



Chapter **2** | **Sustainable**  
natural environment



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- 2.3 **Water Systems**

The Regional Municipality of York

**Official Plan**

  
**York Region**



Office Consolidation - April 2016



# 2.0 | Sustainable natural environment



## In this chapter:

- 2.1 Regional Greenlands System: A Sustainable Natural Environment Legacy
- 2.2 Natural Features: Components of the Greenlands System
- 2.3 Water Systems

York Region is rich in natural features, from the shores of Lake Simcoe to the major valleys of the Humber, Don, Rouge, Black, Holland and Maskinonge rivers; to the extensive woodlands, wetlands and the rolling hills of the Oak Ridges Moraine. These provide habitat for a variety of species and play an important role in the Region's ecology and native biodiversity. Many of the Region's natural areas are dependent upon and contribute to a system of surface and sub-surface water that goes beyond local municipal and Regional boundaries.

The natural environment influences and shapes the Region's history and structure and contributes to Regional identity. It dictated early settlement patterns such as the alignment of major streets and the location of settlements. The distribution of resources such as forests, arable land and aggregate resources influenced the economic development of the Region.

### Sustainability Benefits of the Regional Greenlands System

#### Sustainable Natural Environment

- Provides habitat for plant and animal species*
- Maintains native biodiversity*
- Supports species richness and ecosystem complexity*
- Improves air quality*
- Contributes to water management*
- Mitigates the impacts of climate change*

#### Healthy Communities

- Contributes to liveable neighbourhoods, feeling of well-being, health and quality of life, community identity and sense of place*
- Provides educational and research opportunities*
- Provides active and passive recreation for healthier lifestyles*

#### Economic Vitality

- Encourages eco- and agri-tourism*
- Enhances property values, creating desirable communities for investment*
- Helps to prevent disease, resulting in reduced healthcare costs*
- Reduces infrastructure costs; reduces peak flows and flooding*
- Helps make York Region an attractive place for businesses* 

York Region contains some of the most significant and environmentally sensitive geological landforms in Ontario, of which the most predominant is the Oak Ridges Moraine.

The policies in **Chapter 2** are fundamental to ensuring the Region retains its distinct identity; remains an attractive place to invest; ensures economic prosperity; enhances liveability in communities; provides opportunities for active and passive recreation; and contributes to health and a high-quality of life for residents and workers.

-  **A Sustainable Natural Environment Goal: To protect and enhance the natural environment for current and future generations so that it will sustain life, maintain health and provide an improved quality of life.**



### Why a Greenlands System?

Urbanization introduces new stresses on the native plants and animals, and many species which could breed and move freely through a natural or agricultural landscape cannot easily persist in an urban landscape. The ability for plants and animals to migrate, disperse and forage among multiple habitats is critical. A connected system of features and linkages provided by the Regional Greenlands System is essential to preserve the Region's biota in perpetuity. ■■■

## ► 2.1 Regional Greenlands System: A Sustainable Natural Environment Legacy

The policies of this section are designed to identify, protect, and enhance a linked Greenlands System as a permanent legacy for York Region. The Regional Greenlands System on Map 2, and the policies of Section 2.1 of this Plan, protect *key natural heritage features* and *key hydrologic features* and the adjacent lands necessary to maintain these features in a linked system. York Region's Greenlands are connected to a larger landscape system that extends across the Greater Toronto and Hamilton Area, Ontario and North America.

The original Regional Greenlands System was established in 1994, and there have been a number of successes in identifying, protecting and securing elements of the System through the Regional Greening Strategy partnerships and programs. The Province's Oak Ridges Moraine Plan, Greenbelt Plan, and Lake Simcoe Protection Plan have expanded the System. These policy areas cover 69 per cent of York Region's land area, and have provided limits to growth and permanent protection for a number of significant natural areas. The focus of this Plan is on connecting and enhancing the Regional Greenlands System through continued partnerships and investment.

The Region's Greenlands System policies take a natural heritage system approach to preserving natural heritage features. This approach reflects current practice in conservation ecology and is supported by the Provincial Policy Statement. The Regional Greenlands System policies preserve and enhance natural features within a connected natural heritage system.

The primary function and vision of the Regional Greenlands System, and the policies of Section 2.1 of this Plan, is the protection of natural heritage features in a system of cores connected by corridors and linkages. The Regional Greenlands System also provides opportunities for passive recreation in a future Regional Trails System, such as hiking and nature appreciation. Urban uses and infrastructure projects should contribute ecological gains to greenlands systems through enhancement and restoration, and the strategic creation of natural habitat.

The Regional Greening Strategy implements the vision for the System. The continued successful implementation of this vision lies in creating new and nurturing existing partnerships, and seizing every opportunity to invest in enhancing the Greenlands System.

► **Objective: To identify, protect and enhance the Regional Greenlands System and its functions to ensure a healthy system rich in native biodiversity.**

### It is the policy of Council:

**2.1.1** To protect and enhance the Regional Greenlands System and its functions shown on Map 2 and to control new *development* and *site alteration* within the vicinity of the System in accordance with the policies of this Plan.

**2.1.2** That the Regional Greenlands System consists of cores, corridors, and linkages. These include the Oak Ridges Moraine Conservation Plan Natural Core Area and Natural Linkage Area designations, the Natural Heritage System within the Protected Countryside of the Greenbelt Plan, *key natural heritage features*, *key hydrologic features* and functions, and the lands necessary to maintain these features within a system.

**2.1.3** That the Regional Greenlands System includes regional linkages and will be the focus of enhancement and land securement initiatives. The Greenlands System Vision identified on Map 2 of this Plan is intended to conceptually identify, with broad arrows, the general location of corridors within and beyond the Region that will perform major linkage functions on a Regional scale and will be further assessed as part of ongoing planning initiatives.

**2.1.4** That local official plans shall include policies and mapping to establish and protect greenlands systems from *development* and *site alteration*. These systems shall incorporate, complement and build on the Regional Greenlands System, and include the identification of enhancement areas and linkages.

**2.1.5** That in the Urban Area and Towns and Villages, the Regional Greenlands System shall be identified more specifically in local official plans and secondary plans, and integrated into community design. These plans shall contain policies and detail initiatives that encourage remedial works and enhancement opportunities within the Regional Greenlands System.

**2.1.6** That Figure 3 of this Plan illustrates the overall greenlands system within the Region. This includes the Regional Greenlands System as shown on Map 2 and local greenlands systems from local official plans approved after the date of approval of this Plan. Figure 3 will be modified periodically to include newly approved or updated local greenlands systems.

**2.1.7** That the boundaries and the extent of the Regional Greenlands System on Map 2 outside of the Oak Ridges Moraine Conservation Plan Area and the Greenbelt Plan Area are approximate. Refinements to the boundaries of the Regional Greenlands System may occur through approved planning applications supported by appropriate technical studies including Subwatershed studies, master environmental servicing plans or *environmental impact studies*. These refinements will be incorporated into this Plan through periodic updates by the Region and will not require an amendment to this Plan.

**2.1.8** That enhancements to greenlands systems shall be the responsibility of all stakeholders and may include Regional and local greening initiatives, public and private sector partnerships, infrastructure projects and urban development to achieve ecological gains for the systems.

*Ecological gain means achieving an ecological benefit or improvement in the Regional Greenlands System. This could include improvement in the ecological services or functional capacities, providing trails and passive recreational amenities, or enhancing a degraded part of the System and providing linkages.* ■■■



The Regional Greenlands System has been assembled with data from the Province, the Toronto and Region Conservation Authority and Lake Simcoe Region Conservation Authority, and local municipal natural heritage studies.

The Regional Greenlands System is composed of cores, corridors, and linkages. Core areas have the highest concentration of significant natural features on the landscape including significant woodlands and wetlands, Life Science Areas of Natural and Scientific Interest, and Environmentally Significant Areas. Corridors include existing significant valleylands, and watercourses. Linkages connect core areas, and will be enhanced through restoration. ■■■

### It is the policy of Council:

**2.1.9** That *development* and *site alteration* be prohibited within the Regional Greenlands System and that *development* and *site alteration* applications within 120 metres of the Regional Greenlands System shall be accompanied by an *environmental impact study*. The requirement for, content and scope of the study will be determined through the pre-consultation meeting and a terms of reference shall be submitted to the approval authority early in the application process. The *environmental impact study* shall also address any requirements of the local municipality. Within the Oak Ridges Moraine, the Greenbelt and the *Lake Simcoe watershed*, *environmental impact studies* shall meet the requirements of those Plans.

**2.1.10** That notwithstanding policy 2.1.9, within the Regional Greenlands System, the following uses may be permitted subject to meeting the requirements of applicable Provincial Plans:

- a. stormwater management systems/facilities, and passive recreational uses, such as non-motorized trails and community gardens in accordance with an approved *environmental impact study* which demonstrates that they can be constructed without negative impact, and a Greenlands System Plan, as required in policy 2.1.11 of this Plan;
- b. legally existing land uses, that conform with in-force local official plans, zoning by-laws and *Ministerial Zoning Orders*, at the time this Plan is approved, may be permitted to continue to the extent provided for in local official plans, zoning by-laws and *Ministerial Zoning Orders*;
- c. the full range of existing and new *agricultural, agricultural-related* and *secondary agricultural uses* and *normal farm practices* is permitted;
- d. new buildings or structures for *agriculture, agricultural-related* and *secondary agricultural uses* subject to Section 2.2 of this Plan; and,
- e. new infrastructure required to service the community including water and wastewater systems, and streets if:
  - i. no other reasonable alternative location exists and if an approved *environmental impact study* demonstrates that it can be constructed without negative impact, and shall be subject to the policies of the Greenbelt Plan, where applicable; or,
  - ii. authorized through an *Environmental Assessment*.



### Regional Greenlands System ecological services include:

- Climate Regulation
- Soil Retention
- Habitat for Flora and Fauna
- Recreation
- Water Management
- Nutrient Cycling
- Genetic Resources
- Food Production

### It is the policy of Council:

**2.1.11** To require a Greenlands System Plan as a component of secondary plans that is consistent with policy 5.6.14 of this Plan.

**2.1.12** That infrastructure design and construction be sensitive to the features and functions of the greenlands system, and include context sensitive design and innovative technologies to minimize impacts and enhance the system. Infrastructure within the system should avoid *key natural heritage features* and *key hydrologic features* where possible and shall be subject to the policies of applicable Provincial Plans.

**2.1.13** That the planning, design and construction of infrastructure projects within the Regional Greenlands System shall enhance the Regional Greenlands System, including providing passive recreational amenities and environmental restoration where appropriate.

**2.1.14** To undertake land securement, with partners, focused primarily within the Regional Greenlands System. Land securement can include conservation easements, donations, or land purchases, and education and stewardship promotion.

**2.1.15** That where lands within the Regional Greenlands System are held in private ownership, nothing in this Plan requires that these lands be free and available for public use. Similarly, York Region Council is not obligated to purchase lands identified as part of the Regional Greenlands System.

**2.1.16** To update the Regional Greening Strategy, including the land securement criteria, to ensure implementation complementary to the policies of this Plan.

**2.1.17** That land securement initiatives assist in implementing the Regional Greenlands System trails network.

**2.1.18** To work with local municipalities, conservation authorities and trail organizations on initiatives that contribute to, or complement, the creation of a Regional Greenlands System trails network.

**2.1.19** That, for the portions of the Region that are within the Oak Ridges Moraine, applications for *development* or *site alteration* will only be approved if they comply with the provisions of the Oak Ridges Moraine Conservation Plan. On the Oak Ridges Moraine the following land use designations and permitted uses apply:

- a. The Natural Core Area, as identified on Map 1, has a high concentration of *key natural heritage features*, *key hydrologic features*, and/or landform conservation areas and is critical to maintaining and improving the integrity of the Moraine as a whole. New permitted uses are very limited and may include conservation and resource management, low intensity recreation, or agriculture uses, as detailed in the Oak Ridges Moraine Conservation Plan; and,



- b. The Natural Linkage Area forms part of a corridor system that supports, or has the potential to support, the movement of plants and animals between the Natural Core Area, Natural Linkage Area, river valleys and stream corridors. Limited new uses may include those permitted in the Natural Core Area designation as well as mineral aggregate operations and wayside pits, as detailed in the Oak Ridges Moraine Conservation Plan.

**There are 32 recreational trails in York Region.**

*These include the: Oak Ridges Trail, Nokiidaa Trail, Sutton-Zephyr Rail Trail, Humber Trail, Rouge Park Trails Network and the Bartley Smith Greenway.*

*In addition, there are 120 km of Regional Forest Trails in 18 publicly owned Regional Forest Tracts across the Region.* ■■■

**It is the policy of Council:**

**2.1.20** To ensure that within the portions of the Regional Greenlands System that are identified as the Natural Heritage System of the Protected Countryside within the Greenbelt:

- a. the full range of existing and *new agricultural, agricultural-related and secondary agricultural uses* and *normal farm practices* is permitted;
- b. new buildings or structures for *agriculture, agricultural-related and secondary agricultural uses* are not subject to policy 2.1.20.c, but are subject to Section 2.2 of this Plan;
- c. new *development or site alteration* permitted by the Greenbelt Plan shall demonstrate that:
  - i. there will be no negative effects on key natural heritage features or key hydrologic features or their functions;
  - ii. connectivity between *key natural heritage features* and *key hydrologic features* is maintained or where possible, enhanced for the movement of native plants and animals across the landscape;
  - iii. the removal of other natural features not identified as key natural heritage features and key hydrologic features should be avoided. Such features should be incorporated into the planning and design of the proposed use wherever possible; and,
  - iv. the disturbed area of any site does not exceed 25 per cent, and the impervious surface does not exceed 10 per cent, of the total developable area, except where otherwise permitted within the Greenbelt Plan. With respect to golf courses, the disturbed area shall not exceed 40per cent of the site.



- d. where permitted non-agricultural uses are proposed within the Natural Heritage System of the Protected Countryside, applicants shall demonstrate that:
  - i. at least 30 per cent of the total developable area of the site will remain or be returned to natural self-sustaining vegetation;
  - ii. connectivity between *key natural heritage features* or *key hydrologic features* located within 240 metres of each other is maintained or enhanced; and,
  - iii. buildings or structures do not occupy more than 25 per cent of the total developable area and are planned to optimize the compatibility of the project with the natural setting.

### York Region's Greening Strategy

The Regional Greening Strategy has had a number of successes between 2001 and 2008 including:

- Over 750,000 trees and shrubs planted with annual planting numbers ranging from 50,000 to 100,000 trees and shrubs
- Environmental education provided to over 10,000 participants, with approximately 1,000 participating every year
- Partnerships with over 50 government and non-government organizations, stakeholders and community groups
- Public programs and stewardship initiatives, which include support for private rural reforestation projects, urban private-yard tree planting, community engagement, and more ■■■



### It is the policy of Council:

**2.1.21** To prohibit batching/asphalt plants and new waste disposal sites within the Regional Greenlands System as identified on Map 2. Mineral aggregate operations or wayside pits or quarries are permitted within:

- a. those portions of the Regional Greenlands System designated as Natural Linkage Area and Countryside Area on Map 1, excluding lands identified as an *Environmentally Significant Area* or *Life Science Area of Natural and Scientific Interest* on Map 3 of this Plan, and are subject to all applicable provisions of the Oak Ridges Moraine Conservation Plan;
- b. the portions of the Regional Greenlands System within the Natural Heritage System of the Protected Countryside, and are subject to the applicable policies of the Greenbelt Plan; and,
- c. the portions of the Regional Greenlands System within the Protected Countryside but outside of the Natural Heritage System, subject to policy 2.2.4 of this Plan. Within this area, such uses are prohibited in:
  - i. provincially significant wetlands; and,
  - ii. the significant habitat of endangered or threatened species.



### Land Securement in York Region

Between 2001 and 2008, over 879 hectares of conservation lands have been protected in perpetuity.

Securement depends on successful partnerships. York Region's securement partners include:

- Local Municipalities
- York Environmental Stewardship
- Ontario Streams
- Nature Conservancy of Canada
- Oak Ridges Moraine Land Trust
- Toronto and Region Conservation Authority
- Lake Simcoe Region Conservation Authority
- The Province
- University of Toronto
- Oak Ridges Moraine Foundation
- Natural Resources Canada
- GTA Clean Air Committee



### It is the policy of Council:

**2.1.22** That outside of the Oak Ridges Moraine and Greenbelt, in the *Lake Simcoe watershed*, no new mineral aggregate operations, wayside pits, quarries, ancillary or accessory uses are permitted in *key natural heritage features* or *key hydrologic features* or related *vegetation protection zones*, except as provided in the Lake Simcoe Protection Plan.

**2.1.23** That, when local municipal official plans are brought into conformity with the Greenbelt Plan, the boundaries of the Natural Heritage System may be refined with greater precision, consistent with the provisions of the Greenbelt Plan and the system shown on Schedule 4 of the Greenbelt Plan. Such refinements may be reflected in this Plan through on-going consolidations without an amendment.

**2.1.24** To examine the feasibility of undertaking studies complementary to the Regional Greenlands System, such as wildlife and terrestrial linkage plans.

**2.1.25** To work with conservation authorities, local municipalities and the Province in establishing, maintaining and improving a database on the Regional Greenlands System.

**2.1.26** To work with municipal partners and stakeholders in implementing and monitoring the Rouge North Management Plan.

## ► 2.2 Natural Features: Components of the Greenlands System

*Key natural heritage features* and *key hydrologic features* are the building blocks of York Region's natural systems. Many of these features are cores and corridors and can function as potential linkages.

*Key natural heritage features* and *key hydrologic features* within York Region are subject to four policy regimes: the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan, the Lake Simcoe Protection Plan and the Provincial Policy Statement. The four policy regimes contain minor differences in terminology. For consistency in terminology, natural features within York Region are identified as "*key natural heritage features*" and "*key hydrologic features*."



*Key natural heritage features* and *key hydrologic features* can exist within the Regional Greenlands System or outside of the System. Key features within the System are subject to the policies in Section 2.1 and 2.2. Key features outside of the System shall be protected subject to the policies of Section 2.2.

The following sections contain specific requirements for *key natural heritage features* and *key hydrologic features* throughout the Region, including those within the plan areas of the Oak Ridges Moraine, Greenbelt and *Lake Simcoe watershed*.

### **Key Natural Heritage Features and Key Hydrologic Features**

Policies of this section identify the *key natural heritage features* and *key hydrologic features* within York Region, and provide general policy requirements for all features. More specific feature policies can be found in the sections following.

**Objective:** To ensure that *key natural heritage features* and *key hydrologic features* and functions are protected and enhanced where possible.

**It is the policy of Council:**

**2.2.1** That *key natural heritage features* and *key hydrologic features* within York Region include:

- a. *significant habitat of endangered and threatened species;*
- b. *fish habitat;*
- c. *wetlands;*
- d. *Life Science Areas and Earth Science Areas of Natural and Scientific Interest;*
- e. *Environmentally Significant Areas;*
- f. *significant valleylands;*
- g. *significant woodlands;*
- h. *significant wildlife habitat;*
- i. *sand barrens, savannahs and tallgrass prairies;*
- j. *lakes and their littoral zones;*
- k. *permanent and intermittent streams;*
- l. *kettle lakes;*
- m. *seepage areas and springs deemed vulnerable or sensitive surface water features; and,*
- n. *Lake Simcoe Shoreline.*

**2.2.2** That *key natural heritage features* and *key hydrologic features* in policies 2.2.1.c through 2.2.1.e, and 2.2.1.l above, are shown on Maps 3 and 4 of this Plan. The addition or deletion of features on Maps 3 and 4 shall be updated periodically through amendments to this Plan. The remaining *key natural heritage features* and *key hydrologic features* in policy 2.2.1 shall be identified in accordance with criteria contained within this Plan or, where Regional criteria are not provided, using procedures established by the Province, where applicable.



**2.2.3** That *key natural heritage features* and *key hydrologic features* shall be precisely delineated on a site-by-site basis using procedures established by the Province, where applicable. Such delineation shall occur through the approval of *Planning Act* applications supported by appropriate technical studies such as master environmental servicing plans, *environmental impact studies*, natural heritage or hydrological evaluations. Where such delineation refines boundaries shown on Maps within this Plan, refinements to these Maps can occur without an amendment to this Plan.

**2.2.4** To prohibit *development* and *site alteration* within *key natural heritage features*, *key hydrologic features*, and *adjacent lands*, unless:

- a. it is demonstrated through a natural heritage evaluation, hydrological evaluation, or *environmental impact study* that the *development* or *site alteration* will not result in a negative impact on the natural feature or its ecological functions; or,
- b. authorized through an *Environmental Assessment*.

**2.2.5** That an application for *development* and *site alteration* within 120 metres of a *key natural heritage feature* or *key hydrological feature* shall be accompanied by an *environmental impact study*. The requirement for, content and scope of the study will be determined through the pre-consultation meeting and a terms of reference shall be submitted to the approval authority early in the application process. The *environmental impact study* shall also address any requirements of the local municipality. Within the Oak Ridges Moraine, the Greenbelt and the *Lake Simcoe watershed*, *environmental impact studies* and natural heritage and/or hydrologic evaluations shall meet the requirements of the applicable Provincial Plans.

**2.2.6** That passive recreational uses, such as trails, may be permitted within *key natural heritage features* and *key hydrologic features* and their associated vegetation protection zones subject to the requirements of policy 2.2.4 of this Plan and, if applicable, the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan, and the Lake Simcoe Protection Plan.

**2.2.7** To prohibit removal, in whole or in part, of a *key natural heritage feature* or a *key hydrologic feature* by unauthorized *development* or *site alteration*. Areas where an unauthorized removal has occurred shall continue to be subject to the policies of this Plan as if the feature was still in place. Impacted areas shall be restored.

**2.2.8** That notwithstanding policy 2.2.4 of this Plan *development* and *site alteration* is not permitted within *fish habitat* except in accordance with federal and provincial requirements.

**2.2.9** To require local municipalities to identify *key natural heritage features* and *key hydrologic features* in local official plans and zoning by-laws; and to provide appropriate policies for their protection, including: requirements for *environmental impact studies* and *vegetation protection zones*, and the definition of permitted uses.

**2.2.10** That where a *woodland*, *wetland*, or *Life Science Area of Natural and Scientific Interest* identified for protection is located both within and outside the boundary of the Oak Ridges Moraine, the *Lake Simcoe watershed*, or the Natural Heritage System of the Protected Countryside in the Greenbelt, and more than 50 per cent of the feature is located within that boundary, the *vegetation protection zone* that is most protective of

the feature shall generally apply to the portion outside of the Provincial Plan area unless an *environmental impact study* demonstrates that a lesser buffer is appropriate. The *vegetation protection zone* outside of the Provincial Plan area shall not be less than that required by Section 2.2 of this Plan.

**2.2.11** To co-operate with conservation authorities, the Province and local municipalities in order to further define and better understand *key natural heritage features*, *key hydrologic features* and their functions, and to promote improved stewardship and protection strategies.

**2.2.12** To encourage private and public landowners with lands containing *key natural heritage features* and *key hydrologic features* to manage the lands in a manner that conserves and enhances the features in accordance with the policies of this Plan.

### Oak Ridges Moraine, Greenbelt and Lake Simcoe Watershed Features

The Province has established specific policies for the protection of *key natural heritage features* and *key hydrologic features* in the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan, and the Lake Simcoe Protection Plan.

A Natural Heritage System has been identified for the Protected Countryside of the Greenbelt Plan. *Key natural heritage features* within the Protected Countryside but outside of the Greenbelt Natural Heritage System are protected through the policies in the Provincial Policy Statement and the policies within this Plan. Only *key natural heritage features* within this Natural Heritage System are protected by the policies of the Greenbelt Plan. All *key hydrologic features* are protected by the policies of the Greenbelt Plan regardless of their inclusion within this Natural Heritage System.

This section of this Plan addresses the protection requirements for these three Provincial Plans.





- **Objective:** To ensure that the *key natural heritage features and key hydrologic features on the Oak Ridges Moraine, Greenbelt and the Lake Simcoe Watershed are protected in accordance with Provincial Plans.*

**It is the policy of Council:**

**2.2.13** That for the purposes of policies 2.2.14 through 2.2.29 of this Plan, key natural heritage features and key hydrologic features are as defined in the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan and the Lake Simcoe Protection Plan, as applicable.

**2.2.14** That notwithstanding policy 2.2.4 of this Plan, *development or site alteration* is not permitted in key natural heritage features and key hydrologic features or associated *vegetation protection zone* on the Oak Ridges Moraine, in the Greenbelt, and in the *Lake Simcoe watershed*, except as provided in the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan and the Lake Simcoe Protection Plan.

**2.2.15** That on the Oak Ridges Moraine the *vegetation protection zone* shall be a minimum of 30 metres for *wetlands, seepages areas and springs, fish habitat, permanent streams, intermittent streams, significant valleylands, significant woodlands, sand barrens, savannahs and tallgrass prairies and kettle lakes.*

**2.2.16** That in the *Lake Simcoe watershed*, outside of existing settlement areas as defined by the Lake Simcoe Protection Plan, the *vegetation protection zone* shall be a minimum of 30 metres for *wetlands, significant woodlands, significant valleylands, permanent streams, intermittent streams, lakes other than Lake Simcoe and natural areas abutting Lake Simcoe.*

**2.2.17** That the minimum *vegetation protection zone* for the Lake Simcoe Shoreline within a shoreline built-up area is 30 metres from the shoreline, and for areas of Lake Simcoe Shoreline outside of existing settlement areas, as defined in the Lake Simcoe Protection Plan, and outside of shoreline built-up areas, shall be 100 metres from the shoreline.

**2.2.18** That within the Natural Heritage System of the Protected Countryside of the Greenbelt Plan, the *vegetation protection zone* shall be a minimum of 30 metres for *wetlands, seepage areas and springs, fish habitat, permanent and intermittent streams, lakes, and significant woodlands.*

**2.2.19** That significant alteration of the Lake Simcoe Shoreline, or the shore of a fresh water estuary of a stream connected to Lake Simcoe, is not permitted except as provided in the Lake Simcoe Protection Plan.

### **Oak Ridges Moraine**

*The Oak Ridges Moraine is one of Ontario's most significant landforms.*

*Located north of and parallel to Lake Ontario, the Moraine in York Region divides the watersheds draining south into Lake Ontario from those draining north into Lake Simcoe.*

*The Moraine shapes the present and future form and structure of the Greater Toronto Region. The Moraine's ecological and hydrological features and functions are critical to the Region's continuing health.* ■■■



**It is the policy of Council:**

**2.2.20** That an application for *development* or *site alteration* in the *Lake Simcoe watershed* that is within 120 metres of a key natural heritage feature, a key hydrologic feature or the Lake Simcoe Shoreline outside of existing settlement areas as defined by the Lake Simcoe Protection Plan, shall provide for the establishment and maintenance of natural self-sustaining vegetation to the extent and width of the associated *vegetation protection zone* required by the policies of the Lake Simcoe Protection Plan, except in relation to uses and structures in the vegetation protection zone that are permitted by the policies of Chapter 6 of the Lake Simcoe Protection Plan.

*For the purposes of applying policies 2.2.13 through 2.2.29 of this Plan, the following identifies which features are considered key natural heritage features, or key hydrologic features in the Lake Simcoe Protection Plan (LSPP), the Oak Ridges Moraine Conservation Plan (ORMCP) and the Greenbelt Plan.*

Feature	LSPP	ORMCP	Greenbelt Plan
Significant habitat of endangered and threatened species	◇	◇ + rare (which includes Special Concern)	◇ Special Concern
Fish habitat	◇	◇	
Wetlands	◇	◇	◇
Life Science Areas of Natural and Scientific Interest	◇	◇	
Significant valleylands	◇	◇	◇
Significant woodlands	◇	◇	◇
Significant wildlife habitat	◇	◇	
Sand barrens, savannahs and tallgrass prairies	◇	◇	◇
Lakes and their littoral zones	◇	◇	◇
Alvars		◇	
Permanent and intermittent stream	◇	◇	◇
Kettle lakes	◇		
Seepage areas and springs	◇	◇	
Lake Simcoe Shoreline	◇		





**It is the policy of Council:**

**2.2.21** That outside existing settlement areas as defined by the Lake Simcoe Protection Plan, a proposal for *development* or *site alteration* within 240 metres of the Lake Simcoe Shoreline must demonstrate that it will maintain, enhance or restore functional wildlife movement corridors between key natural heritage features or key hydrologic features.

**2.2.22** That within the *Lake Simcoe watershed*, an application for *development* or *site alteration* within settlement and rural settlement areas, as defined by the Lake Simcoe Protection Plan, where applicable, shall:

- a. increase or improve *fish habitat* in streams, lakes and *wetlands*, and any adjacent riparian areas;
- b. include landscaping and habitat restoration that increases the ability of native plants and animals to use valleylands or riparian areas as wildlife habitat and movement corridors;
- c. seek to avoid, minimize and/or mitigate impacts associated with the quality and quantity of urban run-off into receiving streams, lakes and *wetlands*; and,
- d. establish or increase the extent and width of a self-sustaining *vegetation protection zone* adjacent to Lake Simcoe to a minimum of 30 metres where feasible.

**2.2.23** That refinements to the extent or presence of *key natural heritage features* and *key hydrologic features* resulting from site-specific studies conducted in accordance with the requirements in the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan, the Lake Simcoe Protection Plan and updated information from the Province or the appropriate conservation authority, will not require an amendment to this Plan.

However, where there is a boundary refinement to a *wetland*, *Life Science Area of Natural and Scientific Interest*, *Earth Science Area of Natural or Scientific Interest*, or significant habitat of *endangered or threatened species*, confirmation will be required from the Province prior to any *development* or *site alteration* occurring in these areas. In regard to changes to *Environmentally Significant Areas*, approval will be required from the appropriate conservation authority.

**2.2.24** That *Environmentally Significant Areas* on the Oak Ridges Moraine or within the Natural Heritage System of the Protected Countryside of the Greenbelt Plan, which have been identified by a conservation authority, are also considered to be *key natural heritage features*, subject to the same requirements for protection and study as those identified in the Oak Ridges Moraine Conservation Plan and Greenbelt Plan for *Life Science Areas of Natural and Scientific Interest*.

**Existing Settlement Area – Lake Simcoe Protection Plan**

*Existing Settlement Areas subject to the Lake Simcoe Protection Plan are defined by the community plan boundaries that existed June 2, 2009 for the following communities: Keswick, Sutton, Pefferlaw, Holland Landing, Sharon, Queensville, Aurora and Newmarket.*

*Lake Simcoe Shoreline Settlement Areas within Georgina include: Sutton, Keswick, Pefferlaw, Hamlet of Virginia, Serviced Lakeshore Residential, Moores Beach, McRae Beach and Duclos Point.* ■■■



### It is the policy of Council:

**2.2.25** That within the Oak Ridges Moraine Conservation Plan and the Greenbelt Plan Areas, no new *agricultural uses, agriculture-related uses, or accessory uses* shall be permitted within key natural heritage features and key hydrologic features and their associated minimum *vegetation protection zones* if the lands were not being used for that use on November 15, 2001, and February 28, 2005 respectively.

**2.2.26** That in the Urban Area and Towns and Villages, as designated on April 22, 2002, where secondary plans, official plans, zoning by-laws, or Master Environmental Servicing or Functional Servicing Plans are approved based on environmental studies that have identified minimum *vegetation protective zones* that are different from those identified in the Oak Ridges Moraine Conservation Plan, then the standards established within those plans shall prevail.

**2.2.27** That in the Urban Area, Towns and Villages, and Hamlets designated on February 28, 2005, where secondary plans, official plans, zoning by-laws, or Master Environmental Servicing or Functional Servicing Plans are approved based on environmental studies that have identified minimum *vegetation protective zones* that are different from those identified in the Greenbelt Plan, then the standards established within those plans shall prevail.

**2.2.28** That every application for *development or site alteration* on the Oak Ridges Moraine shall identify planning, design and construction practices that ensure that no buildings or other *site alterations* impede the movement of plants and animals between key natural heritage features, key hydrologic features and *adjacent lands* within the Natural Core Area and the Natural Linkage Area as identified on Map 1.

**2.2.29** That the technical papers associated with the Oak Ridges Moraine Conservation Plan, Lake Simcoe Protection Plan and the Greenbelt Plan be consulted to provide clarification in implementing the policies related to key natural heritage features and key hydrologic features within the Provincial Plans.

### Species at Risk and their Habitats

Habitats of endangered, threatened and special concern species contain species that have been listed by the Province as occurring in significantly low population numbers, restricted geographic areas, or are threatened by human activities such that their continued presence in Ontario is a matter of conservation concern. The actual species falling into categories of threatened or endangered vary from region to region throughout the Province, and can change over time.

Endangered, threatened and special concern species are listed in regulations under the Endangered Species Act. Current lists of endangered, threatened and species of special concern are designated by the Committee on the Status of Species at Risk in Ontario and are placed on the Species at Risk in Ontario List.

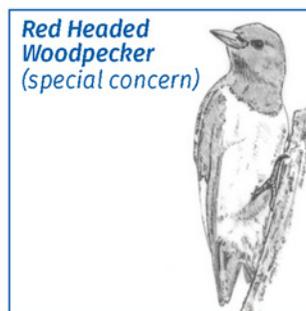
- **Objective:** To protect endangered, threatened and special concern species and their habitats to ensure that biological diversity within the Region is not diminished.

**It is the policy of Council:**

- 2.2.30** That notwithstanding policy 2.2.4 of this Plan, *development and site alteration* is not permitted within *significant habitat of endangered and threatened species*.
- 2.2.31** That notwithstanding policy 2.2.4 of this Plan, within the Oak Ridges Moraine *development or site alteration* is not permitted within the *significant habitat of special concern species or Provincially rare species*.
- 2.2.32** That notwithstanding policy 2.2.4 of this Plan, within the Natural Heritage System of the Protected Countryside of the Greenbelt, *development or site alteration* is not permitted within *significant habitat of special concern species*.
- 2.2.33** To encourage private land stewardship which protects and enhances the habitat of *species at risk*.
- 2.2.34** To work with the Province, as appropriate, on the preparation of recovery strategies or management plans for *species at risk* in York Region.

**Species at Risk in Ontario List Categories**

- *Extirpated* - a native species that no longer exists in the wild in Ontario, but still exists elsewhere
- *Endangered* - a native species facing extinction or extirpation
- *Threatened* - a native species at risk of becoming endangered in Ontario
- *Special Concern* - a native species that is sensitive to human activities or natural events which may cause it to become endangered or threatened

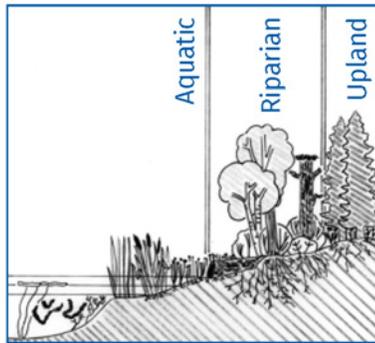


**Wetlands**

Wetlands are essential natural elements of the Regional ecosystem, providing environmental, economic and social benefits. These lands, which are seasonally or permanently covered by shallow water or where the water table is close to or at the surface, are characterized by hydric soils and hydrophytic or water-tolerant plants. Among other functions, wetlands control and store surface water to assist in flood control and groundwater recharge. Wetlands also act as sediment traps to improve water quality and act as habitat for a wide variety of plant and animal species.

The Province has enacted a policy statement under the Planning Act that prohibits development in provincially significant wetlands. Other wetlands that have not been identified as provincially significant, but which have been formally evaluated by the Ministry of Natural Resources, also exist within the Region. Map 4 shows the general location of all evaluated wetlands, as well as identified wetlands within the Oak Ridges Moraine, Greenbelt and *Lake Simcoe watershed*. More detailed information, as well as more recent wetland evaluations are available from the Province.

### Typical Wetland



Other environmental approvals may be required in conjunction with **Planning Act** approvals, or if works are proposed prior to receipt of Planning approvals. Examples include:

- Forest Conservation By-law Permits (Regional)
- Tree By-law Permits (Local Municipal)
- Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Permits (Conservation Authority)
- Site Alteration or Fill Permits (Local Municipal) ■ ■ ■

**Objective:** To ensure no loss of wetland function or area in the Region.

**It is the policy of Council:**

**2.2.35** That notwithstanding policy 2.2.4 of this Plan, *development* and *site alteration* is prohibited within evaluated wetlands and all identified wetlands within the *Lake Simcoe watershed*, on the Oak Ridges Moraine and within the Greenbelt Natural Heritage System, as shown on Map 4 of this Plan. Due to the scale of the mapping in this Plan, smaller wetlands may not be visible. More detailed mapping is available from York Region.

**2.2.36** That a *vegetation protection zone* be required for wetlands identified on Map 4 of this Plan. The width of the *vegetation protection zone* shall be determined through an *environmental impact study*, but shall be no less than 30 metres from any part of the feature for provincially significant and Provincial Plan Area wetlands as identified on Map 4 of this Plan, and generally no less than 15 metres from other evaluated wetlands as identified on Map 4 of this Plan.

**2.2.37** To permit *development* and *site alteration* within 120 metres of *wetlands* identified on Map 4, but not within the *vegetation protection zone*, subject to an approved *environmental impact study* that demonstrates no negative impacts to the wetland feature or its ecological functions. Notwithstanding the aforementioned, within the *vegetation protection zone*, *development* and *site alteration* may be permitted in accordance with policies 2.1.10.a and 2.1.10.e of this Plan.

**2.2.38** To encourage private landowners to work with local municipalities and public agencies to protect *wetlands*, create new *wetlands* and restore existing *wetlands*, where appropriate.



**2.2.39** That applications for *development* and *site alteration* within 120 metres of *wetlands* not shown on Map 4 of this Plan shall be accompanied by an *environmental impact study* that determines their importance, functions and means of protection and/or maintenance of function, as appropriate, to the satisfaction of the approval authority.

**2.2.40** That Provincial boundary refinements or reclassification of *wetlands* as shown on Map 4 will not require an amendment to this Plan.

**2.2.41** That where new *wetlands* are evaluated and/or approved by the Province, the Region may amend this Plan to include updated information.

**2.2.42** That where newly identified *wetlands* are determined to be provincially significant, they will be subject to policies 2.2.35, 2.2.36 and 2.2.37 of this Plan, where they are not provincially significant they will be subject to policy 2.2.39 of this Plan. Where newly identified *wetlands* are within the Oak Ridges Moraine, the Greenbelt, or the *Lake Simcoe watershed*, they will be subject to the requirements of those plans.

## Woodlands

Woodlands are significant components of York Region's natural systems and provide a variety of important environmental, social and economic benefits. These benefits include clean air and water, erosion prevention, water retention, provision of wildlife habitat, recreation and the sustainable harvest of woodland products.

At the time of settlement by Europeans, woodlands covered 90per cent of the Region. Woodland cover has dwindled to 22.5per cent today. Because much of the remaining woodland cover is fragmented and lacking in interior habitat areas, maintaining and enhancing *significant woodlands* and integrating them into the Region's communities is extremely important.

York Region has a Forest Conservation By-law that restricts and regulates the removal of trees on private lands through the issuance of permits. There are many tools available to private landowners to assist in the sustainable management of woodlands, including the Managed Forest Tax Incentive Program and the Ontario Stewardship Program.

York Region manages 21 Regional Forest tracts, totalling over 2,200 hectares. These areas undergo silvicultural management (tree planting, tending and harvesting activities) and hazard tree management, and are important for educational initiatives. The York Regional Forest is the first publicly owned forest in Canada to be certified by the Forest Stewardship Council. This third party audit process ensures that the Region is maintaining the forest in a sustainable manner.

The policies of this section of this Plan are supported by the York Region Significant Woodlands Study. This section provides policies for the identification, management and improvement of woodlands to ensure that the Region will maintain or increase the area of woodlands, have woodlands in the future that support greater biodiversity, and that the Region will continue to recognize the importance of the urban forest.

► **Objective: To protect *significant woodlands* and their biodiversity and encourage reforestation to provide environmental, social and economic benefits for the residents of York Region.**

## It is the policy of Council:

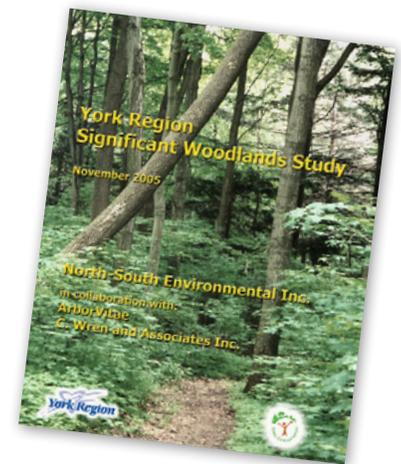
**2.2.43** To increase woodland cover to a minimum of 25 per cent of the Region's total land area.

### York Region Continues to Work Towards 25 per cent Woodland Cover

Since 2001, York Region has been working to increase forest cover through initiatives including:

- the York Natural Planting Partnership, delivered by the conservation authorities, which provides subsidized tree planting on private lands
- support of community naturalization initiatives on public and private land
- large-scale reforestation of public lands (e.g., Rouge Park)
- acquiring strategic lands for reforestation

Reforestation of existing public lands will help achieve a portion of the Region's woodland cover target. Private land reforestation and stewardship are essential to achieving this target. ■■■



## It is the policy of Council:

**2.2.44** That notwithstanding policy 2.2.4 of this Plan, development and site alteration is prohibited within *significant woodlands* and their associated *vegetation protection zone* except as provided for elsewhere within this Plan.

**2.2.45** That *significant woodlands* be verified on a site-by-site basis and shall include those *woodlands* meeting one of the following criteria:

- a. is 0.5 hectares or larger and:
  - i. directly supports *globally or provincially rare plants, animals or communities* as assigned by the Natural Heritage Information Centre; or,
  - ii. directly supports *threatened or endangered species*, with the exception of specimens deemed not requiring protection by the Province (e.g. as is sometimes the case with Butternut); or,
  - iii. is within 30 metres of a provincially significant *wetland or wetland* as identified on Map 4, *waterbody, permanent stream or intermittent stream*;
- b. is 2 hectares or larger and:
  - i. is located outside of the Urban Area and is within 100 metres of a *Life Science Area of Natural and Scientific Interest*, a provincially significant *wetland or wetland* as identified on Map 4, *significant valleyland, Environmentally Significant Area, or fish habitat*; or,
  - ii. occurs within the Regional Greenlands System;
- c. is south of the Oak Ridges Moraine and is 4 hectares or larger in size;
- d. is north of the Oak Ridges Moraine and is 10 hectares or larger in size;



- e. on the Oak Ridges Moraine the *woodland* will be evaluated for significance based on the requirements of the Oak Ridges Moraine Conservation Plan and associated technical papers; or,
- f. on lands in the Greenbelt Natural Heritage System, the *woodland* will be evaluated for significance based on the requirements of the Greenbelt Plan and associated technical papers; or,
- g. on lands in the *Lake Simcoe watershed*, outside of the Greenbelt, the Oak Ridges Moraine Conservation Plan, and existing settlement areas, the *woodland* will be evaluated for significance based on the requirements of the Lake Simcoe Protection Plan and associated technical papers.

### Evaluation of “Directly Supports”

When determining whether a *woodland* directly supports a species, the following may be considered:

- Is the species dependent on the *woodland* for a portion of its life cycle?
- Does the species occurrence depend on the *woodland*?
- Will the species occurrence persist in the context of a change in the surrounding land use?
- Does habitat for the species exist within the *woodland*?

### It is the policy of Council:

**2.2.46** That Map 5 identifies *woodlands* in York Region based on best available information and data. The determination of *woodland* significance will rely on site-specific studies per policies 2.2.45 and 2.2.48 of this Plan. Due to the scale of the mapping in this Plan, not all *woodlands* are visible. More detailed mapping is available from York Region.

**2.2.47** That a *vegetation protection zone* be required for *significant woodlands*. The width of the *vegetation protection zone* shall be determined through an *environmental impact study* but shall be no less than 30 metres from the dripline of *significant woodlands* within the Oak Ridges Moraine, the Greenbelt and the *Lake Simcoe watershed* as detailed in policies 2.2.15, 2.2.16 and 2.2.18 of this Plan, and no less than 10 metres from the dripline of *significant woodlands* outside of those plan areas.

**2.2.48** That within the Urban Area or within the existing settlement areas as defined in the Lake Simcoe Protection Plan, and outside of the Oak Ridges Moraine Conservation Plan and Greenbelt Plan areas, a *woodland*, or portions thereof, which would be defined as *significant woodland* in accordance with policy 2.2.45 of this Plan, is not considered significant if all of the following are met:

- a. the *woodland* is located outside of the Regional Greenlands System as shown on Map 2 of this Plan;
- b. the *woodland* is located in an area strategic to the achievement of the community objectives of Section 5.2 and 5.6 of this Plan or is identified within an intensification area detailed in a local municipal intensification strategy, and is evaluated through an official plan amendment process, or other appropriate study;
- c. the *woodland* does not meet the criteria in policy 2.2.45.a of this Plan; and,



- d. the *woodland* is a *cultural* and *regenerating woodland* to the satisfaction of York Region, in consultation with the conservation authority and local municipality.

*Good Forestry Management is the proper implementation of woodland harvest, renewal and maintenance activities which are known to be appropriate for the forest and environmental conditions under which they are being applied. These practices minimize injury to significant ecosystems, important fish and wildlife habitat, soil and water quality and quantity, forest productivity and health, and the aesthetic and recreational values.* ■■■

### **It is the policy of Council:**

**2.2.49** That should policy 2.2.48 apply, *development* and *site alteration* may be permitted within all or part of the *woodland* if the *development* or *site alteration* does not affect the ability of the retained portion of the *woodland* to remain significant in accordance with the criteria in policy 2.2.45 of this Plan. A *woodland* compensation plan shall be required for removed *woodland* deemed not significant, that would otherwise have been significant in accordance with policy 2.2.45 of this Plan. The *woodland* compensation plan shall be prepared to the satisfaction of York Region in consultation with the conservation authority and the local municipality and shall demonstrate a net gain in woodland area.

### **Considerations for Developing a Woodland Compensation Plan (policy 2.2.49)**

1. *Achieve a net gain in woodland area through woodland restoration*
2. *Preference is for compensation to be located in proximity to removal area; the order of priority for locating compensation initiatives will be within development area, the subwatershed/local municipality, watershed, Region*
3. *Landscape ecology principles including size, patch shape, connectivity, edge to area ratio should be considered*
4. *Compensation sites may include:*
  - *Tableland linkages within a planned Natural Heritage System*
  - *Tableland enhancement areas within a planned Natural Heritage System*
  - *Expansions to existing woodlands (excluding buffers)*
  - *Rural land*
  - *Woodland additions adjacent to publicly owned woodlands*
5. *Mechanisms for implementation may include:*
  - *Conservation Easements on rural/agricultural land*
  - *Conveyance of land*
  - *Woodland compensation implementation plan and securities*
  - *Cash in lieu based on the cost to create a compensation woodland (including land)* ■■■

### **It is the policy of Council:**

**2.2.50** That local municipalities shall develop an Urban Forest Management Plan, together with York Region, that may include additional locally significant woodlands.



*i-Tree Eco (formerly known as the Urban Forest Effects Model or “UFORE”), is an evaluation tool that can be used in urban forest management to measure the type, value and extent of the economic and environmental benefits of the urban forest. Urban forests provide more than aesthetic values, they assist in increasing energy efficiency and pollution abatement. The data generated from the i-Tree Eco analysis is key to an urban forest management plan.* ■■■

**It is the policy of Council:**

**2.2.51** That York Regional Forests shall be sustainably managed in a manner that enhances their ecological, educational and recreational functions to ensure their health in perpetuity.

**2.2.52** To encourage and work with the Province and other stakeholders involved in woodlands management to maintain and enhance publicly and privately owned forested lands, and to encourage landowners through stewardship initiatives to use good forestry practices.

**Landform Conservation**

Significant landscapes exist throughout York Region, providing scenic views and vistas, and a sense of place. Such significant landscapes include many portions of the Oak Ridges Moraine, the former Lake Algonquin shoreline, major river valleys, Earth Science Areas of Natural and Scientific Interest and the Lake Simcoe shoreline.

Landform features help define the Regional character and play a vital role in surface and groundwater hydrology, biodiversity, and micro climate. The policies of this Plan encourage appropriate treatment of these areas during development and incorporate these features into the Regional Greenlands System.

► **Objective: To encourage and support the conservation of significant landscapes, views and vistas.**

**It is the policy of Council:**

**2.2.53** To prohibit *site alteration* prior to the approval of development applications, and to require local municipalities to adopt *site alteration* by-laws in conformity with the Municipal Act and the Lake Simcoe Protection Plan to prevent runoff, sedimentation, and the removal of topsoil or vegetation, and to control erosion.

**2.2.54** That landform conservation areas within the Oak Ridges Moraine are shown on Figure 1. Figure 1 is to be consulted whenever *development* or *site alteration* is proposed to determine whether the landform conservation policies of this Plan and the Oak Ridges Moraine Conservation Plan apply.

**2.2.55** That within the Oak Ridges Moraine, applications for *development* or *site alteration* in a landform conservation area shall be accompanied by the appropriate study as required by the Oak Ridges Moraine Conservation Plan. Planning, design and construction practices for any *development* or *site alteration* are required to satisfy the Oak Ridges Moraine Conservation Plan.



**2.2.56** To require local municipalities to incorporate the Oak Ridges Moraine landform conservation mapping and policies into local official plans in applicable areas. Policies in the local plans shall require that applications for *development* or *site alteration* in a landform conservation area identify planning, design and construction practices that will keep disturbance to landform character to a minimum, subject to the requirements established in the Oak Ridges Moraine Conservation Plan.

**2.2.57** That mineral aggregate operations are exempt from certain landform conservation requirements in accordance with the Oak Ridges Moraine Conservation Plan.

**2.2.58** That in considering *development* and *site alteration* applications in the Urban Area and Towns and Villages on the Oak Ridges Moraine, local municipalities shall consider the importance of adopting planning, design and construction practices that will keep disturbance of landform character to a minimum, so as to satisfy the requirements of the Oak Ridges Moraine Conservation Plan.

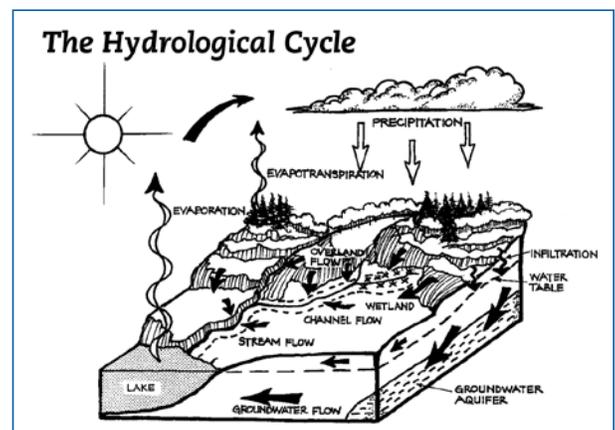
**2.2.59** That applications for *development* or *site alteration* in an *Earth Science Area of Natural and Scientific Interest* on the Oak Ridges Moraine as identified on Map 3, or within the related minimum area of influence, shall be accompanied by an earth science heritage evaluation that meets the requirements of the Oak Ridges Moraine Conservation Plan.

## ▶ 2.3 Water Systems

York Region's water systems and key hydrologic functions include underground aquifers as well as rivers, streams, ponds, wetlands and lakes, including Lake Simcoe. Although Lake Ontario is not located in York Region, rivers and drinking and wastewater systems connect the Region to the lake. These systems are part of the hydrological cycle and interact through rain, runoff, percolation and evaporation. These systems are not static, but are constantly evolving and changing elements of a broader ecosystem and can continue to be a sustainable, renewable resource for the Region if protected, conserved and enhanced.

Groundwater is important as a supply of drinking water, and provides significant quantities of cool water to the Region's streams and rivers as base flow. Water systems play a crucial role in ecological function and are also important for recreation, agriculture and industrial purposes.

River drainage basins, known as watersheds, provide an ecological basis for the protection of land and water resources. This Plan recognizes the watershed as the basic ecological unit upon which planning should be based. The Oak Ridges Moraine is the origin of headwaters for the watersheds in York Region, and is also a significant source of groundwater recharge and discharge.





Water balance must be managed to maintain the ecological integrity of *key hydrologic features* and hydrologic function. Changes in land use must take into account immediate impacts and cumulative changes to watersheds, and off-site impacts, such as increased stormwater runoff or water contamination.

Because water resources are part of a more complex system and are essential to ecosystem and human function, policies relating to water resources are also contained elsewhere in this Plan, specifically Chapters 5 and 7. These chapters collectively articulate the Region's objectives for water resources.

► **Objective: To maintain and enhance water system health to ensure water quality and quantity, and to maintain the natural hydrologic function of water systems.**

**It is the policy of Council:**

**2.3.1** To prepare a Regional water strategy for both piped services and surface and groundwater sources that will include long term protection and conservation strategies, enhancement guidelines and monitoring requirements for streams, lakes, wetlands, groundwater, kettle lakes, Lake Simcoe, and other natural aquatic systems.

*York Region's water strategies include the York Region Water and Wastewater Master Plan, watershed plans prepared with our partner conservation authorities, as well as groundwater and stream studies.*

*The York Region Water and Wastewater Master Plan's action areas address:*

- *the provision of safe and clean drinking water*
- *healthy watersheds*
- *respect for natural and cultural heritage*
- *the wise use of water*
- *community well-being*
- *full and equitable funding and value for money*
- *timely and integrated service delivery*
- *climate change and energy efficiency*
- *communications, consultation and engagement*
- *monitoring, performance measurement and adaptive management*

**It is the policy of Council:**

**2.3.2** That *development* and *site alteration* be designed with the goal of protecting, improving or restoring ground and surface water quality and quantity and biological and hydrological characteristics of *key hydrologic features*. Efforts to maintain these characteristics and functions shall be demonstrated through master environmental servicing plans, or other appropriate technical studies, which include strategies and techniques to address the goal.

**2.3.3** To maintain linkages and related functions among surface water features, groundwater features, hydrologic function and *key natural heritage features*.

**2.3.4** To implement Source Protection Plans as required by Provincial legislation, with the Province, local municipalities, and conservation authorities to protect the quality and quantity of Regional water supply from incompatible uses and sources of contamination.

**2.3.5** To amend mapping and policies to reflect new requirements, assessments and recommendations from the Assessment Reports, Source Protection Plans and Oak Ridges Moraine Conservation Plan by amendment to this Plan.



**2.3.6** That *significant groundwater recharge areas* are identified on Map 13.

**2.3.7** That in *significant groundwater recharge areas* development will maintain pre-development recharge rates to the fullest extent possible.

**2.3.8** An application for major development within *significant groundwater recharge areas* shall be accompanied by an *Infiltration Management Plan* that demonstrates pre-development recharge rates will be maintained for industrial, commercial, institutional, medium and high density residential development, as deemed necessary by the local municipality.

**2.3.9** That *highly vulnerable aquifers* are identified on Map 14.

**2.3.10** An application for *major development* within *highly vulnerable aquifers* (as shown on Map 14) involving the manufacturing, handling and/or storage of bulk fuel or chemicals (activities prescribed under the Clean Water Act), shall be accompanied by a *Contaminant Management Plan*, as deemed necessary by the local municipality.

**2.3.11** That in *wellhead protection areas, intake protection zones, significant groundwater recharge areas* and *highlight vulnerable aquifers* best management practices are encouraged for all development proposals that involve:

- a. manufacturing, handling, and/or storage of organic solvents and dense non-aqueous phase liquid (DNAPLs); and
- b. application, storage, and/or handling of road salt on private roadways, parking lots, and pedestrian walkways while recognizing that maintaining public safety is paramount.

**2.3.12** To continue the partnership with the Regions of Peel and Durham, the City of Toronto and the conservation authorities to study, analyze and monitor regional groundwater and surface water resources to ensure a unified approach to protecting and enhancing water quality and quantity.

### **The York, Peel, Durham, Toronto (YPDT) and Conservation Authorities Moraine Coalition (CAMC) Hydrogeology Program**

Established in 2001, the YPDT and CAMC program is focussed on compiling and managing groundwater resource information, including the long-term management of groundwater-related data, maps, reports and resource knowledge for the purposes of effective resource stewardship and management. The program builds, maintains and provides partner agencies with the regional geological and hydrogeological context for ongoing groundwater studies and management initiatives within the partnership area.

**The primary objectives of the program are to:**

- collect, analyse and maintain data;
- develop and coordinate consistent approaches to water management across political boundaries; and,
- liaise with federal and provincial governments to share data, promote an overall water management approach to upper levels of government, and to seek sources of funding. ■■■



**It is the policy of Council:**

**2.3.13** To continue monitoring the quantity and quality of groundwater and surface water systems in York Region, in co-operation with local municipalities and conservation authorities, in order to:

- a. assess the sustainability of current activities and land uses; and,
- b. identify those areas that are susceptible to, or currently experiencing, water quality and quantity problems.

**2.3.14** To protect, improve or restore aquatic and riparian habitats in co-operation with the Province and conservation authorities through the implementation of Fisheries Management Plans, watershed plans and other resource management plans.

**2.3.15** To require local municipalities to establish policies and programs to protect, improve or restore surface and groundwater systems.

**2.3.16** To work with the Province, local municipalities, conservation authorities and other relevant agencies within the Permit to Take Water process to ensure the conservation, protection and wise use and management of the water resources in the Region.

**2.3.17** To require the preparation of comprehensive master environmental servicing plans as part of secondary plans to protect, improve or restore water quality and quantity including hydrologic function of water systems. Such plans will incorporate best management practices with a goal that water balance and hydrologic functions will be maintained as much as possible. These plans will emphasize water conservation and may include water reuse and innovative technologies.

**2.3.18** To encourage agricultural land management practices that minimize the application of pesticides and nutrients.

### **Lake Simcoe Protection Plan**

The Province has released the Lake Simcoe Protection Act, 2008 and the Lake Simcoe Protection Plan to restore and protect the ecological health of the lake. The Lake Simcoe Plan is a watershed-based plan to improve the quality of the water in the lake, protect the watershed's natural heritage resources, and manage the effects of climate change and invasive species.

This Plan recognizes the importance of restoring and protecting the health of Lake Simcoe and includes relevant policies of the Lake Simcoe Protection Plan.

► **Objective: To protect and restore the ecological health of Lake Simcoe, consistent with the provisions of the Lake Simcoe Protection Plan.**

**It is the policy of Council:**

**2.3.19** To work with the Province, local municipalities, conservation authorities and other agencies to implement the Lake Simcoe Protection Plan.

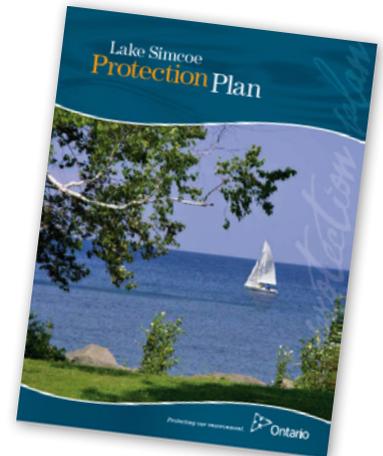


**2.3.20** To work with the Province, local municipalities, conservation authorities and other agencies to develop and support monitoring programs, identify emerging issues, support the adaptive management approach of the Lake Simcoe Protection Plan and to implement a phosphorus reduction strategy for the *Lake Simcoe watershed*.

**2.3.21** To amend this Plan as necessary to ensure consistency with the recommendations of Lake Simcoe subwatershed evaluations and shoreline management strategy.

*Lake Simcoe Protection Plan* policies are dispersed throughout this Plan, specifically within the following sections:

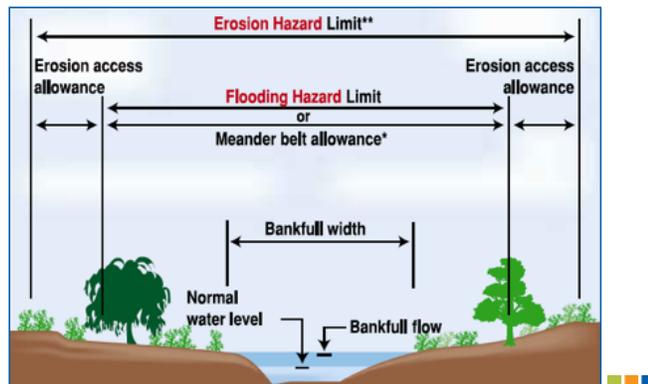
- 2.1 *Regional Greenlands System: A Sustainable Natural Environment Legacy*
- 2.2 *Natural Features: Components of the Greenlands System*
- 2.3 *Water Systems*
- 6.4 *Rural Area*
- 6.5 *Mineral Aggregate Resource Areas*
- 7.3 *Water and Wastewater Servicing*
- 8.3 *The Planning Process* ■■■



### Natural Hazards

Natural hazards such as flooding, erosion, unstable soils and slope failures pose a risk to human health and safety, as well as property. It is important to reduce the potential risks and costs associated with natural hazards by ensuring that development is directed away from these areas.

#### Hazard Plan Cross-Section





► **Objective: To minimize risks to human health and safety and property associated with natural hazards.**

**It is the policy of Council:**

**2.3.22** To direct *development* and *site alteration* away from *hazardous lands* and *hazardous sites*.

**2.3.23** To support conservation authorities in the management of floodplain areas and *Special Policy Areas*. The identification of a new *Special Policy Area* and any change or modification to the site-specific policies, designation or boundaries applying to an existing *Special Policy Area* shall be approved by the Province, prior to the approval authority issuing its approval.

**2.3.24** That *development* be planned and designed to minimize flooding and erosion impacts.

**2.3.25** That *development* and *site alteration* are generally prohibited within defined portions of the floodplain, subject to conservation authority regulations.

**Approved Floodplain Special Policy Areas in York Region**

- Woodbridge Special Policy Area
- Unionville Special Policy Area
- Lake Wilcox Special Policy Area
- Schomberg Special Policy Area

**It is the policy of Council:**

**2.3.26** To prohibit new lot creation in *hazardous lands* and *hazardous sites*.

**2.3.27** To require setbacks, buffers and/or access allowance from *hazardous lands* and *hazardous sites* based on a minimum buffer where defined by the local municipality in consultation with the conservation authority, or such distance as may be determined through technical studies or to conform to provincial regulations. Where *hazardous lands* and *hazardous sites* have been defined to include setbacks, buffers and/or access allowance, this Plan shall not require additional lands.

**2.3.28** That the dedication of *hazardous lands* and *hazardous sites* to public agencies through the development approvals process be encouraged. Where *hazardous lands* and *hazardous sites* are held in private ownership, nothing in this Plan requires that these lands be free and available for public use.

**2.3.29** To require local official plans and zoning by-laws to contain policies and/or mapping to:

- a. address floodplains, *hazardous lands*, *hazardous sites* and regulated lands;
- b. identify permitted uses and the requirement for setbacks or buffers;
- c. address land use within and adjacent to *hazardous lands* and *hazardous sites*; and,
- d. identify approved *Special Policy Areas* and include their associated site-specific policies related to development and redevelopment.



**2.3.30** To work with conservation authorities and local municipalities to update floodplain, *hazardous lands* and *hazardous sites* mapping.

**2.3.31** To work with the conservation authorities and local municipalities to identify remediation and mitigation opportunities for *hazardous lands* and *hazardous sites*.

**2.3.32** To work with the Province, local municipalities and conservation authorities to prepare for climate change impacts by ensuring public health and safety, infrastructure security, emergency services, and that evacuation routes are maintained during flood events.

**2.3.33** That emergency management plans be updated regularly and reflect disaster response best practices for severe weather events, including flooding.

**2.3.34** To work with local municipalities, conservation authorities and other partners to develop tools and strategies to address impacts on infrastructure and hazard land management resulting from the effects of climate change.

**2.3.35** To work with the Lake Simcoe Region Conservation Authority, local municipalities, and the agricultural industry within the Holland Marsh to ensure floodplain management for *development* and *site alterations*.

### Watershed Planning

Watershed plans emphasize the importance of managing both ground and surface water systems in a comprehensive way that support more sustainable land use planning decisions. This is particularly important in new and intensifying areas of growth. The Region works closely with the Toronto and Region Conservation Authority and the Lake Simcoe Region Conservation Authority in the preparation of watershed plans for York Region.

► **Objective: To protect and enhance water resources through the implementation of watershed plans.**

#### It is the policy of Council:

**2.3.36** To support the updating of watershed plans at appropriate intervals, and that the information from those plans be used to guide and inform activities of the Region and local municipalities

**2.3.37** To work in partnership with local municipalities, conservation authorities, adjacent municipalities and other agencies to co-ordinate watershed planning initiatives and implement watershed plan objectives that:

- a. protect, improve or restore river system function and linkages;
- b. achieve water quality and quantity objectives for the watershed;
- c. address the long term cumulative impact of *development* on the watershed through regional monitoring, reporting and adaptive management as necessary;
- d. protect, improve and restore *key natural heritage features, key hydrologic features* and their functions;
- e. provide guidelines for sustainable development, design and construction; and,
- f. provide retrofits of existing neighbourhoods to ensure better hydrologic function.



**2.3.38** To increase public awareness, foster stewardship and the understanding of watershed health and protection in partnership with local municipalities, conservation authorities and other stakeholders.

**2.3.39** That *major development* on the Oak Ridges Moraine shall conform with the applicable watershed plan.

### Stormwater Management

Stormwater is the runoff that occurs in urbanized areas, increasing downstream watercourse erosion, pollution and increased water temperatures. Stormwater can intensify flooding during storm events. Stormwater should be managed as a resource. The use of sustainable stormwater planning and practices will help ensure the continued health of the streams, rivers, lakes, fisheries and terrestrial habitats in our watersheds.

► **Objective: To ensure the careful management of stormwater through the use of innovative techniques.**

#### It is the policy of Council:

**2.3.40** To work in partnership with local municipalities, the Province, conservation authorities and other agencies in the implementation of stormwater management initiatives.

**2.3.41** To require the preparation of comprehensive master environmental servicing plans, or appropriate technical studies, as a component of secondary plans and major development or re-development to minimize stormwater volume and contaminant loads, and maximize infiltration through an integrated treatment approach, which may include techniques such as rainwater harvesting, phosphorus reduction, constructed wetlands, bioretention swales, green roofs, permeable surfaces, clean water collection systems, and the preservation and enhancement of native vegetation cover.

**2.3.42** That local municipalities require that stormwater management works be inspected and maintained to ensure that they function as designed.

**2.3.43** To work with local municipalities and the Lake Simcoe Region Conservation Authority in the preparation and implementation of comprehensive stormwater management master plans for each settlement area within the *Lake Simcoe Watershed* by June 2014.

#### Integrated Stormwater Management Approach

