



# CONNECTED REGION



## 5.1 Multimodal Transportation System

The Region is responsible for planning and implementing a sustainable *transportation system* that accommodates forecasted population and employment growth.

The Region will work with Local Area Municipalities, partnering agencies, and other public entities to provide for a *multimodal transportation system* that allows all users

to travel in a safe, accessible, convenient, and affordable manner regardless of their chosen method of transportation.

The policies in this section reflect the direction and recommendations outlined within the Region's Transportation Master Plan, which is committed to improving social equity, access, and Niagara's short- and long-term economic competitiveness.

This section also recognizes that the creation of an attractive *multimodal transportation system* that includes a comprehensive *active transportation* network, an interconnected public transit system, and an efficient goods movement network, is a critical component of reducing greenhouse gas emissions and addressing the impacts of *climate change*.

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

- a. coordinate *transportation systems* planning, land use planning, and strategic investments in *infrastructure*;
- b. support a connected and convenient public transit network throughout the region through the establishment of a Regional Transit Commission;
- c. enhance transit services to provide increased connectivity throughout the region;
- d. create and enhance interconnected *active transportation* systems;
- e. support the implementation of *complete streets*, with consideration for varying priorities and objectives at Regional and local levels;

- f. ensure Regional roads accommodate future growth and support diverse forms of transportation; and
- g. provide the safe and efficient movement of goods to support the regional economy.

## 5.1.1 Transportation Systems Planning, Land Use Planning, and Infrastructure

5.1.1.1 The Region's *transportation system* will be implemented as per the recommended actions and schedules of the Region's Transportation Master Plan in accordance with relevant Provincial policies and plans such as A Place to Grow: Growth Plan for the Greater Golden Horseshoe; Connecting the GGH: A Transportation Plan for the Greater Golden Horseshoe; and the Metrolinx's Regional Transportation Plan.

### Transportation Master Plan

The Region's Transportation Master Plan (TMP) is a comprehensive strategic document that defines policies, programs and *infrastructure* improvements required to address short-term and long-term transportation needs.

The TMP informs and is informed by the policies and forecasts of the Niagara Official Plan, and is regularly reviewed and updated.

- 5.1.1.2 Suitable transportation *infrastructure* will be provided to support the forecasted growth listed in Table 2-1 and to help mitigate and adapt to the impacts of *climate change*.
- 5.1.1.3 The Region will coordinate with the Province, Local Area Municipalities, and other agencies to plan for, improve, and protect the *planned corridors* and facilities shown on Schedule J1, including the Niagara-Hamilton Trade Corridor and North-South Niagara Escarpment Crossing, subject to applicable legislation.
- 5.1.1.4 Local Area Municipalities shall consult with the Region and/or the Province to ensure decisions on *development* applications will not preclude or negatively affect the use of *planned corridors* for the purpose(s) for which it was identified.
- 5.1.1.5 The Region will coordinate with the Federal government, the Province, Local Area Municipalities, Metrolinx and organized interest groups to improve linkages between Niagara's public transit system and GO Transit.
- 5.1.1.6 The Region will coordinate with the Federal government, the Province, and Local Area Municipalities to help strengthen the provision of an efficient and safe Provincial Highway System throughout the region.

- 5.1.1.7 Transportation *infrastructure* within the boundaries of the Niagara Escarpment Plan will be subject to the requirements of the Niagara Escarpment Plan and will be designed and located to minimize impacts to the Escarpment.
- 5.1.1.8 The Region will work with the Niagara Parks Commission to improve linkages between the Region's *transportation system* and the Niagara Parks Commission's *transportation system*.
- 5.1.1.9 All proposed *development* located adjacent to and in the vicinity of a provincial highway within MTO's permit control area under the Public Transportation and Highway Improvement Act (PTHIA) will be subject to MTO approval. Any new areas in the municipality identified for future *development* that are located adjacent to or in the vicinity of a provincial highway, interchange or intersection within MTO's permit control area will be subject to MTO's policies, standards, and requirements. Direct access will be discouraged and often prohibited.

## 5.1.2 A Connected Public Transit Network

- 5.1.2.1 Public transit will be a priority for transportation planning and investments to:
  - a. address the impacts of *climate change*;
  - b. assist in achieving social equity;
  - c. provide *multimodal* access to *major transit station areas* and other *major trip generators* identified in Policy 5.1.2.2. c); and
  - d. reduce dependence on the automobile.
- 5.1.2.2 The expansion of public transit across the region will be supported by:
  - a. prioritizing transit *infrastructure* investments to, from and within *strategic growth areas* to increase the viability of existing and planned transit service levels;
  - b. providing public transit to areas that have achieved, or will be planned to achieve *transit-supportive* residential, commercial, institutional and employment densities;
  - c. considering the use of *transit priority corridors* within *urban areas*, including to and from *strategic growth areas*, *employment areas*, and other locations with *transit-supportive* densities;

- d. improving *linkages* from nearby neighbourhoods to *major trip generators*, such as *strategic growth areas*, *employment areas*, local growth centres, *employment lands*, tourism destinations, *public service facilities*, and post-secondary institutions;
- e. establishing *transit service integration* between municipal transit agencies via the establishment of a Regional Transit Commission, in collaboration with all transit operators including the Province and Metrolinx, where applicable;
- f. permitting *infrastructure* on lands near *settlement areas* for uses principle or ancillary to *transit-supportive* uses that abut *higher order transit* facilities;
- g. providing public transit connections within and between *settlement areas*;
- h. improving accessibility to public transit, including to and from *active transportation* networks;
- i. providing park-and-ride facilities near public transit stops and stations that offer linkages to pedestrian routes, *bicycle infrastructure*, and priority spaces for carpool and car-share vehicles; and
- j. considering the role of public transit in contributing towards the Provincial and Regional greenhouse gas emissions reduction targets.

**5.1.2.3** The Regional Transit Commission shall be consulted on *development* applications, secondary plans and other land use plans to ensure integration of land use planning and public transit.

**5.1.2.4** The provision of *demand-responsive transit service* will be encouraged in Local Area Municipalities to serve low-density areas, where feasible.

**5.1.2.5** Lands near existing or planned *frequent transit service* or *higher order transit* facilities, including facilities within the Greenbelt Plan that have been approved through a Municipal Class Environmental Assessment, and where such lands are located within *settlement areas*, will be planned to:

- a. provide *transit-supportive* uses that enable opportunities for improved *transit service integration*;
- b. facilitate *multimodal* connections that encourage a more evenly distributed modal share; and
- c. support *active transportation*.

**5.1.2.6** *Higher order transit* connections to the Greater Toronto Hamilton Area, will be prioritized and expedited, where possible, to promote *intensification* and new and enhanced employment markets.

**5.1.2.7** The Region will examine the feasibility of establishing a West Niagara Transit Terminal in order to facilitate *multimodal* connections within the region and to the Greater Toronto Hamilton Area.

- 5.1.2.8** The Region will work with the Province, Local Area Municipalities, and Metrolinx, where applicable, to support the integration of *active transportation* and public transit, such as: permitting bicycles on transit vehicles, providing bicycle racks on buses, and providing *bicycle infrastructure* at and to transit facilities, public and institutional areas, and *employment lands*.

## **5.1.3 Interconnected Active Transportation System**

- 5.1.3.1** Comprehensive *active transportation* networks will be integrated into the *transportation system* to:
- a. enable safe and convenient inter-municipal and intra-municipal travel for *active transportation* users; and
  - b. provide continuous linkages from neighbourhoods to *strategic growth areas*, *major trip generators*, *employment land*, tourism destinations, *public service facilities*, post-secondary institutions and transit stations, including sidewalks and dedicated lane space for cyclists on the major street network, or other safe and convenient alternatives.
- 5.1.3.2** Implementation of the Strategic Cycling Network as identified in the Region's Transportation Master Plan will be prioritized to advance the implementation of the Niagara Bikeways Master Plan as shown in Schedule J2.
- 5.1.3.3** The Region will support Local Area Municipalities in implementing sections of the Strategic Cycling Network that are within their jurisdiction.
- 5.1.3.4** Local Area Municipalities are encouraged to support the use of *bicycle infrastructure* to ensure a connected and extended bicycle network within the region.
- 5.1.3.5** The Region will coordinate with the Ministry of Transportation and organized interest groups to provide *active transportation* infrastructure across highways, including the Queen Elizabeth Way highway and 400 Series highways.
- 5.1.3.6** The Region will encourage and work with the Niagara Parks Commission to improve the cycling network within their jurisdiction.
- 5.1.3.7** The Region's Wayfinding Signage for Cyclists Guidelines will provide direction on the design, refurbishment or reconstruction of Regional roads.
- 5.1.3.8** Guidelines will be developed to inform Local official plans and zoning by-laws in consultation with Local Area Municipalities that outline minimum provisions for accommodating *active transportation* friendly facilities, including *bicycle infrastructure*, in new *development*, *redevelopment*, and *public works projects*.

## 5.1.4 Complete Streets at Regional and Local Levels

- 5.1.4.1 The Niagara Region's Complete Streets Design Manual and Guidelines shall be used in the design, refurbishment and reconstruction of the Region's *transportation system* to ensure the needs and safety of all road users are considered and appropriately accommodated.
- 5.1.4.2 Local Area Municipalities will adopt a *complete streets* approach in the design or reconstruction of the planned or existing local street network.
- 5.1.4.3 In the absence of local *complete streets* guidelines or equivalent, Local Area Municipalities should refer to the Region's Complete Streets Design Manual and Guidelines for the design, refurbishment or reconstruction of their existing and planned local street network.
- 5.1.4.4 The Niagara Region's Complete Streets Design Manual and Guidelines shall be included as a reference document within the Request for Proposal (RFP) process for Municipal Class Environmental Assessments and detailed design projects.
- 5.1.4.5 *Complete streets* elements within local jurisdiction shall be maintained by the Local Area Municipalities.

## 5.1.5 Ensure Regional Roads Accommodate Future Growth and Support Diverse Forms of Transportation

- 5.1.5.1 As conditions of the approval of a *development* application under the Planning Act:
  - a. the Region may acquire land from the landowner required for the road allowance as identified in Schedule M, at no cost to the Region and free of all encumbrance, encroachments, and improvements unless otherwise agreed to by the Region; and
  - b. the Region shall be provided with a certificate of an Ontario Land Surveyor noting that all legal survey documentation on the widened road allowance is in place.
- 5.1.5.2 The conveyance of land shall be required at no cost to the Region as a condition of the approval of a *development* application, beyond the designated road allowance widths identified in Schedule M, to accommodate items such as sight triangles, turning lanes, channelization, grade separations, traffic control devices, rapid transit, public transit facilities and rights-of-way, *active transportation*, cuts, fills and storm drainage requirements, as required to meet accepted engineering design standards. These do not require an amendment to this Plan.

- 5.1.5.3** Additional land that exceeds the road allowance widths identified in Schedule M or Policy 5.1.5.2 may be acquired by the Region at its own expense, without an amendment to this Plan.
- 5.1.5.4** Land for Regional Road widenings will be required equally from both sides of the *centreline* of the designated Regional Road unless existing land uses, topographic features or other physical or environmental constraints necessitate taking greater widening on one side than the other.
- 5.1.5.5** As part of the *development* application process, a road allowance not yet owned by the Region and identified in the Region's Transportation Master Plan should be protected in the following cases:
- a. a local street that could be ultimately assumed by the Region; and
  - b. plans for the extension of an existing road allowance.
- 5.1.5.6** Where new *development* for a *sensitive land use* is adjacent to a Regional Road, the Region will consider the need for a noise study or noise control measures to address traffic noise as per Provincial guidelines.
- 5.1.5.7** The policies in Section 6.2, the Region's Model Urban Design Guidelines, the Complete Streets Design Manual and Guidelines, and Wayfinding Signage for Cyclists Guidelines will be used when providing comments on *development* applications located along Regional Roads.
- 5.1.5.8** The rights-of-way for the Region's *transportation system, major goods movement facilities and corridors, active transportation* and public transit facilities will be planned and protected to meet current and projected needs, while ensuring that *development* is not permitted in *planned corridors* that could preclude or negatively affect the purposes of the corridor.
- 5.1.5.9** The co-location of linear *infrastructure*, such as *utilities* and *municipal water and wastewater systems/services*, along Regional roads is encouraged.
- 5.1.5.10** As part of the construction, optimization, or expansion of transportation *infrastructure* within the Region's agricultural area and integrated *natural environment system*, the Region will require, where applicable:
- a. the preparation of an *agricultural impact assessment*, or equivalent analysis as part of a Municipal Class Environmental Assessment, that demonstrates that any impacts on the *agricultural system* have been avoided or, if avoidance is not possible, minimized, and, to the extent feasible, mitigated; and/or



- b. the preparation of an *environmental impact study*, or equivalent analysis as part of a Municipal Class Environmental Assessment, that demonstrates that any impacts on the *natural heritage system*, *key natural heritage features*, *key hydrologic features* and *key hydrologic areas* have been avoided or, if avoidance is not possible, minimized, and to the extent feasible, mitigated; and
- c. the preparation of an assessment on the impact on archeology and/or cultural heritage in accordance with the policies in Sections 6.4 and 6.5 respectively.

## 5.1.6 Movement of Goods to Support the Regional Economy

- 5.1.6.1 *Major goods movement facilities and corridors* shall be protected for the long term. *Development* proposals for sensitive land uses in proximity to *major goods movement facilities and corridors* shall be subject to Policies 4.2.4.2 and 4.2.4.3.
- 5.1.6.2 The Region, in partnership with the Province and Local Area Municipalities, will develop and implement a Goods Movement Study that is consistent with the recommendations of the Region's Transportation Master Plan and the Strategic Goods Movement Network and associated policy directions of Connecting the GGH: A Transportation Plan for the Greater Golden Horseshoe and Freight-Supportive Guidelines.
- 5.1.6.3 The Goods Movement Study will identify priority routes for goods movement, where feasible, take advantage of cross-border trade opportunities, including the Foreign Free Trade Zone, maximize the use of the *Niagara Economic Zone* and *Niagara Economic Centre*, and facilitate the movement of goods into and out of *employment areas*.
- 5.1.6.4 Once identified through the Goods Movement Study, lands adjacent to or near *major goods movement facilities and corridors* will be protected for the expansion of *infrastructure* and uses ancillary to that of the principal *major goods movement facility and corridor*. The impact of the expansion will be minimized by:
  - a. requiring a Municipal Class Environmental Assessment to demonstrate the need and alternative options for the *infrastructure* required for the expansion;
  - b. avoiding *specialty crop areas*, and other *prime agricultural areas* in that order of priority, unless need has been demonstrated and it has been established that there is no reasonable alternative for the location of the *infrastructure* as determined through the applicable Municipal Class Environment Assessment;
  - c. avoiding, or where avoidance is not possible, minimizing and mitigating adverse impacts to the *agricultural system* or other *sensitive land uses vulnerable* to encroachment;

- d. requiring an *agricultural impact assessment* during instances where *infrastructure* or uses are proposed within, adjacent to, or near the Greenbelt Area or *agricultural system*; and
- e. requiring an assessment of the impacts on archaeology and cultural heritage in accordance with policies in Sections 6.4 and 6.5 respectively.

**5.1.6.5** The *development* of lands adjacent to or near *major goods movement facilities and corridors* will be *compatible* with the goods movement function of those facilities and be designed to avoid, mitigate or minimize negative impacts on and from the facilities and corridors.

**5.1.6.6** The Region will coordinate with the Province, Local Area Municipalities, agencies, and transportation service providers to implement a *transportation system* which is able to accommodate agricultural vehicles and equipment, where appropriate.

**5.1.6.7** The Region will advocate for highway capacity improvements to address inter-regional and international trade related demands for the purposes of goods movement.



## 5.2 Infrastructure

Well-planned and managed *infrastructure* is fundamental to attaining the Region’s vision for thriving and resilient communities, and key to achieving the growth forecasts of this Plan.

The *infrastructure* policies that follow will ensure that the region’s existing and future development is supported by *infrastructure* that is planned, constructed, and managed in an integrated, efficient, and environmentally sustainable manner.

The Region will continue to prepare, update, and rely upon on long-term *infrastructure* master plans to ensure optimization and strategic timing of sound investments.

The policies in this section address the region’s existing and future *infrastructure* needs relating to drinking water, wastewater, stormwater management, waste, energy, *utility* services, and pipeline *infrastructure*.

The planning and development of *infrastructure* must be integrated with *climate change* resiliency. The Growth Plan directs that the Region develop policies to identify actions that will reduce greenhouse gas emissions, assess *infrastructure* risks and vulnerabilities, and identify actions to address these growing challenges.

### Roles in the Delivery of Services

The Region provides *water services* and *wastewater services* to its *urban areas*. The Region is responsible for water treatment, transmission mains, storage facilities, major booster pumping stations, wastewater treatment, trunk sewers and sewage pumping stations. The Local Area Municipalities are responsible for local water distribution networks and local sewer collection systems.

The Region and Local Area Municipalities share a role in stormwater management.

The Region is exclusively responsible for *waste management*.

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

- a. undertake *infrastructure* planning, development, and asset management;
- b. ensure municipal services are provided in an efficient manner;
- c. supply *municipal water and wastewater systems/servicing* within *urban areas*;
- d. restrict *municipal water and wastewater systems/servicing* outside *urban areas*;
- e. provide municipal *waste management* services;
- f. ensure stormwater management and *green infrastructure* is integrated into the planning process;

- g. ensure *utilities* are provided in an efficient and *compatible* manner; and
- h. support the development of green energy *infrastructure*.

## 5.2.1 Infrastructure Planning, Development, and Asset Management

- 5.2.1.1 *Infrastructure* planning, development, and asset management shall be undertaken in support of the growth management policies of this Plan to promote sustainability and the achievement of *complete communities*.
- 5.2.1.2 A coordinated, integrated, and comprehensive approach using the minimum *intensification* and density targets of this Plan, should be used for the planning, development, and management of *infrastructure* within municipalities, across lower-tier and upper-tier municipal boundaries, and with other orders of government, agencies, and boards.
- 5.2.1.3 *Infrastructure* planning shall be aligned with land use planning, *infrastructure* investment and *watershed planning*.
- 5.2.1.4 *Infrastructure* investment shall be leveraged to direct and support growth and *development* within *strategic growth areas* as well as to achieve the minimum *intensification* and density targets identified in this Plan.
- 5.2.1.5 Before consideration is given to developing new *infrastructure*, the Region and Local Area Municipalities shall optimize the use of existing *infrastructure*, and plan and direct growth, in a manner that promotes efficient use of existing services.
- 5.2.1.6 The Region shall provide *infrastructure* and services within its jurisdiction to accommodate existing development and anticipated growth within the financial capability of the Region.
- 5.2.1.7 The Region will identify the full life-cycle costs of *infrastructure* and provide long-range, holistic, integrated and financially sustainable *infrastructure* planning based on the understanding of the co-relation between long-term *infrastructure* investment and long-term funding plans.
- 5.2.1.8 *Infrastructure* will be planned through the appropriate environmental assessment process, ensuring full regard for the *natural environment system*, *cultural heritage resources* and natural hazard areas of the region.
- 5.2.1.9 The location, design, construction, and operation of *infrastructure* will be sustainable, strategic, and cost-efficient, and minimize adverse impacts on the *natural environment system*, agricultural lands, and existing landscape.

- 5.2.1.10** The Region and Local Area Municipalities shall assess *infrastructure* risks and vulnerabilities, including those caused by the impacts of *climate change*, and identify actions and investments to address these challenges, which could be identified as part of municipal asset management planning.
- 5.2.1.11** The Region will promote the use of *green infrastructure* and *low impact development* by considering *green infrastructure* in *public works projects* and encouraging its use through review of *development* applications.
- 5.2.1.12** Local Area Municipalities should include policies in their official plans for the planning and construction of new *infrastructure* and related facilities that address the principles of environmental sustainability including but not limited to:
- a. reducing energy demands;
  - b. promoting design and orientation to optimize passive solar energy gains;
  - c. providing for on-site, renewable energy generation and co-generation and district energy systems;
  - d. maximizing water conservation, including water efficient landscaping and collection and reuse of clean water;
  - e. providing appropriate stormwater infiltration at the source;
  - f. integrating green roofs into energy and water conservation strategies;
  - g. providing for collection and storage of recyclable and organic wastes on site;
  - h. integrating *active transportation* and transit into development plans; and
  - i. maintaining and enhancing hydrological and natural heritage features and functions.
- 5.2.1.13** Construction of new, or expansion of existing municipal water, wastewater and stormwater *infrastructure* should only be considered where the following conditions are met:
- a. strategies for water conservation and other water demand management initiatives are being implemented in the existing service area;
  - b. plans for expansion or for new services shall serve growth that achieves the growth management targets and policies for *intensification* and density in this Plan; and
  - c. plans have been considered in the context of applicable inter-provincial, national, bi-national, or state-provincial Great Lakes Basin agreements and are in compliance with the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement.

**5.2.1.14** Updates to the Regional Water and Wastewater Master Servicing Plan may be implemented through amendments to the Niagara Official Plan as required.

**5.2.1.15** New and expanding Regional *infrastructure* and facilities may be reviewed by the Region’s Urban Design Section in consultation with relevant Regional divisions and Local Area Municipalities.

**5.2.1.16** The Region shall give priority for the provision of new municipal water and sewage services within *urban areas* to:

- a. areas where growth aligns with the Region’s Water and Wastewater Master Servicing Plan;
- b. existing development on *individual on-site sewage services* and/or *individual on-site water services* within the *urban areas*;
- c. existing development having deficiencies in existing *municipal water and wastewater systems/services* to meet minimum water quality objectives and minimum pollution abatement objectives, as established by the Region in consultation with appropriate Provincial and Federal Ministries;
- d. industrial development creating employment opportunities, which shall be assigned a higher priority than new residential development;
- e. *development* and *redevelopment* within *strategic growth areas* which produce an intensive and compact form of *development*; and
- f. support areas with district plans and secondary plans.

**5.2.1.17** The Region shall develop Stormwater Management Guidelines giving guidance on best practices and innovation for *development* applications and *public works projects* and to assist in addressing *climate change* impacts.

**5.2.1.18** Planning for stormwater management shall:

- a. conform with Section 3.2;
- b. be integrated with planning for sewage and *water services* and ensure that systems are optimized, feasible and financially viable over the long term;
- c. minimize, or, where possible, prevent increases in contaminant loads;

### Updates to the Regional Water and Wastewater Master Servicing Plan

Updates to the Water and Wastewater Master Servicing Plan determine *infrastructure* needs for *development* over a 30-year or greater period.

Updates include identifying full life cycle costs of the system and options to pay for these costs over the long-term.

This informs the Region’s Budget and Development Charges to sustainably finance growth.

- d. minimize erosion and changes in water balance, and prepare for the impacts of *climate change* through the effective management of stormwater, including the use of *green infrastructure*;
- e. mitigate risks to human health, safety, property, and the environment;
- f. maximize the extent and function of vegetative and pervious surfaces;
- g. promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and *low impact development*; and
- h. consider *green infrastructure* and other measures which address the impacts of *climate change*.

**5.2.1.19** Local Area Municipalities will develop *stormwater master plans* or equivalent for serviced *settlement areas* that:

- a. are informed by *watershed planning* or equivalent;
- b. protect the *quality and quantity of water* by assessing existing stormwater facilities and systems;
- c. characterize existing environmental conditions;
- d. examine the cumulative environmental impacts of stormwater from existing and planned *development*, including an assessment of how extreme weather events will exacerbate these impacts and the identification of appropriate adaptation strategies;
- e. incorporate appropriate *low impact development* and *green infrastructure*;
- f. identify the need for stormwater retrofits, where appropriate;
- g. identify the full life-cycle costs of the stormwater *infrastructure*, including maintenance costs, and develop options to pay for these costs over the long-term; and
- h. include an implementation and maintenance plan.

**5.2.1.20** The Region will develop a Long-Term Waste Management Strategic Plan in consultation with the Local Area Municipalities. Policy direction will be implemented through an amendment to this Plan.

## Waste Management Strategic Plan

The Long-term Waste Management Strategic Plan will guide the operation of the Region's day-to-day *waste management* programs including reduction, reuse, recycling, composting, diversion, and disposal of residual waste. The Plan will reduce greenhouse gas emissions, address Provincial *climate change* adaptation goals, and identify opportunities for energy from waste and source reduction. A component of the Plan will be long-term financial sustainability.

- 5.2.1.21 The Region will design, operate, and monitor *waste management* facilities in such a manner as to promote sustainability and public health and, wherever feasible, provide for future adaptive reuse opportunities in accordance with applicable Local official plan policies and Provincial requirements.
- 5.2.1.22 *Waste management* systems shall be located and designed in accordance with Provincial legislation and standards.

## 5.2.2 Municipal Water and Wastewater Servicing within Urban Areas

- 5.2.2.1 Adequate water supply and sewage collection shall be provided to meet the existing and future *development* needs in alignment with the growth management policies of this Plan, the Water and Wastewater Master Servicing Plan and the Region's capital budget process.
- 5.2.2.2 *Municipal water and wastewater systems/services* are the required form of servicing for *development* in *urban areas*.
- 5.2.2.3 Local Area Municipalities, in coordination with the Region, will comprehensively approach and integrate growth allocated by the Region with required *infrastructure* and establish priority and phasing policies for *water* and *wastewater services*.
- 5.2.2.4 Prior to approval of *development*, the municipality shall ensure that required *water* and *wastewater services* and servicing capacity is available to support the *development*.
- 5.2.2.5 Private *lateral connections* to Regional water or wastewater mains are discouraged.



- 5.2.2.6** The Region will endeavour to:
- a. maintain sufficient reserve capacity in its water and wastewater *infrastructure* and facilities to provide operational flexibility and meet potential changes in servicing conditions;
  - b. ensure new *development* will not put the Region out of compliance with regulations and the Region will consider opportunities to maintain or reduce wet weather overflow occurrence; and
  - c. provide reliability, redundancy and security in its water and wastewater systems with attention to high risk and critical areas.
- 5.2.2.7** Existing municipal *combined sewer* and storm drainage systems shall be separated, where technically and financially feasible
- 5.2.2.8** All new *development* which is proposed to be connected to existing *combined sewer* facilities shall be served with separated systems within the property limits of the *development*. The connection to the *combined sewer* will only be considered once a new separated storm outlet has been determined to be unachievable and the available capacity within the existing *combined sewer* services has been confirmed.
- 5.2.2.9** The potential impact of *climate change* on the planning and sizing of water and wastewater *infrastructure* shall be considered.
- 5.2.2.10** Water and wastewater facilities shall be designed with consideration to reducing energy use and greenhouse gas emissions.
- 5.2.2.11** The Region will review a combination of servicing strategies including *infrastructure* and non-infrastructure solutions to meet wet weather level of service and provide sufficient wastewater capacity. The Region will work collaboratively with the Local Area Municipalities to reduce wet weather flows in the sanitary system.
- 5.2.2.12** Within urban *settlement areas* full municipal services are the preferred form of servicing. Partial services shall only be permitted in the following circumstances:
- a. where they are necessary to address failed *individual on-site sewage services* and *individual on-site water services* in existing development; or
  - b. to allow for infilling and minor rounding out of existing development on partial services provided site conditions are suitable for the long-term provision of such services with no negative impacts.
- 5.2.2.13** Any extensions of the existing water supply or sewage disposal systems must have approval through the current water licenses and sewage disposal system approvals from both the Local Area Municipality and Region.

- 5.2.2.14 Where *development* is proposed on lands adjacent to an existing or proposed sewage treatment facility, the location of *development* shall be determined by appropriate noise and odour studies that identify suitable separation distances and mitigation measures.

## 5.2.3 Municipal Water and Wastewater Servicing Outside of Urban Areas

- 5.2.3.1 *Lateral connections* to Regional water or wastewater mains are not permitted outside the *urban area* boundaries.
- 5.2.3.2 Municipal water supply mains or municipal sewers shall not be extended outside the *urban areas* except:
- where necessary to correct an existing health problem as determined by the Medical Officer of Health or where there is a clean-up order from the Ministry of the Environment, Conservation and Parks, and provided all alternatives to municipal mains for resolving health concerns have been considered; and
  - where extensions of the water supply system are for necessary operating purposes, such as the looping of existing mains, the replacement of existing mains, and the interconnection of *urban areas*.
- 5.2.3.3 All *development* outside the *urban areas* shall be serviced by sustainable *individual on-site water* and *individual on-site sewage services*, except an existing lot of record outside the *urban areas* may be permitted to connect to existing municipal services subject to the following:
- where municipal sewers or water supply mains have been extended outside the *urban areas* to correct an existing health problem as determined by the Medical Officer of Health or where there is a clean-up order from the Ministry of Environment, Conservation and Parks.
- 5.2.3.4 Individual water supply and sewage disposal systems are permitted outside the *urban areas* provided the site conditions are suitable for the long-term provision of such services with no negative impacts. Lot creation on *individual on-site sewage services* is only permitted if there is confirmation of sufficient reserve sewage system capacity for hauled sewage.

## 5.2.4 Municipal Waste Management Services

- 5.2.4.1 The Region will provide for the disposal and treatment of solid wastes to the Local Area Municipalities, and in alignment with the Region’s Long Term Waste Management Strategic Plan.
- 5.2.4.2 The disposal and treatment of solid wastes shall be provided in an integrated manner that evaluates full life cycle impacts with respect to financial and environmental sustainability, public health, and aesthetics.
- 5.2.4.3 The Region shall provide *waste management* systems that are an appropriate size and type to accommodate present and future requirements, and facilitate, encourage, and promote reduction, reuse, and recycling objectives.
- 5.2.4.4 In collaboration with the Region, Local Area Municipalities should ensure that their official plan, zoning by-law, plan of subdivision approvals and site plan approvals for new *development* comply with the Region’s requirements for waste collection to ensure safe and efficient waste collection and diversion and includes support for the resource recovery of food and organic waste for their residents.
- 5.2.4.5 During the *development* review process, the Local Area Municipality will promote enhanced waste reduction, composting and recycling initiatives, and the identification of new opportunities for energy generation from waste, source reduction, reuse, and diversion, where appropriate. Consideration shall be given to increased convenience and access for waste diversion collection programs to promote participation.
- 5.2.4.6 The selection of all solid *waste disposal sites* will involve consideration of:
- a. the compatibility of the methods of operation with adjacent land uses;
  - b. the nature of bedrock and soil conditions in order to reduce the likelihood of groundwater contamination;
  - c. operational economics, transportation costs, maintenance, land prices, opportunity for future expansion, etc.; and
  - d. compliance with the policies of Chapter 3, and specifically Section 3.1, of this Plan.

- 5.2.4.7** Site and rehabilitation plans will be developed prior to the use of a particular site for solid waste disposal. These plans should make provision for:
- a. the control of odour, vermin, and other nuisances;
  - b. the phasing of the site expansion;
  - c. the ultimate use of the site;
  - d. landscaping and berms;
  - e. access; and
  - f. a uniformly high standard of operation.
- 5.2.4.8** The Region will investigate the application of waste diversion techniques, including the reuse and recycling of construction material.
- 5.2.4.9** Proposed *development* within the influence area, as determined by Provincial Land Use Compatibility Guidelines or through site specific study, of all *waste management* facilities shall demonstrate that the solid *waste disposal site* will not have any unacceptable *adverse effects* on the proposed *development* and will not pose any risks to human health and safety.
- 5.2.4.10** Notwithstanding Policy 5.2.4.9, the following *compatible* uses may not require a study provided that the solid *waste disposal site* water table is not affected and excavations shall not result in landfill gas migration or removal of a visual screen buffering of the landfill from the public view: *utilities*, waste-processing facilities, above-grade transportation routes, forestry activities, and gravel pits, quarries and other mining activities. No new land-use shall be permitted within 30 metres of the licensed perimeter of an operating solid *waste disposal site*.
- 5.2.4.11** *Development* on, or within 250 metres of a non-operating *waste disposal site* (e.g., old closed landfills) shall address Provincial requirements for contaminated sites.
- 5.2.4.12** *Development* within 500 metres of a non-operating *waste disposal site* shall also demonstrate that there is no risk to human health and safety from landfill gas.
- 5.2.4.13** The Region will identify and support new opportunities to enhance waste reduction, composting and recycling initiatives and for energy from waste, source reduction, reuse, and diversion, where appropriate.
- 5.2.4.14** When exploring new food and organic waste resource recovery systems, the Region will pursue regional approaches, including considering potential partnerships with neighbouring municipalities and private industry.

- 5.2.4.15** Approvals for new or expanded resource recovery systems will address the Provincial Land Use Compatibility Guidelines and the Guidelines for the Production of Compost in Ontario, to ensure appropriate siting and compatibility between uses and adjacent uses as well as to prevent or mitigate adverse effects from odour, noise and other contaminants.
- 5.2.4.16** The establishment of a new *waste disposal site* is not permitted in the Niagara Escarpment Plan Area.

## **5.2.5 Stormwater Management and the Planning Process**

- 5.2.5.1** All new *development* and *redevelopment* in *settlement areas* must be provided with separate storm drainage systems or separate storm drainage connections.
- 5.2.5.2** The Region will collaborate with the Local Area Municipalities for the provision of adequate storm drainage facilities.
- 5.2.5.3** Local Area Municipalities shall implement sustainable stormwater management plans and strategies as part of *development* and *redevelopment*.
- 5.2.5.4** Proposals for large-scale *development* proceeding by way of a secondary plan, plan of subdivision, vacant land plan of condominium or site plan will be supported by a stormwater management plan or equivalent, that:
- conforms with *watershed planning* policies in Section 3.2;
  - is informed by a *subwatershed plan* or equivalent as completed by the Local Area Municipality;
  - ensures all proposals for *development* or *redevelopment* are designed based on an integrated treatment approach in order to address requirements for water quality, erosion control, flood control, thermal mitigation and *water budget* to minimize stormwater flows and reliance on stormwater ponds, which includes *low impact development* and *green infrastructure*, where appropriate;
  - establishes planning, design, and construction practices to minimize vegetation removal, grading and soil compaction, sediment erosion, and impervious surfaces;
  - ensures *stormwater management facilities* are designed to support key features and *ecological functions* in the Region's *natural environment system*, where possible; and
  - aligns with the *stormwater master plan* or equivalent for the *settlement area*, where applicable.

**5.2.5.5** The Region and Local Area Municipalities shall consider through site plan control the development of *green infrastructure*, such as naturalized retention ponds and rain gardens to increase stormwater offset.

## **5.2.6 Provision of Utilities**

**5.2.6.1** The Region will coordinate with both private and public *utility* providers and the Local Area Municipalities to ensure that *utilities* are planned and managed in a manner that supports the objectives and policies of this Plan.

**5.2.6.2** The joint use of rights-of-way and corridors is encouraged wherever feasible for various facilities in order to:

- a. lessen the impact on the environment of uncoordinated alignments of various single purpose authorities; and
- b. avoid land use and *development* conflicts associated with such rights-of-way and alignments.

**5.2.6.3** The construction of *utilities* shall comply with the *natural environment system* policies of this Plan.

**5.2.6.4** Necessary public *utilities* will be provided in accordance with the servicing needs of existing and future *development* and with economic, safety and environmental considerations.

**5.2.6.5** The Region and Local Area Municipalities will confirm, as part of the *development* review process, that *utility* providers are able to provide services to support the proposed *development* in a timely manner and that, if required, appropriate locations for large *utility* equipment and *utility* cluster sites have been determined.

**5.2.6.6** The Region will review and comment on Environmental Assessment Studies and may participate in the Environmental Assessment process for major *utility* related projects to ensure that potential impacts on matters of Regional and Provincial interest are addressed.

**5.2.6.7** *Utility* providers proposing to locate, relocate, or replace a facility within a Regional Road allowance will require Regional approval and be subject to the provisions of all applicable Regional policies, by-laws, standards, and guidelines.

- 5.2.6.8** The Region will continue to advise *utility* providers of the need to:
- a. consult with the Region and Local Area Municipalities, and *Conservation Authority* where applicable;
  - b. review the region-wide inventory of *cultural heritage resources* and *areas of archaeological potential* prior to undertaking construction, demolition, or maintenance projects;
  - c. mitigate any impacts on *cultural heritage resources* including *archaeological resources* through acceptable conservation measures;
  - d. place equipment and devices in locations which do not detract from the visual character of *cultural heritage resources* and do not have a negative impact on the architectural integrity of these resources; and
  - e. comply with the *natural environment system* policies in Section 3.1 and *agricultural system* policies of Section 4.1.

## **5.2.7 Green Energy Infrastructure**

- 5.2.7.1** The Region shall closely monitor the Provincial regulations and provide appropriate policies to support the development of green energy *infrastructure*.
- 5.2.7.2** The Region will promote opportunities for the development of energy supply including electricity generation facilities and transmission and distribution systems, district energy, and *renewable energy systems* and *alternative energy systems*, to accommodate current and projected needs.
- 5.2.7.3** Subject to Provincial requirements, the Region and Local Area Municipalities will review the siting of all renewable energy generation facilities within the context of all policies of this Plan.
- 5.2.7.4** Subject to Provincial requirements, the Local Area Municipality will prepare official plan policies and zoning for the review of new or expanding renewable energy generation facilities to ensure consideration of safety, compatibility, and other impacts.
- 5.2.7.5** Wind energy systems and associated distribution *infrastructure* shall be located, designed, and constructed to eliminate or minimize adverse impacts on agricultural operations, lands, and activities; significant natural heritage features; existing *mineral aggregate operations*; and cultural and built heritage resources.
- 5.2.7.6** Wind energy systems shall be designed and constructed to be appropriately buffered and/or separated from *sensitive land uses* to prevent *adverse effects* and to minimize the risk to public health and safety.

- 5.2.7.7** Wind energy systems are generally permitted throughout the region subject to applicable Local area municipal criteria, Provincial plan policies, and policies set out in this Plan, except large scale wind energy systems will require a Regional Official Plan Amendment.
- 5.2.7.8** Application for wind energy development should comply with Section 7.8 for Complete Applications and the following:
- a. a justification/impact report that demonstrates:
    - i. the need for, and public benefit of, locating the proposed generating capacity in these areas;
    - ii. an assessment of impacts on agricultural operations, lands and activities, natural heritage features, nearby residences and other *sensitive land uses* in the area; and
    - iii. the means of minimizing any *adverse effects*.
  - b. a visual impact assessment;
  - c. a noise report demonstrating compliance with Provincial requirements; and
  - d. a report demonstrating compliance with Provincial shadow flicker guidelines.
- 5.2.7.9** The development of new or expanded wind energy systems within an area regulated under the Niagara Escarpment Planning and Development Act will be subject to the provisions of the Niagara Escarpment Plan. The policies of this Plan and policies in Local official plans will be the basis for providing municipal comments to the Niagara Escarpment Commission during the review of wind energy system applications.
- 5.2.7.10** The development of new wind energy systems in areas adjacent to or on known deposits of aggregate, *mineral* or *petroleum resources* shall be permitted where it has been demonstrated that the energy system serves a greater long-term public interest during the lifetime of the wind energy system and does not compromise the future extraction of the aggregate, *mineral* or *petroleum resources*.
- 5.2.7.11** The development of wind energy systems shall be prohibited where they may cause a potential aviation safety hazard as determined by Transport Canada or the appropriate agency.



## 5.2.8 Pipeline Infrastructure

- 5.2.8.1 TransCanada PipeLines Limited (TCPL) operates two high pressure natural gas pipelines within its right-of-way crossing the region as well as two industrial compressor stations as identified on Schedule B.
- 5.2.8.2 *Development* resulting in increased population density in proximity to TCPL's right-of-way and compressor stations may result in TCPL being required to replace its pipeline(s) to comply with CSA Code Z662. Early consultation with TCPL or its designated representative, for any *development* proposals within 200 metres of its pipelines and within 750 metres of TCPL's compressor station should be undertaken to ensure TCPL can assess potential impacts and provide recommendations to avoid adverse impacts to its facilities.
- 5.2.8.3 TCPL is regulated by the Canadian Energy Regulator which has a number of requirements regulating *development* in proximity to its pipelines. This includes approval requirements for activities within 30 metres of the pipeline centreline, such as conducting a ground disturbance, constructing or installing a facility across, on, or along the pipeline right-of-way, driving a vehicle, mobile equipment or machinery across the right-of-way, and the use of explosives.
- 5.2.8.4 A minimum *setback* of seven metres shall be provided from the edge of the right-of-way for all permanent buildings and structures. Accessory buildings and structures shall have a minimum *setback* of at least three metres from the edge of the right-of-way.
- 5.2.8.5 A minimum *setback* of seven metres shall be provided from the edge of the pipeline right-of-way for:
- a. road rights-of-way (paralleling pipeline rights-of-way), private driveways, parking spaces and parking areas; and
  - b. *stormwater management facilities*.
- 5.2.8.6 Throughout any *built-up areas*, the TCPL's right-of-way is encouraged to be designated for passive parkland or open space use.

## 5.3 Public Spaces, Recreation, Parks, Trails and Open Space

Parks, open spaces and trails provide an opportunity for healthy recreational activities, tourism and appreciation of *cultural heritage resources* and natural resources. Planning for open space encourages physical activity, supports mental health, increases the use of *active transportation*, and provides *linkages* between natural heritage features.

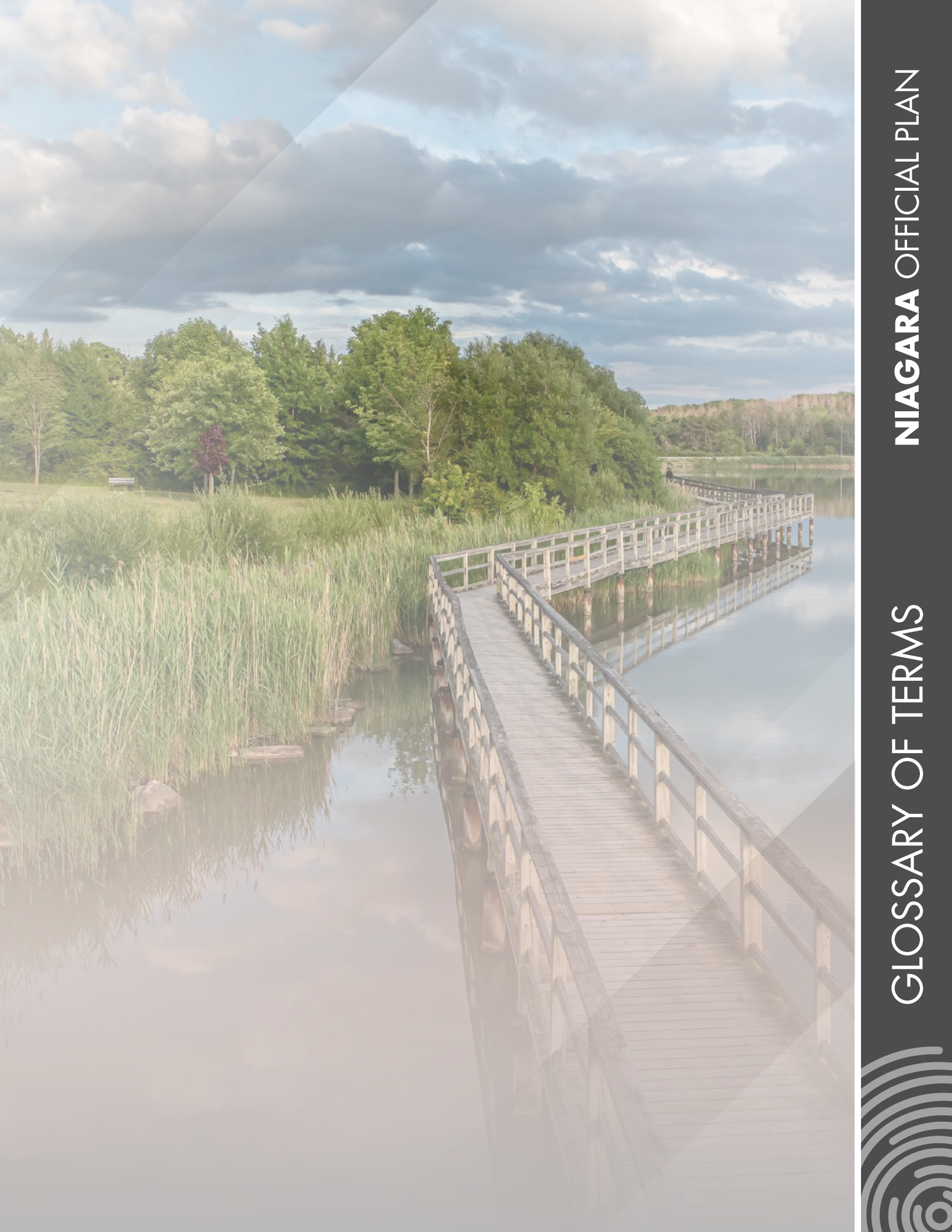
The objectives of this section are as follows:

- a. plan for the inclusion of parks, open space and trails within and between communities;
- b. support efforts to designate Niagara region as a UNESCO Global Geopark to foster conservation, education and sustainable economic development;
- c. recognize the importance of the Niagara Escarpment as a UNESCO Biosphere Reserve; and
- d. support the identification of *cultural heritage landscapes*.

### 5.3.1 Open Space in Communities

- 5.3.1.1 The Region shall ensure the provision of public open space and required parkland in the review of district and secondary plans to facilitate the creation of healthy, *complete communities*.
- 5.3.1.2 The Region will, in partnership with the Local Area Municipalities, *Conservation Authority*, Niagara Parks Commission, and other interested agencies:
  - a. maintain a map of publicly accessible parkland, open space and trails to support the *connectivity* of natural heritage features and the achievement of *complete communities*, and inform the Regional Greening Initiative, as per Policy 3.5.1.4;
  - b. explore opportunities to plan new trails or develop/enhance existing trails on a cross-boundary basis to enhance interconnectivity between Local Area Municipalities where practical and feasible; and
  - c. promote good stewardship practices for publicly accessible parkland and open spaces, especially when adjacent to the *natural environment system*.
- 5.3.1.3 The Region supports efforts to designate Niagara region as a UNESCO Global Geopark to foster conservation, education and sustainable economic development.

- 5.3.1.4** The Region encourages the Province, Provincial agencies, *Conservation Authority*, Local Area Municipalities and non-governmental organizations to continue acquiring and dedicating lands to further develop the Niagara Escarpment Parks and Open Space System, including the Bruce Trail, which provides significant economic and environmental benefit to the region.
- 5.3.1.5** Local Area Municipalities shall include policies in their official plans that address the following:
- a. the acquisition of parkland in accordance with the provisions of the Planning Act, and/or direction to pass by-laws that allow for the acquisition of parkland; and
  - b. integration of *development* with, and connectivity to, existing and proposed parks and trails.
- 5.3.1.6** Where applicable, Local Area Municipalities should include policies in their official plans that:
- a. establish and undertake improvements to public access to shorelines and dedication of shorelines to the Local Area Municipality or other public agency where there is a public benefit to the overall trail system. *Development* that will constrain ongoing or planned shoreline acquisition should not be permitted; and
  - b. increase open space, and park and recreational opportunities with the Welland Canal Cultural Heritage Landscape.
- 5.3.1.7** The Region encourages the Local Area Municipalities to:
- a. develop park/trail master plans to strategically and equitably plan for the acquisition, use and management of publicly-accessible parks, open spaces and trails, including shorelines, to best serve the needs of all local residents. Master plans should clearly identify, plan for and protect these resources;
  - b. consider *climate change* when planning for parks, open space and trails, including opportunities for *green infrastructure* and tree planting;
  - c. establish an open space system within *settlement areas*, which may include opportunities for *urban agriculture*, rooftop gardens, communal courtyards, and public parks; and
  - d. evaluate public lands being disposed of for potential acquisition for recreation and open space uses in concert with other growth needs, including reuse of abandoned *rail facilities* and *utility* corridors for trail development.



# 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 herein 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.