



**SUSTAINABLE REGION**

**NIAGARA OFFICIAL PLAN**

# SUSTAINABLE REGION



## 3.1 The Natural Environment System

This section outlines the objectives and policies for a Regional *natural heritage system* and *water resource system*.

The *natural heritage system* is made up of features such as *wetlands*, *woodlands*, *valleylands*, and *wildlife habitat*, as well as components such as *linkages*, *buffers*,

*supporting features and areas*, and *enhancement areas*. The intent of the *natural heritage system* is to preserve and enhance the biodiversity, *connectivity*, and long-term *ecological function* of the natural systems in the region.

The *water resource system* is made up of both *groundwater features* and *surface water features* and areas. The intent of the *water resource system* is to protect the ecological and hydrological integrity of water resources and the various *watersheds* in the region.

The *natural heritage* and *water resource systems* are ecologically linked, rely on and support each other, and have many overlapping components. The establishment of these natural systems is required by Provincial policy. These systems have been integrated in this Plan and are known together as the Region's *natural environment system*.

### The objectives of this section are as follows:

- a. identify and protect a *natural heritage system* and *water resource system* which will form the *natural environment system*;
- b. maintain, restore, and enhance the biodiversity and *connectivity* of natural features and their associated *ecological* and *hydrological functions*;
- c. recognize the important role the *natural environment system* plays in mitigating the impacts of *climate change* by protecting and enhancing natural features;
- d. implement the *Natural Heritage System for the Growth Plan* and *Greenbelt Plan Natural Heritage System* in accordance with the direction of the Province;
- e. identify and maintain *hydrologic functions* and connections among *groundwater features*, natural features, and *surface water features* including *shoreline areas*;

- f. maintain *wetland* area and the *hydrological* and *ecological functions* they provide, and to enhance *wetland* cover where possible;
- g. protect *woodlands* and their biodiversity, restore *ecological functions*, and enhance *woodland* cover through reforestation and restoration;
- h. protect provincially and regionally significant earth science and life science *areas of natural and scientific interest*;
- i. identify and protect *other woodlands* as a way to maintain treed area in the region;
- j. screen for, and evaluate *enhancement areas* as well as *supporting features and areas* to support the long-term *ecological integrity* of the *natural environment system*;
- k. identify *linkages* to protect ecological *connectivity* in the region;
- l. maintain protection for *woodlands* that have been disturbed in an effort to maintain tree cover in the region;
- m. protect *fish habitat* and the *habitat of endangered species and threatened species* in accordance with Provincial and Federal legislation;
- n. maintain and restore natural vegetation along *shoreline areas*;
- o. protect and enhance water resources through proactive *watershed* and *subwatershed planning*;
- p. protect and restore the ecological health of the Great Lakes, consistent with the provisions of the Great Lakes Strategy, the targets and goals of the Great Lakes Protection Act, 2015, and any applicable Great Lakes agreements as part of *watershed planning* and coastal or waterfront planning initiatives;
- q. minimize risks to human health and safety and property associated with natural hazards;
- r. minimize the impacts of invasive species through the proper management and control, and the promotion of native species plantings in the region;
- s. recognize the role and value of compatible and complementary agricultural and rural uses within and adjacent to the *natural environment system*;
- t. consider cumulative impacts through *watershed planning* and the *development* application process;
- u. recognize that flexible approaches to existing uses in the *natural environment system* are required; and
- v. outline the process for *environmental impact studies* and *hydrological evaluations* where they are required to support applications for *development* or *site alteration*.

## There are Different Geographic Areas included in the Region's Natural Environment System

The Region's *natural environment system* includes the *Natural Heritage System for the Growth Plan* and *Greenbelt Plan Natural Heritage System* as components of the system. These two provincially mapped systems have been combined in this Plan and are referred to as the *Provincial natural heritage system*. The mapping and policies of the *Provincial natural heritage system* apply outside of *settlement areas* only in accordance with Provincial policy.

The Region's *natural environment system* however extends beyond the *Provincial natural heritage system* - into the Niagara Escarpment Plan area, *rural areas* that are not within the *Provincial natural heritage system*, and the Region's *settlement areas* (i.e. *urban areas* and *rural settlements*).

Included within, and outside of the *Provincial natural heritage system* are many individual natural features and other components - which are identified by the Region based on the criteria included in this Plan.

Although the Region's *natural environment system* is an integrated and region-wide system, different policies apply in different geographic areas of the region. The first step in applying the policies of this section of the Plan is to determine which geographic area of the region the site or property is in.

### 3.1.1 The Natural Environment System

- 3.1.1.1 The features and components of the *natural environment system* are listed in Schedule L. Schedule L also includes the definitions and criteria for each of the features and components.
- 3.1.1.2 In addition to the features and components listed in Schedule L, the following features and areas are also required components of the *natural environment system*:
  - a. *groundwater features*;
    - i. recharge/discharge areas;
    - ii. water tables; and
    - iii. aquifers and unsaturated zones.

- b. *surface water features*;
  - i. headwater drainage features;
  - ii. recharge/discharge areas; and
  - iii. associated riparian lands that can be defined by their soil moisture, soil type, vegetation or topographic characteristics; and
- c. other *hydrologic functions*.

**3.1.1.3** The features and areas identified in Policy 3.1.1.2 should be screened for during the completion of a *watershed plan* or *subwatershed study*. If identified, appropriate land use planning policies or other natural resource management tools should be put in place for their protection, enhancement, or restoration, as appropriate.

**3.1.1.4** The mapped features and components of the *natural environment system* are shown as a single overlay on Schedule C1 to this Plan. *Key hydrologic areas*, which are also a component of the *natural environment system*, are mapped separately as an overlay on Schedule C3. The purpose of Schedule C1 and C3 is to allow for preliminary screening, and to determine if the policies of the *natural environment system* may apply. Schedule C1 also includes the limits of the *Provincial natural heritage system*.

## **3.1.2 Individual Features and Components of the Natural Environment System**

**3.1.2.1** Individual *natural heritage features and areas*, *key natural heritage features*, *key hydrologic features*, and other individual components which are considered mapped features of the *natural environment system* are shown as an overlay on Schedule C2.

**3.1.2.2** The individual features and components of the *natural environment system* that are mapped on Schedule C2 include:

- a. *significant woodlands*;
- b. *other woodlands*;
- c. *provincially significant wetlands*;
- d. *other wetlands* and non-provincially significant wetlands;
- e. life science *areas of natural and scientific interest*;
- f. earth science *areas of natural and scientific interest*;
- g. *permanent* and *intermittent streams*;
- h. *inland lakes*; and
- i. *linkages*.

### 3.1.3 Only Certain Features and Components are Mapped

- 3.1.3.1 Not all of the features and components that make up the *natural environment system* can, or have been mapped as part of the schedules to this Plan. Where features or components of the *natural environment system* listed in Schedule L are not mapped, detailed area-specific or site-specific studies such as an *environmental impact study*, *hydrological evaluation*, or *subwatershed study* are required for their identification.
- 3.1.3.2 Where through the review of an application for *development* or *site alteration*, or through the completion of a *subwatershed study*, it is found that there are features or components of the *natural environment system* or related ecological and/or *hydrologic functions* that have not been adequately mapped, evaluated, or protected, the applicant shall have an evaluation prepared by a qualified professional in consultation with the Region, the Local Area Municipality and, where appropriate, the *Conservation Authority*. If the evaluation finds one or more *natural heritage features and areas*, *key natural heritage features*, or *key hydrologic features*, the policies of this Plan will be applied to the lands under application as appropriate.
- 3.1.3.3 Where lands are mapped or identified as two or more features or components of the *natural environment system*, the policies which provide the highest level of environmental protection shall apply in the event of any conflict.

### 3.1.4 Refinements to the Limits of the Natural Environment System

- 3.1.4.1 Changes to the limits or classification of individual features or components of the *natural environment system* identified through Regional criteria may be considered through the submission of an *environmental impact study* and/or *hydrological evaluation* based on a terms of reference approved by the Region, in accordance with the policies of this Plan, and in consultation with the *Conservation Authority* as appropriate.
- 3.1.4.2 If the change to the limit or classification of an individual feature or component of the *natural environment system* identified through Regional criteria can be justified to the satisfaction of the Region, an amendment to this Plan shall not be required. Further details on the scope of the study required to support a change to the limit or classification of the *natural environment system* will be included in the Region's Environmental Impact Study Guidelines and/or Hydrological evaluation Guidelines.

- 3.1.4.3** Changes to the limit or classification of individual features or components of the *natural environment system* identified through Regional criteria may also be considered through the findings of a *subwatershed study* completed to the satisfaction of the Region, in consultation with the *Conservation Authority* as appropriate. If the change to the limit or classification of an individual feature or component of the *natural environment system* can be justified to the satisfaction of the Region, an amendment to this Plan shall not be required.
- 3.1.4.4** Changes to the limit or classification of individual features of the *natural environment system* identified through Provincial criteria requires approval from the Province. If the change to the limit or classification of an individual feature has been approved by the Province, an amendment to this Plan shall not be required.
- 3.1.4.5** Notwithstanding Policy 3.1.4.1 to Policy 3.1.4.4, the limits of the *Provincial natural heritage system* can only be refined through the completion of a *municipal comprehensive review*.
- 3.1.4.6** Where the limits of a feature or component of the *natural environment system* have been refined through an approved *environmental impact study*, *hydrological evaluation*, or *subwatershed study*, the lands that are no longer included as part of the *natural environment system* overlay shall continue to be designated based on the underlying land use, unless otherwise determined through a Planning Act application.
- 3.1.4.7** Updates to the appropriate schedules to this Plan shall be made on a regular basis by the Region to incorporate any approved refinements to the *natural environment system*.
- 3.1.4.8** Where *development* or *site alteration* is proposed within or adjacent to the *natural environment system*, new lots shall not be created which would fragment a *natural heritage feature or area*, *key natural heritage feature*, or *key hydrologic feature*. The lands to be retained in the *natural environment system* shall remain in a natural state. The natural feature and any required *buffer* or *vegetation protection zone* shall be maintained in a single block and zoned to protect the natural features and its *ecological functions*. The Region encourages the Local Area Municipalities, the *Conservation Authority*, and other appropriate public and private conservation organizations to assume ownership of these lands.
- 3.1.4.9** Applications for a lot boundary adjustment shall avoid the fragmentation of *provincially significant wetlands* and *significant woodlands*.
- 3.1.4.10** Applications for lot boundary adjustment should avoid the fragmentation of other *natural heritage features and areas*, *key natural heritage features* or *key hydrologic features* wherever possible and practical.

### 3.1.5 Lands within the Provincial Natural Heritage System

3.1.5.1 The policies of Section 3.1.5 apply to lands within the mapped *Provincial natural heritage system*.

3.1.5.2 Notwithstanding Policy 3.1.5.1, the policies of Section 3.1.5 that apply to *key hydrologic features* apply in all areas of the region outside of *settlement areas* whether or not they are in the mapped *Provincial natural heritage system* in accordance with Provincial policy.

3.1.5.3 Required within the *Provincial natural heritage system* is a 30 metre wide *vegetation protection zone* adjacent to *significant woodlands*, *wetlands*, as well as *permanent* and *intermittent streams* and *inland lakes*.

3.1.5.4 Notwithstanding Policy 3.1.5.3, a 15 metre wide *vegetation protection zone* applies to certain *key hydrologic features* in parts of the Greenbelt Plan area in accordance with the policies of the Greenbelt Plan.

3.1.5.5 *Development* or *site alteration* shall not be permitted in *key natural heritage features* that are within the *Provincial natural heritage system* or in any *key hydrologic features* outside of *settlement areas* except for:

- a. forest, *fish*, and wildlife management;
- b. conservation and flood or erosion control projects, subject to demonstrating the project is necessary in the public interest and after all alternatives have been considered;

#### There are Different Natural Environment System Policies in Different Geographic Areas of the Region

The intent of the *natural environment system* policies that apply across the region are similar. However, unique policies and terminology are used in different geographic areas of the region:

- section 3.1.5 applies to lands outside of *settlement areas* that are subject to the *Growth Plan Natural Heritage System* and the *Greenbelt Plan Natural Heritage System* (collectively referred to in this Plan as the *Provincial natural heritage system*);
- section 3.1.8 applies to lands that are the subject of the Niagara Escarpment Plan; and
- section 3.1.9 applies to lands in *settlement areas* (i.e. *urban areas* and hamlets) and other lands that are outside of *settlement areas* that are not subject to the policies of the *Provincial natural heritage system*.



- c. activities that create or maintain *infrastructure* authorized under an environmental assessment, including a Class Environmental Assessment, completed in accordance with the Environmental Assessment Act;
- d. all *existing uses* in the Greenbelt Plan Area;
- e. *mineral aggregate operations* and *wayside pits and quarries* except in accordance with Provincial policy and Section 4.3 of this Plan;
- f. recreational uses in the *Greenbelt Plan Natural Heritage System* in accordance with Section 3.1.7 of this Plan;
- g. expansions to existing buildings and structures, accessory structures and uses, and conversions of legally *existing uses* that have less of an environmental impact, subject to demonstration that the use does not expand into the *key hydrologic feature* or *key natural heritage feature* or *vegetation protection zone* unless there is no other alternative, in which case any expansion will be limited in scope and kept within close geographical proximity to the existing structure;
- h. 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 if it is demonstrated that:
  - i. there is no alternative, and the expansion or alteration in the feature is minimized and, in the *vegetation protection zone*, is directed away from the feature to the maximum extent possible; and
  - ii. the impact of the expansion or alteration on the feature and its functions is minimized and mitigated to the maximum extent possible; and
- i. small-scale structures for recreational uses, including but not limited to, boardwalks, footbridges, fences, docks, and picnic facilities, if measures are taken to minimize the number of such structures and their *negative impacts*.

### Vegetation Protection Zone

The term *vegetation protection zone* applies to key natural heritage features in a *Provincial natural heritage system* and to any *key hydrologic feature* outside of a *settlement area*. Elsewhere in the region the term *buffer* is used.

**3.1.5.6** Nothing in this Plan is intended to limit the ability of existing *agricultural uses* to continue on a site that has a *key natural heritage feature* or *key hydrologic feature*.

### 3.1.5.7 Development and Site Alteration in Adjacent Lands within a Provincial Natural Heritage System

- 3.1.5.7.1** A proposal for new *development* or *site alteration* within 120 metres of any *key natural heritage feature* within a *Provincial natural heritage system* or any *key hydrologic feature* outside of *settlement areas* will require an *environmental impact study* and/or *hydrological evaluation* that identifies a *vegetation protection zone*, which:
- protects the *key natural heritage feature* or *key hydrologic feature* and its functions from the impacts of the proposed change;
  - is established to achieve and be maintained as *natural self-sustaining vegetation*; and
  - for *wetlands, seepage areas and springs, fish habitat, permanent and intermittent streams, inland lakes* and *significant woodlands*, is no less than 30 metres measured from the outside boundary of the feature.
- 3.1.5.7.2** Studies and evaluations undertaken in accordance with Policy 3.1.5.7.1 will also identify any additional restrictions to be applied before, during, and after development to protect the *hydrologic functions* and *ecological functions* of the feature.
- 3.1.5.7.3** *Development* or *site alteration* shall not be permitted in the *vegetation protection zone*, with the exception of that described in Policy 3.1.5.5, shoreline *development* as permitted in accordance with Policy 4.1.10.4, or *infrastructure* serving the agricultural sector.
- 3.1.5.7.4** Notwithstanding Policies 3.1.5.7.1 and 3.1.5.7.3, an *environmental impact study* will not be required for a proposal for *development* or *site alteration* on a site where the only *key natural heritage feature* is the *habitat of endangered species and threatened species*.
- 3.1.5.7.5** Notwithstanding Policies 3.1.5.7.1 and 3.1.5.7.3 new buildings and structures for *agricultural uses, agriculture-related uses, or on-farm diversified uses* shall not be required to undertake an *environmental impact study* and/or hydrological evaluation if a minimum 30 metre *vegetation protection zone* is provided from a *key natural heritage feature* or *key hydrologic feature*.

- 3.1.5.7.6** Uses permitted in accordance with Policy 3.1.5.7.5:
- a. 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; and
  - b. will pursue best management practices to protect and restore *key natural heritage features*, *key hydrologic features*, and their functions.

### **3.1.5.8 Development and Site Alteration within a Provincial Natural Heritage System**

- 3.1.5.8.1** If a site is within the mapped *Provincial natural heritage system*, and if an application for *development* or *site alteration* is to be made, the policies of Section 3.1.5.8 apply, regardless if the site is in a *key natural heritage feature*, *key hydrologic feature*, *vegetation protection zone*, or in *adjacent lands*.
- 3.1.5.8.2** New *development* or *site alteration* within a *Provincial natural heritage system* shall demonstrate that:
- a. there are no *negative impacts* on *key natural heritage features* or *key hydrologic features* or their functions;
  - b. *connectivity* along the system and between *key natural heritage features* and *key hydrologic features* located within 240 metres of each other will be maintained or, where possible, enhanced for the movement of native plants and animals across the landscape;
  - c. the removal of other natural features not identified as *key natural heritage features* and *key hydrologic features* is avoided, where possible. Such features should be incorporated into the planning and design of the proposed use wherever possible;
  - d. except for uses described in and governed by the policies in Section 4.3.4 dealing with *mineral aggregate resources*, the disturbed area, including any buildings and structures, will not exceed 25 per cent of the *total developable area*, and the impervious surface will not exceed 10 per cent of the *total developable area*;
  - e. with respect to golf courses, the disturbed area will not exceed 40 per cent of the *total developable area*; and
  - f. at least 30 per cent of the *total developable area* will remain or be returned to *natural self-sustaining vegetation*, except where specified in accordance with the policies in Section 4.3.4 dealing with *mineral aggregate resources*.

**3.1.5.8.3** Notwithstanding Policy 3.1.5.8.2 the full range of existing and new *agricultural uses*, *agriculture-related uses*, *on-farm diversified uses*, and *normal farm practices* are permitted. New buildings or structures for *agricultural uses*, *agriculture-related uses*, or *on-farm diversified uses* are not subject to Policy 3.1.5.8 but are subject to the policies in Sections 3.1.5.5 and 3.1.5.7.

### **3.1.6 Special Policy for Niagara Peninsula Tender Fruit and Grape Area in the Greenbelt Plan**

**3.1.6.1** Notwithstanding any other policies in this Plan, within the Niagara Peninsula Tender Fruit and Grape Area, new buildings or structures for *agricultural*, *agriculture-related* and *on-farm diversified uses* are permitted within 30 metres of *permanent* and *intermittent streams*, where:

- a. the *permanent* or *intermittent stream* also functions as an agricultural swale, roadside ditch or municipal drain as determined through provincially approved mapping;
- b. a minimum 15 metre *vegetation protection zone* is established between the building or structure and the *permanent* or *intermittent stream*; however, this *vegetation protection zone* is not required to be maintained as *natural self-sustaining vegetation* if the land is and will continue to be used for agricultural purposes;
- c. there is no alternative location for the building or structure on the property without impacting lands that are designated *specialty crop area*;
- d. a new or replacement individual on-site sewage system will not be located within 30 metres of the stream; and
- e. *agricultural uses*, *agriculture-related uses* and *on-farm diversified uses* shall pursue best management practices to protect or restore *key hydrologic features* and functions.

### **3.1.7 Special Policy for Recreational Uses on Lands Subject to Greenbelt Plan**

**3.1.7.1** Residential dwelling units, other than for an employee, shall not be permitted in association with recreational uses.

- 3.1.7.2** An application to establish or expand a *major recreational use* in the *Greenbelt Plan Natural Heritage System* shall be accompanied by a vegetation enhancement plan that incorporates planning, design, landscaping and construction measures that:
- maintain or, where possible, enhance the amount of *natural self-sustaining vegetation* on the site and the *connectivity* between adjacent *key natural heritage features* or *key hydrologic features*;
  - wherever possible, keep *intermittent stream* channels and drainage swales in a free-to-grow, low-maintenance condition;
  - minimize the application and use of pesticides and fertilizers; and
  - locate new *natural self-sustaining vegetation* in areas that maximize the *ecological functions* and *ecological value* of the area.
- 3.1.7.3** An application to expand or establish a *major recreational use* shall be accompanied by a conservation plan demonstrating how water, nutrient, and biocide use shall be kept to a minimum, including through the establishment and monitoring of targets.
- 3.1.7.4** Small-scale structures for recreational uses, including but not limited to, boardwalks, footbridges, fences, docks and picnic facilities are permitted within *key natural heritage features* and *key hydrologic features*; however, the number of such structures and the *negative impacts* on these features should be minimized. In order to determine potential impacts, the Region may require that an *environmental impact study* and/or *hydrological evaluation* be prepared.

### **3.1.8 Lands in the Niagara Escarpment Plan Area**

- 3.1.8.1** *Development* and *site alteration* within and adjacent to *key natural heritage features* and *key hydrologic features* in the Niagara Escarpment Plan Area is subject to the policies of the Niagara Escarpment Plan.
- 3.1.8.2** Notwithstanding Policy 3.1.8.1, Section 3.1.11 applies to *other woodlands* in the Niagara Escarpment Plan Area.

### **3.1.9 Lands Outside of a Provincial Natural Heritage System and Outside of the Niagara Escarpment Plan Area**

- 3.1.9.1** The policies of Section 3.1.9 apply to lands in *settlement areas* (i.e. *urban areas* and hamlets) and other lands that are outside of a *Provincial natural heritage system* and outside the Niagara Escarpment Plan Area.

- 3.1.9.2** Required outside of a *Provincial natural heritage system* and outside of *settlement areas* is a 30 metre wide *vegetation protection zone* adjacent to all *wetlands*, *permanent* and *intermittent streams*, and *inland lakes and their littoral zones* which are *key hydrologic features*.
- 3.1.9.3** Notwithstanding Policy 3.1.9.2, a 15 metre wide *vegetation protection zone* applies to certain *key hydrologic features* in parts of the Greenbelt Plan area accordance with the policies of the Greenbelt Plan.
- 3.1.9.4** *Key hydrologic features* are subject to Policies 3.1.9.2 and 3.1.9.3. The balance of Section 3.1.9 does not apply to *key hydrologic features*.
- 3.1.9.5** *Mineral aggregate operations* and *wayside pits and quarries* are permitted in the *vegetation protection zone* described in Policy 3.1.9.2 except in accordance with Provincial policy and Section 4.3 of this Plan.

### **The Difference between Key Natural Heritage Features and Natural Heritage Features and Areas**

The policies of the Plan refer to groupings of natural features as *key natural heritage features* and *natural heritage features and areas*. Although these terms have many common components, the terms cannot be used interchangeably.

*Key natural heritage features* are located within a *Provincial natural heritage system*, it is a defined term within the Provincial plans, and there are specific policies associated with these features. Outside of a *Provincial natural heritage system* the terminology *natural heritage feature and area* is used, consistent with the terminology used in the Provincial Policy Statement.

### **3.1.9.6 Development and Site Alteration in Natural Heritage Features and Areas outside of a Provincial Natural Heritage System**

- 3.1.9.6.1** *Development* and *site alteration* shall not be permitted in the following *natural heritage features and areas*:
- provincially significant wetlands*;
  - significant coastal wetlands*; and
  - significant woodlands*.

**3.1.9.6.2** *Development* and *site alteration* shall not be permitted in the following *natural heritage features and areas* unless it has been demonstrated through the preparation of an *environmental impact study* that there will be no *negative impacts* on the natural features or their *ecological functions*:

- a. *other woodlands*;
- b. *significant valleylands*;
- c. *significant wildlife habitat*; and
- d. *areas of natural and scientific interest*.

**3.1.9.6.3** Notwithstanding Policy 3.1.9.6.1 permitted uses in a *natural heritage feature and area* are limited to:

- a. forest, *fish*, and wildlife management;
- b. conservation and flood or erosion control projects, subject to demonstrating the project is necessary in the public interest and after all alternatives have been considered;
- c. activities that create or maintain *infrastructure* authorized under an environmental assessment, including a Class Environmental Assessment, completed in accordance with the Environmental Assessment Act;
- d. expansions to existing buildings and structures, accessory structures and uses, and conversions of legally existing uses that have less of an environmental impact subject to demonstration that the use does not expand into a *natural heritage feature or area* unless there is no other alternative, in which case any expansion will be limited in scope and kept within close geographical proximity to the existing structure;
- e. 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 if it is demonstrated that:
  - i. there is no alternative, and the expansion or alteration in the feature is minimized and, in the *buffer*, is directed away from the feature to the maximum extent possible; and
  - ii. the impact of the expansion or alteration on the feature and its *ecological functions* is minimized and mitigated to the maximum extent possible; and

- f. small-scale structures for recreational uses, including, but not limited to boardwalks, footbridges, fences, docks, and picnic facilities, subject to measures are taken to minimize the number of such structures and their *negative impacts*.
- 3.1.9.6.4** Notwithstanding any other policies of this Plan, *development* and *site alteration* in, and adjacent to watercourses, *provincially significant wetlands*, and *other wetlands* that are regulated by the *Conservation Authority*, may also be subject to the regulations and land use planning policies of the *Conservation Authority*. When *development* or *site alteration* is proposed in or adjacent to any watercourse, *provincially significant wetland*, *significant valleyland*, or *other wetland* the applicant shall contact the *Conservation Authority*, at which time *Conservation Authority* staff will advise the applicant and the Region of the land use or regulatory policies that will apply.
- 3.1.9.6.5** Notwithstanding Policy 3.1.9.6.1 c), new or expanding mineral aggregate operations may be permitted in *significant woodlands* if it has been demonstrated through the preparation of an *environmental impact study* that there will be no negative impacts on the natural feature or its *ecological functions*.
- 3.1.9.6.6** Notwithstanding Policy 3.1.9.6.4, while the Niagara Peninsula Conservation Authority may permit offsetting of *wetlands* under its policies and in accordance with its regulatory role, the use of offsetting for any *natural heritage feature and areas*, *key natural heritage features*, or *key hydrologic features* is not supported by the policies of this Plan.

### Other Wetlands

The Provincial Policy Statement and Growth Plan require *wetlands* to be identified as part of a *water resource system* (which has been integrated with the *natural heritage system* to form the *natural environment system*). *Other wetlands* in *settlement areas* which are not regulated by the *Conservation Authority* require further evaluation to determine the appropriate protection or management of the feature. In accordance with the policies of the Growth Plan, all *wetlands* outside of *settlement areas* are by definition *key hydrologic features* and are protected in accordance with the policies of that Plan.



**3.1.9.6.7** Where an *other wetland* in a *settlement area* has been identified, and it is determined that it is not regulated by the *Conservation Authority*:

- a. the Region shall require that an evaluation be undertaken through an *environmental impact study*, and if required, a wetland evaluation using the Ontario Wetland Evaluation System, and/or *hydrological evaluation* as part of an application for *development* or *site alteration*, or through a *subwatershed study* to determine the appropriate classification and protection or management of the feature;
- b. outcomes of the evaluation completed with Policy 3.1.9.6.7 a) could include the in-situ protection with appropriate *buffers* or incorporation of the *hydrologic function* into the design of the *development* in accordance with the following:
  - i. if the *other wetland* is a treed community with a canopy coverage greater than 25 per cent, and the other criteria for *other woodlands* are met, the *other woodland* policies of this Plan shall apply;
  - ii. if the *other wetland* is a treed community with a canopy coverage greater than 60 per cent, and the other criteria for *significant woodlands* are met, the *significant woodland* policies of this Plan shall apply;
  - iii. no *negative impact* on the *ecological function* of the *other wetland*; and
  - iv. maintain the *hydrologic function* of the *other wetland*;
- c. if the evaluation finds one or more other *natural heritage features and areas*, the appropriate other policies of the Plan shall be applied to the lands and natural features that are subject to the application to *development* or *site alteration*.

**3.1.9.7** Nothing in this Plan is intended to limit the ability of existing *agricultural uses* to continue in areas that are the site of a *natural heritage feature or area*.

### 3.1.9.8 Development and Site Alteration in Adjacent Lands outside of a Provincial Natural Heritage System

- 3.1.9.8.1** A proposal for new *development* or *site alteration* outside of a *Provincial natural heritage system* which is adjacent to a *natural heritage feature or area* shall require an *environmental impact study* and/or *hydrological evaluation* to determine that there will be no *negative impacts* on the feature, *ecological function*, or *hydrologic function* in accordance with the *adjacent lands* distances outlined in Table 3.1.
- 3.1.9.8.2** Notwithstanding Table 3-1, the requirement for an *environmental impact study* and/or *hydrological evaluation* may be scoped if the proposed *development* or *site alteration* is minor and is not anticipated to have a *negative impact* on the *natural environment system* in accordance with the policies of this plan provincial policies and the Environmental Impact Study and/or Hydrological evaluation Guidelines.
- 3.1.9.8.3** Notwithstanding Policy 3.1.9.8.1, an *environmental impact study* will not be required for a proposal for *development* or *site alteration* on a site where the only *natural heritage feature and area* is the *habitat of endangered species and threatened species*.
- 3.1.9.8.4** Notwithstanding Policy 3.1.9.8.1, new buildings and structures for *agricultural uses*, *agriculture-related uses*, or *on-farm diversified uses* will not be required to undertake an *environmental impact study* and/or *hydrological evaluation* if a minimum 30 metre *buffer* is provided from a *natural heritage feature and area*.

#### Lands Adjacent to Key Hydrologic Features

The policies of Section 3.1.9.8 do not apply to *key hydrologic features* outside of *settlement areas* - which include *wetlands*, *inland lakes and their littoral zones* and *permanent* and *intermittent streams*. Lands adjacent to *key hydrologic features* are addressed in the policies related to the *Provincial natural heritage system*.

**Table 3-1 Adjacent Lands for Natural Heritage Features and Areas Outside of a Provincial Natural Heritage System**

| Natural Heritage Feature and Area                     | Adjacent Lands |
|---|----------------|
| Provincially Significant Wetland                      | 120 metres     |
| Significant Coastal Wetland                           | 120 metres     |
| Significant Woodland                                  | 120 metres     |
| Other Woodland  | 50 metres      |
| Significant Valleyland                                | 50 metres      |
| Significant Wildlife Habitat                          | 50 metres      |
| Habitat of Endangered Species and Threatened Species  | 50 metres      |
| Life Science Areas of Natural and Scientific Interest | 50 metres      |

**3.1.9.9 Buffers Outside of Settlement Areas and Outside of a Provincial Natural Heritage System**

- 3.1.9.9.1** Outside of *settlement areas* a minimum *buffer* on all *natural heritage features and areas* is required, as set out in Table 3-2.
- 3.1.9.9.2** Given the variability in the type, form, and function of *significant wildlife habitat* existing on the landscape, the width of the required minimum *buffer* is to be established through the completion of an *environmental impact study* or *subwatershed study*.
- 3.1.9.9.3** *Development* or *site alteration* shall not be permitted in the minimum *buffer* set out in Table 3-2, with the exception of that described in Policy 3.1.9.6.3 and 3.1.9.6.5 or infrastructure serving the agricultural sector, unless it has been demonstrated through the preparation of an *environmental impact study* that there will be no *negative impacts* and the *buffer* will continue to provide the *ecological function* for which it was intended.

**Table 3-2 Minimum Prescribed Buffer to a Natural Heritage Feature and Area outside of Settlement Areas and Outside a Provincial Natural Heritage System**

| Natural Heritage Feature and Area                     | Minimum Buffer |
|---|----------------|
| Provincially Significant Wetland                      | 30 metres      |
| Significant Woodland                                  | 20 metres      |
| Other Woodland  | 10 metres      |
| Significant Valleyland                                | 15 metres      |
| Life Science Areas of Natural and Scientific Interest | 20 metres      |

**3.1.9.9.4** Notwithstanding Policy 3.1.9.9.3, outside of *settlement areas*, consideration can be given to including passive recreational uses such as trails in *buffers* if it has been demonstrated that the *buffer* will continue to provide the *ecological function* for which it was intended.

### **3.1.9.10 Buffers in Settlement Areas**

**3.1.9.10.1** Within *settlement areas*, mandatory *buffers* from *natural heritage features and areas* are required. The width of an ecologically appropriate *buffer* would be determined through an *environmental impact study* and/or *hydrological evaluation* at the time an application for *development* or *site alteration* is made, or through the completion of a *subwatershed study* in support of a secondary plan or other large scale *development*. The width of the *buffer* would be based on the sensitivity of the *ecological functions* from the proposed *development* or *site alteration*, and the potential for impacts to the feature and *ecological functions* as a result of the proposed change in land use.

**3.1.9.10.2** *Development* or *site alteration* shall not be permitted in the mandatory *buffer*, with the exception of that described in Policy 3.1.9.6.3 or infrastructure serving the agricultural sector unless it has been demonstrated through the preparation of an *environmental impact study* that there will be no *negative impacts* and the *buffer* will continue to provide the *ecological function* for which it was intended.

## Minimum Buffer and Mandatory Buffers

For a minimum *buffer*, the policies of this Plan state what minimum *buffer* is required. The *buffer* width cannot be less than the required minimum, but may be larger as determined through an *environmental impact study*, *hydrological evaluation*, or *subwatershed study*.

For a mandatory *buffer*, the policies of this Plan state that a *buffer* is required, but would not state any minimum for the *buffer* width. That determination would be made through an *environmental impact study*, *hydrological evaluation*, or *subwatershed study*.

- 3.1.9.10.3** Notwithstanding any other policy in this Plan, the *Conservation Authority* has its own *buffer* requirements for watercourses which shall apply. Reductions in any *buffer* required by the *Conservation Authority* may be considered in *settlement areas* where supported by a site-specific study that is approved by the Local Area Municipality, the Region, and the *Conservation Authority*.
- 3.1.9.10.4** Notwithstanding Policy 3.1.9.10.2, within *settlement areas*, consideration can be given to including passive recreational uses such as trails in *buffers*, provided an appropriate *buffer* width is maintained, as determined through the *environmental impact study* and/or *hydrological evaluation*.

## 3.1.10 Key Hydrologic Areas, Key Hydrologic Features, and Other Important Water Resources

- 3.1.10.1** *Development* or *site alteration* shall not be permitted unless it can demonstrated that it will not have *negative impacts* on:
- the quantity and quality of water in *key hydrologic areas*, *key hydrologic features*, *sensitive surface water features*, and *sensitive ground water features*;
  - the *hydrologic functions* of *key hydrologic areas*, *key hydrologic features*, *sensitive surface water features*, and *sensitive groundwater features*;
  - the interaction and *linkage* between *key hydrologic areas*, *key hydrologic features*, *sensitive surface water features*, and *sensitive groundwater features* and other components of the *natural environment system*;

- d. the natural hydrologic characteristics of watercourses such as base flow, form and function, and headwater drainage areas;
- e. natural drainage systems and *shorelines areas*; and
- f. flooding or erosion.

**3.1.10.2** Mitigative measures and/or alternative *development* approaches may be required in order to protect, improve, or enhance *key hydrologic areas*, *key hydrologic features*, *sensitive surface water features*, *sensitive groundwater features*, and their *hydrologic functions*. The Region, Local Area Municipality, or the *Conservation Authority* may require establishment of appropriate *development* conditions and monitoring programs through the *development* approval process.

**3.1.10.3** The Region encourages the restoration of natural stream form and flow characteristics through the *development* approval process where appropriate.

**Role of Vegetated Shorelines**

Naturally vegetated shorelines play an important role buffering waterbodies from erosion, siltation, and nutrient migration and are critical to the protection of water quality in the region.

**3.1.10.4** As much of the area adjacent to the shorelines of watercourses and Lakes Erie and Ontario as possible shall be maintained as a naturally vegetated shoreline

where new lots are being created, where vacant lots are being developed, and when *redevelopment* on existing lots is proposed. Specifically:

- a. the vegetated shoreline should span the entire water frontage and be at least 15 metres in depth from the normal high water mark;
- b. where *redevelopment* is proposed, the vegetated shoreline should be achieved through ecological enhancements and the regeneration of natural features to the extent feasible; and
- c. on waterfront lots, outside of the vegetated *shoreline area*, every effort shall be made to retain existing native vegetation where possible and to augment existing vegetation where needed.

**3.1.10.5** Groundwater across the region is an important resource to all Niagara residents and specifically a source of potable drinking water to many rural residents.

A specific example is the South Niagara Aquifer, which is considered to be a *highly vulnerable aquifer*. It is an important, vital source of water to rural residents in Niagara from Wainfleet, through Port Colborne to Fort Erie.

- 3.1.10.6** *Key hydrologic areas* are part of the *natural environment system* and are mapped as a separate overlay on Schedule C3.
- 3.1.10.7** *Development* or *site alteration* shall not have *negative impacts* on *key hydrologic areas* or their *hydrologic functions*. In areas where *development* and *site alteration* could have *negative impacts* on groundwater quality or quantity the Region or Local Area Municipality shall require further review of potential impacts through the completion of a *subwatershed study* or through the completion of a *hydrological evaluation* during the review of an application for *development* or *site alteration*.
- 3.1.10.8** Outside of *settlement areas*, proposals for large-scale *development* proceeding by way of secondary plan, plan of subdivision, vacant land plan of condominium or site plan may be permitted within a *key hydrologic area* where it is demonstrated through a *hydrological evaluation* that the *hydrologic functions*, including the *quality and quantity of water*, of these areas will be protected and, where possible, enhanced or restored through:
- a. the identification of planning, design, and construction practices and techniques;
  - b. meeting other criteria and direction set out in a *watershed plan* or *subwatershed studies* if applicable; and
  - c. meeting any applicable Provincial standards, guidelines, and procedures.
- 3.1.10.9** Policy 3.1.10.8 does not apply to major *development* in the Greenbelt Plan area that is a new or expanding building or structure for *agricultural uses*, *agriculture-related uses* or *on-farm diversified uses* where the total impervious surface does not exceed 10 per cent of the lot.
- 3.1.10.10** The Region encourages Local Area Municipalities to require site plan approval on all lots within *key hydrologic areas* where *individual on-site sewage services* are proposed.

### **3.1.11 Other Woodlands**

- 3.1.11.1** *Other woodlands* are identified, and considered a *natural heritage feature and area* in all geographic areas of the region. The location of known *other woodlands* is shown on Schedule C2.
- 3.1.11.2** *Development* or *site alteration* shall not be permitted in *other woodlands* unless it has been demonstrated through the preparation of an *environmental impact study* that there will be no *negative impacts* on the *other woodland* or its *ecological functions*.

- 3.1.11.3** Outside of *settlement areas* *other woodlands* are subject to a 10 metre minimum *buffer* in accordance with Policy 3.1.9.9.1.
- 3.1.11.4** Inside of *settlement areas* *other woodlands* are subject to an ecologically appropriate *buffer* to be determined at the time an application is made for *development* or *site alteration* in accordance with Policy 3.1.9.10.1.
- 3.1.11.5** Notwithstanding Policies 3.1.9.6.2 and 3.1.11.1 to 3.1.11.4 policies related to *other woodlands* do not apply to new or expanding *mineral aggregate operations*.
- 3.1.11.6** Notwithstanding Policies 3.1.11.1 to 3.1.11.4, policies related to *other woodlands* do not apply to new or expanding buildings or structures for *agricultural uses*, *agriculture-related uses* and *on-farm diversified uses* if they are located, designed, and constructed to minimize impacts on the *natural environment system*.

### Woodland By-Law

In addition to policies of this Plan, the Region also maintains and enforces a Woodland Conservation By-law (No. 2020-79) which governs the protection and preservation of *woodlands* in Niagara. The by-law was enacted in accordance with applicable Provincial legislation. The Woodland Conservation By-law applies to:

- *woodlands* that are 1.0 hectare or more in size;
- *woodlands* having an area of less than 1.0 hectare upon delegation of such authority to the Region by a Local Area Municipality in Niagara; and
- heritage and significant community trees identified and designated by the Council of a Local Area Municipality, but only upon delegation of such authority to the Region.

## 3.1.12 Fish Habitat

- 3.1.12.1** *Development* or *site alteration* shall not be permitted in *fish habitat* except in accordance with Federal and Provincial requirements. In order to determine whether *fish habitat* is present, proponents of *development* or *site alteration* shall be required to screen for the presence of *fish habitat* to the satisfaction of the Region.



- 3.1.12.2** If *fish habitat* is determined to be present, a fish habitat assessment undertaken by a qualified professional shall be required for *development* or *site alteration* within or adjacent to *fish habitat*. *Development* or *site alteration* may be exempt from this requirement provided that:
- the *development* satisfies Federal and Provincial requirements or has been specifically authorized by the appropriate approval authority; and
  - the regulated *setback*, vegetated shoreline, stormwater management, and slope related policies of this Plan are met and the proposal is not for major *development*.

### **3.1.13 Habitat of Endangered Species and Threatened Species**

**3.1.13.1** *Development* or *site alteration* shall not be permitted in *habitat of endangered species and threatened species*, except in accordance with *Provincial and Federal requirements*.

**3.1.13.2** Where the potential for the *habitat of endangered species and threatened species* is identified, the Provincial Ministry with jurisdiction shall be contacted by the proponent for technical advice and to delineate and confirm the presence of habitat.

#### **Habitat of Endangered Species and Threatened Species**

The *habitat of endangered species and threatened species* is subject to the Endangered Species Act, 2007 (ESA). It is the responsibility of the Province to implement this Act. The protection of *habitat of endangered species and threatened species* is necessary to minimize and prevent their loss from Ontario and to preserve biodiversity. The *habitat of endangered species and threatened species* is an important component of the Region's *natural environment system* but is not a mapped feature. It is identified through the completion of either a *subwatershed study* or *environmental impact study* at the time there is an application for *development* or *site alteration*.

- 3.1.13.3** In order to determine the presence of, and to assess the impacts that proposed *development* and activities may have on the *habitat of endangered species and threatened species*, a site assessment by a qualified professional is generally required to be completed using accepted protocols. The assessment shall identify whether the habitat is present and whether the proposed activities will have any impact on *endangered species* and *threatened species* or their habitat. The site assessment may be combined with a broader *environmental impact study*. The Province should be contacted for further direction regarding site-specific proposals.
- 3.1.13.4** It is the responsibility of a proponent to work directly with the Province to determine that the Endangered Species Act has been, or will be, complied with as a condition of any permit received from the Provincial Ministry with jurisdiction.

### **3.1.14 Provincially and Regionally Significant Earth Science Areas of Natural and Scientific Interest**

- 3.1.14.1** *Development* and *site alteration* shall not be permitted within a provincially or regionally significant earth science *area of natural and scientific interest* or within 50 metres of the feature unless it can be demonstrated that there will be no *negative impacts* on the geologically significant features, or the interpretative and scientific value for which the earth science *area of natural and scientific interest* was identified. Applications for *development* and *site alteration* which have the potential for *negative impacts* shall be accompanied by an earth science heritage evaluation which shall be reviewed in consultation with the Provincial Ministry with jurisdiction. The earth science heritage evaluation shall:
- a. identify planning, design and construction practices that will ensure protection of the geological or geomorphological attributes for which the earth science *area of natural and scientific interest* was identified; and
  - b. determine whether a *buffer* is required, and if so, specify the width of that *buffer*.
- 3.1.14.2** Notwithstanding Policy 3.1.14.1, policies related to regionally significant earth science *areas of natural and scientific interest* do not apply to new or expanding *mineral aggregate operations*.

### 3.1.15 Supporting Features and Areas

3.1.15.1 *Supporting features and areas* are lands that have been restored or have the potential of being restored, and include:

- a. grasslands, thickets, and meadows that support the *ecological functions* of adjacent *key natural heritage features*, *key hydrologic features*, and/or *natural heritage features and areas*;
- b. *valleylands*, which includes lands that may have ecological and/or *hydrologic functions*, that are not *significant valleylands*, and are not the site of a *permanent* or *intermittent stream* that is regulated by the *Conservation Authority*;
- c. *wildlife habitat* that is not considered to be *significant wildlife habitat*; and
- d. *enhancement areas*, which are the subject of Section 3.1.16 of this Plan.

3.1.15.2 The presence of *supporting features and areas* shall be screened for by a proponent when an *environmental impact study* and/or *hydrological evaluation* is required to support a *development* or *site alteration* application both inside and outside of *settlement areas* or when an *subwatershed study* is being undertaken.

3.1.15.3 If *supporting features and areas* are identified through an *environmental impact study*, *hydrological evaluation*, or *subwatershed study* an evaluation shall determine:

- a. the extent of the *supporting feature or area* along with its *ecological functions* and relationship to nearby *key natural heritage features*, *key hydrologic features* and/or *natural heritage features and areas*;
- b. whether the *supporting feature or area* should be protected because it supports the *ecological* and/or *hydrologic functions* of nearby *key natural heritage features*, *key hydrologic features* and/or *natural heritage features and areas*; and
- c. conditions to be attached to the approval of the proposed *development* or *site alteration*.

## 3.1.16 Enhancement Areas

- 3.1.16.1** *Enhancement areas* are intended to consist of *natural self-sustaining vegetation* that increase the ecological resilience and function of individual *key natural heritage features*, *key hydrologic features* and/or *natural features and areas*, or groups of such features, by:
- increasing the size of *key natural heritage features*, *key hydrologic features* and/or *natural heritage features and areas*;
  - connecting *key natural heritage features*, *key hydrologic features* and/or *natural heritage features and areas* to create larger contiguous natural areas;
  - improving the shape of *key natural heritage features*, *key hydrologic features* and/or *natural heritage features and areas* to increase interior habitat conditions; or
  - including critical function zones and important catchment areas for sustaining *ecological functions*.
- 3.1.16.2** The presence of potential *enhancement areas* shall be screened for by a proponent when an *environmental impact study* and/or *hydrological evaluation* is required to support an application for *development* and *site alteration* both inside and outside of *settlement areas* or when a *subwatershed study* is being undertaken.
- 3.1.16.3** When carrying out an *environmental impact study*, *hydrological evaluation*, or *subwatershed study* to determine whether *enhancement areas* should be identified within or adjacent to a feature, an evaluation shall be completed that:
- assesses the potential ecological benefit of an *enhancement area* to the nearby *key natural heritage feature*, *key hydrologic feature* and/or *natural heritage feature and area*. An example would be an *enhancement area* to fill in a gap, close in an indent, or connect two separate features;
  - considers the most appropriate shape/extent of an *enhancement area* so that the *ecological functions* of the nearby *key natural heritage feature*, *key hydrologic feature* and/or *natural heritage feature and area* are enhanced;
  - considers how the function and spatial extent of an *enhancement area* can be incorporated into the design and layout of the proposed *development*; and
  - assesses the potential for *compatible* uses such as *stormwater management facilities* within the *enhancement area* to ensure that the intended *ecological function* of the *enhancement area* is achieved.

**3.1.16.4** In a case where an *enhancement area* is identified in accordance with Policy 3.1.16.2, the lands within the *enhancement area* shall be planted and left as *natural self-sustaining vegetation*. The *enhancement area* may also be designed to include other *compatible* land uses and *infrastructure*, such as stormwater management ponds, if it can be demonstrated that the long-term *ecological function* of the *enhancement area* would be retained.

### 3.1.17 Linkages

**3.1.17.1** Large, medium, and small *linkages* outside of *settlement areas* and outside of the *Provincial natural heritage system* and small *linkages* inside of *settlement areas* which are identified between *natural heritage features and areas*, *key natural heritage features*, and *key hydrologic features* are shown on Schedule C2.

**3.1.17.2** Only *linkages* which have been mapped as part of the *natural environment system* are shown on Schedule C2. Opportunities for additional, ecologically appropriate, *linkages* shall be screened for when a *subwatershed study* is being completed in support of a secondary plan.

**3.1.17.3** When a *subwatershed study* is being undertaken, or when *development* or *site alteration* is proposed in, or within 30 metres of a *linkage* shown on Schedule C2, an evaluation shall be completed that:

- a. assesses the ecological features and functions of a *linkage*, including its vegetative, wildlife, and/or landscape features or functions;
- b. identifies appropriate boundaries/widths that permit the movement of wildlife between nearby *key natural heritage features*, *key hydrologic features*, and/or *natural heritage features and areas*;
- c. describes the *ecological functions* the *linkage* is intended to provide and identifies how these *ecological functions* can be maintained or enhanced within a *development* proposal;
- d. assesses the potential for compatible uses including, but not limited to, stormwater management ponds, passive recreational uses, and trails within the *linkage* to determine how the intended *ecological functions* of the *linkage* can be maintained or enhanced;
- e. assesses potential impacts on the *linkage* as a result of the *development*; and
- f. makes recommendations on how to protect, enhance, or mitigate impacts on the *linkage* and its *ecological functions* through avoidance and planning, design, and construction practices.

**3.1.17.4** Possible outcomes of an evaluation carried out in accordance with Policy

3.1.17.3 include:

- a. the incorporation of the *linkage* into the *development*, such that *development* would not occur on those lands;
- b. the incorporation of the *linkage* into the *development*, with linear *infrastructure*, and other *infrastructure* and associated small scale structures permitted in the *linkage* in such a manner that protects the long-term *ecological function* of the *linkage*;
- c. the refinement of the location, form, size, shape, or *ecological function* of the *linkage*; or
- d. the elimination of the *linkage* based on area or site-specific analysis. If a *linkage* is proposed to be eliminated it must be demonstrated to the satisfaction of the Region that:
  - i. maintaining a *linkage* is not necessary for ecological reasons;
  - ii. the loss of the *linkage* will not decrease the overall ecological *connectivity* in the area; and
  - iii. the *linkage* is not required to support the long-term sustainability of the overall *natural environment system*.

**3.1.17.5** In a case where all or part of a *linkage* area is retained in accordance with Policy 3.1.17.4 a), b), or c), the lands within the *linkage* area shall be planted and left as *natural self-sustaining vegetation* (except for those lands used for *infrastructure* - if permitted) or remain in agricultural use. The *linkage* may also be designed to permit compatible uses as evaluated in Policy 3.1.17.3 so long as the *ecological function* of the *linkage* is maintained.

**3.1.17.6** Notwithstanding Policy 3.1.17.3 the full range of existing and new *agricultural uses*, *agriculture-related uses*, *on-farm diversified uses*, and *normal farm practices* are permitted within a mapped *linkage* shown on Schedule C2.

**3.1.17.7** Notwithstanding Policy 3.1.17.3, the following types of minor construction is permitted within a *linkage* shown on Schedule C2, provided there is no alternative, without a requiring an evaluation:

- a. new accessory buildings to a residential use (garage, workshop, etc.) below 50 m<sup>2</sup>;
- b. expansions to existing accessory buildings to a residential use below 50 per cent of the size of the original building;
- c. expansions to existing residential buildings below 50 per cent of the size of the original building; and
- d. reconstruction of an existing residential dwelling of the same size in the same location.

3.1.17.8 Notwithstanding the above, the policies of Section 3.1.17 do not apply to new or expanding *mineral aggregate operations*.

### 3.1.18 Natural Features that have been Disturbed

3.1.18.1 Where a feature was identified as a *significant woodland* or *other woodland* as of the date of approval of this Plan, and no longer meets the definition of *significant woodland* or *other woodland* because of either a natural or anthropogenic disturbance, the feature shall retain its status as either a *significant woodland* or *other woodland* and the policies of this plan shall continue to apply.

3.1.18.2 Where a *natural heritage feature and area*, *key natural heritage feature*, or *key hydrologic feature* has been removed without authorization in advance of making, or prior to approval of, an application for *development* or *site alteration*, Regional, Local, and/or *Conservation Authority* staff shall use all available information to determine the limit and classification of the feature that existed, and restoration of the feature shall be required through the approval of the application for *development* or *site alteration*.

### 3.1.19 Cultural and Regenerating Woodlands

3.1.19.1 The *ecological functions* of some *significant woodlands* or *other woodlands* in *settlement areas* may be substantially compromised as a result of prior land use activity and as a result would be difficult to restore and/or manage as a native *woodland* in an urban setting. In these circumstances, consideration can be given to reclassifying all or a portion of such a *significant woodland* or *other woodland* as a *cultural and regenerating woodland*.

3.1.19.2 If it has been determined, through the completion of an *environmental impact study*, that a *woodland* has met all of the criteria outlined in Schedule L to be reclassified as a *cultural and regenerating woodland* to the satisfaction of the Region, the removal of the treed area, or a portion thereof, may be permitted subject to preparing a *woodland enhancement plan* that demonstrates an enhancement in *woodland* area is achieved, either on the same property or in a reasonable proximity.

3.1.19.3 *Woodlands* (including plantations) established and/or managed for the purpose of restoring a native tree community cannot be classified as *cultural and regenerating woodlands*.

### 3.1.20 Enhancements to the Natural Environment

- 3.1.20.1 The Region supports enhancements to the *natural environment system* to support *ecological functions* and improve *ecological integrity* of the *natural environment system*. Enhancements can be as a result of a range of specific actions being undertaken by a landowner, developer, or public agency.
- 3.1.20.2. Where the preparation of a *subwatershed study* or an *environmental impact study* is required, the study shall demonstrate how enhancements to *ecological function*, *ecological integrity*, or biodiversity of the *natural environment system* can be achieved, and will be implemented, through for example:
- increases in the spatial extent of a feature or features;
  - increases in biological and habitat diversity;
  - enhancement of ecological system function;
  - enhancement of *wildlife habitat*;
  - enhancement or creation of *wetlands*, water systems or *woodlands*;
  - enhancement of riparian corridors;
  - enhancement of ecological services;
  - enhancement of groundwater recharge areas; and
  - establishment or enhancement of *linkages* or *connectivity* between key *natural heritage features*, and/or *natural heritage features and areas*.

### 3.1.21 Aquatic Species at Risk

- 3.1.21.1 In accordance with Federal requirements, where *development* or *site alteration* is proposed that could have an impact on aquatic species at risk an *environmental impact study* shall be required to demonstrate that:

- all reasonable alternatives have been considered to reduce and minimize impacts to natural features and *ecological functions*, and the best solution has been adopted; and
- the proposed *development* or *site alteration* activities will not jeopardize the survival, recovery and conservation of species at risk listed in Schedule 1 of the Species at Risk Act or in Ontario Regulation 230/08, including their residences and critical habitat.

#### Aquatic Species at Risk

*Key natural heritage features, key hydrologic features, and natural heritage features and areas* include waters supporting aquatic species at risk and their residences and critical habitats.



### 3.1.22 Cumulative Impacts

- 3.1.22.1 The consideration of cumulative impacts shall be required when an *environmental impact study*, *hydrological evaluation*, or *subwatershed study* is undertaken.
- 3.1.22.2 Where cumulative impacts are being considered, the proponent shall be required to provide an overview of previous studies as provided by the Region, Local Area Municipality, or the *Conservation Authority* (if available), related to *development* impacts on the same or adjacent feature as it relates to impacts on the *natural environment system*.

### 3.1.23 Natural Hazards

- 3.1.23.1 *Development* shall generally be directed, in accordance with guidance developed by the Province (as amended from time to time), to areas outside of:
- a. *hazardous lands* adjacent to the shorelines of Lake Erie and Lake Ontario which are impacted by *flooding hazards*, *erosion hazards* and/or *dynamic beach hazards*;
  - b. *hazardous lands* adjacent to river, stream, and small inland lake systems which are impacted by *flooding hazards* and/or *erosion hazards*; and
  - c. *hazardous sites*.
- 3.1.23.2 *Development* or *site alteration* shall not be permitted within:
- a. the *dynamic beach hazard*;
  - b. defined portions of the *flooding hazards* along the Niagara River;

#### Considering Cumulative Impacts

Multiple environmental stressors can impact environmental, social and economic systems (i.e., climate change, invasive species, habitat fragmentation, etc.) and are often dynamic and varying. Cumulative impacts of *development* can combine with other stressors to have significant negative consequences for ecosystems and environmental resilience, noise, air quality and social and economic systems over time.

Considering cumulative impacts from *development* is critical for ensuring long-term environmental health and resiliency and more broadly speaking on the capacity of the *natural environment system* to accommodate *development* from both an environmental and social perspective.

- c. areas that would be rendered inaccessible to people and vehicles during times of *flooding hazards*, *erosion hazards* and/or *dynamic beach hazards*, unless it has been demonstrated that the site has safe access appropriate for the nature of the *development* and the natural hazard; and
- d. a *floodway* regardless of whether the area of inundation contains high points of land not subject to flooding.

### Primary Mandate for Natural Hazards

The Niagara Peninsula Conservation Authority is responsible for regulating *development* and *site alteration* in natural hazards, excluding within *hazardous forest types for wildland fire*. *Development* or *site alteration* proposed within or adjacent to a natural hazard (whether it requires Planning Act approval or not) requires approval of the Niagara Peninsula Conservation Authority.

**3.1.23.3** Notwithstanding Policy 3.1.23.2, *development* or *site alteration* may be permitted in certain areas associated with the *flooding hazard* along *river, stream and small inland lake systems*:

- a. in those exceptional situations where a *Special Policy Area* has been approved. The designation of a *Special Policy Area*, and any change or modification to the official plan policies, land use designations or boundaries applying to *Special Policy Area* lands, must be approved by the Ministers of the Provincial Ministries with jurisdiction prior to the approval authority approving such changes or modifications; or
- b. where the *development* is limited to uses that by their nature must locate within the *floodway*, including flood and/or erosion control works or minor additions or passive non-structural uses that do not affect flood flows.

**3.1.23.4** *Development* shall not be permitted in *hazardous lands* and *hazardous sites* where the use is:

- a. an *institutional use* including hospitals, long-term care homes, retirement homes, pre-schools, school nurseries, day cares, and schools;
- b. an *essential emergency service* such as that provided by fire, police, and ambulance stations and electrical substations; or
- c. uses associated with the disposal, manufacture, treatment, or storage of *hazardous substances*.

- 3.1.23.5** Where a *two-zone concept* for *floodplains* is applied, *development* and *site alteration* may be permitted in the *flood fringe*, subject to appropriate flood proofing to the *flooding hazard* elevation or another *flooding hazard* standard approved by the Provincial Ministry with jurisdiction
- 3.1.23.6** Further to Policy 3.1.23.5, and except where prohibited in Policy 3.1.23.2 and 3.1.23.4, *development* and *site alteration* may be permitted in those portions of *hazardous lands* and *hazardous sites* where the effects and risk to public safety are minor and could be mitigated in accordance with Provincial standards, the following criteria will be demonstrated:
- development* and *site alteration* are carried out in accordance with flood proofing, protection works, and access standards;
  - vehicles and people have a way of safely entering and exiting the area during times of flooding, erosion, and other emergencies;
  - new hazards are not created and existing hazards are not aggravated; and
  - no adverse environmental impacts will result.
- 3.1.23.7** *Hazardous lands* shall be identified in mapping in Local official plans and included in appropriate zones in Local zoning by-laws to protect public health and safety in accordance with Provincial direction and the policies of this Plan. The extent of natural hazards may be refined by Local Area Municipality on their own initiative or in response to *development* applications, as appropriate, and as approved by the *Conservation Authority*.

## **3.1.24 Wildland Fires**

- 3.1.24.1** *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*.
- 3.1.24.2** *Development* may be permitted in lands with *hazardous forest types for wildland fire* where the risk is mitigated in accordance with *wildland fire assessment and mitigation standards*.
- 3.1.24.3** The Region and/or Local Area Municipalities may request an assessment undertaken by a qualified professional during the appropriate time of year and using accepted protocols to determine the wildland fire risk and required mitigation measures where *development* is proposed. The Region may prepare a map to identify areas of potential wildfire risk.
- 3.1.24.4** Mitigation measures required as per Policy 3.1.24.2 to support *development* in areas shall not negatively impact *key natural heritage features*, *key hydrologic features* and/or *natural heritage features and areas*.

### 3.1.25 Woodland Cover

3.1.25.1 *Woodland* cover shall be maintained or enhanced in the region by 2051.

3.1.25.2 The Region supports opportunities for enhancement of *woodland* cover, which may be achieved through a number of means including, but not limited to:

- a. the development and implementation of a Regional Greening Initiative;
- b. regional and Local Area Municipal efforts of tree planting, as well as tree planting programs of the *Conservation Authority* and other public or private organizations;
- c. private land stewardship that includes protection of existing tree cover and tree planting efforts;
- d. land acquisition or dedication of private land to the Region, Local Area Municipalities, *Conservation Authority*, or other public or private organizations for tree planting and reforestation efforts;
- e. identification of *woodland* enhancement areas through the completion of *watershed plans*, *subwatershed studies*, or similar plans;
- f. required tree and *woodland* protection and planting through the application process for *development* or *site alteration*; and
- g. the development of a region-wide strategy for land protection, preservation and securement.

### 3.1.26 Wetland Cover

3.1.26.1 *Wetland* cover shall be maintained or enhanced in the region by 2051.

3.1.26.2 The Region supports opportunities to maintain and restore *wetland* functions at a *watershed* and *subwatershed* scale based on historic reference conditions.

### 3.1.27 Riparian Vegetation Cover

3.1.27.1 Naturally vegetated riparian areas adjacent to *permanent* and *intermittent streams*, *wetlands*, and other waterbodies shall be maintained or enhanced in the region to support the protection and maintenance of aquatic functions.

3.1.27.2 The Region supports opportunities for enhancement of riparian vegetation cover which may be achieved through a number of means including:

- a. requiring a naturally vegetated shorelines along *permanent* and *intermittent streams* and adjacent to *wetlands* and waterbodies as part of an application for *development* or *site alteration*;
- b. working with private landowners and the agricultural community to support stewardship efforts such as planting and maintaining riparian vegetation adjacent to watercourses;
- c. land acquisition or dedication of private land to the Region, Local Area Municipalities, *Conservation Authority*, or other public or private organizations for planting and restoration efforts; and
- d. the development of a Region-wide strategy for land protection, preservation and securement.

#### Addressing the Desire to Protect and Enhance Woodland Wetland, and, Riparian Cover in the Region

Official plans are intended to be aspirational in their scope. The policies in this section establish protections and enhancements for *woodland*, *wetland* and riparian vegetation cover in the region. Implementation of these goals is primarily achieved through a range of programs that fall outside the Niagara Official Plan, such as a Regional Greening Initiative, and through private landowner stewardship.

Official plans contribute to protection and enhancement by informing the preparation of studies for new *development* and *site alteration* and providing policies for how existing natural areas must be protected through the *development* approval process.

### 3.1.28 Native and Non-Native Species

- 3.1.28.1 The Region requires individuals and agencies to use native species appropriate to the locality when planting within the *natural environment system* or contiguous to elements of the *natural environment system*. To provide guidance, the Region may prepare a list of non-native species considered invasive and unsuitable for such use and/or a list of adequate native species.
- 3.1.28.2 Local Area Municipalities are encouraged to require the planting of appropriate native species as conditions of all other *development* and *site alteration* applications.
- 3.1.28.3 The Region encourages the use of native species plantings at Regional and Local Municipal facilities and along transportation and *utility* corridors which fall outside the *development* approval process.

### 3.1.29 Invasive Species

- 3.1.29.1 The Region acknowledges and supports the role of the Local Area Municipalities, *Conservation Authorities*, the Niagara Parks Commission, other Provincial agencies, and conservation organizations in carrying out invasive species management.
- 3.1.29.2 The Region also supports and encourages the Local Area Municipalities in consultation with the *Conservation Authority* to develop policies and programs that require or promote measures to eliminate and/or manage invasive species and discourage the use of non-native invasive species plantings in new developments adjacent to the *natural environment system*.
- 3.1.29.3 The Region may endeavour to prepare an Invasive Species Strategy in conjunction with the Local Area Municipalities, *Conservation Authorities*, the Niagara Parks Commission, other Provincial agencies, and conservation organizations which would identify goals, objectives and a strategic direction to support the implementation of invasive species management throughout the Region.

#### Invasive Species

A major issue facing management of the natural environment within the region is the threat of non-native species invading *woodlands*, *wetlands* and other natural areas. If left unmanaged, invasive species pose a risk to the *ecological integrity* of the region's natural areas through the displacement of native species and the subsequent alteration to the genetic diversity and structure of local native species populations.

### 3.1.30 Transition and Implementation

- 3.1.30.1** Once the policies in this Plan on the *natural environment system* have been approved in accordance with the Planning Act, all subsequent Planning Act decisions shall conform to this Plan, unless this Plan explicitly states otherwise.
- 3.1.30.2** Where a site plan pursuant to Section 41 of the Planning Act has been approved, that approval can be implemented in accordance with the Local, Regional, and Provincial policies that existed when the site plan was approved.
- 3.1.30.3 Approved Studies and Existing Development Approvals**
- 3.1.30.3.1** Where a formal pre-consultation meeting has been completed within one year prior to the approval of this Plan, and where the requirements for an *environmental impact study* or similar study has been established through a signed pre-consultation agreement that has not expired, the *environmental impact study* may be completed and evaluated in accordance with the Local, Regional, and Provincial policies that existed at the time pre-consultation meeting was completed, provided a complete application is submitted within 2 years of the approval of this plan.
- 3.1.30.3.2** Where an *environmental impact study* or similar study has been formally accepted by Local or Regional planning staff, but the application for *development* or *site alteration* has yet to be approved, the application may be approved in accordance with the approved study as long as the study remains valid in accordance with the Region's Environmental Impact Study Guidelines.
- 3.1.30.3.3** Where lands have been draft approved for *development* by way of plan of subdivision or plan of condominium in a *settlement area*, that approval can be implemented in accordance with the Local, Regional, and Provincial policies that existed when the lands were draft approved and any conditions that were established at the time of approval.
- 3.1.30.3.4** If a draft plan approval is proposed to be extended, the Region may review the findings and recommendations made in the studies that supported the initial draft plan approval and may request that the studies be updated to determine if changes to the layout of the draft plan and/or any of the conditions need to be made before the extension request is granted.
- 3.1.30.3.5** The Region encourages the Local Area Municipalities to review older, existing draft plan approvals to determine if updates are required.

- 3.1.30.3.6 If a draft plan approval lapses or is withdrawn, any subsequent application shall conform to this Plan.
- 3.1.30.3.7 Where major modifications to a draft plan are proposed, the revised draft plan shall be designed to reduce impacts on the *natural environment system*.

#### **3.1.30.4 Ongoing and Approved Secondary Plans**

- 3.1.30.4.1 Where a secondary plan has been approved after July 1, 2012, those portions that are not subject to a draft approved plan of subdivision or plan of condominium shall be approved in accordance with the approved mapping and policies of the secondary plan.
- 3.1.30.4.2 Where a secondary plan was approved prior to July 1, 2012, those portions that are not subject to a draft approved plan of subdivision or plan of condominium shall be subject to the mapping and policies of this plan. Conformance with the mapping and policies of this Plan be done through an update to the secondary plan or through the approval of individual plans of subdivision or plans of condominium, as determined appropriate by the Local Area Municipality.
- 3.1.30.4.3 For secondary plans in process, the mapping and policies of this Plan shall be considered in the work program and Local official plan amendment, to the satisfaction of the Region.

#### **3.1.30.5 Previous Site-Specific Approvals in the Greenbelt Plan Area**

- 3.1.30.5.1 Where the Regional Official Plan or a Local official plan was amended prior to December 16, 2004 to specifically designate land use(s), this approval may continue to be recognized through any further applications required under the Planning Act or the Condominium Act, 1998 to implement the official plan approval, and provided these additional approvals are required to implement the initial decision, these further approvals are not required to conform with the Greenbelt Plan.
- 3.1.30.5.2 Where a zoning by-law was amended prior to December 16, 2004 to specifically permit land use(s), this approval may continue to be recognized through any further applications required under the Planning Act or the Condominium Act, 1998 to implement the use permitted by the zoning by-law are not required to conform to the Greenbelt Plan.



### **3.1.30.6 Incorporating the Natural Environment System at the time of Local Official Plan Conformity**

- 3.1.30.6.1** Local Area Municipalities shall incorporate the mapping and policies of the *natural environment system* into their Local official plans in a manner that implements this Plan.
- 3.1.30.6.2** While the limits of the *Provincial natural heritage system* shown on Schedule C1 to this Plan can only be modified through a *municipal comprehensive review*, through the process of conformity Local Area Municipalities may refine the limits of other features and components of the *natural environment system* within Regional jurisdiction in their Local official plans on the basis of updated information and/or detailed studies in consultation with the Region.

### **3.1.30.7 Incorporating the Natural Environment System into Local Zoning By-Laws**

- 3.1.30.7.1** Local Area Municipalities shall incorporate the mapping and policies of the *natural environment system*, as determined through the Local official plan conformity in Section 3.1.30.6, into their Local zoning by-laws, in a manner that implements this Plan.
- 3.1.30.7.2** Where an individual feature or component of the *natural environment system* includes a *vegetation protection zone* or a minimum *buffer*, both shall also be zoned in a manner that implements this Plan.
- 3.1.30.7.3** Where a minimum *buffer* has not been prescribed in accordance with this Plan, a *buffer* is not required to be zoned in a Local zoning by-law at the time of initial implementation, and instead should be zoned at the time a site-specific zoning by-law amendment is proposed.

## **3.1.31 Land Securement Strategy**

- 3.1.31.1** The Region may work with the Local Area Municipalities and other public agencies and/or non-profit land trust organizations to develop and implement a land securement strategy that would result in the transfer of private lands with natural heritage attributes into public ownership. This policy does not imply that *key natural heritage features*, *key hydrologic features* or *natural heritage features and areas* or other components of the *natural environment system* will be purchased by the Region or other public or non-profit agencies. In the event that lands are not transferred to public ownership, then the lands should remain under a single private ownership.

**3.1.31.2** The Region and the Local Area Municipalities shall consider opportunities to obtain, through dedication, lands with natural heritage attributes through the *development* approval process.

**3.1.31.3** Arrangements for the conveyance of components of the *natural environment system* into public ownership shall be undertaken before or concurrent with the approval of *development* applications through the *development* approval process.

### **3.1.32 Factors to be Considered when Reviewing Site Plan or Community Planning Permits in the Natural Environment System**

**3.1.32.1** Where site plan control or a community planning permit is required by the Local Area Municipality for *development* in the *natural environment system*, Local Area Municipalities are encouraged to address the following matters, as applicable:

- a. appropriate location of buildings, structures and sewage disposal systems;
- b. retention or restoration of a natural vegetative *buffer* to prevent erosion, siltation and nutrient migration;
- c. maintenance or establishment of native tree cover and vegetation on the lot as terrain and soil conditions permit;
- d. appropriate location and construction of roads, driveways and pathways, including the use of permeable materials;
- e. the use of appropriate soils for on-site sewage systems;
- f. implementation of stormwater management and construction mitigation techniques with an emphasis on lot level controls, *low impact development* practices and a treatment train approach to promote filtration, infiltration and detention, which may include proper re-contouring, discharging of roof leaders, use of soak away pits, other measures to promote infiltration, and silt fencing for temporary sediment control;
- g. the establishment of dark sky compliant lighting from all structures with full cut-off fixtures being required in order to minimize light spillage into the surrounding environs, while maintaining safety; and
- h. securities and processes to ensure implementation and long-term monitoring and compliance with site plan agreements and/or other agreements if required.

### 3.1.33 Environmental Impact Studies and Hydrological evaluations

3.1.33.1 An *environmental impact study* and/or *hydrological evaluation* required under the policies of this Plan shall be submitted with the application for *development* or *site alteration*, and shall be prepared and signed by a qualified professional in accordance with the Region’s Environmental Impact Study Guidelines and/or Hydrological evaluation Guidelines in addition to the relevant policies of this Plan.

3.1.33.2 The *environmental impact study* and/or *hydrological evaluation* shall be prepared to the satisfaction of the appropriate approval authority in accordance with the following:

- a. within *settlement areas* it is the responsibility of the Local Area Municipality to ensure that:
  - i. an *environmental impact study* and/or *hydrological evaluation* is prepared in accordance with an approved terms of reference and the policies of this Plan; and
  - ii. the conclusions of the *environmental impact study* and/or *hydrological evaluation* are considered through the *development* approval process and appropriate conditions are established to implement the recommendations of the study and/or evaluation.

In carrying out this responsibility, the Local Area Municipality shall work in consultation with the Region and the *Conservation Authority*. The Region shall provide technical support as required.

- b. outside of *settlement areas*, regardless of who is the approval authority for an application for *development*, it is the responsibility of the Region to ensure that:
  - i. an *environmental impact study* and/or *hydrological evaluation* is prepared in accordance with an approved terms of reference and the policies of this Plan; and

#### Studies Required as Part of a Development Application

As the region continues to grow, *development* may be proposed that may have an impact on the *natural environment system*. The intent of this section is to set out the Region’s requirements for environmental impact studies and hydrologic evaluations which may be requested in support of *development* applications in accordance with the policies of the Plan.

- ii. the conclusions of the *environmental impact study* and/or *hydrological evaluation* are considered through the *development* approval process and appropriate conditions are established to implement the recommendations of the study and/or evaluation.

In carrying out this responsibility, the Region shall work in consultation with the Local Area Municipality and the *Conservation Authority*.

### **3.1.33.3 Waiving and Scoping of an Environmental Impact Study and/or Hydrological Evaluation**

- 3.1.33.3.1** The Region, in consultation with the other commenting bodies, shall review the proposed *development* in accordance with policies of this Plan, Provincial policies, and the waiving requirements of the Environmental Impact Study Guidelines and/or Hydrological Evaluation Guidelines to determine whether an *environmental impact study* and/or *hydrological evaluation* is required or whether requirements can be waived.
- 3.1.33.3.2** Waving the requirement for an *environmental impact study* and/or *hydrological evaluation* may be subject to conditions.
- 3.1.33.3.3** The Region, in consultation with the other commenting bodies, shall scope the contents of the *environmental impact study* and/or *hydrological evaluation* in accordance with the Environmental Impact Study Guidelines and/or Hydrological Evaluation Guidelines.
- 3.1.33.3.4** The Region, at its discretion, may delegate the waiving and/or scoping of an *environmental impact study* and/or *hydrological evaluation* to the Local Area Municipality if the proposed *development* or *site alteration* is minor, and if the lands affected are within a *settlement area*.
- 3.1.33.3.5** An *environmental impact study* and/or *hydrological evaluation* is not required for uses authorized under an environmental assessment process, including Class Environmental Assessment, carried out in accordance with Provincial or Federal legislation.

### **3.1.33.4 Terms of Reference for an Environmental Impact Study and/or Hydrological evaluation**

- 3.1.33.4.1** A draft terms of reference for the *environmental impact study* and/or *hydrological evaluation* shall be prepared in accordance the Environmental Impact Study Guidelines and/or Hydrological Evaluation Guidelines.

- 3.1.33.4.2** The terms of reference shall be prepared by a qualified professional retained by the proponent and reviewed by the approval authority and other commenting bodies. It shall be the responsibility of the Region to approve the terms of reference.
- 3.1.33.4.3** The approval authority shall not accept an *environmental impact study* and/or *hydrological evaluation* unless the terms of reference has been approved.
- 3.1.33.5** The approval authority may require an independent peer review of an *environmental impact study* and/or *hydrological evaluation*, with the costs to be borne by the applicant.

## 3.2 Watershed Planning

The Region recognizes the *watershed* as the ecologically meaningful scale for integrated and long-term planning. *Watershed planning* is a proactive process for assessing and documenting existing conditions, and establishing values, objectives, and targets to support the protection, enhancement, or restoration of the natural resources within a *watershed*, with an emphasis on water resources. Carrying out *watershed planning* involves a cross-jurisdictional coordination of efforts in order to best assess cumulative and cross-watershed impacts. Essential to the entire process are the principles of monitoring and adaptive management.

In general the *watershed planning* framework is a phased process that is typically undertaken to:

- inform land use, growth, and *infrastructure* planning;
- provide direction for resource planning;
- prepare management plans and policies; and
- assist in the protection of water quantity and quality.

Within Provincial planning documents, there is an increased emphasis on the need for *watershed planning* to inform land-use planning. There are Provincial policies and policies of this Plan that require that certain land use planning decisions be informed by *watershed* or *subwatershed planning*. *Watershed planning* is also required to inform municipal decisions regarding growth and *infrastructure*.

The term ‘informed by’ means that planning must be guided by the findings and recommendations of the *watershed plan* or *subwatershed study*. The *watershed plan* or *subwatershed study* shall be used as the basis of planning decisions as it relates to protecting, improving, or restoring water quality and quantity, and other resource management activities.

Additionally, through the *watershed planning* process, several Provincial obligations are fulfilled including assisting in addressing water quality in the Great Lakes, *climate change* planning, as well as the need to consider cumulative impacts.

### The objectives of this section are as follows:

- a. ensure *watershed planning* is informing land-use planning in accordance with Provincial direction;
- b. establish a program to ensure *watershed planning* is carried out at the scale suitable for decision making;
- c. clarify the roles and responsibilities in *watershed planning* in the Region; and
- d. provide direction to Local Area Municipalities for undertaking *subwatershed planning*.

## 3.2.1 Informing Land Use Planning

- 3.2.1.1 *Watershed planning, subwatershed planning*, or their equivalent shall inform:
- the identification and refinement of the *natural environment system* through the preparation of *subwatershed studies*;
  - the protection, enhancement, or restoration of the *quality and quantity of water* by making careful decisions on where *development* should be located;
  - the consideration of cross-jurisdictional and cross-watershed impacts;
  - decisions on allocation of growth to ensure that large-scale *development* is directed to the most appropriate locations;
  - the location and feasibility of *settlement area* boundary expansions;
  - proposals for large-scale *development*; and
  - planning for water, wastewater, and stormwater *infrastructure* to ensure that decisions on *infrastructure* are integrated with decisions that are designed to protect the *natural environment system*.

## 3.2.2 Roles and Responsibilities

- 3.2.2.1 *Tertiary watersheds* and *quaternary watersheds* are shown on Schedule D to this Plan.
- 3.2.2.2 The Region is responsible for preparing tertiary *watershed plans*. Tertiary *watershed plans* are required to support new Regional Official Plans and may be required to support other regional-scale planning initiatives. Tertiary *watershed plans* shall be prepared or updated in accordance with currently accepted practices and Provincial guidance as appropriate. Tertiary *watershed plans* will provide guidance for the preparation of more detailed quaternary *watershed plans*.
- 3.2.2.3 The Region is responsible for preparing quaternary *watershed plans*. Quaternary *watershed plans* are prepared as needed, and may be prepared when there is benefit from *watershed planning* beyond a *subwatershed* scale. Quaternary *watershed plans* may be prepared based on *development* pressure, ecosystem degradation, resource management requirements, and fiscal constraints. Quaternary *watershed plans* will be prepared or updated in accordance with currently accepted practices and Provincial guidance as appropriate.
- 3.2.2.4 The priorities, phasing, and process for undertaking and updating quaternary *watershed plans* shall be determined by the Region in consultation with the affected Local Area Municipalities and the *Conservation Authority*.

- 3.2.2.5** Local Area Municipalities are responsible for the preparation of *subwatershed studies*. The Region may prepare guidelines to assist Local Area Municipalities with the preparation of *subwatershed studies*. *Subwatershed studies* may proceed in advance of the completion of a quaternary *watershed plan*.
- 3.2.2.6** Tertiary *watershed plans*, quaternary *watershed plans*, and *subwatershed studies* shall be scoped in accordance with the purpose and scale in which they are being completed.
- 3.2.2.7** The Region, in co-operation with the Local Area Municipalities, shall ensure that the appropriate policies to implement individual *watershed plans* and *subwatershed studies* are incorporated into this Plan and Local official plans as appropriate.
- 3.2.2.8** Local Area Municipalities, in co-operation with the Region and *Conservation Authority*, shall implement the recommendations of *watershed plans* and *subwatershed studies* as part of the *development* review process.

### **3.2.3 Subwatershed Planning**

- 3.2.3.1** A *subwatershed study* is required to inform the identification and refinement of the *natural environment system* and the development of policies to protect the *natural environment system* when secondary plans are prepared for *designated greenfield areas* and other large undeveloped areas in accordance with Section 6.1.4.
- 3.2.3.2** A *subwatershed study* should generally include, but is not limited to:
- an inventory of existing ecological and hydrological data and conditions;
  - the identification of existing and proposed land uses, and the modelling of potential development impacts;
  - water quality targets in accordance with the *watershed plan*, Provincial guidelines, or other industry standards and best practices;
  - procedures for monitoring water quality and quantity before, during, and after *development*;
  - completion of a water balance;
  - consideration of all elements of the *natural environment system* as described in Section 3.1 of this Plan;
  - refinement to the boundaries of the *natural environment system*;
  - identification of opportunities for, and constraints to *development*;
  - guidelines and best management practices for development design, environmental design, construction management, etc.;



- j. the recommendation of appropriate stormwater management techniques in accordance with Provincial, Regional and Local guidelines and industry best practices;
- k. an analysis the cumulative impact of *development*; and
- l. implementation and adaptive monitoring plans.

**3.2.3.3** Proposed *development* in *designated greenfield areas*, including the associated water, wastewater and stormwater servicing, shall be planned to avoid, or if avoidance is not possible, minimize and mitigate any potential *negative impacts* on *watershed* conditions and the *water resource system*, including the *quality and quantity of water*.

**3.2.3.4** The Local Area Municipality, in consultation with the Region, the *Conservation Authority*, and affected landowners if appropriate, shall determine the terms of reference for the *subwatershed study*.

## 3.3 Source Water Protection

The *Source Protection Plan* for the Niagara Peninsula Source Protection Area protects existing and future sources of drinking water in Niagara by ensuring activities identified as drinking water threats under the Clean Water Act and associated regulations either never become a *significant threat*, or cease to be a *significant threat* to drinking water. The *Source Protection Plan* evaluated six water treatment plants and determined there are *significant threats* related to land uses associated with the DeCew Falls water treatment plant in the City of Thorold, Port Colborne water treatment plant in the City of Port Colborne, and the Niagara Falls water treatment plant in the City of Niagara Falls.

The following *source water* protection policies are organized according to the water treatment plant *intake protection zones* for which *significant drinking water threats* have been identified in the *Source Protection Plan*. These water treatment plants and associated *intake protection zones* are identified as an overlay on Schedule E to this Plan. The underlying land use designations on Schedule E continue to apply.

The policies of Section 3.3 must be read with this Plan in its entirety and in conjunction with the Niagara Peninsula Source Protection Plan, the Niagara Peninsula Source Protection Area Assessment Report and the Explanatory Document which provides the context and rationale for the land use policies and in identifying *significant threats* and eliminating these drinking water threats for the DeCew Falls, Port Colborne and Niagara Falls water treatment plant *intake protection zones*. The policies of this section must also be read in conjunction with other applicable plans and legislation.

### The objectives of this section are as follows:

- a. protect the water source for the Decew Falls Water Treatment Plant;
- b. protect the water source for the Port Colborne Water Treatment Plant; and
- c. protect the water source for the Niagara Falls Water Treatment Plant.

### 3.3.1 Decew Falls Water Treatment Plant

- 3.3.1.1 New *waste disposal sites* for the application of untreated septage to land shall not be permitted within the DeCew Falls *Intake Protection Zone* 1 as shown on Schedule E.

- 3.3.1.2 New industrial or commercial land uses where the storm sewer drainage area is at least 100 ha in size, are not permitted within the DeCew Falls *Intake Protection Zone* 1 as shown on Schedule E. For the purposes of this policy, new industrial or commercial land uses include industrial or commercial uses which are not currently designated as such in the Local municipal official plan.
- 3.3.1.3 New *combined sewers, wastewater treatment facilities, and industrial effluent systems*, as defined in Appendix C of the Niagara Peninsula Source Protection Area Assessment Report (2013), are not permitted where they would be a *significant threat* within the DeCew Falls *Intake Protection Zone* 1 as shown on Schedule E.
- 3.3.1.4 Any planning or building application made for a land use other than Residential in the DeCew Falls *Intake Protection Zone* 1, as shown on Schedule E, may require a Section 59 notice from the *Risk Management Official*. The requirements of the notice will be determined through the application screening process.

### 3.3.2 Port Colborne Water Treatment Plant

- 3.3.2.1 New *waste disposal sites* for the application of untreated septage to land shall not be permitted within the Port Colborne *Intake Protection Zone* 1 and *Intake Protection Zone* 2 as shown on Schedule E.
- 3.3.2.2 Any planning or building application made for a land use other than Residential in the Port Colborne *Intake Protection Zone* 1 and 2, as shown on Schedule E, may require a Section 59 notice from the *Risk Management Official*. The requirements of the notice will be determined through the application screening process.
- 3.3.2.3 Future open storage of road salt greater than 5,000 tonnes is not permitted within the Port Colborne *Intake Protection Zone* 1 as shown on Schedule E.
- 3.3.2.4 Future storage of snow greater than one hectare in area is not permitted within the Port Colborne *Intake Protection Zone* 1 as shown on Schedule E.
- 3.3.2.5 New *combined sewers, wastewater treatment facilities, and industrial effluent systems*, as defined in Appendix C of the Niagara Peninsula Source Protection Area Assessment Report (2013), are not permitted where they would be a *significant threat* within the Port Colborne *Intake Protection Zone* 1 and *Intake Protection Zone* 2 which are shown on Schedule E.

- 3.3.2.6** An application for, or expansion, extension or alteration of commercial or industrial development or storm water management facilities, may be deemed to pose a *significant threat* to municipal drinking water, within the Port Colborne *Intake Protection Zone 1* and *Intake Protection Zone 2*, as shown on Schedule E, by the *Risk Management Official* and Region's Commissioner of Planning and Development. In such cases the *development* application shall be accompanied by a stormwater management plan that demonstrates the *development* does not pose a *significant threat* to municipal drinking water to the satisfaction of the Region's Commissioner of Planning and Development Services and City of Port Colborne in consultation with the *Risk Management Official*.
- 3.3.2.7** The storage, and application to land of *agricultural source material*, and the lands used for, are considered *significant threats* in the Port Colborne *Intake Protection Zone 1* and *Intake Protection Zone 2*. New agricultural land uses, such as livestock grazing/pasturing, farm animal yards and outdoor confinement areas, are not permitted within the Port Colborne *Intake Protection Zone 1* and *Intake Protection Zone 2* which are shown on Schedule E.

### **3.3.3 Niagara Falls Water Treatment Plant**

- 3.3.3.1** New *waste disposal sites* for the application of untreated septage to land shall not be permitted within the Niagara Falls *Intake Protection Zone 1* as shown on Schedule E.
- 3.3.3.2** New industrial or commercial land uses where the storm sewer drainage area is at least 100 ha in size, are not permitted within the Niagara Falls *Intake Protection Zone 1* as shown on Schedule E. For the purposes of this policy, new industrial or commercial land uses only includes industrial or commercial uses which are not currently designated as such in the Local municipal official plan.
- 3.3.3.3** New *combined sewers, wastewater treatment facilities, and industrial effluent systems*, as defined in Appendix C of the Niagara Peninsula Source Protection Area Assessment Report (2013), are not permitted where they would be a *significant threat* within the Niagara Falls *Intake Protection Zone 1* as shown on Schedule E.
- 3.3.3.4** The storage, handling, and application to land of *agricultural source material*, and the lands used for livestock grazing/pasturing, farm animal yards and outdoor confinement areas, are considered *significant threats* in the Niagara Falls *Intake Protection Zone 1*. New agricultural land uses are not permitted within the Niagara Falls *Intake Protection Zone 1* as shown on Schedule E.

### 3.3.4 Monitoring Significant Threats

3.3.4.1 The Region will monitor and report on the measures taken to implement the *significant threat* policies annually in accordance with the Niagara Peninsula Source Protection Plan, which shall address the following:

- a. total number and type of *development* applications in *Intake Protection Zones*;
- b. pre-consultation meetings related to the Niagara Peninsula Source Protection Plan;
- c. number of Risk Management Plans reviewed and approved;
- d. the number and type of *development* applications in *Intake Protection Zones* with the potential for the creation or modification of a *transport pathway*; and
- e. steps taken to improve education and research.

## 3.4 Stewardship

This Region recognizes that private landowners have a detailed understanding of their properties and play a key role in restoration and promoting biodiversity in the region. Private landowner stewardship is about individuals and organizations caring for their land in a way that preserves its environmental, economic and cultural values, keeping it healthy for generations to come.

The Region encourages private landowner stewardship at all times, and not just when there is an application for *development* or *site alteration*.

**The objectives of this section are as follows:**

- a. encourage landowners to practice good stewardship; and
- b. support donation or transfer of lands in the *natural environment system*.

### 3.4.1 Stewardship Policies

- 3.4.1.1 The Region encourages landowners to maintain, enhance or, wherever feasible, restore natural features on their property through a range of measures including, but not limited to, plantings, riparian restoration, conservation easements, vegetative *buffers*, invasive species identification and removal, citizen science projects, and wherever appropriate, fencing.
- 3.4.1.2 The Region, in collaboration with the Province, Local Area Municipalities, the *Conservation Authority*, and organized interest groups, will provide advice and information on other land stewardship programs to landowners wishing to exercise good stewardship of lands within the *natural environment system*.
- 3.4.1.3 In addition to the above, the Region supports community outreach programs related to natural environment enhancement and *climate change* initiatives.
- 3.4.1.4 The Region promotes, in conjunction with other public agencies and through stewardship programs, the donation of privately owned lands in the *natural environment system* to public agencies or charitable organizations, or the transfer of the protection of the *ecological functions* and features on such lands to a public agency or charitable organization through a conservation easement agreement.

## 3.5 Climate Change

Niagara is projected to become warmer and wetter with more extreme weather events, such as extreme heat days and precipitation events due to *climate change*. Rising temperatures and extreme weather events have significant human and environmental costs, which disproportionately impact vulnerable populations, and increase financial risks to households, businesses and governments.

Land use planning is an important driver for mitigating and adapting to *climate change* to reduce human, environmental and financial risks. Mitigation refers to reducing sources of greenhouse gas emissions, such as burning fossil fuels for electricity, or enhancing carbon 'sinks' that store these gases. Adaptation refers to preparing for the impacts of *climate change* to reduce vulnerability, and building resiliency to recover from extreme weather events. Addressing *climate change* requires actions from all levels of government, the business community, households and individuals.

This section includes specific actions the Region will take on *climate change* which impact community sectors, as well as opportunities for the Region to lead by example through its corporate operations in support of broader community-wide efforts. This section also recognizes how policy direction across this Plan supports the transition to *net-zero*, climate-resilient communities that mitigate and adapt to *climate change* and recover from extreme weather events. The consolidated policy direction in this section must be read together with other policies of this Plan, which establish direction that is more detailed.

### The objectives of this section are as follows:

- a. commit to establishing targets and strategies to reduce greenhouse gas emissions and monitor progress towards the achievement of targets;
- b. reduce emissions from the Region's corporate operations to lead by example and support achievement of community-wide efforts;
- c. develop *climate change* adaptation strategies to reduce vulnerabilities and improve resilience to extreme weather events and increased climate variability; and
- d. identify land use planning policy direction that support the transition to *net-zero*, climate-resilient communities.

## Climate Projections for Niagara Region under a Business-as-Usual Scenario

| Climate Parameter               | 2020   | 2050   | 2080   | Difference from Baseline to Long Term |
|---------------------------------|--------|--------|--------|---------------------------------------|
| Mean Annual Temperature (°C)    | 8.7    | 10.7   | 12.3   | +3.6                                  |
| Days Above 30°C                 | 10.4   | 23.9   | 39.4   | +29.0                                 |
| Total Annual Precipitation (mm) | 1080.6 | 1135.0 | 1192.0 | +111.4                                |

### 3.5.1 Emissions Reduction and Resilience Planning

- 3.5.1.1 The Region will maintain its community-wide greenhouse gas inventory to monitor progress in emissions reduction planning.
- 3.5.1.2 The Region will establish new community-wide greenhouse gas reduction targets to work toward the long-term goal of *net-zero* emissions.
- 3.5.1.3 The Region will develop a municipal energy plan in consultation with the Local Area Municipalities, *utility* companies and organized interest groups to reduce energy consumption and greenhouse gas emissions, complement land use and *infrastructure* master planning, and support economic development opportunities in the region.
- 3.5.1.4 The Region, in consultation with the *Conservation Authority*, Local Area Municipalities, First Nations, Indigenous communities and other partners and organized interest groups, will develop and implement a Regional Greening Initiative to restore and enhance vegetative cover that sequesters carbon to mitigate *climate change*.
- 3.5.1.5 The Region, in collaboration with the Local Area Municipalities, building and development industry, *utility* companies and organized interest groups will explore opportunities to elevate standards of green building development across the region.
- 3.5.1.6 Opportunities will be considered to include electric vehicle charging infrastructure in new *development*, parking areas for public use, on-street parking, workplaces and multi-unit residential buildings to promote uptake of zero emissions vehicles, including battery-electric, plug-in hybrid electric, and hydrogen fuel cell vehicles.



- 3.5.1.7 The Region will explore additional opportunities to support emissions reduction planning in collaboration with the Local Area Municipalities, *Conservation Authority*, First Nations, Indigenous communities and other partners and organized interest groups.
- 3.5.1.8 Climate modeling and projections will be maintained by the Region to inform *climate change* adaptation initiatives using the best available science.
- 3.5.1.9 The Region will assess anticipated *climate change* risks and vulnerabilities across systems, and develop and implement a Climate Change Adaptation Strategy, informed by Regional climate projections, to prepare for the impacts of *climate change*.
- 3.5.1.10 Climate projections will be considered by the Region and Local Area Municipalities in land use policies, strategies and guidance.
- 3.5.1.11 Local Area Municipalities are encouraged to:
  - a. develop and maintain greenhouse gas inventories, establish emissions reduction targets, develop strategies to reduce emissions and monitor progress; and
  - b. assess local *climate change* risks and vulnerabilities and develop *climate change* adaptation strategies, informed by Regional or Local climate projections.

## 3.5.2 Corporate Climate Change Measures

- 3.5.2.1 Energy conservation measures will be applied to the Region's corporate facilities and operations in accordance with the Region's Energy Conservation and Demand Management Plan, as amended.
- 3.5.2.2 New Regional *corporate facilities* will achieve minimum Silver Level certification in the Leadership in Energy and Environmental Design (LEED) green building rating system.
- 3.5.2.3 Public charging infrastructure should be provided at Regional and Local municipal facilities, where feasible, to promote uptake of zero emissions vehicles.
- 3.5.2.4 The Region will explore opportunities to transition to a zero-emissions vehicle fleet.

### 3.5.3 Support the Transition to Net-Zero Communities

3.5.3.1 This section consolidates policy direction integrated throughout this Plan that supports the transition to *net-zero* communities that mitigate *climate change*.

The Region will endeavor to:

- a. support *built form* and land use patterns that use land efficiently and reduce transportation emissions by:
  - i. requiring *compact built form* to minimize land consumption and increase the densities required to support transit ridership;
  - ii. promoting a mix of land uses to shorten commute journeys and support the creation of *complete communities*;
  - iii. planning to achieve minimum *intensification* and density targets which meet or exceed provincial requirements;
  - iv. prioritizing *strategic growth areas*, including *protected major transit station areas*, for accommodating *intensification* and higher-density, mixed-use, *transit-supportive* development;
  - v. planning for employment uses to facilitate efficient goods movement and reduce transportation congestion;
  - vi. prioritizing transit and supporting *active transportation* to reduce single-occupant vehicle trips; and
  - vii. supporting transportation demand management measures to influence travel behaviour.
- b. support conservation and energy reduction by:
  - i. designing *infrastructure* and *public works projects* to reduce energy consumption and use recycled construction materials, where feasible;
  - ii. promoting opportunities for district energy, *renewable energy systems* and *alternative energy systems* in accordance with the municipal energy plan in Policy 3.5.1.3;
  - iii. encouraging design and orientation to optimize passive solar energy gains;
  - iv. encouraging opportunities for conservation, energy efficiency and demand management within existing and planned *development*;
  - v. encouraging water conservation techniques, including water-efficient landscaping and collection and reuse of clean water and stormwater; and
  - vi. promoting reduction, reuse and recycling objectives, diversion techniques, including reuse and recycling of construction materials, and opportunities for energy generation from waste.

- c. enhance carbon sinks that store and sequester carbon by:
  - i. protecting and enhancing the *ecological integrity* and biodiversity of the *natural environment system*;
  - ii. maximizing vegetation and promoting tree planting to improve air quality, provide shade, and store carbon;
  - iii. Integrating *climate change* considerations into planning for parks, open space and trails, including opportunities for tree planting and *low impact development*;
  - iv. protecting the agricultural land base, including orchards and vineyards that provide long-term benefits of carbon storage; and
  - v. encouraging local food, food security and soil management practices that sustain and enhance soil health, including no-till or reduced tillage practices, diverse crop rotation and planting cover crops.

### 3.5.4 Support the Transition to Climate-Resilient Communities

- 3.5.4.1** This section consolidates policy direction integrated throughout this Plan that supports the transition to climate-resilient communities that adapt to, and recover from, the impacts of *climate change*.

The Region will endeavor to:

- a. enhance the adaptive capacity of *infrastructure* by:
  - i. ensuring that *watershed planning* informs the protection of *water resource systems* and decisions relating to planning for growth;
  - ii. assessing *infrastructure* risks and vulnerabilities caused by *climate change* at the *watershed* scale, and identifying actions and investments to address these challenges;
  - iii. requiring new urban *development* to be designed with separate storm drainage systems or connections to reduce wet weather overflows;
  - iv. requiring the separation of existing municipal *combined sewers*, where feasible;
  - v. promoting stormwater attenuation and reuse, water conservation and efficiency and *low impact development*, where possible;
  - vi. integrating *green infrastructure* and *low-impact development* such as green roofs and permeable surfaces into the design of *infrastructure*, *public works projects*, *public service facilities* and private *development*, where possible;

- vii. encouraging the burial of overhead *utilities* for improved protection against extreme weather events; and
  - viii. encouraging the continued operation and expansion of agricultural infrastructure, including irrigation systems, to adapt to *climate change* impacts.
- b. mitigate hazards and coordinate with emergency management by:
- i. directing *development* away from lands impacted by natural hazards and applying mitigation techniques to reduce risks;
  - ii. preventing and managing activities identified as *significant drinking water threats* including impacts from *climate change*; and
  - iii. encouraging the strategic location of *infrastructure* and *public service facilities* to support the delivery of emergency management services.

## 3.6 Niagara Escarpment Plan Area

In Niagara, the Niagara Escarpment traverses the municipalities of Niagara Falls, St. Catharines, Thorold, Niagara-on-the-Lake, Pelham, Lincoln and Grimsby. This impressive geologic formation has waterfalls, fossil-filled rock dating back 450 million years and forest areas. The Escarpment is a key component to the Niagara micro-climate for growing grapes and tender fruit.

The Niagara Escarpment Commission is an agency of the Government of Ontario. It is responsible for administering the Niagara Escarpment Plan, a Provincial land use plan which includes evaluating applications to amend the Niagara Escarpment Plan and applications for development permits within the Area of Development Control.

The Niagara Escarpment Plan, as amended from time to time, prescribes designations, policies and development criteria to regulate the use of land within the Niagara Escarpment Plan Area within the Region of Niagara.

### The Niagara Escarpment Biosphere Reserve

The Niagara Escarpment Biosphere Reserve is a United Nations Educational, Scientific and Cultural Organization (UNESCO) Biosphere Reserve located in Ontario, Canada. The reserve stretches 725 kilometres along the Niagara Escarpment from Lake Ontario to the tip of the Bruce Peninsula.

Pursuant to the Niagara Escarpment Planning and Development Act, the Niagara Escarpment Plan prevails over any Local official plan or zoning by-law where conflicts occur between them. Policies that are more rigorous or restrictive than the Niagara Escarpment Plan policies are not interpreted to be in conflict with the Niagara Escarpment Plan based on this circumstance alone.

#### The objectives of this section are as follows:

- a. provide for the maintenance of the Niagara Escarpment as a continuous natural environment; and
- b. ensure that all new development is *compatible* with the natural environment.

### 3.6.1 The Niagara Escarpment as a Continuous Natural Environment

- 3.6.1.1 The outer boundary of the Niagara Escarpment Plan Area (NEPA) is fixed and inflexible and shall only be changed by an amendment to the Niagara Escarpment Plan. The outer boundary of the NEPA within the Region of Niagara is shown on Schedules A – K of this Plan. Should the NEPA be amended by the Niagara Escarpment Commission, the NEPA on said schedules of this Plan shall be revised to comply without an amendment to this Plan.
- 3.6.1.2 Within the Niagara Escarpment Plan Area, development includes a change in the use of any land, building or structure.
- 3.6.1.3 When commenting on a Development Permit Application for a proposed development, the Region shall apply the policies of the Niagara Escarpment Plan except for when there are more specific or restrictive policies in this Plan that do not conflict with the Niagara Escarpment Plan; in which case staff will request the Niagara Escarpment Commission to apply the more specific or restrictive policies when rendering a decision on an application, specifically respecting: agricultural policies; *infrastructure* policies regarding servicing outside of *settlement areas*; archaeological policies; and *natural environment system* policies where noted below.

### 3.6.2 Compatibility of New Development with the Natural Environment

- 3.6.2.1 Section 3.1 and Schedule L of this Plan identifies natural features within the *natural environment system* that are included within the Niagara Escarpment Plan Area.
- 3.6.2.2 The Niagara Escarpment Plan Area is identified on Schedule C1 to C3 of this Plan for reference.
- 3.6.2.3 The policies of this Plan defer to the Niagara Escarpment Plan, which contains its own policy framework. The only exceptions to this are the restrictions on *development* and *site alteration* within and adjacent to *other woodlands* in Section 3.1.
- 3.6.2.4 Policies in Section 3.1 of this Plan provide guidance on when an *environmental impact study* and/or *hydrological evaluation* is required to evaluate the potential impact of a proposed *development* or *site alteration* on the *natural environment system*. The Region's technical review of a required *environmental impact study* and/or *hydrological evaluation* may be used by the Commission in rendering a decision on a Development Permit Application.

## 3.7 Excess Soil Management

The proper management of *excess soil* is critical to protect human health and the environment as our communities continue to grow. *Excess soil* is soil that is not required at a construction or *development* site and must be moved to a new location. In some cases, *excess soil* may be temporarily stored at another location before being brought to a final receiving site. The Provincial policy framework for *excess soil* management provides a life-cycle management approach, which includes placing greater responsibility on source sites where soil is excavated, and recognizing opportunities for *excess soil* re-use.

The manner for which *excess soil* is managed and disposed of has implications for greenhouse gas emissions, with trucks moving *excess soil* across communities. Other issues include the quality of *excess soil*, and the need to protect the environment, water, and agriculture. The beneficial re-use of *excess soil* locally can contribute to *climate change* mitigation goals and overall sustainability of soil.

The policies of Section 3.7 are intended to implement best management practices of *excess soil* for a beneficial re-use purpose where appropriate.

**The objective of this section is to:**

- a. recognize and manage *excess soil* for new *development*, *site alteration* and *infrastructure*.

### 3.7.1. Recognize and Manage Excess Soil

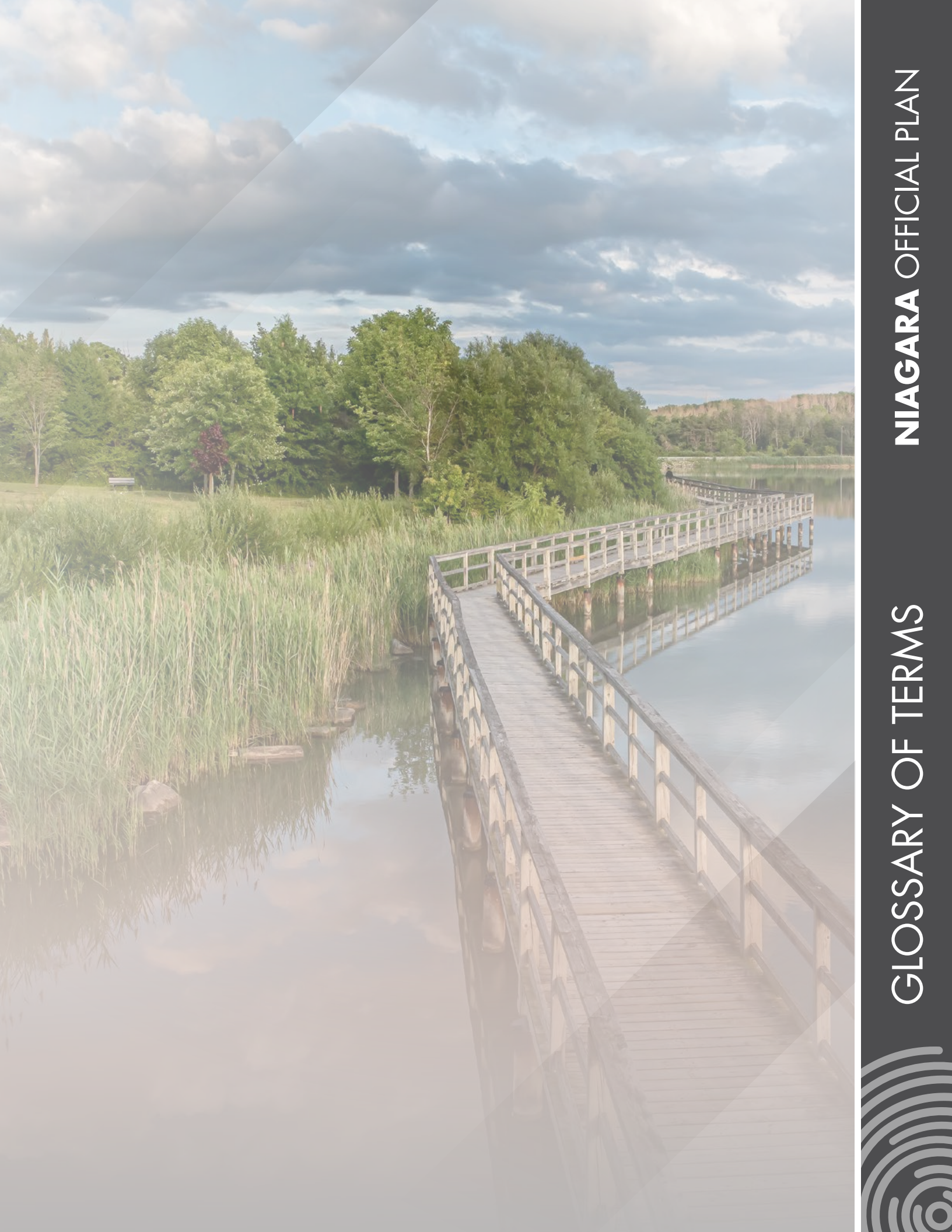
**3.7.1.1** *Excess soil* shall be managed in accordance with Ontario Regulation 406/19 under the Environmental Protection Act.

**3.7.1.2** Best management practices for *excess soil* generated and fill received during *development*, *site alteration*, including *infrastructure* development, shall be implemented to ensure that:

- a. *excess soil* generated is to be reused on-site or locally to the maximum extent possible;
- b. *temporary storage sites* are encouraged to be permitted close to soil reuse sites to reduce transportation and environmental impacts such as greenhouse gas emissions; and
- c. *excess soil* placement at receiving sites are required to demonstrate that the activity will not have a negative impact on existing land uses, the natural environment, surrounding land uses and *cultural heritage resources*.

- 3.7.1.3** A *soil management plan*, meeting Provincial best practices is to be prepared as part of the Planning Act application process for new *development*.
- 3.7.1.4** Local Area Municipalities shall incorporate best management practices for the management of *excess soil* generated and fill received during *development* or *site alteration*, including *infrastructure* development, to ensure that:
- a. local official plans and zoning by-laws identify appropriate sites for *excess soil* storage and processing; and
  - b. site plan approval is utilized for new or expanding soil storage or processing sites.
- 3.7.1.5** Local Area Municipalities are encouraged to develop or update *site alteration* and fill by-laws in accordance with the Municipal Act.





# GLOSSARY OF TERMS

## A

### Active Transportation

Any form of self-propelled transportation that relies on the use of human energy such as walking, cycling, inline skating, jogging, or travel with the use of mobility aids, including motorized wheelchairs and other power-assisted devices at a comparable speed (Growth Plan, 2019).

### Additional Residential Units

Self-contained residential units with kitchen and bathroom facilities located within a primary dwelling or within an accessory structure that is detached from the primary dwelling, as provided for in Subsection 16 (3) of the Planning Act, 1990.

### Adjacent Lands

- a. For the purposes of Section 5.1, those lands contiguous to existing or *planned corridors* and transportation facilities where *development* would have a negative impact on the corridor or facility. The extent of the *adjacent lands* may be recommended in guidelines developed by the Province or based on municipal approaches that achieve the same objectives;
- b. For the purposes of Section 3.1 and 3.2, those lands surrounding a *key natural heritage feature, natural heritage feature and area* and/or *key hydrologic feature* where it is likely that *development* or *site alteration* would have a negative impact on the feature;
- c. For the purposes of Section 4.4, those lands contiguous to lands on the surface of known *petroleum resources, mineral deposits, or deposits of mineral aggregate resources* where it is likely that *development* would constrain future access to the resources. The extent of the *adjacent lands* may be recommended by the Province; and
- d. For the purposes of section 6.4 and 6.5, those lands contiguous to a protected *heritage property* or as otherwise defined in the municipal official plan (PPS, 2020).

## Adverse Effects

As defined in the Environmental Protection Act, means one or more of:

- a. impairment of the quality of the natural environment for any use that can be made of it;
- b. injury or damage to property or plant or animal life;
- c. harm or material discomfort to any person;
- d. an adverse effect on the health of any person;
- e. impairment of the safety of any person;
- f. rendering any property or plant or animal life unfit for human use;
- g. loss of enjoyment of normal use of property; and
- h. interference with normal conduct of business (PPS, 2020).

## Aerodrome

For the purposes of this Plan, means the Niagara Central Airport.

## Affordable

In the case of ownership housing, the least expensive of:

- a. housing for which the purchase price results in annual accommodation costs which do not exceed 30 per cent of gross annual household income for *low and moderate income households*;
- b. housing for which the purchase price is at least 10 per cent below the average purchase price of a resale unit in the regional market area;

In the case of rental housing, the least expensive of:

- c. a unit for which the rent does not exceed 30 per cent of gross annual household income for *low and moderate income households*; or
- d. a unit for which the rent is at or below the average market rent of a unit in the regional market area (Growth Plan, 2019).

## Agricultural Condition

- a. In regard to *specialty crop areas*, a condition in which substantially the same areas and same average soil capability for agriculture are restored, the same range and productivity of specialty crops common in the area can be achieved, and, where applicable, the microclimate on which the site and surrounding area may be dependent for specialty crop production will be maintained or restored; and
- b. In regard to *prime agricultural land* outside of *specialty crop areas*, a condition in which substantially the same areas and same average soil capability for agriculture are restored (PPS, 2020).

## Agricultural Impact Assessment

A study that evaluates the potential impacts of non-agricultural development on agricultural operations and the agriculture system and recommends ways to avoid, or, if avoidance is not possible, minimize and mitigate adverse impacts (Greenbelt Plan, 2017).

## Agriculture-Related Uses

Those farm-related commercial and farm-related industrial uses that are directly related to farm operations in the area, support agriculture, benefit from being in close proximity to farm operations, and provide direct products and/or services to farm operations as a primary activity (PPS, 2020).

## Agricultural Source Material

Treated or untreated materials, as defined by the Nutrient Management Act, other than compost that meets the Compost Guidelines, or a commercial fertilizer, if they are capable of being applied to land as nutrients.

## Agricultural System

The system mapped and issued by the Province, comprised of a group of inter-connected elements that collectively create a viable, thriving agricultural sector. It has two components:

- a. an agricultural land base comprised of *prime agricultural areas*, including *specialty crop areas*, and *rural lands* that together create a continuous, productive land base for agriculture; and
- b. an *agri-food network*, which includes *infrastructure*, services and assets important to the viability of the agri-food sector (Greenbelt Plan, 2017).

## **Agricultural Uses**

The growing of crops, including nursery, biomass, and horticultural crops; raising of livestock; raising of other animals for food, fur or fibre, including poultry and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm buildings and structures, including, but not limited to livestock facilities, manure storages, value-retaining facilities, and accommodation for full-time farm labour when the size and nature of the operation requires additional employment (PPS, 2020).

## **Agri-food Network**

Within the *agricultural system*, a network that includes elements important to the viability of the agri-food sector such as Regional *infrastructure* and transportation networks; on-farm buildings and *infrastructure*; agricultural services, farm markets, distributors, and primary processing; and vibrant, agriculture-supportive communities (PPS, 2020).

## **Agri-Tourism Uses**

Those farm-related tourism uses, including limited accommodation such as a bed and breakfast, that promote the enjoyment, education or activities related to the farm operation (PPS, 2020).

## **Airport**

For the purposes of this Plan, means the Niagara District Airport.

## **Alternative Energy Systems**

A system that uses sources of energy or energy conversion processes to produce power, heat and/or cooling that significantly reduces the amount of harmful emissions to the environment (air, earth and water) when compared to conventional energy systems (PPS, 2020).

## **Archaeological Resources**

Includes *artifacts*, *archaeological sites*, marine *archaeological sites*, as defined under the Ontario Heritage Act. The identification and evaluation of such resources are based upon archaeological fieldwork undertaken in accordance with the Ontario Heritage Act.

## Archaeological Site

Any property that contains an *artifact* or any other physical evidence of past human use or activity that is of cultural heritage value or interest.

## Areas of Archaeological Potential

Areas with the likelihood to contain *archaeological resources*. Criteria to identify archaeological potential are established by the Province. The Ontario Heritage Act requires archaeological potential to be confirmed by a licensed archaeologist.

## Areas of Natural and Scientific Interest (ANSI)

Areas of land and water containing natural landscapes or features that have been identified as having life science or earth science values related to protection, scientific study or education (PPS, 2020).

Life Science ANSI means an area identified as being high quality example(s) of ecological form and function in each Ecodistrict in the province (provincially significant) and the region (regionally significant) and are generally defined by *natural heritage features* (e.g., a *woodland*, valley top of bank, etc.) and generally exclude anthropogenic land uses (e.g., residential areas / properties). Life Science ANSIs include areas identified as provincially significant and regionally significant by the Ontario Ministry of Natural Resources and Forestry using evaluation procedures established by the Province, as amended from time to time.

Earth Science ANSI means an area that represent the best examples of geologic and geomorphic landforms and areas (e.g., a moraine) in each Ecodistrict in the province (provincially significant) and the region (regionally significant). They may encompass a single feature or a group of related features (e.g., a drumlin field). As geologic / geomorphic landforms, the overlying land use may include a composite of natural and anthropogenic uses (e.g., woodland, agricultural, rural residential, etc.). Earth Science ANSIs include areas identified as provincially significant and regionally significant by the Ontario Ministry of Natural Resources and Forestry using evaluation procedures established by the Province, as amended from time to time.

## Artifact

Any object, material or substance that is made, modified, used, deposited or affected by human action and is of cultural heritage value or interest.

## Attainable Housing

Rental or ownership housing provided by the market for *moderate income households* that are generally within the fifth and sixth income decile of the *regional market area*. *Attainable housing* can include dwelling types of various sizes, densities, and *built forms*, and is intended to provide individuals with the opportunity to access housing more suitable to their needs.

# B

## Bicycle Infrastructure

All *infrastructure* and facilities used for cycling, including bicycle routes (dedicated, buffered, and separated bike lanes, multi-use paths, and off-road trails), and trip end facilities such as bicycle parking and storage (e.g. bicycle racks and lockers).

## Brownfields

Undeveloped or previously developed properties that may be contaminated. They are usually, but not exclusively, former industrial or commercial properties that may be underutilized, derelict or vacant (PPS, 2020).

## Buffer

An area of land located adjacent to *natural heritage features and areas, other wetlands*, and watercourses and usually bordering lands that are subject to *development* or *site alteration*. The purpose of a *buffer* is to protect the features and areas and their *ecological functions* by mitigating impacts of the proposed *development* or *site alteration*. *Buffers* shall consist of *natural self-sustaining vegetation* as a condition of *development* (except where certain agricultural uses are exempt from the requirement of a *buffer*).

## Built Form

The function, shape, and configuration of buildings, as well as their relationship to streets and open spaces.

## Built-Up Areas

The limits of the developed urban areas as defined by the Minister in consultation with affected municipalities for the purpose of measuring the minimum intensification target in this Plan. *Built-up areas* are delineated in Schedule B.

# C

## Centreline

The centre of a right-of-way based on the original survey of the right-of-way.

## Climate Change

Long-term changes in weather patterns at local and regional levels, including extreme weather events and increased climate variability.

## Coastal Wetland

- a. Any wetland that is located on one of the Great Lakes or their connecting channels; or
- b. Any other *wetland* that is on a tributary to any of the above-specified water bodies and lies, either wholly or in part, downstream of a line located 2 km upstream of the 1:100 year floodline (plus wave run-up) of the large water body to which the tributary is connected (PPS, 2020).

## Combined Sewers

A sewer designed to convey both sanitary sewage and storm water through a single pipe to a sewage treatment plant.



## Community Housing

Housing owned and operated by non-profit housing corporations, housing co-operatives and municipal governments, or district social services administration boards. *Community housing* providers offer subsidized or low-end-of market rents.

## Community Hubs

Locations that serve as central access points, which offer services in collaboration with different community agencies and service providers, reduce administrative duplication, and improve services for residents and are responsive to the needs of their communities.

## Community Infrastructure

Lands, buildings, and structures that support the quality of life for people and communities by providing public services for health, education, recreation, socio-cultural activities, security and safety, and affordable housing.

## Compact Built Form

A land-use pattern that encourages the efficient use of land, walkable neighbourhoods, mixed land uses (residential, retail, workplace and institutional) all within one neighbourhood, *active transportation*, proximity to transit and reduced need for *infrastructure*. *Compact built form* can include detached and semi-detached houses on small lots as well as townhouses and walk-up apartments, multi-storey commercial developments, and apartments or offices above retail. Walkable neighbourhoods can be characterized by roads laid out in a well-connected network, destinations that are easily accessible by transit and *active transportation*, sidewalks with minimal interruptions for vehicle access, and a pedestrian-friendly environment along roads to encourage active transportation.

## Compatible

A *development*, building and/or land use that can co-exist or occur without conflict with surrounding land uses and activities in terms of its uses, scale, height, massing and relative location.

## Complete Communities

Places such as mixed-use neighbourhoods or other areas within cities, towns, and *settlement areas* that offer and support opportunities for people of all ages and abilities to conveniently access most of the necessities for daily living, including an appropriate mix of jobs, local stores, and services, a full range of housing, transportation options and *public service facilities*. *Complete communities* are age-friendly and may take different shapes and forms appropriate to their contexts (Growth Plan, 2019).

## Complete Streets

Streets that are planned to balance the needs of all road users, including pedestrians, cyclists, transit-users, and motorists, and are designed for the safety of people of all ages and abilities.

## Comprehensive Rehabilitation

Rehabilitation of land from which *mineral aggregate resources* have been extracted that is coordinated and complementary, to the extent possible, with the rehabilitation of other sites in an area where there is a high concentration of *mineral aggregate operations* (PPS, 2020).

## Connectivity

The degree to which *key natural heritage features, natural heritage features and areas* and/or *key hydrologic features* are connected to one another by links such as plant and animal movement corridors, hydrologic and nutrient cycling, genetic transfer and energy flow through food webs.

## Conservation Authority

Refers to the Niagara Peninsula Conservation Authority and/or Hamilton Conservation Authority.

## Conserved

The identification, protection, management and use of built heritage resources, *cultural heritage landscapes* and *archaeological resources* in a manner that ensures their cultural heritage value or interest is retained. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment, and/or heritage impact assessment that has been approved, accepted or adopted by the relevant planning authority and/or decision maker. Mitigative measures and/or alternative development approaches can be included in these plans and assessments.

## Core Areas

An individual natural features and areas, or a group of features and areas in close proximity to each other (i.e., less than or equal to 30 m distance in *settlement areas*, less than or equal to 60 m distance outside of *settlement areas*) that have functional ecological connectivity (i.e., their proximity to each other supports *ecological functions*, such as *wildlife habitat*, exchange of genetic material, etc.).

## Corporate Facilities

Facilities owned by the Region, such as administrative offices and related facilities. For the purpose of Section 3.5 of this Plan, corporate *facilities* does not include *water and wastewater facilities*.

## Cultural and Regenerating Woodland

*Woodlands* where the *ecological functions* of the site are substantially compromised as a result of prior land use activity and would be difficult to restore and/or manage as a native *woodland* and which provide limited *ecological function* and ecosystem services.

## Cultural Heritage Landscapes

A defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Indigenous community. The area may include features such as buildings, structures, spaces, views, *archaeological sites* or natural elements that are valued together for their interrelationship, meaning or association. *Cultural heritage* landscapes may be properties that have been determined to have cultural heritage value or interest under the Ontario Heritage Act or have been included on federal and/or international registers, and/or protected through official plan, zoning by-law, or other land use planning mechanisms (PPS, 2020).

## Cultural Heritage Resources

Built heritage resources, *cultural heritage landscapes* and *archaeological resources* that have been determined to have cultural heritage value or interest for the important contribution they make to our understanding of the history of a place, an event, or a people. While some *cultural heritage resources* may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation (Greenbelt Plan, 2017).

## D

### Defined Portions of the Flooding Hazard Along Connecting Channels

Those areas which are critical to the conveyance of the flows associated with the one hundred year flood level along the St. Mary's, St. Clair, Detroit, Niagara and St. Lawrence Rivers, where *development* or *site alteration* will create *flooding hazards*, cause updrift and/or downdrift impacts and/or cause adverse environmental impacts.

### Demand-Responsive Transit Service

Door-to-door transportation service which has flexible routing and scheduling, and can operate either as an “on-demand” service or a “fixed-schedule” service, such as airport shuttles or paratransit services for people with disabilities and older adults.

### Deposits of Mineral Aggregate Resources

An area of identified *mineral aggregate resources*, as delineated in Aggregate Resource Inventory Papers or comprehensive studies prepared using evaluation procedures established by the Province for surficial and bedrock resources, as amended from time to time, that has a sufficient quantity and quality to warrant present or future extraction (PPS, 2020).

### Designated Greenfield Areas

Lands within *urban areas* but outside of *built-up areas* that have been designated in an official plan for development and are required to accommodate forecasted growth to the horizon of this Plan. *Designated greenfield areas* do not include *excess lands*, and are identified in Schedule B.

## Designated Growth Areas

Lands within *settlement areas* designated in an official plan for growth over the long-term planning horizon provided in policy 1.1.2, but which have not yet been fully developed. *Designated growth areas* include lands which are designated and available for residential growth in accordance with policy 1.4.1(a), as well as lands required for employment and other uses (PPS, 2020).

## Development

The creation of a new lot, a change in land use, or the construction of buildings and structures requiring approval under the Planning Act but does not include:

- a. activities that create or maintain *infrastructure* authorized under an environmental assessment process, including a Class Environmental Assessment, with the exception of lands designated as being within an Area of Development Control under the Niagara Escarpment Planning and Development Act; or
- b. works subject to the *Drainage Act*.

(Based on PPS, 2020 and modified for the Growth Plan, 2019).

## Dynamic Beach Hazard

Areas of inherently unstable accumulations of shoreline sediments along *large inland lakes*, as identified by provincial standards, as amended from time to time. The *dynamic beach hazard* limit consists of the *flooding hazard* limit plus a dynamic beach allowance.

# E

## Ecological Function

The natural processes, products or services that living and non-living environments provide or perform within or between species, ecosystems and landscapes. These may include biological, physical and socio-economic interactions (PPS, 2020).

## **Ecological Integrity**

Includes *hydrological integrity*, and means a condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes.

## **Ecological Value**

The value of *ecological functions* performed by *natural heritage features and areas*, *key natural heritage features*, *key hydrologic features* and *key hydrologic areas* to the native biodiversity and *wildlife habitats*. These functions include, but are not limited to, providing cover and refuge; breeding, nesting, denning, and nursery areas; corridors for wildlife movement; food chain support; and natural water storage, natural flow attenuation, and water quality improvement, which enhances habitat for wildlife and biodiversity.

## **Employment Areas**

Areas designated in an official plan for clusters of business and economic activities including, but not limited to manufacturing, warehousing, offices, and associated retail and ancillary facilities (PPS, 2020).

## **Employment Land**

Lands that are designated in Local official plans or zoning by-laws for employment uses. *Employment lands* may be within and outside of *employment areas*.

## **Endangered Species**

A species that is classified as “Endangered Species” on the Species at Risk in Ontario List, as updated and amended from time to time.

## Enhancement Areas

Ecologically supporting areas adjacent to *natural heritage features and areas*, *key natural heritage features*, and *key hydrologic features*. *Enhancement areas* can also be measures internal to features that increase the ecological *resilience* and function of individual features or groups of natural features and areas. *Enhancements areas* are identified where they:

- connect natural features and areas to create larger contiguous natural areas;
- reduce edge habitat and increase proportion of interior conditions (greater than 100 m from edge); and
- include critical function zones and important catchment areas critical to sustaining *ecological functions*.

## Environmental Impact Study

A science-based study of ecological features and functions, and impacts to those features and functions resulting from *development* and/or *site alteration*, prepared in accordance with the Region's *environmental impact study* guidelines.

The purpose of an *environmental impact study* is to:

- collect and evaluate the appropriate information in order to have a complete understanding of the boundaries, attributes, and functions of components of the *Natural Environment System*;
- determine whether there are any additional components;
- undertake a comprehensive impact analysis;
- propose appropriate mitigation measures;
- clearly articulate any impacts that cannot be avoided or mitigated;
- where appropriate, recommend monitoring provisions;
- consider *climate change*, cumulative and/or watershed impacts where possible; and
- demonstrate that ecological enhancement to the *Natural Environment System* is achieved.

## **Erosion Hazard**

The loss of land, due to human or natural processes, that poses a threat to life and property. The *erosion hazard* limit is determined using considerations that include the 100 year erosion rate (the average annual rate of recession extended over a one hundred year time span), an allowance for slope stability, and an erosion/erosion access allowance.

## **Essential Emergency Services**

Services that would be impaired during an emergency as a result of flooding, the failure of floodproofing measures and/or protection works, and/or erosion.

## **Excess Lands**

Vacant, unbuilt but developable lands within *settlement areas* but outside of *built-up areas* that have been designated in an official plan for development but are in excess of what is needed to accommodate forecasted growth to the horizon of this Plan (Growth Plan, 2019).

## **Excess Soil**

Soil, or soil mixed with rock that has been excavated as part of a project and removed from the project area for the project as defined under O.Reg. 406/19 under the Environmental Protection Act.

## **Existing Uses**

(Greenbelt Plan Area only): uses legally established prior to the date that the Greenbelt Plan came into force on December 16, 2004; or for the purposes of lands added to the Greenbelt Plan after December 16, 2004, uses legally established prior to the date the Greenbelt Plan came into force in respect of the land on which the uses are established.

(Niagara Escarpment Plan Area Only): shall have the same definition as “existing uses” in the Niagara Escarpment Plan.



# F

## Fish

As defined in the Fisheries Act, includes fish, shellfish, crustaceans, and marine animals, at all stages of their life cycles.

## Fish Habitat

As defined in the Fisheries Act, means spawning grounds and any other areas, including nursery, rearing, food supply, and migration areas on which ‘fish’ depend directly or indirectly in order to carry out their life processes (PPS, 2020).

## Flood Fringe

For *river, stream and small inland lake systems*, means the outer portion of the *floodplain* between the *floodway* and the *flooding hazard* limit. Depths and velocities of flooding are generally less severe in the *flood fringe* than those experienced in the *floodway*.

## Flooding Hazards

The inundation, under the conditions specified below, of areas adjacent to a shoreline or a river or stream system and not ordinarily covered by water:

- a. along the shorelines of the Great Lakes - St. Lawrence River System and *large inland lakes*, the *flooding hazard* limit is based on the *one hundred year flood level* plus an allowance for *wave uprush* and *other water-related hazards*;
- b. along *river, stream and small inland lake systems*, the *flooding hazard* limit is the greater of:
  - i. the flood resulting from the rainfall actually experienced during a major storm such as the Hurricane Hazel storm (1954) or the Timmins storm (1961), transposed over a specific *watershed* and combined with the local conditions, where evidence suggests that the storm event could have potentially occurred over *watersheds* in the general area;
  - ii. the *one hundred year flood*; and

- iii. a flood which is greater than one or two. which was actually experienced in a particular *watershed* or portion thereof as a result of ice jams and which has been approved as the standard for that specific area by the Minister of Natural Resources and Forestry;

except where the use of the *one hundred year flood* or the actually experienced event has been approved by the Minister of Natural Resources and Forestry as the standard for a specific *watershed* (where the past history of flooding supports the lowering of the standard) (PPS, 2020).

## Floodplains

For *river, stream and small inland lake systems*, means the area, usually low lands adjoining a *watercourse*, which has been or may be subject to *flooding hazards* (PPS, 2020).

## Floodproofing Standard

The combination of measures incorporated into the basic design and/or construction of buildings, structures, or properties to reduce or eliminate *flooding hazards, wave uprush* and *other water-related hazards* along the shorelines of *large inland lakes*, and *flooding hazards* along *river, stream and small inland lake systems*.

## Floodway

For *river, stream and small inland lake systems*, means the portion of the *floodplain* where *development* and *site alteration* would cause a danger to public health and safety or property damage. Where the *one zone concept* is applied, the *floodway* is the entire contiguous *floodplain*. Where the *two zone concept* is applied, the *floodway* is the contiguous inner portion of the *floodplain*, representing that area required for the safe passage of flood flow and/or that area where flood depths and/or velocities are considered to be such that they pose a potential threat to life and/or property damage. Where the *two zone concept* applies, the outer portion of the *floodplain* is called the *flood fringe* (PPS, 2020).

## Freight-Supportive

In regard to land use patterns, means *transportation systems* and facilities that facilitate the movement of goods. This includes policies or programs intended to support efficient freight movement through the planning, design and operation of land use and *transportation systems*. Approaches may be recommended in guidelines developed by the Province or based on municipal approaches that achieve the same objectives (PPS, 2020).

## Frequent Transit Service

A public transit service that runs at least every 15 minutes in both directions throughout the day and into the evening every day of the week.

## Fringe Lands

The area between the agricultural/rural countryside and the built-up city/suburbs. It can further be described as the edge of the urban region where patterns of building development and non-development interweave. The urban fringe is often an area with contrasting land uses and compatibility conflicts.

# G

## Green Infrastructure

Natural and human-made elements that provide ecological and hydrological functions and processes. *Green infrastructure* can include components such as *natural heritage features and systems*, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces, and green roofs.

## Greenbelt Plan Natural Heritage System

The *natural heritage system* mapped and issued by the Province in accordance with the Greenbelt Plan.

## Greyfield Sites

Previously developed properties that are not contaminated. They are usually, but not exclusively, former commercial properties that may be underutilized, derelict, or vacant (Growth Plan, 2019).

## Groundwater Feature

Water-related features in the earth's subsurface including recharge/discharge areas, water tables, aquifers and unsaturated zones that can be defined by surface and subsurface hydrogeological investigations (PPS, 2020).

# H

## Habitat of Endangered Species and Threatened Species

Habitat within the meaning of Section 2 of the *Endangered Species Act, 2007* (PPS, 2020).

## Hazardous Forest Types for Wildland Fire

Forest types assessed as being associated with the risk of high to extreme wildland fire using risk assessment tools established by the Ontario Ministry of Natural Resources and Forestry, as amended from time to time.

## Hazardous Lands

Property or lands that could be unsafe for *development* due to naturally occurring processes. Along the shorelines of the Great Lakes - St. Lawrence River System, this means the land, including that covered by water, between the international boundary, where applicable, and the furthest landward limit of the *flooding hazard*, *erosion hazard* or *dynamic beach hazard* limits. Along the shorelines of *large inland lakes*, this means the land, including that covered by water, between a defined offshore distance or depth and the furthest landward limit of the *flooding hazard*, *erosion hazard* or *dynamic beach hazard* limits. Along *river, stream and small inland lake systems*, this means the land, including that covered by water, to the furthest landward limit of the *flooding hazard* or *erosion hazard limits* (PPS, 2020).

## Hazardous Sites

Property or lands that could be unsafe for *development* and *site alteration* due to naturally occurring hazards. These may include unstable soils (sensitive marine clays [leda], organic soils) or unstable bedrock (karst topography).

## Hazardous Substances

Substances which, individually, or in combination with other substances, are normally considered to pose a danger to public health, safety and the environment. These substances generally include a wide array of materials that are toxic, ignitable, corrosive, reactive, radioactive or pathological.

## Heritage Attributes

The principal features or elements that contribute to a *protected heritage property's* cultural heritage value or interest, and may include the property's built, constructed, or manufactured elements, as well as natural landforms, vegetation, water features, and its visual setting (e.g. significant views or vistas to or from a *protected heritage property*) (PPS 2020).

## Higher Order Transit

Transit that generally operates in partially or completely dedicated rights-of-way, outside of mixed traffic, and therefore can achieve levels of speed and reliability greater than mixed-traffic transit. *Higher order transit* can include heavy rail (such as subways and inter-city rail), light rail, and buses in dedicated rights-of-way (Growth Plan, 2019).

## Highly Vulnerable Aquifers

Aquifers, including lands above the aquifers, on which external sources have or are likely to have a significant adverse effect (Greenbelt Plan, 2017).

## Hydrological Evaluation

A science-based study of hydrologic features and areas, and impacts to those features and hydrologic functions resulting from *development* and/or *site alteration*.

The purpose of a *hydrologic evaluation* is to:

- collect and evaluate the appropriate information in order to have a complete understanding of the boundaries, attributes of permanent and *intermittent streams, inland lakes and their littoral zones, seepage areas and springs, wetlands, groundwater features, surface water features, floodplains, flooding hazards, floodways, shoreline areas, and related hydrologic functions*;
- determine whether there are any additional *hydrologic features* and areas;

- assess the significance and sensitivity of hydrologic features and their *hydrologic functions*;
- undertake a comprehensive impact analysis;
- propose appropriate mitigation measures;
- identify planning, design and construction practices that will maintain and, where possible, enhance or restore the health, diversity and size of the *hydrologic feature and functions* and its connectivity with other hydrologic features, *natural heritage features and areas* and *key natural heritage features*;
- clearly articulate any impacts that cannot be avoided or mitigated;
- where appropriate, recommend monitoring provisions to evaluate the long-term effectiveness of the identified mitigation measures; and
- consider *climate change*, cumulative and/or *watershed* impacts where possible

## Hydrologic Functions

The functions of the hydrological cycle that include the occurrence, circulation, distribution and chemical and physical properties of water on the surface of the land, in the soil and underlying rocks, and in the atmosphere, and water's interaction with the environment including its relation to living things (PPS, 2020).

## Individual On-Site Sewage Service

Sewage systems, as defined in O. Reg. 332/12 under the Building Code Act, that are owned, operated and managed by the owner of the property upon which the system is located.

## Individual On-Site Water Service

Individual, autonomous water supply systems that are owned, operated and managed by the owner of the property upon which the system is located.

## Industrial Effluent System

Systems which convey and discharge the by-product from an industrial process that can contain contaminants from non-domestic wastes.

## Infrastructure

Physical structures (facilities and corridors) that form the foundation for development.

*Infrastructure* includes: sewage and water systems, septage treatment systems, stormwater management systems, *waste management systems*, electricity generation facilities, electricity transmission and distribution systems, communications/telecommunications, transit and transportation corridors and facilities, oil and gas pipelines and associated facilities.

## Inland Lakes and their Littoral Zones

Any inland body of permanently standing water larger than a pool or pond or a body of water filling a depression in the earth's surface, where their water levels and hydrologic functions are not directly influenced by either Lake Erie or Lake Ontario.

*Inland lakes* do not include storm water management ponds, ponds constructed for irrigation purposes, such as those on a golf course or used for agriculture, lakes that have been constructed and managed with the sole purpose of supporting essential infrastructure, and where their *ecological function* is not a consideration in their management.

## Institutional Use

Include uses such as government buildings, hospital, schools, churches, cemetery uses.

For the purposes of Section 3.1 of this Plan, means land uses where there is a threat to the safe evacuation of vulnerable populations such as older persons, persons with disabilities, and those who are sick or young, during an emergency as a result of flooding, failure of floodproofing measures or protection works, or erosion.

## Intake Protection Zone

An area as delineated in Schedule E of this Plan and in the Source Protection Plan for the Niagara Peninsula Source Protection Area that surrounds a municipal surface water intake and within which it is desirable to regulate or monitor drinking water threats. Where a conflict in mapping arises, the Source Protection Plan shall prevail.

## Intensification

The *development* of a property, site or area at a higher density than currently exists through:

- a. *redevelopment*, including the reuse of brownfields;
- b. the development of vacant and/or underutilized lots within previously developed areas;
- c. *infill development*; and
- d. the expansion or conversion of existing buildings. (PPS, 2020)

## Interface

The physical relationship between two or more uses, such as, a building and street. It is the intent of urban design to reinforce this relationship and increase its impacts positively on the *public realm*.

## Intermittent Stream

Stream-related watercourses that contain water or are dry at times of the year that are more or less predictable, generally flowing during wet seasons of the year but not the entire year, and where the water table is above the stream bottom during parts of the year (Greenbelt Plan, 2017).

# K

## Key Hydrologic Areas

*Significant groundwater recharge areas, highly vulnerable aquifers, and significant surface water contribution areas* that are necessary for the ecological and hydrologic integrity of a *watershed* (Growth Plan, 2019).

## Key Hydrologic Features

*Permanent streams, intermittent streams, inland lakes and their littoral zones, seepage areas and springs, and wetlands* (Growth Plan, 2019).



## Key Natural Heritage Features

*Habitat of endangered species and threatened species; fish habitat; wetlands; life science areas of natural and scientific interest (ANSIs), significant valleylands, significant woodlands; significant wildlife habitat (including habitat of special concern species); sand barrens, savannahs, and tallgrass prairies; and alvars (Growth Plan, 2019).*

## L

### Lake

Any inland body of standing water, usually fresh water, larger than a pool or pond or a body of water filling a depression in the earth's surface.

### Landform Features

Distinctive physical attributes of land such as slope, shape, elevation and relief.

### Large Inland Lakes

Those waterbodies having a surface area of equal to or greater than 100 square kilometres where there is not a measurable or predictable response to a single runoff event.

### Lateral Connection

The point at which a sewer or water line coming out from homes and businesses connects to the municipal sewer or water line.

### Legal or Technical Reasons

Severances for purposes such as easements, corrections of deeds, quit claims, and minor boundary adjustments, which do not result in the creation of a new lot (PPS, 2020).

## Linkages

An area, that may or may not be associated with the presence of existing natural features and areas, that provides and maintains ecological connectivity between core areas consisting of natural features and areas, and supports a range of community and ecosystem processes enabling plants and animals to move among *natural heritage features*, in some cases over multiple generations, thereby supporting the long-term sustainability of the overall *natural environment system*.

## Local Growth Centres and Corridors

Established areas, outside of *strategic growth areas*, that will be the focus for growth within Area Municipalities and the preferred location for public and private investment. *Local growth centres and corridors* will vary in size, nature and character, and may include traditional downtown cores and key mixed use areas and areas of *intensification* along transit corridors.

## Low and Moderate Income Households

In the case of ownership housing, households with incomes in the lowest 60 per cent of the income distribution for the *regional market area*; or in the case of rental housing, households with incomes in the lowest 60 per cent of the income distribution for renter households for the *regional market area* (Growth Plan, 2019).

## Low Impact Development

An approach to stormwater management that seeks to manage rain and other precipitation as close as possible to where it falls to mitigate the impacts of increased runoff and stormwater pollution. It typically includes a set of site design strategies and distributed, small-scale structural practices to mimic the natural hydrology to the greatest extent possible through infiltration, evapotranspiration, harvesting, filtration, and detention of stormwater. *Low impact development* can include, for example: bio-swales, vegetated areas at the edge of paved surfaces, permeable pavement, rain gardens, green roofs, and exfiltration systems. *Low impact development* often employs vegetation and soil in its design, however, that does not always have to be the case and the specific form may vary considering local conditions and community character (Growth Plan, 2019).

# M

## Major Facilities

Facilities which may require separation from sensitive land uses, including but not limited to airports, manufacturing uses, transportation *infrastructure* and corridors, *rail facilities*, *marine facilities*, sewage treatment facilities, *waste management systems*, oil and gas pipelines, industries, energy generation facilities and transmission systems, and resource extraction activities (PPS, 2020).

## Major Goods Movement Facilities and Corridors

Transportation facilities and corridors associated with the inter- and intra-provincial movement of goods. Examples include: inter-modal facilities, ports, airports, *rail facilities*, truck terminals, freight corridors, freight facilities, and haul routes and primary transportation corridors used for the movement of goods. Approaches that are freight-supportive may be recommended in guidelines developed by the Province or based on municipal approaches that achieve the same objectives (PPS, 2020).

## Major Institutional Uses

Major trip generators that provide essential services for every stage of life and benefit from being close to urban services and amenities. Generally, *major institutional uses* are considered post-secondary institutions (i.e., colleges, universities, and trade schools), health care facilities and research centres (i.e., hospitals); and corporate government headquarters.

## Major Office Use

Freestanding office buildings of approximately 4,000 square metres of floor space or greater, or with 200 jobs or more (Growth Plan, 2019).

## Major Recreational Use

(Greenbelt Plan area only): a recreational use that requires large-scale modification of terrain, vegetation or both and usually also requires large-scale buildings or structures, including but not limited to the following: golf courses; serviced playing fields; serviced campgrounds; and ski hills.

## Major Retail / Major Commercial Uses

Large-scale or large-format stand-alone retail stores or retail centres that have the primary purpose of commercial activities.

## Major Transit Station Areas

The area including and around any existing or planned *higher order transit station* or stop within a *settlement area*; or the area including and around a major bus depot in an urban core. *Major transit station areas* generally are defined as the area within an approximate 500 to 800 metre radius of a transit station, representing about a 10-minute walk, and include protected *major transit station areas* (Growth Plan, 2019).

## Major Trip Generators

Origins and destinations with high population densities or concentrated activities which generate many trips (e.g., *urban growth centres* and other downtowns, *major office* and *office parks*, *major retail / major commercial*, *employment areas*, *community hubs*, large parks and recreational destinations, post-secondary institutions and other *public service facilities*, and other mixed-use areas).

## Marine Facilities

Ferries, harbours, ports, ferry terminals, canals and associated uses, including designated lands for future *marine facilities* (PPS, 2020).

## Mine Hazards

Any feature of a mine as defined under the Mining Act, or any related disturbance of the ground that has not been rehabilitated (PPS 2020).

## Minerals

Metallic minerals and non-metallic minerals as herin defined, but does not include *mineral aggregate resources* or *petroleum resources*.

Metallic minerals means those minerals from which metals (e.g. copper, nickel, gold) are derived.

Non-metallic minerals means those minerals that are of value for intrinsic properties of the minerals themselves and not as a source of metal. They are generally synonymous with industrial minerals (e.g. asbestos, graphite, kyanite, mica, nepheline syenite, salt, talc, and wollastonite) (PPS, 2020).

## Mineral Aggregate Operation

- a. Lands under license or permit, other than for wayside pits and quarries, issued in accordance with the *Aggregate Resources Act*;
- b. For lands not designated under the *Aggregate Resources Act*, established pits and quarries that are not in contravention of municipal zoning by-laws and including adjacent land under agreement with or owned by the operator, to permit continuation of the operation; and
- c. Associated facilities 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 (PPS, 2020).

## Mineral Aggregate Resources

Gravel, sand, clay, earth, shale, stone, limestone, dolostone, sandstone, marble, granite, rock or other material prescribed under the *Aggregate Resources Act* suitable for construction, industrial, manufacturing and maintenance purposes but does not include metallic ores, asbestos, graphite, kyanite, mica, nepheline syenite, salt, talc, wollastonite, mine tailings or other material prescribed under the *Mining Act* (PPS, 2020).

## Mineral Deposits

Areas of identified *minerals* that have sufficient quantity and quality based on specific geological evidence to warrant present or future extraction (PPS, 2020).

## Mineral Mining Operation

Mining operations and associated facilities, or, past producing mines with remaining mineral development potential that have not been permanently rehabilitated to another use (PPS, 2020).

## Minimum Distance Separation Formulae

The formulae and guidelines developed by the Province, as amended from time to time, to separate uses so as to reduce incompatibility concerns about odour from livestock facilities. (PPS, 2020).

## Multimodal

The availability or use of more than one form of transportation, such as automobiles, walking, cycling, buses, rapid transit, rail (such as commuter and freight), trucks, air, and marine (Growth Plan, 2019).

## Multimodal Transportation System

*A transportation system* which may include several forms of transportation such as automobiles, walking, trucks, cycling, buses, rapid transit, rail (such as commuter and freight), air and marine (PPS, 2020).

## Municipal Comprehensive Review

A new official plan, or an official plan amendment, initiated by the Region under Section 26 of the Planning Act, 1990 that comprehensively applies Provincial policies and plans and the applicable policies of this Plan.

## Municipal Water and Wastewater Systems/Services

Municipal water systems/services are all or part of a drinking-water system:

- a. that is owned by a municipality or by a municipal service board established under section 195 of the Municipal Act, 2001;
- b. that is owned by a corporation established under section 203 of the Municipal Act, 2001;
- c. from which a municipality obtains or will obtain water under the terms of a contract between the municipality and the owner of the system; or
- d. that is in a prescribed class of municipal drinking-water systems as defined in regulation under the Safe Drinking Water Act, 2002.

And, municipal wastewater systems/services are any sewage works owned or operated by a municipality.

# N

## Natural Environment System

An ecologically integrated system made up of the *Provincial natural heritage systems, natural heritage features and areas, other wetlands, key natural heritage features, key hydrologic features, key hydrologic areas, shoreline areas, hydrologic functions, supporting features and areas, hazardous lands, and linkages* intended to provide connectivity and support natural processes which are necessary to maintain biological and hydrological diversity, *ecological functions*, ecosystem services, viable populations of indigenous species, and ecosystems.

## Natural Heritage Features and Areas

Features and areas, including *significant wetlands, significant coastal wetlands, other coastal wetlands, fish habitat, significant woodlands, significant valleylands, habitat of endangered species and threatened species, significant wildlife habitat, and significant areas of natural and scientific interest*, which are important for their environmental and social values as a legacy of the natural landscapes of an area (modified from PPS, 2020). For the purposes of this definition, *natural heritage features and areas* includes *other woodlands, earth science areas of natural and scientific interest* (provincial and regional), and *life science areas of natural and scientific interest* (provincial and regional).

## Natural Heritage System

A system made up of *natural heritage features and areas, wetlands, and linkages* intended to provide connectivity (at the regional or site level) and support natural processes which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species, and ecosystems. These systems can include *key natural heritage features, key hydrologic features*, federal and provincial parks and conservation reserves, other natural heritage features and areas, lands that have been restored or have the potential to be restored to a natural state, associated areas that support *hydrologic functions*, and working landscapes that enable *ecological functions* to continue.

## Natural Heritage System for the Growth Plan

The *natural heritage system* mapped and issued by the Province in accordance with the Growth Plan.

## Natural Self-Sustaining Vegetation

Vegetation dominated by native plant species that can grow and persist without direct human management, protection, or tending.

## Negative Impacts

- a. In regard to water, degradation to the quality or quantity of surface or groundwater, *key hydrologic features* or *vulnerable* areas and their related *hydrologic functions*, due to single, multiple or successive *development* or *site alteration activities*;
- b. In regard to *fish habitat*, any permanent alteration to, or destruction of *fish habitat*, except where, in conjunction with the appropriate authorities, it has been authorized under the *Fisheries Act*; and
- c. In regard to other *natural heritage features and areas*, degradation that threatens the health and integrity of the natural features or *ecological functions* for which an area is identified due to single, multiple or successive *development* or *site alteration* activities (Greenbelt Plan, 2017).

## Net-Zero

Either emitting no greenhouse gas emissions or offsetting emissions through actions such as tree planting that capture carbon before it is released into the air.

## Niagara Economic Centre

*Settlement areas* conceptually depicted on Schedules 2, 5, and 6 of the Growth Plan for the Greater Golden Horseshoe, 2019 that, due to their proximity to major international border crossings, have unique economic importance to the region and Ontario.

## Niagara Economic Gateway

The total geographic area of the local municipalities a part of the *Niagara Economic Centre* or *Niagara Economic Zone*.



## Niagara Economic Zone

*Settlement areas* within the zone that is conceptually depicted on Schedules 2, 5, and 6 of the Growth Plan for the Greater Golden Horseshoe, 2019, that, due to their proximity to major international border crossings, have unique economic importance to the region and Ontario.

## Normal Farm Practices

A practice, as defined in the Farming and Food Production Protection Act, 1998, that is conducted in a manner consistent with proper and acceptable customs and standards as established and followed by similar agricultural operations under similar circumstances; or makes use of innovative technology in a manner consistent with proper advanced farm management practices. *Normal farm* practices shall be consistent with the Nutrient Management Act, 2002 and regulations made under that Act (PPS, 2020).

# O

## Office Parks

*Employment areas* or areas where there are significant concentrations of offices with high employment densities (Growth Plan, 2019).

## Oil, Gas, and Salt Hazards

Any feature of a well or work as defined under the Oil, Gas and Salt Resources Act, or any related disturbance of the ground that has not been rehabilitated (PPS, 2020).

## One Hundred Year Flood

For *river, stream and small inland lake systems*, means that flood, based on an analysis of precipitation, snow melt, or a combination thereof, having a return period of 100 years on average, or having a one percent chance of occurring or being exceeded in any given year.

## One Hundred Year Flood Level

- a. For the shorelines of the Great Lakes, the peak instantaneous stillwater level, resulting from combinations of mean monthly *lake* levels and wind setups, which has a one per cent chance of being equalled or exceeded in any given year;
- b. In the connecting channels (St. Mary's, St. Clair, Detroit, Niagara and St. Lawrence Rivers), the peak instantaneous stillwater level which has a one per cent chance of being equalled or exceeded in any given year; and
- c. For large *inland lakes*, *lake* levels and wind setups that have a one per cent chance of being equalled or exceeded in any given year, except that, where sufficient water level records do not exist, the *one hundred year flood level* is based on the highest known water level and wind setups.

## On-Farm Diversified Uses

On a farm; secondary use; limited in area; includes, but is not limited to, home occupations, home industries, agri-tourism uses and value-added uses; compatible with surrounding agricultural operations.

## Other Water-Related Hazards

Water-associated phenomena other than *flooding hazards* and *wave uprush* which act on shorelines. This includes, but is not limited to ship-generated waves, ice piling and ice jamming.

## Other Wetlands

Lands that meet the definition of a *wetland*, and which have not been evaluated as a *provincially significant wetland*.

## Other Woodlands

*Woodlands* determined to be ecologically important in terms of features, functions, representation, or amount, and contributing to the quality and diversity of an identifiable geographic area or *natural heritage system*. *Other woodlands* include all terrestrial treed vegetation communities where the percent tree cover is greater than 25 per cent. *Other woodlands* would not include *woodlands* meeting the criteria as *significant woodlands*.

# P

## Permanent Streams

Watercourses that contain water during all times of the year.

## Petroleum Resource Operation

Oil, gas and salt wells and associated facilities and other drilling operations, oil field fluid disposal wells and associated facilities, and wells and facilities for the underground storage of natural gas and other hydrocarbons (PPS, 2020).

## Petroleum Resources

Oil, gas, and salt (extracted by solution mining method) and formation water resources which have been identified through exploration and verified by preliminary drilling or other forms of investigation. This may include sites of former operations where resources are still present or former sites that may be converted to underground storage for natural gas or other hydrocarbons (PPS, 2020).

## Place-Making

The purposeful planning, and design of buildings, *public realm*, and *transportation systems* to achieve attachment to a place.

## Planned Corridors

Corridors or future corridors which are required to meet projected needs, and are identified through this Plan, preferred alignment(s) determined through the Environmental Assessment Act process, or identified through planning studies where the Ministry of Transportation, Ministry of Energy, Northern Development and Mines, Metrolinx, or Independent Electricity System Operator (IESO) or any successor to those Ministries or entities, is actively pursuing the identification of a corridor. Approaches for the protection of *planned corridors* may be recommended in guidelines developed by the Province (Growth Plan, 2019).

## Portable Asphalt Plant

A facility:

- a. with equipment designed to heat and dry aggregate and to mix aggregate with bituminous asphalt to produce asphalt paving material, and includes stockpiling and storage of bulk materials used in the process; and
- b. which is not of permanent construction, but which is to be dismantled at the completion of the construction project (PPS, 2020).

## Portable Concrete Plant

A building or structure:

- a. with equipment designed to mix cementing materials, aggregate, water and admixtures to produce concrete, and includes stockpiling and storage of bulk materials used in the process; and
- b. which is not of permanent construction, but which is designed to be dismantled at the completion of the construction project (PPS, 2020).

## Prime Agricultural Area

Areas where *prime agricultural lands* predominate. This includes areas of *prime agricultural lands* and associated Canada Land Inventory Class 4 through seven lands, and additional areas where there is a local concentration of farms which exhibit characteristics of ongoing agriculture. *Prime agricultural areas* may be identified by the Ontario Ministry of Agriculture and Food using guidelines developed by the Province as amended from time to time. A *prime agricultural area* may also be identified through an alternative agricultural land evaluation system approved by the Province (PPS, 2020).

## Prime Agricultural Land

*Specialty crop areas* and/or Canada Land Inventory Class 1, 2, and 3 lands, as amended from time to time, in this order of priority for protection (PPS, 2020).

## Protected Heritage Property

Property designated under Parts IV, V or VI of the Ontario Heritage Act; property subject to a heritage conservation easement under Parts II or IV of the Ontario Heritage Act; property identified by the Province and prescribed public bodies as provincial heritage property under the Standards and Guidelines for Conservation of Provincial Heritage Properties; property protected under federal legislation, and UNESCO World Heritage Sites (PPS, 2020).

## Protected Major Transit Station Area

The area surrounding and including an existing or planned *higher order transit* station or stop as identified on Schedule B to this Plan.

## Provincial and Federal Requirements

- a. In regard to Section 3.1.12 of this Plan, legislation and policies administered by the federal or provincial governments for the purpose of fisheries protection (including *fish* and *fish habitat*), and related, scientifically established standards such as water quality criteria for protecting lake trout populations; and
- b. In regard to Section 3.1.13 of this Plan, legislation and policies administered by the provincial government or federal government, where applicable, for the purpose of protecting species at risk and their habitat.

## Provincial Natural Heritage System

Collectively the *Natural Heritage System for the Growth Plan* and the *Greenbelt Plan Natural Heritage system*.

## Provincially Significant Employment Zones

Areas defined by the Minister of Municipal Affairs and Housing in consultation with affected municipalities for the purpose of long-term planning for job creation and economic development. Provincially *significant employment zones* can consist of *employment areas* as well as mixed-use areas that contain a significant number of jobs (Growth Plan, 2019).

## Provincially Significant Wetlands

Those *wetlands* identified as provincially significant by the Ontario Ministry of Natural Resources and Forestry using evaluation procedures established by the Province, as amended from time to time (PPS, 2020).

## Public Realm

The publicly owned places and spaces that are accessible by everyone. These can include municipal streets, lanes, squares, plazas, sidewalks, trails, parks, open spaces, waterfronts, public transit systems, conservation areas, and civic buildings and institutions.

## Public Service Facilities

Lands, buildings and structures for the provision of programs and services provided or subsidized by a government or other body, such as social assistance, recreation, police and fire protection, health and educational programs, long-term care services, and cultural services. *Public service facilities* do not include *infrastructure* (PPS, 2020).

## Public Works Projects

Construction projects, such as roads, highways or dams, bridges and waterworks financed by public funds and constructed by or under contract with the Region or Local municipality for the benefit or use of the public.

## Q

## Quality and Quantity of Water

Measured by indicators associated with hydrologic function such as minimum base flow, depth to water table, aquifer pressure, oxygen levels, suspended solids, temperature, bacteria, nutrients and hazardous contaminants, and hydrologic regime

## Quaternary Watershed

A watershed with a drainage area that is between 62 km<sup>2</sup> and 870 km<sup>2</sup> that drains into a *tertiary watershed*. There are 12 quaternary watersheds in Niagara:

- Fifteen and Sixteen Mile Creeks
- Four Mile Creek and NOTL
- Jordan Harbour -Twenty Mile Creek
- Twelve Mile Creek
- Welland Canal North
- Welland Canal South
- West Lake Ontario Shoreline
- Niagara River North
- Niagara River South
- Welland River East
- Welland River West
- Northeast Lake Erie Shoreline

## R

### Rail Facilities

Rail corridors, rail sidings, train stations, inter-modal facilities, rail yards and associated uses, including designated lands for future rail facilities (PPS, 2020).

### Redevelopment

The creation of new units, uses or lots on previously developed land in existing communities, including *brownfield sites*.

## **Regional Market Area**

An area that has a high degree of social and economic interaction. The boundaries of the Niagara Region will serve as the *regional market area* for the purposes of assessing housing market conditions.

## **Renewable Energy System**

A system that generates electricity, heat and/or cooling from a renewable energy source.

For the purposes of this definition:

A renewable energy source is an energy source that is renewed by natural processes and includes wind, water, biomass, biogas, biofuel, solar energy, geothermal energy and tidal forces (PPS, 2020).

## **Residence Surplus to a Farming Operation**

An existing habitable farm residence that is rendered surplus as a result of farm consolidation (the acquisition of additional farm parcels to be operated as one farm operation) (PPS, 2020).

## **Resilience**

The ability to withstand, adapt to, or efficiently recover from, exposure to the negative effects of exogenous and endogenous shocks.

## **Risk Management Official**

A person appointed under Part IV of the Clean Water Act, 2006, by the Council of a municipality that has authority to pass by-laws respecting water production, treatment, and storage under the Municipal Act, 2001 (Source Protection Plan for the Niagara Source Protection Area).

## **River, Stream and Small Inland Lake Systems**

All watercourses, rivers, streams, and small *inland lakes* or waterbodies that have a measurable or predictable response to a single runoff event.



## Rural Areas

A system of lands within local municipalities that may include *rural settlements*, *rural lands*, *prime agricultural areas*, *natural heritage features and areas*, and resource areas (PPS, 2020).

## Rural Lands

Lands which are located outside *settlement areas* and which are outside *prime agricultural areas* (PPS, 2020).

## Rural Settlements

Communities located in *rural areas*, as delineated on Schedule B of the Niagara Official Plan, that are serviced by individual private on-site water and/or private wastewater systems, contain a limited amount of undeveloped lands that are designated for development, and are to accommodate limited growth. All *settlement areas* that are identified as hamlets in the Greenbelt Plan, or as minor urban centres in the Niagara Escarpment Plan are considered *rural settlements* for the purposes of this Plan, including those that would not otherwise meet this definition.

# S

## Seepage Areas and Springs

Sites of emergence of groundwater where the water table is present at the ground surface (Greenbelt Plan, 2017).

## Sense of Place

The emotional attachments, meanings and identities people develop or experience in particular locations and environments. It is also used to describe the distinctiveness or unique character of a place.

## Sensitive

In regard to *surface water features* and *groundwater features*, means areas that are particularly susceptible to impacts from activities or events including, but not limited to, water withdrawals, and additions of pollutants (PPS, 2020).

## Sensitive Land Uses

Buildings, amenity areas, or outdoor spaces where routine or normal activities occurring at reasonably expected times would experience one or more adverse effects from contaminant discharges generated by a nearby *major facility*. *Sensitive land uses* may be a part of the natural or built environment. Examples may include, but are not limited to: residences, day care centres, and educational and health facilities (PPS, 2020).

## Setback

A physical separation that forms a boundary by establishing an exact distance from a fixed point, such as a property line, an adjacent structure, or a natural feature, within which *development* and/or *site alteration* is prohibited in accordance with the policies of the Conservation Authority.

## Settlement Areas

*Urban areas* and *rural settlements* within local municipalities (such as cities, towns, villages and hamlets) that are:

- a. built up areas where development is concentrated and which have a mix of land uses; and
- b. lands which have been designated in an Official Plan for development in accordance with the policies of this Plan. Where there are no lands that have been designated for development, the *settlement area* may be no larger than the area where development is concentrated.

## Sewage Works

Any works for the collection, transmission, treatment and disposal of sewage or any part of such works but does not include plumbing to which the *Building Code Act*, 1992 applies. For the purposes of this definition: Sewage includes, but is not limited to drainage, storm water, residential wastes, commercial wastes and industrial wastes.

## Shoreline Areas

The interface between terrestrial and aquatic environments, allowing for interactions between them, providing: specialized habitats (e.g., natural beach, overhanging cover, bird stopover or nesting, etc.), natural cover, areas of shoreline erosion or accretion, nutrient and sediment filtration / buffering, shading, foraging opportunities.

## Significant

In regard to cultural heritage and archaeology, resources that have been determined to have cultural heritage value or interest. Processes and criteria for determining cultural heritage value or interest are established by the Province under the authority of the Ontario Heritage Act.

## Significant Areas of Natural and Scientific Interest

Those *areas of natural and scientific interest* identified as provincially significant and regionally significant by the Ontario Ministry of Natural Resources and Forestry using evaluation procedures established by the Province, as amended from time to time.

## Significant Coastal Wetlands

Those *coastal wetlands* identified as provincially significant by the Ontario Ministry of Natural Resources and Forestry using evaluation procedures established by the Province, as amended from time to time (PPS, 2020).

## Significant Drinking Water Threats or Significant Threat

A threat that, according to a risk assessment, poses or has the potential to pose a significant risk to the quality of municipal drinking water (Based on the Source Protection Plan for the Niagara Source Protection Area).

## Significant Groundwater Recharge Area

An area that has been identified as:

- a. a *significant groundwater recharge area* by any public body for the purposes of implementing the PPS;

- b. a *significant groundwater recharge area* in the assessment report required under the Clean Water Act, 2006; or
- c. an ecologically *significant groundwater recharge area* delineated in a *subwatershed study* or equivalent in accordance with provincial guidelines.

For the purposes of this definition, ecologically *significant groundwater recharge areas* are areas of land that are responsible for replenishing groundwater systems that directly support *sensitive* areas like cold water streams and wetlands (Greenbelt Plan, 2017).

Groundwater recharge areas are also classified as “significant” where they supply more water to an aquifer than the surrounding area (NPCA, 2013). In other words, a recharge area is considered significant when it helps to maintain the water level in an aquifer that supplies a community with drinking water, or supplies groundwater recharge to a coldwater ecosystem that is dependent on this recharge to maintain its *ecological function* (N.V.C.A., 2015b).

## Significant Surface Water Contribution Areas

Areas, generally associated with headwater catchments that contribute to baseflow volumes which are significant to the overall surface water flow volumes within a *watershed* (Greenbelt Plan, 2017).

*Significant surface water contribution areas* include headwater drainage features classified as protection, conservation and mitigation.

## Significant Valleylands

Valleyland which is ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system. These are to be identified using criteria established by the Province (Growth Plan, 2019).

## Significant Wildlife Habitat

Wildlife habitat that is ecologically important in terms of features, functions, representation, or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system. These are to be identified using criteria established by the Province (PPS, 2020).

## Significant Woodlands

*Woodlands* that are ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history (PPS, 2020).

## Site Alteration

Activities, such as grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of a site (PPS, 2020).

## Soil Management Plan

A plan completed by a professional engineer or geoscientist that outlines the condition of soil at a source site where soil is excavated (Best Management Practices for Excess Soil and modified for this Plan).

## Source Protection Plan

A drinking water source protection plan prepared under of the Clean Water Act, 2006 (Source Protection Plan for the Niagara Source Protection Area).

## Source Water

Water in its natural or raw state, prior to being drawn into a municipal drinking water system (Source Protection Plan for the Niagara Source Protection Area).

## Special Policy Area

An area within a community that has historically existed in the *floodplain* and where site specific policies, approved by both the Ministers of Natural Resources and Forestry and Municipal Affairs and Housing, are intended to provide for the continued viability of *existing uses* (which are generally on a small scale) and address the significant social and economic hardships to the community that would result from strict adherence to provincial policies concerning *development*. The criteria and procedures for approval are established by the Province. A Special Policy Area is not intended to allow for new or intensified *development* and *site alteration*, if a community has feasible opportunities for *development* outside the *floodplain*.

## Specialized Housing Needs

Any housing, including dedicated facilities, in whole or in part, that is used by people who have specific needs beyond economic needs, including but not limited to, needs such as mobility requirements or support functions required for daily living. Examples include, but are not limited to, long-term care homes, adaptable and accessible housing, and housing for persons with disabilities such as physical, sensory or mental health disabilities, and housing for older persons.

## Specialty Crop Area

Areas designated using guidelines developed by the Province, as amended from time to time. In these areas, specialty crops are predominantly grown such as tender fruits (peaches, cherries, plums), grapes, other fruit crops, vegetable crops, greenhouse crops, and crops from agriculturally developed organic soil, usually resulting from:

- a. soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both;
- b. farmers skilled in the production of specialty crops; and
- c. a long-term investment of capital in areas such as crops, drainage, *infrastructure* and related facilities and services to produce, store, or process specialty crops (PPS, 2020).

## Specialty Crop Guidelines

Guidelines developed by the Region or Province, as amended from time to time.

## Standards and Guidelines for Consulting Archaeologists

The 2011 Standards and Guidelines for Consultants Archaeologists, or as superseded, and any bulletins that clarify and expand on the requirements in the Standards and Guidelines, compliance to which is mandatory for all consultant archaeologists who carry out archaeology in Ontario.

## Stormwater Management Facility

A facility for the treatment, retention, infiltration or control of stormwater.

## Stormwater Master Plan

A long-range plan that assesses existing and planned stormwater facilities and systems and outlines stormwater *infrastructure* requirements for new and existing *development* within a *settlement area*. *Stormwater master plans* are informed by *watershed planning* and are completed in accordance with the environmental assessment processes under the Environmental Assessment Act, 1990, as amended.

## Strategic Growth Areas

Within *settlement areas*, nodes, corridors, and other areas that have been identified in Schedule B to be the focus for accommodating *intensification* and higher-density mixed uses in a more *compact built form*. *Strategic growth areas* include *urban growth centres*, regional growth centres, *major transit station areas*, and other major opportunities that may include infill, *redevelopment*, *brownfield* sites, the expansion or conversion of existing buildings, or *greyfields*. Lands along major roads, arterials, or other areas with existing or planned frequent transit service or higher order transit corridors may also be identified as *strategic growth areas* (Growth Plan, 2019).

## Subwatershed

An area that is drained by a tributary or some defined portion of a stream. A *subwatershed* is smaller nested drainage area within a quaternary watershed. There are over 200 *subwatersheds* in Niagara Region.

## Subwatershed Planning

Planning that reflects and refines the goals, objectives, targets, and assessments of *watershed planning*, as available at the time *subwatershed planning* is completed, for smaller drainage areas, is tailored to *subwatershed* needs and addresses local issues.

*Subwatershed planning* typically includes: the consideration of existing development and the evaluation of the impacts of any potential or proposed land uses and development; the identification hydrologic features, areas, *linkages*, and functions; the identification of natural features, areas, and related *hydrologic functions*; and a plan for protecting, improving, or restoring the quality and quantity of water within a *subwatershed*.

*Subwatershed planning* is based on pre-development monitoring and evaluation; is integrated with natural heritage protection; and identifies specific criteria, objectives, actions, thresholds, targets, and best management practices for development, for water and wastewater servicing, for stormwater management, for managing and minimizing impacts related to severe weather events, and to support ecological needs.

## Subwatershed Study

The plan or outcome from a *subwatershed* planning exercise.

## Supporting Features and Areas

Lands that have been restored or have the potential of being restored. *Supporting features and areas* include grasslands, meadows, and thickets (defined in accordance with Ecological Land Classification for Southern Ontario); other *valleylands*; and other *wildlife habitat*; and *enhancement areas* where they are determined to contribute to the biodiversity and *ecological function* of the *natural environment system*.

## Surface Water Feature

Water-related features on the earth's surface, including headwaters, rivers, stream channels, *inland lakes*, *seepage areas*, recharge/discharge areas, springs, *wetlands*, and associated riparian lands that can be defined by their soil moisture, soil type, vegetation, or topographic characteristics (PPS, 2020).

## Sustainable

Meeting the needs of the present without compromising the ability of future generations to meet their own needs.

## Sustainable Design

The design of the urban environment that mitigates and adapts to *climate change* and reduces or eliminates other negative environmental impacts.



# T

## **Tallgrass Prairie**

Land (not including land that is being used for agricultural purposes or no longer exhibits *tallgrass prairie* characteristics) that:

- a. has vegetation dominated by non-woody plants, including *tallgrass prairie* species that are maintained by seasonal drought, periodic disturbances such as fire, or both;
- b. has less than 25 per cent tree cover;
- c. has mineral soils; and
- d. has been further identified, by the Minister of Natural Resources and Forestry or by any other person, according to evaluation procedures established by the Ministry of Natural Resources and Forestry, as amended from time to time.

## **Temporary Storage Site**

Sites owned or controlled by the owner/operator of a source site or receiving site, at which *excess soil* is temporarily stored for two years or less. Includes sites to treat, remediate and transfer *excess soil* to other sites for final placement or disposal (Best Management Practices for Excess Soil and modified for this Plan).

## **Tertiary Watershed**

A *watershed* that drains and discharges into a large water body. There are three *tertiary watersheds* in Niagara, Lake Ontario, Lake Erie and Niagara River.

## **Threatened Species**

A species that is classified as “Threatened Species” on the Species at Risk in Ontario List, as updated and amended from time to time.

## **Total Developable Area**

The total area of the property less the area occupied by key natural heritage features, *key hydrologic features* and any related *vegetation protection zone*.

## Transit Priority Corridors

Transportation corridors that aim to improve transit reliability, speed and capacity through roadway treatments, such as: transit only lanes that allow buses to bypass general traffic, dedicated bus lanes, and queue jump traffic signals that allow buses to go before the general traffic green light.

## Transit Service Integration

The coordinated planning or operation of transit service between two or more agencies or services that contributes to the goal of seamless service for riders and could include considerations of service schedules, service routes, information, fare policy, and fare payment (Growth Plan, 2019).

## Transit-Supportive

Relating to *development* that makes transit viable and improves the quality of the experience of using transit. It often refers to compact, mixed-use development that has a high level of employment and residential densities. Transit-supportive development will be consistent with Ontario's Transit Supportive Guidelines (Growth Plan, 2019).

## Transport Pathway

In respect of an *intake protection zone*, means works or any other thing that reduces the time it takes for a contaminant to reach a surface water intake and may include storm sewers, discharge pipes, utility trenches, ditches, swales, drainage works or any other types of drain (2017 Technical Rules under the Clean Water Act).

## Transportation System

A system consisting of facilities, corridors and rights-of-way for the movement of people and goods, and associated transportation facilities including transit stops and stations, sidewalks, cycle lanes, bus lanes, high occupancy vehicle lanes, *rail facilities*, parking facilities, park-and-ride lots, service centres, rest stops, vehicle inspection stations, inter-modal facilities, harbours, airports, *marine facilities*, ferries, canals and associated facilities such as storage and maintenance (PPS, 2020).

## Two Zone Concept

An approach to *floodplain* management where the *floodplain* is differentiated in two parts: the *floodway* and the *flood fringe*.

# U

## Universal Design

The design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability.

## Urban Agriculture

Within *urban areas*, agricultural production of food and non-food products accessory to the principle use of a property. Examples of *urban agriculture* include community, school, and rooftop gardens, ground-based outdoor community and urban market gardens, urban livestock, and hydroponic farms.

## Urban Areas

Lands located within a defined boundary as identified in Schedule B. Urban areas are made up of *built-up areas*, *designated greenfield areas* and *excess lands* and does not include hamlets.

## Urban Growth Centre

Existing or emerging downtown areas shown in Schedule 4 of A Place to Grow: Growth Plan for the Greater Horseshoe and as further identified by the Minister on April 2, 2008 (Growth Plan, 2019). For the purposes of this Plan, downtown St. Catharines is identified on Schedule B of this Plan.

## Utility

Any system, works, plant, pipeline, or equipment providing a service necessary to the public interest including but not limited to electric power generation and transmission, stormwater management, water supply, sewage treatment and disposal, waste management, communications and telecommunications, and oil and gas pipelines and associated facilities.

## V

### Valleylands

A natural area that occurs in a valley or other landform depression that has water flowing through or standing for some period of the year (PPS, 2020).

### Vegetation Protection Zone

A vegetated *buffer* area surrounding a *key natural heritage feature* or *key hydrologic feature* (Greenbelt Plan, 2017).

### Vulnerable

Surface and/or groundwater that can be easily changed or impacted.

## W

### Waste Disposal Sites

The application of untreated septage, the storage, treatment, and discharge of tailings from mines and waste *disposal sites* as defined under Part V of the *Ontario Environmental Protection Act*, 1990 with respect to Source Water Protection.

## **Waste Management**

The activities and actions required to manage waste from its inception to its final disposal. This includes the collection, transport, treatment, and disposal of waste, together with monitoring and regulation of the waste *management* process.

## **Wastewater Services**

Any works provided by the municipality for the collection, *lateral connection*, transmission, and treatment of sewage that are connected to a centralized *wastewater treatment facility*.

## **Wastewater Treatment Plant/Facility**

The part of a *sewage works* that treats or disposes of sewage but does not include the part of the *sewage works* that collects or transmits sewage.

## **Water Budget**

An accounting of the inflow to, outflow from, and storage changes of water in a hydrologic unit.

## **Water Resource System**

A system consisting of *groundwater features and areas* and *surface water features* (including *shoreline areas*), and *hydrologic functions*, which provide the water resources necessary to sustain healthy aquatic and terrestrial ecosystems and human water consumption. The *water resource system* comprises of *key hydrologic features* and *key hydrologic areas* (Growth Plan, 2019).

## **Water Services**

Any works provided by the municipality for the distribution, *lateral connection*, transmission, and treatment of drinking water.

## **Watershed**

An area that is drained by a river and its tributaries.

## **Watershed Plan**

The plan our outcome from a *watershed planning* exercise either at the *tertiary* or *quaternary* level.

## **Watershed Planning**

Planning that provides a framework for establishing goals, objectives, and direction for the protection of water resources, the management of human activities, land, water, aquatic life, and resources within a watershed and for the assessment of cumulative, cross-jurisdictional, and *cross-watershed* impacts.

*Watershed planning* typically includes: watershed characterization, a *water budget*, and conservation plan; nutrient loading assessments; consideration of the impacts of a changing climate and severe weather events; land and water use management objectives and strategies; scenario modelling to evaluate the impacts of forecasted growth and servicing options, and mitigation measures; an environmental monitoring plan; requirements for the use of environmental best management practices, programs, and performance measures; criteria for evaluating the protection of *quality and quantity of water*; the identification and protection of *hydrologic features*, areas, and functions and the inter-relationships between or among them; and targets for the protection and restoration of riparian areas.

## **Wave Uprush**

The rush of water up onto a shoreline or structure following the breaking of a wave; the limit of *wave uprush* is the point of furthest landward rush of water onto the shoreline.

## **Wayside Pits and Quarries**

A temporary pit or quarry opened and used by or for a public authority solely for the purpose of a particular project or contract of road construction and not located on the road right-of-way (PPS, 2020).

## **Wellhead Protection Areas**

The surface and subsurface area surrounding a water well or well field that supplies a public water system and through which contaminants are reasonably likely to move so as eventually to reach the water well or well field.

## Wetlands

Lands that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. In either case the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of either hydrophytic plants or water tolerant plants. The four major types of *wetlands* are swamps, marshes, bogs and fens. Periodically soaked or wet lands being used for agricultural purposes which no longer exhibit *wetland* characteristics are not considered to be *wetlands* for the purposes of this definition (PPS, 2020).

## Wildland Fire Assessment and Mitigation Standards

The combination of risk assessment tools and environmentally appropriate mitigation measures identified by the Ontario Ministry of Natural Resources and Forestry to be incorporated into the design, construction and/or modification of buildings, structures, properties and/or communities to reduce the risk to public safety, *infrastructure* and property from wildland fire.

## Wildlife Habitat

Areas where plants, animals and other organisms live, and find adequate amounts of food, water, shelter, and space needed to sustain their populations. Specific *wildlife habitats* of concern may include areas where species concentrate at a vulnerable point in their annual or life cycle; and areas which are important to migratory or non-migratory species (PPS, 2020).

## Woodlands

Treed areas that provide environmental and economic benefits to both the private landowner and the general public, such as erosion prevention, hydrological and nutrient cycling, provision of clean air and the long-term storage of carbon, provision of *wildlife habitat*, outdoor recreational opportunities, and the *sustainable* harvest of a wide range of woodland products. *Woodlands* include treed areas, woodlots or forested areas and vary in their level of significance at the local, regional and provincial levels. *Woodlands* will be delineated according to the Province's Ecological Land Classification system definition for forest (PPS, 2020). For the purposes of this definition, forests include terrestrial vegetation communities as defined in accordance with the Ecological Land Classification (ELC) system, where the tree cover is greater than 60 per cent.

## Woodland Enhancement Plan

A study that is carried out when a proponent proposes to remove a *woodland* or portion of a *woodland*, including cultural and regenerating *woodlands* where the purpose of the *woodland* enhancement is to increase *woodland* cover in the region as part of a longer term perspective. The *woodland enhancement plan* must be prepared to the satisfaction of the Region, in consultation with other agencies as the Region sees fit. As part of requirement for a *woodland enhancement plan* the following should be taken into consideration:

- a. if the removal occurs within the *Urban Area* that the enhancement also be provided in the *Urban Area*;
- b. that the enhancement be in the form of a *woodland* and not just the planting of individual trees, i.e., street planting or ornamental tree planting in a park setting is not considered *woodland* enhancement;
- c. the goal of the *woodland* enhancement is it so create a native *woodland* of equal or greater size;
- d. landscape ecology principles including size, patch shape, connectivity, edge to area ratio should be considered;
- e. responsibilities will be determined for who will undertake the restoration of the woodland and the schedule for implementing the plan;
- f. the *woodland enhancement plan* includes a program for the long-term maintenance and management of the restoration woodland until such time as it is deemed to be self-sufficient or when a public agency assumes responsibility for it; and
- g. the plan includes a monitoring plan and periodic reporting to determine if the woodland is progressing toward the approved goal(s) and objectives of the plan.