of all users for walking, cycling, transit, carpooling, and movement of goods</p>		
<p>PRIORITY ACTION Expand public transit services to include dedicated rapid transit lanes where possible</p>		
<p>Direction: Change behaviour social norms to support sustainable modes of transportation</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Participate in Smart Commute Hamilton • Offer alternative transportation/ telecommuting for employees • Provide employees with rewards for sustainable transportation (e.g. financial/material, parking spot priority) • Provide information and support programs to encourage sustainable mobility (e.g. BIA programs) 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Optimize the price and supply (ratio) of parking by developing a parking policy and strategy for the City that eliminates free parking and increases parking costs • Install carpool parking and signage in spots in parking lots • Develop employee incentive programs for sustainable mobility (carpooling, cycling, transit) 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> • Institute transport taxes or tolls (e.g. vehicle registration) and dedicated revenue to investments in transit and active transportation • Institute a local “carbon tax” to make green and lower carbon fuels a more attractive option
<p>Direction: Build complete and integrated streets and networks</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Implement complete community strategy <ul style="list-style-type: none"> ○ Complete streets policies to encourage street design for all ages, abilities, and modes of travel ○ Encourage mixed use, dense developments along transit corridors through planning policy 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Complete an integrated cycling network 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> • Redesign existing roadways to prioritize transit, cycling and walking
<p>Direction: Engage community members in decision-making related to their mobility network through demonstration and outreach</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> • Have open street events every week on at least 25 km of roads three seasons 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> • Engage with neighbourhoods through participatory planning to 	<p>Potential Long-Term Actions</p>



<p>of the year</p> <ul style="list-style-type: none"> Establish a sustainable transportation advocacy group(s) 	<p>set their own speed limits</p> <ul style="list-style-type: none"> Utilize tactical urbanism to demonstrate and engage communities in decision-making 	
<p>Direction: Support and invest in higher order public transit and supportive land uses</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> Explore financial incentive program to encourage transit ridership Establish investment in rapid transit and transit supportive land uses a priority for Hamilton 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> Expand transit services – routes and headways Invest in shared mobility infrastructure (carshare, bikeshare, transit) 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> Develop Rapid Transit corridors with transit in its own Right-of-Way Update transit fees to encourage ridership and impose real costs on road use by private vehicles
<p>Direction: Move goods and deliver services efficiently by using low carbon alternatives that are less prone to impacts from climate change</p>		
<p>Potential Short-Term Actions</p> <ul style="list-style-type: none"> Support/use local green/active transportation couriers Implement anti-idling policies amongst corporate fleets 	<p>Potential Med-Term Actions</p> <ul style="list-style-type: none"> Explore opportunities for shared delivery of goods 	<p>Potential Long-Term Actions</p> <ul style="list-style-type: none"> Support rail-based and water-based goods movement?



Water and Natural Ecosystems

Draft Goal Statement: We will have climate resilient water resources and ecosystems		
PRIORITY ACTION Secure property that serves as water storage or preserves corridors		
Direction: Reduce our water and related energy footprint		
Potential Short-Term Actions <ul style="list-style-type: none"> • Implement and report progress regarding Low Impact Development (LID) projects annually • Develop rainwater capture program/incentives to encourage reuse of water to mitigate urban stormwater erosion and water quality issues • Develop/implement policies that favour on site use of rainwater • Establish baseline levels of water and energy consumption • Encourage household water and energy conservation behaviours through behavioural change 	Potential Med-Term Actions <ul style="list-style-type: none"> • Research and adopt new water conservation technologies • Set urban stormwater runoff reduction targets for impervious surfaces and report on status annually • Quantify costs and energy inputs of managing watercourse erosion reflecting nature systems against impervious urbanized systems • Quantify added wastewater plant treatment costs associated with increasing stormwater runoff treatment • Implement stormwater management tax programs 	Potential Long-Term Actions <ul style="list-style-type: none"> • Implemented green energy technologies to treat waste water to reduce carbon based energy use • Secure/reestablish lost watershed wetlands to mitigate stormwater channel erosion/ flooding and energy costs associated with infrastructure protection along channels in identified subwatersheds with issues
Direction: Improve and communicate our understanding of the connection between water and natural ecosystems and human health and well-being locally		
Potential Short-Term Actions <ul style="list-style-type: none"> • Support organizations providing climate change outreach and education (e.g. BARC) 	Potential Med-Term Actions <ul style="list-style-type: none"> • Research and create a factsheet/document identify local benefits of water and ecosystem service for human health and the negative consequences associated with degraded environments • Provide outreach events to demonstrate the connection between a healthy and environment 	Potential Long-Term Actions <ul style="list-style-type: none"> • With research and health organizations, quantify the value and savings of a healthy environment to human health including child development and mental well-being to factored into the health care investment choices



	and human health linked with climate change effects	
Direction: Manage and restore our ecosystems		
Potential Short-Term Actions <ul style="list-style-type: none"> • Develop Urban Ecosystem Conservation Plan for Climate Resilience matching plant species with future climate conditions and soil characteristics. • Naturalize channel designs in historically ditched water courses to support Lake Ontario fish community recovery and a return to local food. • Invest in existing wetland restoration and reforestation projects within the official plans natural heritage system • Establish/encourage rural reforestation programs as well as residential turf to meadow conversion programs to improve biodiversity • Communicate environmental health status of existing ESA areas 	Potential Med-Term Actions <ul style="list-style-type: none"> • Expand/promote opportunities for land securement of natural land/forest/wetlands for protection to ensure a balanced mix of habitats and diversity of species are retained support various future climate regimes • Review the natural heritage dimension of the official plan for natural area corridors and connectivity, focusing on water courses to Lake Ontario system, floodplains, and the Niagara Escarpment as the corridors to allow plant and wildlife dispersal/ recolonization and Lake Ontario function. 	Potential Long-Term Actions <ul style="list-style-type: none"> • Set a carbon capture targets for natural ecosystem focusing of reforestation and reestablishment of wetlands and report on status at regular intervals • Secure natural heritage corridors based on the connectivity review • Link provincial and federal biodiversity strategies with the natural heritage component of the official plan and participate in ecosystem status workshops
Direction: Apply a systems approach to understand our water system better and enhance our urban systems to work with our natural systems		
Potential Short-Term Actions <ul style="list-style-type: none"> • Review and update the stormwater masterplan • Develop Integrated Urban Water Management System Plan for the region • Use/provide links to landscape plantings that do not require watering 	Potential Med-Term Actions <ul style="list-style-type: none"> • Identify groundwater recharge zones throughout the city to enhance/direct onsite infiltration projects and wetland securement as well as protect downstream watercourse water quality were groundwater emerges • Develop and implement an urban forestry strategy 	Potential Long-Term Actions <ul style="list-style-type: none"> • Secure recharge zones and reestablish zones lost to impervious surfaces in urban areas. • Provide status updates on Lake Ontario fish use of local watercourse systems to council



	addressing natural forests, street trees, and private trees focusing on the energy conservation savings and health benefits of trees	
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