

APPENDIX B – Additional Opportunities

AGRICULTURE AND FOOD

Directions and Opportunities

Direction: Practice sustainable agriculture	
<p>Potential Med-Term Opportunities</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 • 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 Opportunities</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
Direction: Preserve local farmland	
<p>Potential Med-Term Opportunities</p> <ul style="list-style-type: none"> • Develop public awareness campaign to Increase public's awareness of the need for stronger farmland preservation/protection through policies such as the Green Belt • Establish/strengthen land use policies that encourage farmland preservation 	<p>Potential Long-Term Opportunities</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>
Direction: Support and encourage local food producers and urban agriculture	
<p>Potential Med-Term Opportunities</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 	<p>Potential Long-Term Opportunities</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

<p>development)</p> <ul style="list-style-type: none"> • 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) • 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>Direction: Reduce the amount of food that is wasted</p>	
<p>Potential Med-Term Opportunities</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 • 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 Opportunities</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

Potential Med-Term Opportunities

- Incorporate the GHG impact of food choices into food education programs
- Extend community gardening opportunities between schools and the community
- Advocate for the integration of growing, cooking, and food preservation methods into school programs/ curriculum

Potential Long-Term Opportunities

AWARENESS AND EDUCATION

Directions and Opportunities

<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 Med-Term Opportunities</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 • 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 Opportunities</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 Med-Term Opportunities</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 comparisons with neighbours on utility bills • Prepare climate change resources guide with relevant information/ resources for home owners/businesses • Develop a home adaptation audit program to provide guidance to 	<p>Potential Long-Term Opportunities</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>homeowners on how to safeguard their homes from climate impacts, tap into program, incentives, 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 Med-Term Opportunities</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 • Advocate for political leadership on climate change through public engagement (e.g. how to contact MPs) • Explore establishing a formal partnership program for implementation of climate actions • Host/facilitate networking opportunities amongst partners in climate action 	<p>Potential Long-Term Opportunities</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 Med-Term Opportunities</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 • Expand and further promote the Hamilton Climate Change Map initiative • Celebrate successes through the Hamilton Climate Change Charter 	<p>Potential Long-Term Opportunities</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

Directions and Opportunities

Direction: Plan for energy generation, distribution, and consumption through a coordinated and regional approach	
Potential Med-Term Opportunities <ul style="list-style-type: none"> • Develop a community energy plan • Continue to map/ monitor/measure and verify Hamilton’s energy usage • Implement requirement for site-level energy planning for new developments • Develop a regional smart energy network strategy 	Potential Long-Term Opportunities <ul style="list-style-type: none"> • Establish Hamilton as an energy neutral community
Direction: Foster a culture of energy conservation	
Potential Med-Term Opportunities <ul style="list-style-type: none"> • Continue/expand utility based conservation and demand management programs • Develop/expand education and awareness campaign on energy conservation • Explore mechanisms to encourage the undertaking of energy audits or energy benchmarking before a transfer of property ownership takes place • Offer incentives/support to encourage strategic tree planting for energy conservation on private property 	Potential Long-Term Opportunities <ul style="list-style-type: none"> • Support neighbourhood energy conservation through grassroots initiatives and local organizations
Direction: Encourage the efficient use of energy	
Potential Med-Term Opportunities <ul style="list-style-type: none"> • Promote mandatory Operator Training program to educate building operators and managers on ways to improve building performance (e.g. BOMA) • Develop checklist/ resources for homeowners and small businesses to assess their own energy use and level of efficiency • Establish a central source of expertise and advice to assist different sectors to improve energy efficiency 	Potential Long-Term Opportunities <ul style="list-style-type: none"> • Undertake auditing of fleets to assess use and where efficiency improvements can be made • Advocate for more aggressive energy efficiency requirements in the Ontario Building Code

<ul style="list-style-type: none"> • Continue to deliver coordinated residential energy conservation and efficiency retrofit program to deliver existing/new initiatives to existing homes 	
Direction: Use renewable energy	
Potential Med-Term Opportunities <ul style="list-style-type: none"> • Continue to identify opportunities for local renewable energy generation (e.g. wind, solar, hydro, biomass, biogas) • Expand renewable natural gas generation • Assess and support solar hot water heating through financing program (e.g. Halifax Solar City) 	Potential Long-Term Opportunities <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 Med-Term Opportunities <ul style="list-style-type: none"> • Pursue opportunities associated with community-owned renewable energy initiatives as incented under Ontario's Feed-in Tariff program • Identify/establish community energy cooperatives • Expand existing district energy systems 	Potential Long-Term Opportunities <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 Med-Term Opportunities <ul style="list-style-type: none"> • Install and mandate electric vehicle charging stations to expand the electric vehicle charging network • Green corporate fleets to improve Corporate Average Fuel Efficiency (CAFE) • Implement wide-spread use of compressed natural gas, electricity and hybrid vehicles 	Potential Long-Term Opportunities <ul style="list-style-type: none"> • Electrify transit, commuter rail and freight rail where feasible •

INFRASTRUCTURE

Directions and Opportunities

<p>Direction: Transition to the use of green infrastructure to make use of natural ecological processes</p>	
<p>Potential Med-Term Opportunities</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 • Update/revise infrastructure guidelines to encompass green infrastructure • Integrate bio retention swales into new roadway/boulevard construction • Integrate engineered soils (e.g, SilvaCell TM) on paved sites, urban plaza areas and streetscapes to improve tree habitat conditions 	<p>Potential Long-Term Opportunities</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 Opportunities</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 • 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 Opportunities</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

Direction: Improve stormwater infrastructure to better manage more rainfall and flooding	
<p>Potential Med-Term Opportunities</p> <ul style="list-style-type: none"> • Require existing downspouts be disconnected from stormwater system • Develop updated flood mapping and publicize to promote awareness of risks • Conduct assessment of existing stormwater infrastructure to identify opportunities to improve (underway) • Establish a 250-year storm standard for stormwater system design to replace the 100-year storm standard (e.g. Stratford) 	<p>Potential Long-Term Opportunities</p> <ul style="list-style-type: none"> • Upgrade capacity and separate combined sewer infrastructure • Upgrade stormwater infrastructure (e.g. bridges, culvers, stormwater ponds, etc.) to increase capacity
Direction: Reduce strain on infrastructure by improving homes and businesses to better manage more rainfall and flooding	
<p>Potential Med-Term Opportunities</p> <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 • 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 	<p>Potential Long-Term Opportunities</p> <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	
<p>Potential Med-Term Opportunities</p> <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) • Develop commercial parking guidelines 	<p>Potential Long-Term Opportunities</p> <ul style="list-style-type: none"> • Require some amount of Low Impact Development be incorporated into new developments

to integrate low impact design (e.g. permeable pavement, storm swales, source control, etc.)

- Amend zoning by-laws to increase requirements for number of trees planting per parking space in surface parking lots
- Revise the City's commercial surface parking requirements to limit parking lot surface areas to encourage stacked parking rather than larger parking areas

LAND USE, BUILDINGS, AND BUILT FORM

Directions and Opportunities

Direction: Reduce impacts of buildings by building net zero/net positive buildings	
Potential Med-Term Actions <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) • 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 	Potential Long-Term Opportunities <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
Direction: Align climate change adaptation and mitigation with land use and built environment management structures, processes, and decision-making	
Potential Med-Term Opportunities <ul style="list-style-type: none"> • Explore development of mechanisms/best practices to integrate climate adaptation and mitigation into the development 	Potential Long-Term Opportunities <ul style="list-style-type: none"> • Structure development the decision making criteria and weighting to minimize fossil fuel use • Establish variable development charges

<p>review processes to ensure development proposals are consistent with GHG targets</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.) • Integrated climate change analysis into the City’s statutory Official Plan review and develop climate change policies 	<p>and water rates to reflect real costs of buildings and maintain infrastructure</p>
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Direction: Build an innovative and adaptive built form

<p>Potential Med-Term Opportunities</p> <ul style="list-style-type: none"> • Required green roofs in new developments • Implement a design awards program to recognize sustainable innovation in building • 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 	<p>Potential Long-Term Opportunities</p> <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
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Direction: Plan for human scale with integrated land use patterns

<p>Potential Med-Term Opportunities</p> <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 	<p>Potential Long-Term Opportunities</p> <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
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level rise) elsewhere in North America and the world

- Re-evaluate the land and policy requirements so as 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
- 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 address community, social, economic, housing and physical needs as migrants resettle and agricultural and manufacturing activities relocate in the Great Lakes Region

LOCAL ECONOMY AND BUSINESS

Directions and Opportunities

Direction: Engaged the business community in understanding and being prepared for local climate change	
Potential Med-Term Opportunities <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) • 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 	Potential Long-Term Opportunities <ul style="list-style-type: none"> • Develop business continuity plans for extreme weather (Community Awareness and Emergency Response Group)
Direction: Encourage business sustainability practices and measure outcomes	
Potential Med-Term Opportunities <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) • 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 	Potential Long-Term Opportunities <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

<p>establishing green teams and completing sustainability audits/plans</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 • Initiate local and sustainable purchasing policies 	
<p>Direction: Facilitate collaboration and sharing amongst the Hamilton business community in support of sustainability and climate change</p>	
<p>Potential Med-Term Opportunities</p> <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 • 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.) 	<p>Potential Long-Term Opportunities</p>
<p>Direction: Communicate and celebrate successes to generate greater awareness and buy-in to adoption of sustainable business practices</p>	
<p>Potential Med-Term Opportunities</p> <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, Innovation Factory) 	<p>Potential Long-Term Opportunities</p>

<ul style="list-style-type: none"> • Encourage businesses to communicate successes to stakeholders • Measure and communicate/showcase results of carbon and other resource utilization and associated emissions as well as business benefits resulting from reductions and greater efficiencies (Sustainable Hamilton, MOECC, HIEA) 	
<p>Direction: Support and develop the local economy through sustainability focused economic development, research, and innovation in sustainability and climate change</p>	
<p>Potential Med-Term Opportunities</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) • 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 Opportunities</p> <ul style="list-style-type: none"> • Explore opportunities to establish an eco-district for green industries

TRANSPORTATION AND MOBILITY

Directions and Opportunities

Direction: Change behaviour social norms to support sustainable modes of transportation	
<p>Potential Med-Term Opportunities</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) • 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 Opportunities</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
Direction: Build complete and integrated streets and networks	
<p>Potential Med-Term Opportunities</p> <ul style="list-style-type: none"> • Complete an integrated cycling network • 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 Long-Term Opportunities</p> <ul style="list-style-type: none"> • Redesign existing roadways to prioritize transit, cycling and walking

Direction: Engage community members in decision-making related to their mobility network through demonstration and outreach	
Potential Med-Term Opportunities <ul style="list-style-type: none"> • Have open street events every week on at least 25 km of roads three seasons of the year • Establish a sustainable transportation advocacy group(s) • Engage with neighbourhoods through participatory planning to set their own speed limits • Utilize tactical urbanism to demonstrate and engage communities in decision-making 	Potential Long-Term Opportunities
Direction: Support and invest in higher order public transit and supportive land uses	
Potential Med-Term Opportunities <ul style="list-style-type: none"> • Expand transit services – routes and headways • Invest in shared mobility infrastructure (carshare, bikeshare, transit) • Explore financial incentive program to encourage transit ridership • Establish investment in rapid transit and transit supportive land uses a priority for Hamilton 	Potential Long-Term Opportunities <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
Direction: Move goods and deliver services efficiently by using low carbon alternatives that are less prone to impacts from climate change	
Potential Med-Term Opportunities <ul style="list-style-type: none"> • Support/use local green/active transportation couriers • Implement anti-idling policies amongst corporate fleets • Explore opportunities for shared delivery of goods 	Potential Long-Term Opportunities <ul style="list-style-type: none"> • Support rail-based and water-based goods movement?

WATER AND NATURAL ECOSYSTEMS

Directions and Opportunities

Direction: Reduce our water and energy related footprint	
<p>Potential Med-Term Opportunities</p> <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 • 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 	<p>Potential Long-Term Opportunities</p> <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	
<p>Potential Med-Term Opportunities</p> <ul style="list-style-type: none"> • Support organizations providing climate change related outreach and education (e.g. BARC) • Research and create a factsheet/document identify local benefits of water and 	<p>Potential Long-Term Opportunities</p> <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

ecosystem service for human health and the negative consequences associated with degraded environments

- Provide outreach events to demonstrate the connection between environment and human health and its links with climate changes

care investment choices

Direction: Manage and restore our ecosystems

Potential Med-Term Opportunities

- Develop Urban Ecosystem Conservation Plan for Climate Resilience by 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 of 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
- 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 ecosystem 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 Opportunities

- Set a carbon capture targets for natural ecosystem focusing of tree planting, reforestation and reestablishment of wetlands and report on status at regular intervals
- Secure natural ecosystem corridors based on the connectivity review
- Link provincial and federal biodiversity strategies with the natural heritage or natural ecosystem 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 Med-Term Opportunities

- Review and update the stormwater management masterplan
- Develop Integrated Urban Water Management System Plan for the region
- Use/provide links to landscape plantings that do not require watering
- 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 forest strategic management plan for natural forests, street trees, and private trees quantifying the energy conservation savings and health benefits of trees and identifying mechanisms to encourage tree and urban forest protection, enhancement, and long-term sustainability

Potential Long-Term Opportunities

- 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