



# 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.

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*.

### 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.



## 5.1.2 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 about *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** Further to Policy 5.1.5.2, the Region may, without an amendment to this Plan, update the designated road allowance widths in Schedule M where an alternate width has been approved through a completed Municipal Class Environmental Assessment.
- 5.1.5.4** 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.
- 5.1.5.5** 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.

- 5.1.5.6** 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 local street that could be ultimately assumed by the Region; and
  - plans for the extension of an existing road allowance.
- 5.1.5.7** 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.
- 5.1.5.8** 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.
- 5.1.5.9** 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.
- 5.1.5.10** The co-location of linear *infrastructure*, such as *utilities* and *municipal water and wastewater systems/services*, along Regional roads is encouraged.
- 5.1.5.11** 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:
- 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
  - 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
  - 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** The Region, in partnership with 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 Freight-Supportive Guidelines.
- 5.1.6.2** 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*.
- 5.1.6.3** 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.
- 5.1.6.4** 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.

- 5.1.6.5** 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.
- 5.1.6.6** 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;

### 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.

- c. minimize, or, where possible, prevent increases in contaminant loads;
- 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.

**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.

## 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.

### 5.2.2 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.

## 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:
- a. conforms with *watershed planning* policies in Section 3.2;
  - b. is informed by a *subwatershed plan* or equivalent as completed by the Local Area Municipality;
  - c. 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;
  - d. establishes planning, design, and construction practices to minimize vegetation removal, grading and soil compaction, sediment erosion, and impervious surfaces;
  - e. ensures *stormwater management facilities* are designed to support key features and *ecological functions* in the Region's *natural environment system*, where possible; and
  - f. 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:
- consult with the Region and Local Area Municipalities, and *Conservation Authority* where applicable;
  - review the region-wide inventory of *cultural heritage resources* and *areas of archaeological potential* prior to undertaking construction, demolition, or maintenance projects;
  - mitigate any impacts on *cultural heritage resources* including *archaeological resources* through acceptable conservation measures;
  - 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
  - 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.