ENVIRONMENT AND SUSTAINABILITY

4.1 CLIMATE CHANGE AND AIR QUALITY 4-5

4.1.1 OBJECTIVES 4-6

4.1.2 POLICIES 4-6

4.2 NATURAL HERITAGE SYSTEM 4-8

4.2.1 OBJECTIVES 4-8

4.2.2 GENERAL POLICIES 4-9

4.2.3 GREENBELT NATURAL HERITAGE SYSTEM 4-15

4.2.4 ENVIRONMENTAL IMPACT ASSESSMENT (EIA) 4-18

4.2.5 NATURAL HERITAGE SECUREMENT 4-20

4.3 URBAN FORESTRY 4-22

4.3.1 OBJECTIVES 4-22

4.3.2 POLICIES 4-22

4.4 WATER RESOURCES 4-25

4.4.1 OBJECTIVES 4-25

4.4.2 POLICIES 4-26

4.5 WATERFRONT 4-36

4.5.1 NATURAL ENVIRONMENT 4-36

4.5.2 PUBLIC ACCESS AND USE 4-38

4.5.3 DEVELOPMENT 4-39

4.6 LAND USE COMPATIBILITY 4-42

4.6.1 OBJECTIVES 4-42

4.6.2 POLICIES 4-42

4.7 CONTAMINATED SITES 4-44

4.7.1 OBJECTIVE 4-44

4.7.2 POLICIES 4-45
4.8 FORMER WASTE DISPOSAL SITES 4-47
4.8.1 OBJECTIVE 4-47
4.8.2 POLICIES 4-47
4.9 COMMUNITY GARDENS AND URBAN AGRICULTURE 4-49
4.9.1 OBJECTIVES 4-49
4.9.2 POLICIES 4-49
4.10 MINERAL AGGREGATE RESOURCES 4-51
4.10.1 OBJECTIVES 4-51
4.10.2 POLICIES 4-51

ENVIRONMENT AND SUSTAINABILITY

Sustainable development is about meeting the needs of today without compromising the needs of future generations. The goal of *sustainable development* is to create city systems and built form that support the kinds of communities and connections that provide social, economic and environmental well-being now and in the future.

In 1990, Burlington *City* Council declared the City a *Sustainable Development* Community and in 1994 *City* Council adopted principles and objectives of *Sustainable Development*, to guide the citizens and leadership of the city in their discussions and decisions on how to achieve *sustainable development*. Council's 2015 - 2040 Strategic Plan reaffirms the *City's* commitment to *sustainable development*. This chapter of the Plan reflects the *City's* intention to continue to be a prosperous, liveable and healthy community through the process of s*ustainable development*. This includes policies to protect and enhance the Natural Heritage System, *urban forest,* and our *watersheds,* to achieve *sustainable* design and environmental *compatibility*, provide various types of *green infrastructure,* and prepare for the *impacts of a changing climate*, contamination and other environmental matters.

While the policies in this chapter are primarily related to environmental *sustainability,* it is important to note that the principles of *sustainable development* have been applied to all policies throughout this Plan to achieve *sustainable* land use patterns, transportation systems and community and economic development.

The principles and objectives of *sustainable development,* as updated and adopted by *City* Council in 2017, are included as Appendix D: Sustainable Development Principles and Objectives, of this Plan.

The *City* will maintain a citizens' advisory committee to advise and assist the *City* on the implementation of Principles and Objectives of Sustainable Development, as outlined in Appendix D of this Plan, through the review of *development applications*, policies and other matters of interest in accordance with the terms of reference for the committee adopted and periodically reviewed by the *City.*

4.1 CLIMATE CHANGE AND AIR QUALITY

In order to achieve a *sustainable* community, and human and *ecosystem* health, climate change and air pollution must be addressed. Climate change and air pollution impacts are caused primarily by burning fossil fuels, resulting in the emission of greenhouse gases and air pollutants. These impacts can be reduced

through *sustainable,* effective and efficient land use and transportation policies that reduce air and greenhouse gas emissions. This section of the Plan highlights policies that contribute to the mitigation of greenhouse gas and fuel emissions, policies that enhance carbon sinks such as the Natural Heritage System and A*gricultural System*, and policies that address adaptation in order to minimize the city's vulnerability to the unacceptable impacts of climate change, all of which contribute to a more resilient community and *infrastructure*.

4.1.1 OBJECTIVES

a) To increase community resiliency to the *impacts of a changing climate* through mitigation and adaptation measures and through the maintenance and restoration of the Natural Heritage System.

b) To work towards the goal of the city community being net carbon-neutral.

c) To enhance air quality.

4.1.2 POLICIES

a) The *City* will work to improve air quality and energy efficiency, to reduce greenhouse gas and fuel emissions, and to mitigate and adapt to the *impacts of a changing climate* through land use and transportation policies related to:

(i) maintaining the urban boundary and seeking a compact built form in Mixed Use Intensification Areas;

(ii) achieving mixed use development to encourage walking, cycling and transit;

(iii) locating intensification in areas which are well served by existing or planned transit;

(iv) promoting and encouraging modal shift towards transit and active transportation, using tools such as transportation demand management;

(v) addressing parking management, primarily through the Zoning By-law, that does not undermine transit and active modes of transportation;

(vi) maintaining, restoring and enhancing the urban forest and Natural Heritage System;

(vii) recognizing the importance of watershed planning for protecting and identifying water resource systems, undertaking stormwater

management, and mitigating potential risk associated with natural hazards;

(viii) encouraging energy generation from renewable sources and community energy solutions such as micro grids, district energy, and energy storage;

(ix) encouraging sustainable, energy efficient and low carbon buildings;

(x) addressing air quality impacts through land use compatibility policies;

(xi) developing and implementing a Community Energy Plan with energy conservation measures and a carbon reduction target; and

(xii) supporting local agriculture and food production; and

(xiii) focusing freight-intensive land uses to areas well served by major highways, airports, rail facilities and marine facilities.

4.2 NATURAL HERITAGE SYSTEM

The natural heritage system (NHS) makes a valuable contribution to the environmental, economic, social and cultural well-being of the city and to the health of the city's residents. Natural features such as Lake Ontario, Burlington Bay/Hamilton Harbour, the Niagara Escarpment, and the city's forests and valleys have helped to shape the character of the Burlington.

The natural heritage system is made up of *natural heritage features and areas,* such as *woodlands* and *wetlands*, shorelines, *enhancements and buffers,* and the *linkages* and inter-relationships among them, and with the surrounding landscape. The natural heritage system is intended to provide connectivity and support natural processes which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species, and *ecosystems*.

A healthy natural heritage system provides a wide range of benefits to the city's residents, farms and businesses including: protecting water resources and maintaining healthy *watersheds*; moderating stormwater runoff, flooding and erosion; reducing air pollution and acting as a sink for greenhouse gases; maintaining biodiversity and native plant and wildlife populations; and providing opportunities for residents and visitors to experience and enjoy nature.

The natural heritage system policies are directed at planning and managing the city's *natural heritage features and areas* and the interconnections among them as an integrated natural heritage system that is part of a much larger system extending beyond the city's boundaries. The goal is to increase the certainty that the biodiversity and *ecological* and *hydrologic functions* of the natural heritage system will be protected and enhanced for present and future generations.

4.2.1 OBJECTIVES

a) To maintain, restore and enhance the long-term *ecological integrity* and biodiversity of the Natural Heritage System and its *ecological* and *hydrologic functions.*

b) To maintain, restore and enhance the continuity of *linkages* and functional inter-relationships among *natural heritage features and areas*, *surface water* and *groundwater features and hydrologic functions.*

c) To maintain and enhance the landscape quality and open space character of the Niagara Escarpment.

d) To provide a buffer to prominent Escarpment features and ecologically sensitive areas of the Escarpment.

e) To support *agriculture* as a complementary and compatible use outside *Key Natural Features.*

f) To recognize, promote and protect *agriculture* as a primary activity within *Prime Agricultural Areas*, in accordance with the policies of Subsection 9.2.4, *Prime Agricultural Areas*, of this Plan.

g) To maintain, restore and enhance *Key Natural Features,* without limiting the ability of existing *agricultural uses* to continue.

h) To maintain a continuous natural open space system providing separation between *settlement areas*.

i) To direct *development* to locations outside *hazardous lands* and *hazardous sites.*

j) To maintain, protect and enhance the quality and quantity of ground and surface water and their related *hydrologic functions.*

k) To avoid increased flooding, erosion and sedimentation.

l) To preserve examples of the landscape that display *significant* earth science features and their associated processes.

m) To enhance air quality.

n) To provide opportunities for scientific study and education.

o) To provide opportunities for *non-intensive recreation uses* within the Natural Heritage System, where appropriate.

4.2.2 GENERAL POLICIES

a) The Natural Heritage System consists of two components: the *City's* Natural Heritage System and the Greenbelt Natural Heritage System. The Natural Heritage System (NHS) is shown on Schedule M: The Natural Heritage System, of this Plan. The Natural Heritage System and its components are defined by the policies of this Plan.

b) The Provincial Growth Plan provides for the identification and protection of the Natural Heritage System for the Growth Plan, which applies outside of the Greenbelt Area, Niagara Escarpment Plan Area, and *settlement areas*. Provincial mapping for the Natural Heritage System for the Growth Plan is to be incorporated as an overlay in municipal official plans but does not apply until it has been implemented by the applicable upper- or single-tier official plan. Until that time, the policies of the Provincial Growth Plan that refer to the Natural Heritage System for the Growth Plan will apply to the *City's* Natural Heritage System, outside of the Greenbelt Area, Niagara Escarpment Plan Area, and *settlement areas*, as identified on Schedule M: Natural

Heritage System, of this Plan. Once the Natural Heritage System for the Growth Plan has been implemented through a *municipal comprehensive review* by the Region of Halton, the mapping will be incorporated into this Plan by amendment or as part of the *City's* next statutory review of this Plan.

c) Within the Natural Heritage System, the policies of the applicable Provincial Plans as identified on Schedule A-1: City System - Provincial Land Use Plans and Designations, *shall* apply as follows, in addition to the policies of this Plan:

(i) within the Greenbelt Plan Area, the policies of the Greenbelt Plan *shall* apply. This Plan *may* contain policies that are more stringent than the requirements of the Greenbelt Plan, provided that they do not conflict with the Greenbelt Plan. However, with the exception of section 4.6 of the Greenbelt Plan, this Plan *shall* not be more restrictive than sections 3.1 and 4.3.2 of the Greenbelt Plan as they apply to *agricultural* uses and mineral aggregate resources respectively;

(ii) within the Niagara Escarpment Plan Area the policies of the Niagara Escarpment Plan shall apply. The policies of this Plan may be more stringent than the requirements of the Niagara Escarpment Plan, provided that they do not conflict with the Niagara Escarpment Plan;

(iii) within the Parkway Belt West Plan Area, the policies of the Parkway Belt West Plan *shall* apply. The policies of this Plan *may* be more stringent than the requirements of the Parkway Belt West Plan, provided that they do not conflict with the Parkway Belt West Plan;

(iv) within the North Aldershot Area as shown on Schedule K: Land Use-North Aldershot, the policies of the Provincial Growth Plan *shall* apply with respect to those lands that are outside both the Niagara Escarpment Plan Area and the Greenbelt Plan Area.

In the event of a conflict between the provisions of this Plan and those of an applicable provincial plan, the provisions of the applicable provincial plan *shall* prevail; however, where the provisions of this Plan are more restrictive the provisions of this Plan *shall* apply, unless doing so would conflict with the Provincial Plan.

d) The *City's* Natural Heritage System is made up of:

(i) areas so designated on Schedule C: Land Use - Urban Area, and Schedule I: Land Use -Rural Area, of this Plan;

(ii) the shoreline along Lake Ontario and Burlington Bay/Hamilton Harbour; and

(iii) areas identified as Natural Heritage System on Schedule M: The Natural Heritage System within the North Aldershot Planning Area; and

(iv) *Natural Heritage Features and Areas* not designated as Natural Heritage System on Schedule C: Land Use - Urban Area, or Schedule I: Land Use - Rural Area, or not shown as *Natural Heritage Features and Areas* on Schedule M: The Natural Heritage System, of this Plan.

e) The *City's* Natural Heritage System embodies a systems approach to protecting and enhancing *natural heritage features and areas* and *ecological* and *hydrologic functions* and is scientifically structured on the basis of the following components:

(i) *Key Natural Features*, which include:

a. *habitat of endangered species and threatened species*;

b. *significant wetlands*;

c. *significant coastal wetlands;*

d. *significant woodlands*;

e. *significant valleylands;*

f. *significant wildlife habitat;*

g. *significant areas of natural and scientific interest;* and

h. *fish habitat;*

Key Natural Features that have been identified are shown on Schedule M: The Natural Heritage System, of this Plan. Additional *Key Natural Features may* be identified through future studies, through the *development application* or *site alteration* application process, or through an Environmental Assessment. Schedule M may not identify refinements to the Natural Heritage System that have been approved pursuant to Subsection 4.2.2 h) of this Plan or additions to the Natural Heritage System that have been identified in accordance with Subsection 4.2.2 k) of this Plan.

(ii) *enhancements to the Key Natural Features* including *Centres for Biodiversity;*

(iii) *linkages;*

(iv) *buffers;*

(v) *watercourses* that are within a Conservation Halton Regulation Limit or that provide a *linkage* to a *wetland* or a *significant woodland*; and

(vi) *wetlands* other than those considered *significant* under Subsection 4.2.2 e) (i) of this Plan.

f) The *City's* Natural Heritage System includes lands that are:

(i) designated as Escarpment Natural Area or Escarpment Protection Area in the Niagara Escarpment Plan; and

(ii) regulated as *hazardous lands* and *hazardous sites* as determined, mapped and refined from time to time by Conservation Halton. Policies respecting *hazardous lands* and *hazardous sites* are contained in Subsection 4.4.2(3) of this Plan.

g) Those lands that are within the Natural Heritage System but are outside the *Key Natural Features,* and those where the only *Key Natural Feature* is a *significant* earth science *area of natural and scientific interest*, also are part of the Agricultural Land Base as shown on Schedule J: The Agricultural Land Base-Rural Area, of this Plan. Within those lands *agriculture* is recognized, supported and promoted in accordance with the policies of Section 9.2, The Agricultural System, of this Plan.

h) The boundaries of the *City's* Natural Heritage System, and of *Key Natural Features* within it, *may* be refined, with additions, deletions and/or boundary adjustments, through:

(i) a sub-*watershed* study undertaken in the context of an *area-specific plan* and prepared in accordance with Subsection 4.4.2(1) of this Plan*;*

(ii) an individual Environmental Impact Assessment (EIA) prepared in accordance with Subsection 4.2.4 of this Plan; or

(iii) a similar study based on terms of reference accepted by the *City*, the Region of Halton and, where appropriate, Conservation Halton;

provided that the study or EIA has been accepted by the *City,* the Region of Halton and, where appropriate, Conservation Halton. Once such refinements have been approved through an approval process under The Planning Act, The Niagara Escarpment Planning and Development Act or Federal or Provincial Environmental Assessment requirements, these refinements *shall* be in effect on the date of such approval. Once such refinements have been incorporated in the Regional Official Plan, the *City shall* incorporate them in the appropriate Schedules to this Plan as part of an Official Plan Amendment supported by an EIA or through the *City's* statutory review of this Plan. If the refinement undertaken in accordance with this policy leads to a reduction in the size of the Natural Heritage System designation, the new land use designation *shall* be consistent with the Urban Structure on Schedule B:

Urban Structure, unless more specific policy direction is provided, and *shall* not require an Official Plan Amendment.

i) Refinements to the *City's* Natural Heritage System *should* be determined *at* an early stage in the planning process or the *development application* or *site alteration* application process, and in the broadest available context, at a point where there is greater opportunity to design the *development* to protect and enhance the natural features and *ecological* and *hydrologic functions* of all components of the *City's* Natural Heritage System and therefore to improve the long-term *sustainability* of the Natural Heritage System as a whole.

j) Notwithstanding Subsection 4.2.2 h) of this Plan, refinements to the boundaries of the following *Key Natural Features* identified by the Province *shall* be prohibited except in accordance with Provincial and Federal legislation or regulations:

(i) *significant Areas of Natural and Scientific Interest*; and

(ii) *significant wetlands* and *significant coastal wetlands*.

k) If, through the preparation of an *area-specific plan* or the review of a *development application* or an application for *site alteration*, it is found that there are one or more natural features on or adjacent to the site of the application that are not shown on Schedule M: The Natural Heritage System, of this Plan, and that have not been adequately identified or evaluated, or for which new information has become available, the applicant *may* be required to have an Environmental Impact Assessment (EIA) prepared by a *qualified person* to the satisfaction of the *City,* the Region of Halton and, where appropriate, Conservation Halton and the Province, to determine whether the feature is a *Key Natural Feature*. If it is determined that the feature is a *Key Natural Feature,* the policies of Section 4.2, Natural Heritage System, of this Plan, *shall* apply to the application. The *City* will maintain mapping showing such *Key Natural Features* and they *shall* be identified on the appropriate Schedules to this Plan as part of the *City's* statutory review of the Plan.

l) *Existing uses*, including *agricultural operations*, are permitted within *Key Natural Features* and can continue. The construction or expansion of buildings or structures *shall* be subject to subsection 4.2.2(m), of this Plan.

m) The *City shall* apply a systems based approach to *development* and *site alteration* within and adjacent to the *City's* Natural Heritage System, including the establishment of permitted uses, by:

(i) prohibiting *development* and *site alteration* within:

a. significant wetlands and significant coastal wetlands;

b. *fish habitat* except in accordance with Provincial and Federal legislation or regulations;

c. the *habitat of endangered species and threatened species* except in accordance with Provincial and Federal legislation or regulations; and

d. *hazardous lands, hazardous sites* and other areas regulated by Conservation Halton unless the *development application* is in accordance with Subsection 4.4.2(3) of this Plan and permission has been received by Conservation Halton;

(ii) not permitting *development* or *site alteration* within or adjacent to the *City's* Natural Heritage System unless it has been demonstrated through the EIA or equivalent study that there will be no *negative impacts* on the *City's* Natural Heritage System or on *natural heritage features and areas* or their *ecological* and *hydrologic functions* or *linkages*. In applying this policy, *agricultural operations* are considered to be compatible and complementary uses in those parts of the *City's* Natural Heritage System within the Agricultural Land Base as shown on Schedule J: The Agricultural Land Base-Rural Area, of this Plan, and are supported and promoted in accordance with the policies of this Plan. Subsection 4.2.4, of this Plan, identifies when an Environmental Impact Assessment is required;

(iii) applying the Natural Heritage System policies of this Plan to a *development application* or *site alteration* application within the city that is located within one hundred and twenty (120) m of a Natural Heritage System or a *Key Natural Feature* designated in the Official Plan of an abutting municipality; and

(iv) supporting the interconnection of the Natural Heritage System to Natural Heritage Systems in neighbouring municipalities.

n) Where appropriate, the *City* will enhance the function of the *City's* Natural Heritage System through the *development* process by locating City parks and open space adjacent to or near the *City's* Natural Heritage System and designing and managing that open space to enhance natural features and *ecological* and *hydrologic functions.*

o) The designation of land as part of the Natural Heritage System does not imply:

(i) that those lands are available or open for public use; or

(ii) that the *City* intends to purchase those lands.

4.2.3 GREENBELT NATURAL HERITAGE SYSTEM

a) The Greenbelt Natural Heritage System identified in the Provincial Greenbelt Plan is shown as an overlay on Schedule M: The Natural Heritage System, of this Plan. The purpose of the policies in this Section of the Plan is to implement the policies of the Greenbelt Plan as they apply to the Greenbelt Natural Heritage System.

b) The Greenbelt Natural Heritage System represents a systems approach to protecting natural features and functions within the Greenbelt Plan Area and its construct is equivalent to that of the *City's* Natural Heritage System as described in Subsection 4.2.2 e) of this Plan. The *Key Natural Features* within the Natural Heritage System referred to under Subsection 4.2.2 e) (i) of this Plan, and the following *Key Natural Features* within the Greenbelt Natural Heritage System are shown on Schedule M: The Natural Heritage System, of this Plan:

(i) sand barrens, savannahs and tall grass prairies;

(ii) permanent and intermittent streams;

(iii) lakes;

(iv) seepage areas and springs;

(v) alvars; and

(vi) *significant habitat of special concern species*.

c) While the Greenbelt Natural Heritage System and the City's Natural Heritage System have different sets of planning policies, they complement each other and together implement the *City*'s vision of a *sustainable* Natural Heritage System that preserves and enhances the biological diversity and *ecological* and *hydrologic functions* of the city. Within those parts of the Greenbelt and *City's* Natural Heritage Systems that are within the Agricultural System described in Section 9.2, The Agricultural System, of this Plan, *agricultural operations* are considered as compatible and complementary uses towards implementing this vision.

d) Refinements to the boundaries of the Greenbelt Natural Heritage System are not permitted unless as a result of amendments to the Greenbelt Plan by the Province. The boundaries of *Key Natural Features* within the Greenbelt Natural Heritage System *may* be refined in accordance with Subsections 4.2.2 h), i) and j) of this Plan.

e) The *City shall* prohibit *development* or *site alteration* within the *Key Natural Features* of the Greenbelt Natural Heritage System, except in accordance with the policies of this Plan, the Regional Official Plan and the Greenbelt Plan.

f) The *City shall* not permit *development* or *site alteration* on lands adjacent to the *Key Natural Features* of the Greenbelt Natural Heritage System unless the proponent has evaluated the *ecological* and *hydrologic functions* of these lands through an Environmental Impact Assessment (EIA) in accordance with Subsection 4.2.4 of this Plan.

g) Notwithstanding Subsections 4.2.3 e) and f) of this Plan, the following uses *may* be permitted within *Key Natural Features* of the Greenbelt Natural Heritage System, subject to the applicable policies of this Plan:

(i) *forest, fisheries* and *wildlife management* that is carried out in a manner that maintains or, where possible, improves these features and their functions;

(ii) conservation and flood or erosion control projects if they have been demonstrated to be necessary in the public interest and after all alternatives have been considered;

(iii) archaeological activities;

(iv) *essential* linear *infrastructure* facilities subject to Subsection 6.1.2 h) of this Plan;

(v) *non-intensive recreation uses* such as nature viewing, pedestrian trails and small-*scale* structures such as boardwalks, footbridges, fences, docks, and picnic facilities where *negative impacts* are minimized;

(vi) *existing uses*, including existing *agricultural* uses; and

(vii) *mineral aggregate operations*, subject to the policies of Section 4.10, Mineral Aggregate Resources, of this Plan.

h) The proponent of any *development* or *site alteration*, including public works, that is located wholly or partially within the Greenbelt Natural Heritage System or within one hundred and twenty (120) m of a *Key Natural Feature shall* be required to carry out an Environmental Impact Assessment (EIA) prepared by a *qualified person,* in accordance with Subsection 4.2.4 of this Plan to the satisfaction of the *City*, the Region of Halton, and, where appropriate, the Conservation Authority. The EIA will identify a *vegetation protection zone* which:

(i) is of sufficient width to protect the *Key Natural Feature* and its functions from the *negative impacts* of the proposed *development* or

site alteration and associated activities that may occur before, during, and after, construction, and where possible, restore or enhance the feature and/or its functions; and

(ii) is established to achieve, and be maintained as *natural self-sustaining vegetation*.

i) A proposal for new *development* or *site alteration* within the Greenbelt Natural Heritage System is not subject to Subsection 4.2.3 h) of this Plan where the only *key natural feature* is the *habitat of endangered species and threatened species*.

j) Notwithstanding Subsection 4.2.3 h) of this Plan, a minimum *vegetation protection zone* thirty *(*30) m wide *shall* be required for *wetlands*, seepage areas and springs, *fish habitat*, permanent and intermittent streams, lakes, and *significant woodlands*, measured from the outside boundary of the *Key Natural Feature* or *key hydrologic feature*.

k) For *agriculture*-related *development* or *site alteration* the requirement for an EIA under Subsection 4.2.3 h) of this Plan is reduced to within 30 m of a *Key Natural Feature*.

l) Notwithstanding Subsection 4.2.3 h) of this Plan, new buildings and structures for *agricultural, agriculture-related* or *on-farm diversified uses* are not required to undertake a natural heritage or hydrologic evaluation if a minimum 30 metre *vegetation protection zone* is provided from a *Key Natural Feature* or *key hydrologic feature*. In addition, these uses are exempt from the requirement of establishing a condition of *natural self-sustaining vegetation* if the land is and will continue to be used for *agricultural* purposes. However, *agricultural, agriculture-related* and *on-farm diversified uses shall* pursue best management practices to protect and/or restore *Key Natural Features* and *key hydrologic features* and functions.

m) Notwithstanding Subsections 4.2.3 h), i) and j) of this Plan, expansions or alterations to *existing* buildings and structures for *agricultural uses, agriculture-related uses* or *on-farm diversified uses* and expansions to *existing* residential dwellings *may* be considered within *key natural features, key hydrologic features* and their associated *vegetation protection zones* if it is demonstrated that:

(i) there is no alternative and the expansion or alteration in the *key natural feature* is minimized and, in the *vegetation protection zone,* is directed away from the *Key Natural Feature* to the maximum extent possible; and

(ii) the impact of the expansion or alteration on the *Key Natural Feature* and its functions is minimized and mitigated to the maximum extent possible.

n) Notwithstanding Subsections 4.2.3 h), i) and j) of this Plan, expansions to *existing* buildings and structures, accessory structures and uses and/or conversions of legally *existing uses* which bring the use more into conformity with this Plan are permitted subject to a demonstration of the following:

(i) new municipal *sewage and water services* are not required; and

(ii) The use does not expand into *key natural features* or *key hydrologic features* or their associated *vegetation protection zones*, unless there is no other alternative, in which case any expansion *shall* be limited in scope and kept within close geographical proximity to the *existing* structure.

4.2.4 ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

a) Where any of the following *developments* or *site alterations* are proposed, the proponent *shall* be required to carry out an Environmental Impact Assessment (EIA) in accordance with the Region of Halton's Environmental Impact Assessment Guidelines to the satisfaction of the *City,* the Region of Halton and, where appropriate, Conservation Halton and the Niagara Escarpment Commission:

(i) the following buildings and structures if located wholly or partially inside or within thirty (30) m of any *Key Natural Feature* of the *City's* Natural Heritage System, other than where the only *Key Natural Feature* is a *significant* earth science *area of natural and scientific interest*;

a. single-detached dwellings on *existing lots* and their *accessory uses;*

b. *agricultural* buildings and structures and buildings and structures for uses permitted under Subsection 9.2.3 a) (xvi) of this Plan, and expansions to such buildings and structures, with a footprint not exceeding one thousand (1,000) sq. m. If the proposed buildings or structures are located entirely within the boundary of an existing farm *building cluster* that is surrounded by *woodlands,* an EIA is not required if there is no *tree* removal within the *woodlands;*

(ii) *agricultural* buildings and structures and buildings and structures for uses permitted under Subsection 9.2.3 a) (xvi) of this Plan, and

expansions to such buildings and structures, with a footprint over one thousand (1,000) sq. m, that are located wholly or partially inside or within thirty (30) m of the *City's* Natural Heritage System; and

(iii) all other *developments* or *site alterations*, including *infrastructure*, that are located wholly or partially inside or within one hundred and twenty (120) m of the *City's* Natural Heritage System.

(iv) any *development* or *site alteration*, including public works, that is located wholly or partially within the Greenbelt Natural Heritage System or within one hundred and twenty (120) m of a *key natural feature*.

Outside of the Niagara Escarpment Development Control Area, an EIA *shall* not be required for *agricultural* buildings or structures which do not require approval under The Planning Act. Within the Niagara Escarpment Development Control Area, an EIA *may* be required in accordance with the policies of the Niagara Escarpment Plan, and the policies of this Plan.

b) The requirement for an Environmental Impact Assessment (EIA) *may* be scoped or waived, in accordance with Regional Guidelines, if:

(i) the proponent can demonstrate to the satisfaction of the *City*, in consultation with the Region of Halton, and Conservation Halton and the Niagara Escarpment Commission where appropriate, that the *development* or *site alteration* will result in no *negative impacts* on the *City's* Natural Heritage System, on *sensitive surface water features* or *groundwater features* or their *hydrologic functions*, on *Key Natural Features*, or on their *ecological functions* or *hydrologic functions*; or

(ii) the *development* or *site alteration* is exempt or modified by other specific policies of this Plan.

c) The purpose of an Environmental Impact Assessment (EIA) is to demonstrate that the proposed *development* or *site alteration* will result in no *negative impacts* to the *City's* Natural Heritage System or its *ecological functions* or *hydrologic functions*, to *sensitive surface water features* or *groundwater features* or their *hydrologic functions*, or to *Key Natural Features* that are listed in Subsection 4.2.2 e) of this Plan but are unmapped. The EIA *shall* assess the potential environmental impacts, recommend requirements for impact avoidance and mitigation measures, and identify opportunities for environmental enhancement and restoration. The EIA *shall*, as a first step, in accordance with Subsection 4.2.2 k) of this Plan, identify *Key Natural Features* as listed in Subsection 4.2.2 e) of this Plan that are on or near the

site of the proposed *development* or *site alteration* but are not shown on Schedule M: The Natural Heritage System, of this Plan.

d) An Environmental Impact Assessment (EIA) *shall* be prepared by a *qualified person* in accordance with Region of Halton's Environmental Impact Assessment Guidelines. The EIA *shall* address the requirements of the City, Region of Halton and, where appropriate, the requirements of Conservation Halton, the Niagara Escarpment Commission and Provincial Ministries.

e) If an Environmental Assessment, or equivalent study prepared under Federal or Provincial requirements, satisfies the Region of Halton's Environmental Impact Assessment Guidelines, an EIA *shall* not be required, but the proponent *shall* implement those recommendations of the Environmental Assessment that address the *City's* policies in accordance with Section 4.2, Natural Heritage System, of this Plan and the policies and requirements of the Region of Halton, Conservation Halton.

f) Through the Environmental Impact Assessment (EIA), the boundaries of *Key Natural Features* and other components of the Natural Heritage System will be delineated on site by the applicant, corroborated by *City* and Regional staff, and Conservation Halton and Niagara Escarpment Commission staff and Provincial Ministries where appropriate. The surveyed boundaries *shall* be shown on any plans submitted as part of a complete *development application*.

g) Within the *watershed* of Burlington Bay/Hamilton Harbour, an Environmental Impact Assessment *shall* address the goals, objectives and policies of the Hamilton Harbour Remedial Action Plan.

h) The recommendations of an approved Environmental Impact Assessment (EIA), including the placement of *lot* lines and structures, and *buffers* and *development* setbacks, *shall* be implemented through zoning bylaws, site plan control, conditions of planning or *site alteration* approval and/or regulations or conditions imposed by the *City* or another appropriate *public authority* such as the Region of Halton, Province, Conservation Halton or the Niagara Escarpment Commission.

i) Conditions *may* be placed on any proposed *development* to restore the natural character of degraded components of the *City's* Natural Heritage System within the *development* site.

4.2.5 NATURAL HERITAGE SECUREMENT

a) The *City* supports the *securement* of lands within the Natural Heritage System to protect the city's natural heritage for present and future

generations. These lands *may* also provide important opportunities for *non-intensive recreation*, where appropriate.

b) If a *development application* involves lands in or adjacent to the Natural Heritage System that it is determined should be protected, the *City shall* seek*,* through the *development* approval process, the dedication of those lands and associated *buffer* lands to the *City,* Conservation Halton, another *public authority* or a *non-government conservation organization*. The dedication of such lands *shall* not be considered as contributing to the parkland dedication requirements under The Planning Act. In the Rural Area, outside *Rural Settlement Areas*, this policy *shall* only apply to Official Plan Amendment applications.

c) Subsection 4.4.2(3) g) of this Plan sets out the requirements respecting the dedication of *hazardous lands.* The policies respecting the dedication of waterfront lands are contained in Subsection 4.5.3(2) e) of this Plan.

d) The *City* will collaborate with the Region of Halton, Conservation Halton, the Niagara Escarpment Commission, other *public authorities* and *non-government conservation organizations* in the voluntary *securement* of lands within the Natural Heritage System. The *City* will consider all options for the voluntary *securement* of lands within the Natural Heritage System, the Cootes to Escarpment Ecopark System and the Bruce Trail. These options include, but are not limited to:

(i) land purchases;

(ii) land exchanges;

(iii) long-term leases;

(iv) conservation easement agreements;

(v) donations; and/or

(vi) bequests.

e) Consents *may* be permitted to enable the *securement* of lands for conservation purposes, or to support the Bruce Trail, by a *public authority* or a *non-government conservation organization* in accordance with Subsection 12.1.12(4.1) c) (iv) of this Plan*,* provided that in the Rural Area, the severance does not result in the creation of a new developable non-farm *lot* outside the *Rural Settlement Areas.*

4.3 URBAN FORESTRY

The *urban forest* provides various benefits and services to the city, including the reduction of air pollution, water attenuation, moderation of the *urban heat island effect*, carbon sequestration, shade, habitat for wildlife, *neighbourhood character* and health benefits.

The *City*'s Urban Forest Management Plan was developed with the purpose of implementing effective and efficient management of the *urban forest*, improving *tree* health and diversity, minimizing risks to the public and maximizing the benefits provided by a healthy and *sustainable urban forest.* The policies in this section assist with the implementation of the Urban Forest Management Plan and provide guidance related to the protection and planting of *trees* in all areas of the city.

4.3.1 OBJECTIVES

a) To ensure that opportunities for the protection and enhancement of *trees* both within and outside of the *City's* Natural Heritage System are fully considered through the planning process and capital projects.

b) To recognize that *trees* and *green infrastructure* provide important *ecosystem* services that benefit current and future generations by:

(i) identifying opportunities for protection, enhancement and restoration wherever possible, including opportunities to increase the city's *urban forest* and *tree* canopy;

(ii) supporting initiatives that provide for ongoing management, maintenance, monitoring and stewardship of the *urban forest*; and

(iii) supporting the replenishment and enhancement of the *urban forest* with a high diversity of predominantly native, where appropriate, and non-invasive *trees*.

4.3.2 POLICIES

a) The *City* will make use of *area-specific plans*, zoning by-law regulations and site plan control to ensure *development* occurs in a manner that advances the objectives of the Urban Forest Management Plan, including ensuring the provision of adequate space and suitable conditions at, below and above grade for the planting and growth of *trees* on public and private property. The *City* will undertake a review of the Zoning By-Law to support the implementation of urban forestry objectives.

b) The proponent of a *development application may* be required to submit and implement an arborist's report, and/or a *tree* inventory and preservation plan, to the satisfaction of the *City.*

c) Boundary *trees shall* be protected in accordance with The Forestry Act.

d) In order of priority, all *development* proposals and *infrastructure* projects, including *City* project*s, should:*

(i) *preserve* existing healthy *trees.* The location of existing healthy *trees shall* be considered when establishing the location and building envelope of a proposed *development;*

(ii) relocate healthy *trees* where feasible;

(iii) plant replacement *trees* where *trees* are removed. Replacement planting requirements *shall* be established using an aggregate-caliper formula, to the satisfaction of the *City.* If replacement *trees* cannot be accommodated on-site, off-site compensation *may* be considered to maintain and enhance the neighbourhood canopy; and

(iv) incorporate the planting of additional *trees* where appropriate.

e) Subsection 4.3.2 d) of this Plan *shall* not apply to *trees* within *Key Natural Features* which are subject to Section 4.2, Natural Heritage System, of this Plan.

f) Replacement and compensation planting requirements *should* consider on-site *tree* removals that occurred prior to and after the submission of a *development application*.

g) The *City*, in conjunction with Conservation Halton, will *encourage* the planting and reforestation of creek blocks, *valleylands*, and their *buffer* areas where appropriate using native and non-invasive species, so as to reduce flooding and erosion, maintain stream banks and slope stability and provide suitable *fish habitat*.

h) The *City* will require the integration of *trees* into parking lots and other impervious areas through the implementation of Landscape Areas in the Zoning By-law.

i) The *City shall* require the incorporation of appropriate *tree* planting during design of *streetscapes*, including considerations of diverse, non-invasive, drought tolerant, salt tolerant and low maintenance *trees,* including the provision of adequate minimum soil volumes and soil composition.

j) Where planting is proposed within the Natural Heritage System, the *City shall* require the use of diverse native and non-invasive species. The *City* will *encourage* the use of diverse native and non-invasive species in other areas;

however, in urban areas issues such as *infrastructure,* soil compaction, drought resistance, road salt impacts, pests and other urban conditions will be considered when selecting species.

k) The *City* will *encourage* the eradication of invasive, non-native *trees*, shrubs and groundcovers, where appropriate for ecological restoration.

l) The *City* will undertake a review of the Urban Forest Management Plan, and will address considerations including but not limited to: canopy cover target(s), *tree* health, species diversity, renewal of aging *tree* populations, and the *impacts of a changing climate* and weather impacts.

m) Endangered and Threatened species (Species at Risk) *shall* be protected in accordance with the Endangered Species Act.

4.4 WATER RESOURCES

The city has many different *watersheds*; each eventually draining to Lake Ontario or Burlington Bay/Hamilton Harbour. *Watersheds* are areas of land that catch rain and snow, which in turn drain or seep into *wetlands,* streams, rivers, lakes or groundwater.

Healthy *watersheds* are important to the health and prosperity of the city. Healthy *watersheds* provide numerous human, ecological, economic and health benefits including: safe drinking water for residents, *wildlife habitat*, climate change adaptation, flood and erosion mitigation, *sustainable* streams and groundwater, recreational opportunities in nature, and support for *agriculture,* industry and other resource uses.

Effective water resource management, natural heritage and natural hazard planning is best completed at a *watershed* scale through *watershed* planning. Effective implementation of stormwater management is also required to: provide protection against flooding and erosion; maintain *groundwater recharge areas* and maintain or improve stormwater run-off quality; and provide sedimentation control.

The objectives and policies in this section address *watershed* management, water resource and stormwater management, and *watercourses* and natural hazards. The policies of this section are to be read in conjunction with the objectives and policies of Section 4.2, Natural Heritage System, of this Plan.

4.4.1 OBJECTIVES

a) To ensure that *watershed* planning, including supporting technical studies, and the implementation of *watershed* plans and/or sub-*watershed* studies is completed by the *City* and its partner agencies as a component of the planning process.

b) To protect life and property from natural hazards.

c) To protect, restore and enhance the long term *ecological integrity* and biodiversity of the Natural Heritage *Syste*m and its *ecological* and hydrologic *functions.*

d) To assist in the de-listing of Burlington Bay/Hamilton Harbour as an Area of Concern through implementation of the Hamilton Harbour Remedial Action Plan.

e) To protect, improve or restore the quality and quantity of water resources throughout the city.

f) To reduce flood potential in areas that are flood-prone.

g) To manage stream bank erosion and flooding concerns in a way that maintains or enhances *fish habitat* and other components of the Natural Heritage System, and maintains *watercourses* in a natural state.

h) To minimize the *negative impact* of *development* on downstream *watercourse* erosion.

i) To stabilize stream banks where ongoing erosion threatens existing buildings, roads, structures or private lands.

j) To direct *development* to locations outside *hazardous lands* and *hazardous sites.*

k) To encourage implementation of *low impact development* features, where possible.

l) To control future *development* in a way that protects, improves and restores groundwater quantity and prevents undesirable groundwater level increases or decline and reduction in base flow to *watercourse*s.

m) To ensure base flow maintains permanent and seasonal *fish habitat* where it exists naturally.

n) To protect, improve or restore groundwater quality.

o) To restrict or limit *development* in *sensitive groundwater features* and *sensitive surface water features*.

p) To control the quality of stormwater runoff from future developed surfaces, so that surface water and groundwater quality is maintained or enhanced.

q) To manage *development* and construction activity to minimize sediment and nutrient loading to receiving *watercourse*s, Burlington Bay/Hamilton Harbour and Lake Ontario.

r) To control the quantity and volume of stormwater released to prevent downstream flooding and erosion risks.

4.4.2 POLICIES

4.4.2(1) WATERSHED MANAGEMENT

a) The *City,* in partnership with Conservation Halton and the Region of Halton, will update existing *watershed* plans and sub-*watershed* studies where appropriate. Generally, *watershed* plans and sub-*watershed* studies *may* require review and update every five (5) years to ensure they reflect current scientific methods, policies, legislation, and *development* conditions. A map of the watersheds in Burlington and a list of *watershed* plans, sub-*watershed* studies and other related water resource studies is included in Appendix C:

Watershed Plans, Sub-watershed Studies and other Related Studies, of this Plan.

b) *City* and Region of Halton approved and adopted *watershed* plans or sub-*watershed* studies will be the basis for all sub-*watershed* and master drainage plans.

c) *Watershed* plans will be used in the preparation of land use policies in the city; and *watershed* plans or sub-*watershed* studies will be used in the preparation of *area-specific plans* and land use policies in the Urban and North Aldershot Areas as identified on Schedule C: Land Use – Urban Area, Schedule I: Land Use – Rural Area, and Schedule K: Land Use – North Aldershot, of this Plan.

d) In partnership with Conservation Halton and the Region of Halton, and in consultation with other local municipalities and the Province in the respective *watersheds*, *watershed* plans and their updates will include, but are not limited to:

(i) definition of erosion thresholds, as well as water quality, erosion and quantity objectives and targets;

(ii) a general inventory of existing geology, hydrology, hydrogeology, limnology, Natural Heritage System and features and other environmental data;

(iii) recommendations for implementation of the Hamilton Harbour Remedial Action Plan, the Great Lakes Strategy, the targets and goals of the Great Lakes Protection Act, and the Source Protection Plan (where applicable);

(iv) identification of potential additions and refinements to the boundaries of the Natural Heritage System;

(v) identification of opportunities for and constraints to *development* and *infrastructure*;

(vi) the *cumulative impact* of *development*;

(vii) preparation of a water budget analysis;

(viii) recommendation of implementation strategies;

(ix) establishment of goals for enhancement and restoration to the Natural Heritage System and hydrologic system;

(x) development of monitoring programs necessary for implementation;

(xi) measures to facilitate the ongoing stewardship and maintenance of natural *watercourses;*

(xii) identification of best management practices to minimize stormwater volumes and contaminant loads from both urban and rural uses;

(xiii) climate change mitigation and adaptation, including resilience to increased flooding, erosion and sedimentation risk;

(xiv) identification of *water resource systems* consisting of *key hydrologic features*, *key hydrologic areas*, *groundwater features*, hydrologic functions and *surface water features* including shoreline areas, which are necessary for the ecological and hydrological integrity of the *watershed*;

(xv) identification of the linkages among *ground water features*, *hydrologic functions*, *natural heritage features and areas*, and *surface water features* including shoreline areas;

(xvi) cross-jurisdictional and cross-watershed impacts, and the integration of management approaches for lands both within and beyond the Greenbelt;

(xvii) estimation of the *development capacity* of the *watershed* based on defined water quality objectives; and

(xviii) directions for the carrying out of sub-*watershed* studies.

e) All sub-*watershed* studies *shall be completed* to the satisfaction of the *City* and the Region of Halton with appropriate consultation with residents and property owners, Conservation Halton, and the Province. Appropriate recommendations of the sub-*watershed* studies *shall* be incorporated by amendment into this Plan. Sub-*watershed* studies include, but are not limited to:

(i) an inventory of existing geology, hydrology, hydrogeology, limnology, *key natural features* and other environmental data;

(ii) a definition of water quality objectives and targets;

(iii) a determination of base flows to maintain water quality and existing ecological and *hydrologic* conditions;

(iv) an assessment of the methods and costs of providing and monitoring the required stormwater management methods both on and off the site;

(v) a refinement of the boundaries of the Natural Heritage System in accordance with the policies of this Plan;

(vi) criteria and/or recommended ranges for *buffers* or setbacks for *development;*

(vii) identification of opportunities for and constraints to *development* and *infrastructure;*

(viii) addressing the *cumulative impact* of *development;*

(ix) undertaking of a water budget analysis;

(x) recommendations for implementation strategies, including detailed guidelines for *development*, design and construction;

(xi) establishment of procedures for monitoring water quality and quantity and the Natural Heritage System before, during and after construction;

(xii) directions for carrying out Environmental Impact Assessments (EIAs);

(xiii) discussion of relevant Provincial, Regional and *City* policies, and *Watershed* Study policies where applicable; and,

(xiv) evaluation of all existing and proposed drainage features including headwater drainage features.

f) The specific contents of sub-*watershed* studies as listed in Subsection 4.4.2(1) e) of this Plan *may* be scoped in proportion to the context, complexity and size of the area being considered, subject to the satisfaction of the *City,* in consultation with the Region of Halton, Conservation Halton and other agencies as required.

g) In conjunction with Conservation Halton, the *City* will *encourage* land owners to engage in *watershed* stewardship activities and programs.

4.4.2(2) WATER RESOURCE AND STORMWATER MANAGEMENT

a) Planning for stormwater management *shall*:

(i) be integrated with planning for *sewage and water services* and ensure that systems are optimized, feasible and financially viable over the long term;

(ii) minimize, or, where possible, prevent increases in contaminant loads, and enhance water quality;

(iii) minimize erosion and changes in water balance, where possible, enhance water quality and prepare for the *impacts of a changing climate* through the effective management of stormwater, including the use of *green infrastructure*;

(iv) mitigate risks to human health, safety, property and the *natural environment*;

(v) maximize the extent and function of vegetative and pervious surfaces; and

(vi) promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and low impact development.

b) Stormwater management techniques *shall* be used in the design and construction of all new *developments* to control both the quantity and quality of stormwater runoff. The degree of control and techniques used will depend on the conditions in the downstream receiving water bodies. The *negative impacts* of *development* on the downstream aquatic environment and adjacent lands *shall* be avoided or mitigated.

c) The provision of stormwater drainage facilities *shall* be in accordance with master plans established through *watershed* and sub-*watershed* studies, the criteria established in the *City's* Storm Drainage Criteria Manual, the Region of Halton's Guidelines, and Conservation Halton requirements. A map of the watersheds in Burlington and a list of *watershed* plans, sub-*watershed* studies and other related water resource studies is included in Appendix C: Watershed Plans, Sub-watershed Studies and other Related Studies, of this Plan.

d) For those *development* sites draining into Burlington Bay/Hamilton Harbour or Lake Ontario, the *City shall* require an enhanced level of stormwater quality control, in order to assist with the de-listing of Hamilton Harbour as an Area of Concern and to maintain water quality in Lake Ontario.

e) Functional drainage designs *shall* be prepared to support *development applications* in accordance with the requirements of the *City*'s Storm Drainage Criteria Manual, in consultation with Conservation Halton and the Region of Halton, and where appropriate, the Province, the Niagara Escarpment Commission and other agencies. Within the Protected Countryside, the policies of the Greenbelt Plan also apply to the planning, design and construction of stormwater management *infrastructure*. The *City may* require a geotechnical study to support the functional drainage design.

f) Functional drainage designs will consider: maintenance of natural *watercourses*, *fish habitat* and other *key natural features*, control of discharges to surface and groundwater, water quality and quantity targets and the identification and protection of *sensitive groundwater* and *surface water features.*

g) Where appropriate, the *City* will undertake monitoring of stormwater discharges from new *development* to ensure that water quality and quantity discharges are in accordance with approved drainage designs.

h) The *City* will consider the retrofit of stormwater management ponds, to enhance water quality, manage water quantity and improve landscaping.

i) The *City* will consider opportunities to implement quantity and quality controls for stormwater management within the city's developed areas where controls do not exist or could be improved.

j) The *City* will *encourage* stormwater management best practices and *low impact development* measures where appropriate, in consultation with Conservation Halton. The *City may* require a geotechnical study to support the *low impact development* measures.

k) The *City* will *encourage* stormwater facilities to be oriented, designed and constructed to compliment the Natural Heritage System, in consultation with the Region of Halton and Conservation Halton.

l) During stormwater management facility design, the opportunity for public pedestrian pathways and public open spaces will be considered, provided public safety measures can be incorporated.

m) The *City shall* restrict *development* and *site alteration* in or near *designated vulnerable areas, sensitive surface water features* and *sensitive groundwater features* such that these features and their related hydrologic functions will be protected, improved or restored through mitigative measures and/or alternative *development* approaches. The proponent of *development* in or near these features *shall* carry out hydrogeological and hydrological studies to protect, improve or restore such features, in conjunction with an Environmental Impact Assessment (EIA). The hydrogeological/hydrological study and/or EIA *shall* identify and demonstrate the maintenance of *linkages* and related functions among *groundwater features*, hydrologic functions, *Key Natural Features* and areas and *surface water features,* including shoreline areas, if they are relevant to the study area.

n) In addition to the policies of this Plan, the policies of the applicable Provincial Plans pertaining to *key hydrologic features* and *key hydrologic areas shall* apply.

In the event of a conflict between the provisions of this Plan and those of an applicable provincial plan, the provisions of the applicable provincial plan *shall* prevail; however, where the provisions of this Plan are more restrictive the provisions of this Plan *shall* apply, unless doing so would conflict with the provincial plan.

o) The *City shall* require a source protection disclosure report where there would be significant drinking water threats from the following activities associated with a proposed *development*:

(i) the establishment, operation or maintenance of a system that collects, stores, transmits, treats, or disposes of sewage, but not including on-site conveyance systems, such as outlet piping.

p) The *City may* require a source protection disclosure report where there would be significant drinking water threats from the following activities associated with a proposed *development*:

(i) the application, handling and/or storage of commercial fertilizer;

(ii) the application, handling and/or storage of pesticide;

(iii) the application, handling and/or storage of road salt;

(iv) the storage of snow;

(v) the handling and storage of fuel;

(vi) the handling and storage of a dense non-aqueous phase liquid; and/or

(vii) the handling and storage of an organic solvent.

q) The *City* will co-operate with the Region of Halton and Conservation Halton to implement optional source protection policies identified in Source Protection Plans.

r) While protecting human health and the *natural* environment, the *City* will incorporate best practices for the management of excess soil generated and fill received during *development* and *site alteration* into the *City's* Site Alteration Bylaw. Best practices include, but are not limited to, practices related to soil reuse, and appropriate sites for excess soil storage and processing, and fill quality.

s) Future *intensification* in the South Aldershot area *may* be restricted by limited storm sewer capacity and the potential for increased downstream flooding and/or erosion as a result of greater levels of stormwater runoff due to *development.* The *City may* require one or more of the following measures to address this concern:

(i) discouraging the reconstruction of existing streets with no curbs or gutters to an urban standard (curbs, gutters and storm sewers);

(ii) where appropriate and feasible, requiring on-site stormwater infiltration facilities and other stormwater management techniques as part of the design of new *development* proposals; and/or

(iii) limiting the density and/or *intensity* of proposals for *intensification* in this area if required.

4.4.2(3) NATURAL HAZARDS AND WATERCOURSES

a) The policies of this section *shall* be read in conjunction with the objectives and policies of Section 4.2, Natural Heritage System, of this Plan. *Hazardous lands* and *hazardous sites* are often located within the components of the Natural Heritage System identified in Subsection 4.2.2 e) of this Plan. As such, *hazardous lands, hazardous sites* and associated setbacks *shall* be designated Natural Heritage System if they are located within other Natural Heritage System components. In instances where *hazardous lands* and/or *hazardous sites* are not located within other Natural Heritage System components, another land use designation *may* be more appropriate, provided the *hazardous lands* and/or *hazardous sites* are addressed appropriately in accordance with the policies in this section.

b) The Zoning By-law *shall* prohibit new construction and the expansion or replacement of existing non-conforming uses within *hazardous lands* and *hazardous sites,* except where specifically permitted by Conservation Halton.

c) *Development shall* not be permitted to locate in *hazardous lands* and *hazardous sites* where the use is:

(i) an *institutional use* including hospital, *long-term care facility, retirement home,* pre-school, school nursery, day care and school;

(ii) an *essential emergency service* such as that provided by fire, police and ambulance stations and electrical substations; or

(iii) uses associated with the disposal, manufacture, treatment or storage of *hazardous substances*.

d) The delineation and regulation of *hazardous lands* and *hazardous sites* is administered by the Conservation Authority. Conservation Halton regulates lands in or adjacent to river or stream valleys (including flooding and erosion hazards), *wetlands*, shorelines and other *hazardous lands.* The approximate regulated limit of these lands and the location of watercourses are illustrated in Appendix E: Conservation Halton Approximate Regulation Limit Mapping, of this Plan. The limits of *hazardous lands* in Appendix E of this Plan *may* be updated from time to time. The map lines are approximate and there *may* be some regulated areas which have not been mapped. Technical studies *may* be required to identify regulated *hazardous lands*, *hazardous sites, watercourses* and *wetlands* that are unmapped. Conservation Halton must be contacted to confirm the approximate regulation limit mapping and permit requirements.

e) The Hager and Rambo Creek *Watersheds*, south of the diversion channel, are not subject to Conservation Halton's regulation and are under the

jurisdiction of the *City*, as noted in Appendix E: Conservation Halton Approximate Regulation Limit Mapping, of this Plan. The location of *watercourses* in this area is conceptually shown on Appendix E of this Plan.

f) New *development* adjacent to *watercourses shall* be subject to a setback from the *stable top of bank*, the *flooding hazard* and *meander belt allowance* (whichever is the greater) that are associated with the *watercourse.* The location of the *stable top of bank*, *flooding hazard* and *meander belt allowance* width *shall* be determined by Conservation Halton, in conjunction with the *City*.

g) As a condition of *development* approval, the *City shall* require the dedication of *hazardous lands* from the greater of the *flooding hazard*, or the valley through which the *watercourse* flows, including a conservation setback from *stable top of bank*, *flooding hazard*, or *meander belt allowance.* Dedication of these lands *shall* not be considered part of parkland dedication requirements of The Planning Act. If it can be demonstrated, to the satisfaction of the *City*, that the policies of this Plan can be achieved by other means, the dedication of *hazardous lands may* not be required. If any such land remains in private ownership, it *shall* be protected by zoning, agreement and/or easement to address natural hazards and protect ecological functions.

h) *Development* adjacent to *valleyland* and *watercourse* features *may* be required to be supported by detailed slope stability, stream erosion and/or flooding studies, where appropriate. The studies and resulting limits of the *hazardous lands shall* be to the satisfaction of the *City* and Conservation Halton.

i) As part of the *development* approval process, the zoning of *hazardous lands, hazardous sites* and associated setbacks to an appropriate open space zoning category *shall* be required if the *hazardous lands* and/or *hazardous sites* are located within other Natural Heritage System components, as identified in Section 4.2, Natural Heritage System, of the Plan. In instances where *hazardous lands* and/or *hazardous sites* are not located within other Natural Heritage System components, another zoning designation *may* be more appropriate, provided the *hazardous lands* and/or *hazardous sites* are addressed appropriately in accordance with the policies in this section.

j) *Watercourse*s and *valleylands should* be left in their natural state. The *City may* consider proposals to construct new *watercourse*s, provided natural channel design is used and if such proposals are approved by the regulatory agencies. The enclosure of open *watercourse*s is not permitted, unless supported by a sub-*watershed* study.

k) Wherever feasible, *watercourses* that have been enclosed *should* be restored as an open *watercourse*.

l) It is recognized that the use of *watercourses* for *agricultural* land drainage is a *normal farm practice.*

m) The review of fisheries and *fish habitat* is subject to the authority of the Federal Government, and the review of Conservation Halton.

n) The *City* will *encourage* the planting and reforestation of creek blocks, streams and *valleylands*, and their *buffer* areas where appropriate using native and non-invasive species, so as to reduce flooding and erosion, maintain stream banks and slope stability and provide suitable *fish habitat*.

o) The *City* will *encourage* the protection and enhancement of *watercourses* and headwater areas as an integral component for maintaining natural hydrological processes within a *watershed,* and promote their integration with the Natural Heritage System.

p) The *City* will consider the potential *impacts of a changing climate* that could increase the risk associated with natural hazards, in conjunction with Conservation Halton.

q) *Development shall* generally be directed to areas outside of lands that are unsafe for *development* due to the presence of hazardous forest types for wildland fire. *Development may* however, be permitted on lands with hazardous forest types for wildland fire where the risk is mitigated in accordance with wildland fire assessment and mitigation standards.

4.5 WATERFRONT

One of the city's greatest assets and defining features is the shoreline of Lake Ontario. Burlington's Waterfront is a unique destination offering Burlington residents and visitors a place to discover, celebrate, play, and relax. Public access to the waterfront for use and enjoyment by residents is valued and as a result the waterfront includes several public areas and notable features including: the Brant Street Pier, Spencer Smith Park, Discovery Landing, Beachway Regional Waterfront 1447 Lakeshore Road Park, Burloak Regional Waterfront Park, LaSalle Park, the Waterfront Trail and several Windows to the Lake. The *City* will seek opportunities to increase and improve public access to the waterfront.

The shoreline is a unique natural feature, part of a sensitive and complex *ecosystem*, which adds significantly to the identity, character, setting and well being of the city and its citizens. The health of Burlington Bay/Hamilton Harbour and its waterfront is directly affected by the actions of the *City* of Burlington and the City of Hamilton. Waterfront policies apply to all properties immediately adjacent to the Lake Ontario/Burlington Bay/Hamilton Harbour shoreline, including parks and open space. In planning for uses of the waterfront, the effects of human activities on the *natural environment* will be considered to maintain the future integrity of the waterfront.

All future *development* surrounding the waterfront will be clean, open, connected, green, accessible, useable, diverse, attractive and environmentally *sustainable. Development* and activities along the Burlington Bay/Hamilton Harbour waterfront will address the Remedial Action Plan to de-list Hamilton Harbour as an Area of Concern. The waterfront environment and *ecosystem* will be maintained, restored and enhanced.

4.5.1 NATURAL ENVIRONMENT

4.5.1(1) OBJECTIVES

a) To maintain, restore and enhance *natural heritage features and functions* along the waterfront and to recognize that public and private use of or access to these areas *shall* be limited due to their sensitive nature.

b) To maintain the shore and banks along the waterfront as a permanent, stable landform in a manner that maintains the natural appearance of the waterfront in appropriate areas, and by methods other than lakefill, that is consistent with Federal, Provincial and Conservation Halton requirements.

c) To protect *development* on or near the Lake Ontario/Burlington Bay/Hamilton Harbour shoreline from potential *shoreline hazardous lands* related to flooding, erosion and dynamic beaches.

d) To have the Hamilton Harbour/Burlington Bay de-listed as an Area of Concern.

e) To protect and enhance the Halton waterfront as a major resource that is part of the Provincially significant Lake Ontario and Hamilton Harbour/Burlington Bay shoreline.

4.5.1(2) POLICIES

a) The shoreline along Lake Ontario and Burlington Bay/Hamilton Harbour is part of the City's Natural Heritage System, and *shall* be maintained, enhanced and restored in accordance with the objectives and policies in Section 4.2, Natural Heritage System, of this Plan. The *City* supports the securement of lands within the Natural Heritage System and the incorporation of these features into plans for *City* and Regional waterfront parks, the Waterfront Trail, Windows to the Lake and other publicly owned open space.

b) *Development* within the *shoreline hazardous lands* regulated by Conservation Halton *shall* only be permitted subject to a permit from Conservation Halton and, if the *City* considers the *development* to be consistent with the waterfront objectives and policies of this Plan.

c) *Development shall* be set back from the *shoreline hazardous lands* at a distance which is acceptable to Conservation Halton and the *City.*

d) The use of stormwater management practices and other pollution control measures *shall* be used to protect and enhance water quality in Lake Ontario and Burlington Bay/Hamilton Harbour and to allow continued use of the Burlington Beach for safe public swimming.

e) Lakefill *may* be necessary for reasons of public safety, security or access. The *cumulative impacts* of proposed public and private lakefill projects on erosion, transport and deposition patterns and *fish habitat*s in Lake Ontario and Burlington Bay/Hamilton Harbour *should* be examined in conjunction with the Federal Government, the Province of Ontario and Conservation Halton and necessary mitigation action taken, so that the lakefill project contributes to the shoreline regeneration in accordance with Federal and Provincial policies and guidelines.

f) Shoreline protection measures *shall* be designed to visually complement the waterfront and to be undertaken in a manner that will have minimum *negative impacts* on the environment to a standard which is acceptable to the *City* and Conservation Halton, and Federal and Provincial agencies, where required. An unobstructed access allowance of at least five (5) m *shall* be provided to and along any shoreline protection works to allow sufficient

access for maintenance and repair to the shoreline protection works, except where specifically exempted by Conservation Halton. Where appropriate, the *City may* require an easement or access agreement over the access allowance lands. Where shoreline protection works are undertaken by the *City,* Region of Halton, Conservation Halton or any other *public authority,* the *City shall* consider opportunities to incorporate a Waterfront Trail as part of the overall design of the shoreline protection works.

g) Landscaping plans for publicly owned waterfront open space will address the restoration or enhancement of natural areas by means such as the use of native plants.

h) Guidelines relating to Great Lakes Areas of Concern and the Hamilton Harbour Remedial Action Plan designed to improve water quality, natural heritage values and aesthetics *shall* be used in the review of all *development applications* along the Burlington Bay/Hamilton Harbour waterfront.

i) Waterfront planning initiatives will consider the Great Lakes Strategy, the targets and goals of the Great Lakes Protection Act and Source Protection Plans, where applicable.

4.5.2 PUBLIC ACCESS AND USE

4.5.2(1) OBJECTIVES

a) To provide a visible, inter-connected and publicly accessible waterfront for the widest range of public activities, while maintaining natural waterfront features in an environmentally responsible manner.

b) To establish, in a *sustainable* manner, more areas of publicly accessible waterfront through the acquisition of key access points, additions to the Waterfront Trail, Windows to the Lake, and the *development* of waterfront parks.

c) To improve access to the waterfront by all *modes* of transportation while maintaining a pedestrian-oriented atmosphere.

4.5.2(2) POLICIES

a) Planning for public use of, and access to, the shoreline *shall* recognize areas of ecological sensitivity, existing private uses and the ownership of the shoreline and *shall* incorporate ways to ensure these uses are compatible.

b) The acquisition of land to create new or to add to existing Windows-to-the-Lake and Windows-to-the-Bay, or other forms of public open space, will be *encouraged* by the *City*, as a means to increase public access to the waterfront.

c) A *multi-modal* transportation system for pedestrians, cyclists, transit travel and automobiles will be planned for the waterfront.

d) The connection of transit routes and north-south transportation routes such as pedestrian/cyclist trails with waterfront public open space, parks and the Waterfront Trail will be *encouraged.*

e) Parking areas in the vicinity of the waterfront *shall* be designed, located and landscaped to complement the waterfront environment and to maximize the *recreation* and *cultural* open space *uses* of waterfront property.

f) A continuous Waterfront Trail *shall* be implemented through *development* along Lake Ontario and Burlington Bay/Hamilton Harbour where there is sufficient land between the water and a public or private street. In order of priority, this trail *may* be comprised of:

(i) a shoreline trail immediately abutting the lake or bay; or

(ii) a near shoreline trail located in the general vicinity of the lake or bay.

g) The Waterfront Trail *shall* be connected to existing waterfront public open spaces and where appropriate, other points of interest in the general vicinity of the waterfront.

h) The *City,* Region or Conservation Halton will hold land title of the Waterfront Trail and will be responsible for liability and maintenance of the Waterfront Trail, consistent with Conservation Halton, Provincial and Federal requirements.

i) Regional and local waterfront parks will achieve a high level of design excellence, in both landscape and architectural built form.

4.5.3 DEVELOPMENT

4.5.3(1) OBJECTIVES

a) To *encourage* a balanced mix of land uses, parks, facilities and open spaces which are responsive to the existing *cultural heritage resources* and the City's Natural Heritage System along the waterfront.

b) To ensure that *development* is compatible with the waterfront in terms of land use, *intensity* and *scale,* and is carried out in a manner that protects and enhances *cultural heritage resources* and the City's Natural Heritage System, and ensures pedestrian friendliness and user accessibility.

c) To enhance public accessibility to the waterfront by obtaining publicly owned waterfront open space, parkland and trails when considering *development applications* along the waterfront.

4.5.3(2) POLICIES

a) *Development* proposals along the waterfront *shall* provide for public open space and Waterfront Trail use, where feasible.

b) *Development along the waterfront shall* preserve or complement public views of Lake Ontario or Burlington Bay/Hamilton Harbour from public streets and trails.

c) *Development* along the waterfront *shall* animate the waterfront and connect to the downtown and key *cultural* facilities.

d) The *shoreline hazardous lands* associated with the Lake Ontario and Burlington Bay/Hamilton Harbour shorelines, and lands proposed for public open space use of the waterfront through parkland dedication (such as the Waterfront Trail), as determined by the *City* and Conservation Halton, *shall* not be considered in calculating *net* areas or densities in plans for *development.*

e) Along the waterfront where the distance between the water and the public roadway will accommodate both some form of *development* and the Waterfront Trail and/or Windows to the Lake or other waterfront open space, the proponent of a Official Plan Amendment, Zoning By-law Amendment or plan of subdivision, *shall,* to the satisfaction of the *City:*

(i) dedicate to the *City* the *shoreline hazardous lands* as determined by the *City* and Conservation Halton, as a condition of *development*;

(ii) dedicate to the *City* as part of parkland dedication, a minimum fifteen (15) m wide strip of land along the shoreline as determined by the *City* and Conservation Halton. If the value of this dedication exceeds normal park land dedication requirements of the city, the proponent *shall* receive compensation for the difference (i.e. either payment or considered as a contribution towards community benefits) as a condition of *development* approval;

(iii) dedicate to the *City* as part of parkland dedication, where appropriate, links to adjacent public open space, roadways and other properties. If the value of this dedication exceeds the normal park dedication, the proponent *shall* receive compensation for the difference (i.e. either payment or considered as a contribution towards community benefits) as a condition of *development* approval; and

(iv) carry out a survey, shoreline protection, and basic grading of the Waterfront Trail and any required fencing as a condition of

development approval. The *City* will be responsible for detailed trail design and finished construction.

f) The *City may* also apply the policies in Subsection 4.5.3(2) e) of this Plan to site plan applications and consents to sever land, where appropriate.

g) *Shoreline hazardous lands*, public open space and Waterfront Trail lands dedicated to the *City* will be retained by the *City* and the *City* will be responsible for the liability and maintenance of the lands.

h) The *City* will *encourage* that the design of waterfront *development* include the imagery of water, through fountains, sculpture and colour, and create a thematic link between the waterfront and adjacent *development.*

i) *Development* proposals along the waterfront in the downtown or on publicly owned lands *should* integrate public art and/or other *cultural* elements.

j) *Development* of publicly owned waterfront open space will be in accordance with *City* or Regional approved Park Master Plans or Park Development Plans.

4.6 LAND USE COMPATIBILITY

The Province provides legislation to regulate the emissions from *major facilities* to mitigate *adverse effects* on *sensitive land uses*, such as residential, as well as some *public service facilities* and *institutional uses. Employment* uses are also protected from the encroachment of *sensitive land uses.* Emissions could include noise, vibration, dust, odour and air pollution. The policies in this section require the evaluation of these *adverse effects* in land use planning decisions. Given that the City will develop primarily through *intensification*, innovative approaches to manage and mitigate land use compatibility will be considered.

4.6.1 OBJECTIVES

a) To mitigate *adverse effects* to *sensitive land uses* from human-made hazards and environmental land use compatibility concerns such as noise, vibration, odour, dust and air pollution.

b) To protect *employment* uses from the encroachment of *sensitive land uses*.

4.6.2 POLICIES

a) *Major facilities* and *sensitive land uses shall* be planned and developed to avoid, or if avoidance is not possible, minimize and mitigate any potential *adverse effects* from vibration, noise, dust, odour or other contaminants and minimize risk to public health and safety, and to ensure the long-term operational and economic viability of *major facilities*, in accordance with provincial guidelines, standards and procedures."

b) Where avoidance is not possible in accordance with policy 4.6.2(a), of this Plan, the long-term viability of existing or planned *industrial*, manufacturing or other uses that are vulnerable to encroachment *shall* be protected by ensuring that the planning and *development* of proposed adjacent *sensitive land uses* are only permitted if the following are demonstrated in accordance with provincial guidelines, standards and procedures:

(i) there is an identified need for the proposed use;

(ii) alternative locations for the proposed use have been evaluated and there are no reasonable alternative locations;

(iii) *adverse effects* to the proposed *sensitive land use* are minimized and mitigated; and

(iv) potential impacts to *industrial*, manufacturing or other uses are minimized and mitigated.

c) Proponents *may* be required to submit studies and undertake necessary actions to mitigate *adverse effects* to the satisfaction of the *City* and the Region of Halton**.** Provincial guidelines and Regional Land Use Compatibility and Air Quality Guidelines *shall* be referred to for direction in land use planning decisions.

d) Where noise abatement is required along roads, design features such as the orientation of building*s,* vegetated areas and other innovative metho*ds shall* be preferred over the use of acoustical walls. The Region of Halton's Noise Abatement Guidelines *shall* be referred to.

4.7 CONTAMINATED SITES

Some land *may* be *contaminated* as a result of past or present land uses or migration of off-site contaminants. Potentially *contaminated sites* are sites where the environmental condition of the property (soil and/or groundwater) *may* have potential for *adverse effects* on human or *ecological integrity*. In order to determine no *adverse effects* prior to permitting *development* on these sites, confirmation regarding the level of *contamination* is required to ensure that they are suitable or have been made suitable for the proposed use in accordance with government legislation, regulations, standards, objectives and guidelines.

Provincial legislation and related regulations identify many activities that *may* potentially cause *contamination*. Some examples of current or past activities that *may* be causing or *may* have caused environmental *contamination* include:

- activities involved with the elimination of waste and other residues, including but not limited to, waste disposal sites and recycling facilities;
- activities associated with potentially hazardous materials such as fuels, oils, detergents, chemicals, paints or solvents;
- activities associated with refining and smelting of metals, or storage of batteries or other products containing lead, acid or other potentially hazardous substances; and
- activities associated with transportation corridors.

The *City* uses tools such as Phase I *Environmental site assessments*, Phase II *Environmental site assessments*, Records of Site Condition, and Provincial and Regional guidelines in the *development application* review process in order to:

- help ensure that *development* takes place on sites where the environmental conditions are suitable for the proposed use of the site; and/or
- facilitate the remediation of the site where necessary to ensure conditions are suitable for *development.*

4.7.1 OBJECTIVE

a) To establish a system of environmental due diligence in accordance with Provincial legislation, regulation and standards to ensure that the *development* of land does not have *adverse effects* on human health and to ensure *ecological integrity*.

4.7.2 POLICIES

a) Provincial legislation *shall* be referred to in the review of *development applications* to address matters related to known and potential site *contamination.* Where Provincial legislation does not apply, the Region of Halton's *contaminated sites* protocols *shall* be referred to in the review of *development applications*.

b) In order to screen for known or potential *site contamination*, applicants *shall* be required to document, to the satisfaction of the *City,* Region, Province and other approval authorities, previous uses and environmental information of:

(i) property or properties that are subject of a *development application*; and/or

(ii) properties that *may* be *adversely affecting* the property that is the subject of a *development application* in order to assist in the determination of the potential for site *contamination.*

c) The *City* will co-ordinate its efforts with those of other orders of government to exchange information related to environmental background studies such as Phase I *Environmental site assessment*s, Phase II *Environmental site assessment*s, Risk Assessments and Records of Site Condition that have been submitted as part of *development applications.*

d) The *City may* require all applications for Official Plan amendment, Zoning By-law amendment, plan of subdivision, site plan and consent, as specified in the Region of Halton's Contaminated Sites Protocol, to be supported by a Phase I *Environmental site assessment* to be undertaken in accordance with Provincial legislation by a *qualified person.*

e) The *City shall* require a Phase II *Environmental site assessment* to be undertaken in accordance with Provincial legislation to support *development applications* for sites where the Phase I *Environmental site assessment* reveals that the site *may* be *contaminated.* The Phase II *Environmental site assessment shall* include conclusions as to whether or not *contamination* is migrating off site.

f) The *City may* require the applicant to provide a Record of Site Condition in accordance with Provincial legislation, to be completed to the satisfaction of the *City* and the Province, confirming that the site has been made suitable for the proposed use.

g) The *City may* not consider a Record of Site Condition as acknowledged by the Province until a statement of third party reliance is provided and either:

(i) it has been confirmed that the Record of Site Condition will not be audited by the Province; or

(ii) it has been confirmed that the Record of Site Condition has passed the Provincial audit.

h) For all information requirements, as specified in this section of this Plan, such as *Environmental Site Assessments* and Records of Site Condition that are submitted as part of a *development application*, a *qualified person may* be retained to extend third party reliance to the *City.*

i) If site remediation works are required, the satisfactory completion of site remediation works *shall* be a condition of approval. For rezoning applications, a Holding symbol *may* be placed on the zoning. A condition of lifting the Holding symbol *shall* be the satisfactory remediation of the *contaminated site* which is supported by a Record of Site Condition.

j) Where the *City* is deeded land for any purpose, the *City may* require, as a condition of transfer, a Record of Site Condition signed by a *qualified person*, or other information as required, to verify to the satisfaction of the *City* that the lands in question are suitable or have been made suitable for the proposed use.

k) The *City* will consider the provision of financial incentives to encourage *brownfield development* through tools such as Community Improvement Plans.

4.8 FORMER WASTE DISPOSAL SITES

There are several former waste disposal site*s* within the *city. The* policies in this section of the Plan address land use in the vicinity of these sites to protect the health, safety, convenience and welfare of residents.

4.8.1 OBJECTIVE

a) To protect the health, safety, convenience and welfare of residents from the potential *adverse effects* of landfills and to evaluate environmental considerations in accordance with Provincial legislation, regulation and guidelines.

4.8.2 POLICIES

a) The *City*, in consultation with the Province and Region of Halton, *may* permit *development* on and within five hundred (500) m of areas identified as former Waste Disposal Sites, identified as a Study Area on Appendix G: Former Waste Disposal Sites, of this Plan, subject to the following policies:

   (i) written approval has been received from the Province that the *development* satisfies the provisions of The Environmental Protection Act;

   (ii) technical environmental studies, in accordance with Provincial Guidelines, have been carried out by a *Qualified Person* to the satisfaction of the *City* to assess the potential impact on the *development* and to show that the *development* has demonstrated land use *compatibility* and can safely take place. Factors to be considered in the studies include ground and surface water contamination by leachate, surface runoff, ground settlement, visual impact, soil contamination and hazardous waste, and landfill-generated gases. The studies *shall* address any mitigation measures required;

   (iii) the *City shall* require the construction and phasing of all *development* to coincide with the control and mitigation of any problems or required monitoring identified by the studies;

   (iv) the *City shall* be satisfied with the required studies with respect to any matter regarding structural stability, safety and integrity of any structure; and

   (v) notwithstanding the land use designations on Schedule C: Land Use – Urban Area, and Schedule K: Land Use – North Aldershot, of this Plan, *development shall* not be permitted to proceed on lands identified by

the study(ies) as containing waste until the requirements have been met to the satisfaction of the *City*, or to the satisfaction of the *City* and the Province should the Environmental Protection Act apply.

4.9 COMMUNITY GARDENS AND URBAN AGRICULTURE

Community gardens are social hubs where people interact with a shared interest to grow fresh produce, enjoy the health benefits of outdoor activity, and become more food secure. *Community gardens may* occur on public, *institutional*, or private land, in all areas of the city. There are various models of operation which *may* include resident groups, employee groups, faith programs, non-profit organizations, and publicly delivered recreation programs.

The *City* has endorsed the Halton Food Charter and supports activities and businesses to improve food security. The benefits associated with urban agriculture*, farmers markets* and *community gardens* include the ability to encourage *sustainable* local food production, increase access to healthy food, provide opportunities for community building and create local green space. The policies in this section support and promote urban agriculture, *farmers markets* and *community gardens.*

4.9.1 OBJECTIVES

a) To support and promote *community gardens* on a city-wide basis, and urban agriculture and *farmers markets* in appropriate locations, as a means of encouraging local, fresh and healthy food production.

b) To achieve the goal of one (1) community garden per two thousand five hundred (2,500) households.

4.9.2 POLICIES

a) *Community gardens may* be permitted as an *interim use* or as a permitted *accessory use* in all land use designations.

b) The *City* will prepare and adopt *community gardens* guidelines to assist with the development of *community gardens* on public and private lands.

c) Subject to the other policies in this Plan, temporary or permanent *farmers markets may* be permitted within the Rural Settlement Areas and within the following designations in the Urban Area as outlined on Schedule B: Urban Structure, of this Plan:

   (i) Urban Centres;

   (ii) MTSA Special Planning Area;

   (iii) Mixed Use Nodes and *Intensification Corridors*; and

   (iv) *Employment* Lands.

d) The *City shall* be satisfied that:

   (i) the *farmers market* is *compatible* with neighbouring land uses; and

   (ii) in the Urban Area, the *farmers market* can be accessed by *transit and active transportation modes. Farmers markets* are strongly *encouraged* to locate on a *frequent transit corridor.*

e) *The City* will consider the development of an urban agriculture strategy to identify and support appropriate *agriculture* uses in the Urban Area.

f) The *City* will undertake a review of the Zoning By-Law to support the implementation of *community gardens,* urban agriculture and *farmers markets.*

g) The *City* will *encourage* the incorporation of edible landscaping in appropriate locations through the review of *development* proposals and at *City* buildings and facilities.

4.10 MINERAL AGGREGATE RESOURCES

Mineral aggregate resources are important to Ontario's economy, and to the city's growth and development, providing the raw materials used in the construction of the buildings that we live and work in and in the development of *infrastructure*. While *mineral aggregate operations* often are described as *interim land uses,* they *may* remain active for decades and result in permanent changes in the landscape with long term impacts. The *development* and operation of *pits* and *quarries* can have significant *negative impacts* on *surface and groundwater resources* and the Natural Heritage System, and significant impacts on *agriculture, cultural heritage resources,* transportation and air quality, and on the overall well-being of the surrounding community.

4.10.1 OBJECTIVES

a) To ensure that *mineral aggregate resource* extraction occurs in a manner that minimizes social, economic, environmental and human health impacts.

b) To ensure that the functions and features of the City's Natural Heritage System are maintained or, where possible, enhanced during and after the extraction process.

c) To ensure the progressive and final *rehabilitation* of *mineral aggregate operations* to the appropriate after use.

d) To support *mineral aggregate resource* conservation.

e) To protect known mineral aggregate deposits and areas of *high potential mineral aggregate resources* for potential future extraction.

f) To recognize existing *mineral aggregate operations* and protect them from activities that would preclude or hinder their continued use or expansion.

g) To ensure that as much of the *mineral aggregate resources* as is realistically possible is made available as close to markets as possible.

h) To provide policies and criteria for evaluating licence applications for new *mineral aggregate operations* or for expansions to existing operations.

4.10.2 POLICIES

4.10.2(1) PROTECTION OF MINERAL AGGREGATE RESOURCES

a) High potential identified *Mineral Resource* Areas *shall* be protected from *development* that would preclude or hinder *mineral aggregate resource* extraction, except in those areas considered to be unsuitable for extraction

based largely on Subsection 4.10.2(2) i) of this Plan, Provincial policies and Provincial plans.

b) Schedule N: Identified Mineral Resources, of this Plan, shows the Mineral Resource Areas identified for protection using mapping supplied by the Provincial Ministry of Development and Mines or the Ministry of Natural Resources and Forestry. The identified Mineral Resource Areas *may* include areas considered to be unsuitable under Subsection 4.10.2(1) a) of this Plan.

c) The identification of the Mineral Resource Areas on Schedule N: Identified Mineral Resources, of this Plan, does not imply:

(i) that extraction in these areas conforms to Provincial Plans or policies;

(ii) that *mineral aggregate resource* extraction would conform to this Plan; or

(iii) that the *City* would support an application in these areas for a licence under The Aggregate Resources Act or an amendment to this Plan to permit *mineral aggregate resource* extraction.

d) Subject to the other policies of this Plan, *development* that is proposed on lands wholly or partially within three hundred (300) m of a sand and gravel deposit or five hundred (500) m of a selected bedrock and shale resource identified under Subsection 4.10.2(1) a) of this Plan and that has the potential to preclude or hinder continued extraction or expansion of existing *mineral aggregate operations,* establishment of new operations or access to the *mineral aggregate resources* in accordance with the policies of this Plan and any Provincial Plan, *may* only be permitted if the proponent has demonstrated through the appropriate studies to the satisfaction of the Region of Halton and the *City* that:

(i) extraction would not be feasible; or

(ii) the proposed land use or *development* serves a greater long term public interest; and

(iii) issues of public health, public safety and environmental impact have been addressed.

4.10.2(2) MINERAL RESOURCE EXTRACTION AREA DESIGNATION

a) This designation, which includes areas covered by a valid licence issued pursuant to The Aggregate Resources Act, is shown on Schedule C: Land Use – Urban Area; Schedule I: Land Use - Rural Area; and Schedule L: Land Use – North Aldershot; and is identified as Mineral Resource Extraction Area on Schedule N: Identified Mineral Resources, of this Plan.

b) Legally *existing mineral aggregate operations* may continue to operate and *shall* be protected through this Plan from new land uses that are not *compatible* with such operations for reasons of public health, public safety or *negative impacts* or which would preclude or hinder the expansion or continued use of such operations.

c) Subject to the other policies of this Plan, the applicable policies of the Provincial Greenbelt Plan, the Provincial Growth Plan and the Niagara Escarpment Plan, applicable Zoning By-laws, and site plans and conditions of the licence under The Aggregate Resources Act, the following uses *may* be permitted:

(i) *agricultural operations*;

(ii) *normal farm practices*;

(iii) *existing uses*;

(iv) *mineral aggregate operations* licensed pursuant to and in compliance with The Aggregate Resources Act;

(v) associated facilities to a *mineral aggregate operation* used in extraction, transport, beneficiation, processing or recycling of *mineral aggregate resources* and derived products such as asphalt and concrete, or the production of secondary related products, provided that such associated facilities:

a. are directly associated with the extraction of *mineral aggregate resources* from an integrated *mineral aggregate operation*, which *may* consist of more than one Aggregate Resources Act license;

b. are designed to be temporary and not to be utilized after extraction has ceased;

c. are located in a manner that does not affect the final *rehabilitation* or enhancement of the site in accordance with an approved *rehabilitation* and enhancement plan;

(vi) *non-intensive recreation uses* such as nature viewing and pedestrian trail activities;

(vii) *forest, fisheries and wildlife management*;

(viii) archaeological activities;

(ix) *essential* linear *infrastructure* facilities subject to Subsection 6.1.2 h) of this Plan;

(x) *accessory uses*;

(xi) uses permitted in an approved Niagara Escarpment Park and Open Space Master/Management Plan, if the subject land is located within the Niagara Escarpment Plan Area; and

(xii) *watershed management* and flood and erosion control projects carried out or supervised by a *public authority*.

d) All mineral aggregate operations and accessory operations shall be conducted in a manner that minimizes social, economic, environmental and human health impacts in accordance with Provincial standards and requirements and Regional and City Official Plan policies.

e) The *City* considers the protection of surface water and groundwater from the *negative impacts* of extraction to be a priority. Accordingly, the *City shall* support the Region of Halton in requiring the proponent of *mineral aggregate operations* requiring a new Aggregate Resource Act license to carry out comprehensive studies and undertake recommended mitigation and/or remedial measures and on-going monitoring in accordance with Provincial requirements and the policies of the Regional Official Plan and in consultation with the Region of Halton and Conservation Halton.

f) The *City shall* support the Region of Halton in requiring that air, noise and blasting studies be undertaken in accordance with Provincial regulations and standards and that the recommendations of the studies be implemented to minimize *adverse effects* on social and human health.

g) The *City shall* require an amendment to this Plan to designate a new Mineral Resource Extraction Area or an expansion to an existing Mineral Resource Extraction Area.

h) The *City shall* require that the applicant for an amendment to this Plan to designate a new Mineral Resource Extraction Area or an expansion to an existing Mineral Resource Extraction Area consult, prior to the submission of the application, the City, the Region of Halton, the Province, Conservation Halton and other relevant agencies to identify the studies and information to be provided to support the application, to scope or focus study requirements where appropriate, and to determine a process and an agreement respecting public engagement, evaluation and peer review.

i) In areas outside the Greenbelt Natural Heritage System, the *City shall* not permit new Mineral Resource Extraction Areas or expansions to existing Mineral Resource Extraction Areas in:

(i) The Niagara Escarpment Plan Area, except the Escarpment Rural Area;

(ii) *significant wetlands*;

(iii) *habitat of endangered species* and *threatened species* except in accordance with provincial and federal requirements;

(iv) *significant woodlands*, that are not young plantation or early successional habitat (as defined by the Ministry of Natural Resources and Forestry);

(v) for *quarries*, areas within two hundred (200) m of the *Escarpment brow*;

(vi) the Urban Area as identified on Schedule C: Land Use – Urban Area, of this Plan, and the Rural Settlement Areas as identified on Schedule I: Land Use – Rural Area, of this Plan; and

(vii) North Aldershot as identified on Schedule K: Land Use – North Aldershot, of this Plan, except in accordance with the time limited and area specific Minutes of Settlement dated June 1, 2013 and executed by the Region of Halton prior to the approval of the Regional Official Plan.

j) Each Official Plan Amendment application to designate a new or expanded Mineral Resource Extraction Area *shall* be evaluated based on its individual merits and consideration of all the following factors and of the other policies of this Plan:

(i) adverse impacts on, and proposed measures to minimize or address such impacts on, the following:

a. the *City's* Natural Heritage System, in accordance with Subsection 4.10.2(2) m) of this Plan;

b. the quality and quantity of surface and groundwater;

c. adjacent *sensitive land uses* including their source of drinking water;

d. the surrounding *agriculture* and rural communities, in accordance with Subsection 9.2.2 e)(v) and (vi), of this Plan;

e. *cultural heritage resources*;

f. the transportation system;

g. the visual character of the area;

h. air quality; and

i. the Greenbelt Natural Heritage System, in accordance with Subsection 4.10.2(2) m) of this Plan;

(ii) the *cumulative impacts* of the proposal and other *mineral aggregate operations* in the general area;

(iii) the proposed *rehabilitation* plan and the *compatibility* of the proposed after-use with the objectives and policies of this Plan, the Regional Official Plan and Provincial Plans;

(iv) the risk of public financial liability during and after extraction where continuous active on-site management is required; and

(v) the provisions for municipal and community engagement, such as a Community Liaison Committee, in the operation and *rehabilitation* of the proposed *mineral aggregate operation.*

k) The Region of Halton's Aggregate Resources Reference Manual and *agricultural impact assessment* guidance developed by the province shall be used by the City as guidance documents and resources in reviewing an Official Plan Amendment application to designate a new or expanded Mineral Resource Extraction Area.

l) The *City* will discourage the use of *adaptive management plan*s or similar measures that will require continuous or perpetual active on-site management post *rehabilitation*.

(i) Within the Niagara Escarpment Plan Area, as identified on Schedule A-1: Provincial Land Use Plans and Designations, of this Plan, in areas with below-water table extraction, *mineral aggregate operations* requiring perpetual water management after *rehabilitation* is complete *should* be avoided but *may* be considered where it can be demonstrated that such actions would support other public water management needs.

m) In accordance with Subsection 4.2.2 m) of this Plan, the *City shall* apply the following systems based approach in the assessment of the impact of a proposal for a new or expanded *mineral aggregate operation* on the Natural Heritage System*:*

(i) where the proposal has the potential to have *negative impacts* on one or more *Key Natural Feature* of the Natural Heritage System, as listed in Subsection 4.2.2 e) of this Plan, the proponent *shall* be required to demonstrate through an Environmental Impact Assessment (EIA) that the proposal will result in no *negative impacts* on the *Key Natural Features* or their *ecological* or *hydrologic functions*;

(ii) in addition to clause (i) above, where the proposal has the potential to have *negative impacts* on the Natural Heritage System, the

proponent *shall* be required to demonstrate through an EIA that the proposal will maintain, restore or where possible enhance the diversity and connectivity of *natural heritage features* in an area, and the long term *ecological* and *hydrologic functions* and biodiversity of natural heritage systems*,* recognizing *linkages* between and among *natural heritage features and areas*, *surface water features* and *groundwater features*; and

(iii) where the proposal has the potential to negatively impact the Natural Heritage System as identified on Schedule M, of this Plan, the policies of the applicable provincial land use plan as shown on Schedule A-1: City System - Provincial Land Use Plans and Designations, *shall* apply as follows, in addition to the policies of this Plan:

a. if the proposal is located within the Greenbelt Plan Area, the provisions of Section 4.3.2 of the Greenbelt Plan *shall* apply;

b. if the proposal is located within the Niagara Escarpment Plan Area, the provisions of Part 2.6, Part 2.7 and Part 2.9 of the Niagara Escarpment Plan *shall* apply; and

c. if the proposal is located outside the Greenbelt Plan Area and the Niagara Escarpment Plan Area, the provisions of Section 4.2.8 of the Provincial Growth Plan *shall* apply.

n) The *City shall* consider an Official Plan Amendment application to designate a new Mineral Resource Extraction Area or to expand an existing Mineral Resource Extraction Area designation to be complete, only on the basis of Subsection 12.1.2(1.2) of this Plan.

o) The *City* will co-ordinate with the Region of Halton, other affected municipalities, Provincial Ministries, Conservation Halton, the Niagara Escarpment Commission and other agencies in the review of and public consultation on Official Plan Amendment applications to designate new or expanded *mineral aggregate operations.*

p) *Mineral aggregate resource* extraction shall be considered to be an *interim land use.* The *City* will support the progressive and final *rehabilitation* of mineral aggregate operations, provided that *rehabilitation*:

(i) takes place in a timely fashion;

(ii) limits the amount of disturbed area on an on-going basis;

(iii) adopts prevailing best management practices;

(iv) is consistent with the applicable Source Protection Plan(s); and

(v) conforms with the applicable policies of the Greenbelt Plan, the Provincial Growth Plan or the Niagara Escarpment Plan, as appropriate.

q) The *City shall* require the *rehabilitation* of a *mineral aggregate operation* to an appropriate after-use *compatible* with the adjoining land use designations set out in this Plan. An amendment to this Plan designating the site for the appropriate after use *shall* be required. Owners of *mineral aggregate operations* are encouraged to provide for public access to, and public use of, former *mineral aggregate operations* sites, where appropriate, after final rehabilitation is complete.

r) *Mineral aggregate operations* in the Rural Area *shall* be required to be *rehabilitated* to form part of the City's Natural Heritage System or the Agricultural Area, with the proposed after-uses being in conformity with the applicable policies of that land use designation and *compatible* with the Agricultural System.

s) The *rehabilitation* of *mineral aggregate operations* on *prime agricultural lands*, within *Prime Agricultural Areas shall* be carried out so that substantially the same areas and same average soil quality for *agriculture* are restored.

In *Prime Agricultural Areas*, complete agricultural *rehabilitation* is not required if:

(i) there is a substantial quantity of *mineral aggregate resources* below the water table warranting extraction, or the depth of planned extraction in a *quarry* makes restoration of pre-extraction *agricultural* capability unfeasible;

(ii) other alternative locations have been considered by the applicant and found unsuitable. The consideration of other alternatives *shall* include resources in areas of Canada Land Inventory Class 4 to 7 soils, resources on lands identified as designated growth areas, and resources on *prime agricultural land*s where *rehabilitation* is feasible. Where no other alternatives are found, *prime agricultural lands* shall be protected in this order of priority: *specialty crop areas*, and Canada Land Inventory Class 1, 2 and 3 lands; and

(iii) *agricultural rehabilitation* in remaining areas is maximized.

t) The proponent of a new or expanded Mineral *Res*ource Extraction Area *shall* be required to demonstrate to the satisfaction of the *City* and the Region of Halton that the transportation of aggregate and related products associated with the proposed *mineral aggregate operation* can be adequately

accommodated by the transportation system in the city. Any improvements to the *City*'s transportation *infrastructure* to accommodate the transportation of aggregate *shall* be at the expense of the proponent. If applicable, alternative routes and alternative *modes* for transporting the products *shall* be considered and evaluated.

This page has been
left intentionally blank