

3.0 A SUSTAINABLE NATURAL ENVIRONMENT



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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.

York Region is also rich in natural features, from the shores of Lake Simcoe to the valleys of the Humber, Don, Rouge, Black, Holland and Maskinonge rivers; to the extensive woodlands, wetlands and rolling hills of the Oak Ridges Moraine.

Many of York 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. Water is of central importance, including in the culture and lives of Indigenous peoples. For many, water is more than a valuable resource, it is recognized as sacred and the lifeblood of the earth that connects all living things.

Urbanization introduces stresses on native plants and animals, and many species, which could breed and move freely through a natural or agricultural 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 and water resource system is essential.

The Plan recognizes the importance of York Region's Natural Systems, which include the Regional Greenlands and water resource system and how together they assist in defining the overall Regional Structure. The policies in Chapter 3 are fundamental to ensuring the protection and enhancement of York Region's unique Natural Systems.

Sustainable Natural Environment Goal: To protect, restore, and enhance the natural environment for current and future generations so that it will sustain life, maintain health, safeguard from natural hazards and provide a high quality of life.

SUSTAINABILITY BENEFITS of the REGIONAL GREENLANDS SYSTEM

SUSTAINABLE NATURAL ENVIRONMENT

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

HEALTHY COMMUNITIES

- » Contributes to equitable and 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
- » Heat Management

ECONOMIC VITALITY

- » Encourages eco- and agri-tourism and a green economy
- » 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
- » Prevents costly non-natural mitigation measures

CULTURAL ECOSYSTEM SERVICES

- » Use of plants for traditional customs and medicines
- » Contributes to sense of place, belonging and social cohension



York Region's Natural Systems are made up of features from the Regional Greenlands System and water resource system. These systems and features are complementary and function together to provide habitat for a variety of species and play an important role in York Region's ecology and native biodiversity.

The policies in Chapter 3 are fundamental to ensuring York 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.

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Objective: To identify, protect, restore and enhance natural systems and their functions across the Regional Greenlands System and water resource system.

PLANNING for NATURAL SYSTEMS POLICIES:

- **3.1.1** To protect, restore and enhance the Regional Greenlands System and *water resource system*, features and functions shown on *Maps 1C*, *2*, *4*, *7*, *12A* and *12B* and to control new *development* and *site alteration* within the vicinity of the System in accordance with the policies of the Plan.
- **3.1.2** That the Regional Greenlands System and *water resource system* shown on *Maps 2, 4, 7, 12A* and *12B* are overlays and should be read in conjunction with other policies in the Plan relevant to the underlying land use designation.
- **3.1.3** That local official plans shall delineate and include policies to protect the Regional Greenlands System and water resource system from development and site alteration. These systems shall incorporate, complement, and build on the systems identified in the Plan, and include policies for the identification and restoration of enhancement areas and linkages, as appropriate.
- **3.1.4** That in Urban Areas and Towns and Villages, the Regional Greenlands System and *water resource system* shall be designated more specifically in local official plans and secondary plans and integrated into community design using best available scientific information in consultation with conservation authorities. These plans shall contain mapping, policies and detail initiatives that identify remedial works, restoration and enhancement opportunities within and around the system to build its resilience over the long term.
- **3.1.5** That enhancements to the Regional Greenlands System shall be the responsibility of all stakeholders and may include Regional and local greening initiatives, public and private sector partnerships, partnerships with Indigenous communities, land securement initiatives, ecosystem compensation/off-setting programs, education, stewardship promotion, remedial work, *infrastructure* projects and urban *development* to achieve ecological gains for the systems.
- **3.1.6** To restore, enhance and maintain linkages and related functions among natural features and areas, *surface* water features, groundwater features, including key natural heritage features and key hydrologic features.
- **3.1.7** To coordinate planning efforts with conservation authorities and surrounding municipalities so that natural heritage systems and corridors are linked across Regional boundaries.

3.1 PLANNING for NATURAL SYSTEMS

WATERSHED PLANNING

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

The 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/areas and 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.

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.

The Plan promotes the importance of watershed planning to support sustainable land use planning. Watershed plans have and continue to inform coordinated land use and infrastructure planning decisions to sustainably accommodate growth. Furthermore, watershed plans form the basis for a comprehensive, integrated and long-term assessment of the hydrological and ecological impacts of cross-jurisdictional growth-related decisions. Specifically, these plans assist in measuring potential impacts of stormwater runoff, loss of natural cover, habitat degradation and climate change.

Watershed planning protects the water resource and natural heritage systems that traverse local watersheds. Protection of these systems will help protect property and infrastructure from natural hazard risks, safeguard water quality and quantity, maintain or improve ecological and hydrological functions and improve climate resiliency while accommodating long-term growth. This will help ensure that development and growth will be implemented in an environmentally responsible manner, which is ultimately critical to the health of watersheds as well as to the residents of York Region.



Objective: To protect, restore and enhance water resources for the long-term in a comprehensive and integrated manner through the implementation of watershed plans.

3.1 PLANNING for NATURAL SYSTEMS

WATERSHED PLANNING POLICIES:

- **3.1.8** To support the updating of *watershed plans* at appropriate intervals, in accordance with Provincial plans, and that the information be used to guide and inform activities of York Region and local municipalities including decisions on the designation of land for growth and planning for water, wastewater, and stormwater *infrastructure*.
- **3.1.9** To coordinate *watershed* planning initiatives and implement *watershed plan* objectives in partnership with local municipalities, conservation authorities, adjacent municipalities and agencies that:
 - a. Protect, improve or restore hydrologic system features, functions 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, enhance and restore *key natural heritage features, key hydrologic features, key hydrologic areas* and their functions;
 - **e**. Provide guidance for sustainable *development*, design and construction;
 - f. Identify retrofits of existing neighbourhoods to ensure better hydrologic function; and,
 - g. Evaluate the impacts of a changing climate and identify strategies to minimize impacts.



The primary function and vision of the Regional Greenlands System, as implemented by the policies of the Plan, is the protection of natural heritage features in a system of cores connected by corridors and linkages. Linkage areas are the focus of land securement and enhancement activities. The Regional Greenlands System also provides opportunities for passive recreation such as hiking and nature appreciation. Urban uses and infrastructure projects should contribute ecological gains to greenlands systems through enhancement and restoration, and the creation of natural habitat. The policies in this section provide direction for the protection of the Regional Greenlands System.

Regional Greenlands System ecological services include:

- > Climate Regulation
- > Soil Retention
- Habitat for Flora and Fauna

> Nutrient Cycling

> Recreation

- Flood Mitigation
- Genetic Resources > Food Production
- **Objective:** To identify, protect, restore and enhance the Regional Greenlands System and its features and functions to ensure a healthy system rich in biodiversity.

REGIONAL GREENLAND SYSTEMS POLICIES:

It is the policy of Council:

3.2.1 That the Regional Greenlands System (as shown on *Map 2*) consists of cores, corridors, and linkages. These include the Oak Ridges Moraine Conservation Plan's Natural Core Area and Natural Linkage Area designations, the Natural Heritage System within the Protected Countryside of the Greenbelt Plan, the *Natural Heritage System for the Growth Plan*, approved local natural heritage systems, *key natural heritage features*, *key hydrologic features* and functions, and the lands necessary to maintain these features within a system.

3.2.2 That within Urban Areas and Town and Villages as identified on *Map 1*, 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 and *environmental impact studies* in accordance with the applicable Provincial plans and policies of the Plan. These refinements will be incorporated into the Plan through periodic updates by York Region and will not require an amendment to the Plan.

3.2 REGIONAL GREENLANDS SYSTEM

- 3.2.3 That development and site alteration be prohibited within the Regional Greenlands System.
- **3.2.4** 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 *environmental impact study* will be determined through the pre-consultation meeting. The *environmental impact study* shall also address any requirements of the local municipality and all applicable Provincial plans.

- **3.2.5** That notwithstanding policy 3.2.3, within the Regional Greenlands System, some uses may be permitted subject to meeting requirements of the applicable Provincial plans such as:
 - **a.** Legally existing or permitted land uses, that conform with in-force local official plans, zoning by-laws and *Ministerial Zoning Orders*, at the time the Plan is approved, may be permitted to continue to the extent provided for in local official plans, zoning by-laws and *Ministerial Zoning Orders*;
 - **b.** New buildings or structures and the full range of uses for existing and new *agricultural*, *agricultural-related* and *on-farm diversified uses* and *normal farm practices*, subject to Section 3.4 of the Plan, are permitted;
 - **c.** Passive recreational uses, such as trails in accordance with an approved environmental impact study which demonstrates that they can be constructed without negative impact;
 - **d.** New *infrastructure* required to service the community including water and wastewater systems, stormwater management systems/facilities 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 relevant Provincial plan, where applicable; or
 - ii. authorized through an Environmental Assessment;
 - **e.** *Urban agriculture*, recreational and parkland uses on rural lands within the linear river valleys identified in policy 5.3.5, which may include serviced playing field and golf courses. The location, range and types of parkland and recreational uses permitted will be determined by the local municipality through its official plan and/or *secondary plans*.
- **3.2.6** That *infrastructure* planning, design and construction be sensitive to the features and functions of the Regional 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, including providing *passive recreational* amenities and environmental restoration where appropriate.
- **3.2.7** That where lands within the Regional Greenlands System are held in private ownership, nothing in the Plan requires that these lands be free and available for public use. Similarly, there is no obligation for a public agency to purchase lands identified as part of the Regional Greenlands System.
- **3.2.8** To work with local municipalities, conservation authorities and trail organizations on initiatives that contribute to, or complement, the creation of a regional trails network and where appropriate, include pedestrian accessible green spaces, *passive recreational uses* and connections to the Regional Cycling network shown on *Maps 9A* and *9B*.
- **3.2.9** Notwithstanding any policies to the contrary, active parkland and recreational uses are permitted within the linear river valleys identified in policy 5.3.5, which may include serviced playing fields and golf courses. The location, range and type of parkland uses permitted in the Rural Area will be determined by the local municipality through its official plan and/or approval of site-specific development applications. Golf course use and reconfigurations by Angus Glen Golf Courses is permitted within the Bruce Creek Greenbelt lands in the City of Markham.

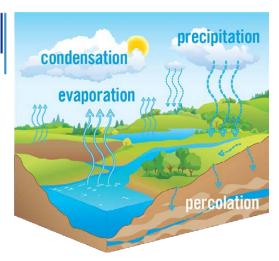


York Region's water systems include underground aquifers as well as rivers, streams, ponds, wetlands and lakes, including Lake Simcoe. Although Lake Ontario is not located in York Region, rivers and drinking and wastewater systems connect York Region to the lake. These systems are part of the hydrological 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 York Region if protected, conserved and enhanced.

York Region's water resource system consists of key hydrologic features, key hydrologic areas, and their functions. Key hydrologic areas maintain ground and surface water quality and quantity by collecting, storing, and filtering rainwater and overland flow, recharging aquifers and feeding downstream tributaries, lakes and wetlands through discharge areas. These areas are sensitive to contamination and feed key hydrologic features and drinking water sources. Groundwater is important as a supply of drinking water and cool water to the Region's streams and rivers as base flow. Water resource systems play a crucial role in ecological function and are also important for recreation, agriculture and industrial purposes.

In 2006, the Province approved the *Clean Water Act* to help protect ground and surface water quality and quantity. As a result, source protection plans were developed to protect these drinking water sources from contamination and overuse. The South Georgian Bay Lake Simcoe and Credit Valley, Toronto Region and Central Lake Source Protection Plans apply in York Region. The policies of the Plan should be read in conjunction with policies of the applicable Source Water Protection Plan.

The policies of this section are intended to provide protection for the key elements of the overall water resource system.



The Hydrological Cycle

The hydrological cycle is the continuous circulation of water within the ecosystem, driven by solar radiation.

The cycle includes the atmosphere, rivers, streams, ponds, wetlands, lakes and underground aquifers.

Water moves through the cycle by the physical processes of evaporation, precipitation, percolation, runoff and subsurface flow.

3.3 WATER RESOURCE SYSTEM

The York, Peel, Durham, Toronto (YPDT) and Conservation Authorities Moraine Coalition (CAMC) Oak Ridges Moraine Groundwater Program

Established in 2001, the YPDT and CAMC program is focused 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.

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

WATER RESOURCE SYSTEM POLICIES:

- **3.3.1** To protect, restore and enhance the *water resource system* as shown on *Maps 4*, 7 and *12A* and *12B*.
- **3.3.2** That key hydrologic areas within York Region are shown on Maps 7, 12A and 12B and include:
 - a. significant groundwater recharge areas;
 - b. Ecologically Significant Groundwater Recharge Areas;
 - c. highly vulnerable aguifers; and
 - **d.** significant surface water contribution areas.
- **3.3.3** That *key hydrologic areas* shown on *Maps 7, 12A* and *12B* shall be updated periodically through updates to the Plan and shall not require an amendment to the Plan.
- **3.3.4** To require local municipalities to establish policies and programs to protect, improve or restore *water resources system*.
- **3.3.5** That *major development* on the Oak Ridges Moraine is prohibited unless a water budget and water conservation plan is prepared consistent with the applicable *watershed plan*.
- **3.3.6** That *development* and *site alteration* in the *water resource system* be designed with the goal to protect, improve or restore ground and surface water quality and quantity and ecological and hydrological characteristics of *key hydrologic features* and *key hydrologic areas*. 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.
- **3.3.7** That in recharge management areas (as shown on Map 12A) development and site alteration will maintain pre-development recharge rates to the fullest extent possible.
- **3.3.8** That in significant groundwater recharge areas (as shown on Maps 12A and 12B), highly vulnerable aquifers (as shown on Map 7) and significant surface water contribution areas (as shown on Map 12B) 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 liquids; 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.

3.3 WATER RESOURCE SYSTEM

- **3.3.9** That *major development* may be permitted within *key hydrologic areas* of the Protected Countryside where it has been demonstrated that the hydrologic functions, including groundwater and surface water quality and quantity, of these areas shall be protected and, where possible, improved or restored through:
 - a. The identification of planning, design and construction practices and techniques;
 - **b.** Meeting other criteria and direction set out in the applicable *watershed* planning or *subwatershed plan*; and
 - c. Meeting any applicable provincial standards, guidelines and procedures.
- **3.3.10** That major development may be permitted within key hydrologic areas of the Protected Countryside when major development is a new or expanding building or structure for agricultural uses, agriculture-related uses or on-farm diversified uses where the total impervious surface does not exceed 10% of the lot.
- **3.3.11** To work with the Province, local municipalities, conservation authorities, Indigenous communities 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.

AQUIFER VULNERABILITY

Aquifer Vulnerability refers to the shallow groundwater aquifer's susceptibility to contamination from both human and natural sources. This section contains policies that apply to lands located within the Oak Ridges Moraine Conservation Plan area and lands under the *Clean Water Act. Map 7* identifies the location of areas of high and low Aquifer Vulnerability in the Oak Ridges Moraine Conservation Area and Highly Vulnerability Aquifer areas of the *Clean Water Act*.



Objective: To protect areas of aquifer vulnerability to ensure water quality.

AQUIFER VULNERABILITY POLICIES:

- **3.3.12** That *Map 7* shall be consulted in determining whether the Aquifer Vulnerability provisions of the Oak Ridges Moraine Conservation Plan, *Clean Water Act*, and the Plan apply to applications for *development* and *site alteration*.
- **3.3.13** To prohibit the generation and storage of the following, in areas of High Aquifer Vulnerability within the Oak Ridges Moraine Conservation Plan area:
 - a. Hazardous waste or liquid industrial waste;
 - **b.** Waste disposal sites and facilities;
 - c. Organic soil conditioning sites and snow storage and disposal facilities;
 - **d**. Underground and above ground fuel storage tanks that are not equipped with an approved secondary containment device; and,
 - e. Storage of a contaminant listed in Schedules to Ontario regulations.

3.3 WATER RESOURCE SYSTEM

- **3.3.14** That the restrictions in 3.3.13 do not apply to agricultural lands if the owner or operator of the agricultural operation is carrying out operations that are regulated under the *Nutrient Management Act*, and complies with all the standards established under that Act.
- **3.3.15** To require that local municipal official plans contain mapping and policies that prohibit or restrict uses in areas of Aquifer Vulnerability in accordance with the requirements of the Oak Ridges Moraine Conservation Plan.
- **3.3.16** That an application for *major development* within *Highly Vulnerable Aquifers* as identified on *Map 7* involving the manufacturing, handling and/or storage of bulk fuel or chemicals as activities prescribed under the *Clean Water Act*, shall be accompanied by a *Contaminant Management Plan*, as deemed necessary by York Region.
- **3.3.17** To consider restrictions on the haulage of chemicals and volatile materials in *Wellhead Protection Areas*, shown on *Map 6*, and Areas of High Aquifer Vulnerability, shown on *Map 7*.



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 five policy regimes: the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan, the Growth Plan, the Lake Simcoe Protection Plan and the Provincial Policy Statement. The five 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 and these features can exist within the Regional Greenlands System or outside of the System.

The policies of this section identify and protect key natural heritage features and key hydrologic features within York Region.

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Objective: To ensure that key natural heritage features and, key hydrologic features and their functions are protected, restored and enhanced.

NATURAL FEATURES POLICIES:

- **3.4.1** That key natural heritage features and key hydrologic features within York Region include:
 - a. Habitat of endangered and threatened species;
 - **b.** Fish habitat:
 - c. Wetlands;
 - d. Life Science Areas and Earth Science Areas of Natural and Scientific Interest (ANSI's);
 - e. Significant valleylands;
 - f. Significant woodlands;
 - g. Significant wildlife habitat (including habitat of special concern species);
 - h. Sand barrens, savannahs and tallgrass prairies;
 - i. Lakes and their littoral zones;
 - j. Permanent and intermittent streams;
 - k. Kettle lakes:
 - I. Seepage areas and springs; and
 - m. Lake Simcoe Shoreline.
- **3.4.2** That maps for *key natural heritage features* and *key hydrologic features* are provided for features where data is available for the purposes of implementing the policies of the Plan. These maps are meant to be informative and may be further refined subject to policies of the Plan.

The following table identifies which features are considered key natural heritage features, or key hydrologic features in the Greenbelt Plan, Oak Ridges Moraine Conservation Plan, Lake Simcoe Protection Plan and the Growth Plan.

Feature	Greenbelt Plan	Oak Ridges Moraine	Lake Simcoe Protection Plan	Growth Plan
Habitat of endangered and threatened species	•	•		•
Fish habitat	•	•		•
Areas of natural and scientific interest (ANSI)	(Life Science)	• (Life Science)		(Life Science)
Significant valleylands	•	•	•	•
Significant woodlands	•	•	•	•
Significant wildlife habitat (including significant habitat of special concern species)	•	•		•
Sand Barrens, Savannahs, Tallgrass Prairies	•	•		•
Alvars	•			•
Wetlands	•	•	•	•
Permanent and Intermittent Streams	•	•	•	•
Lakes (and their littoral zones)	•		•	•
Kettle Lakes		•		
Seepage Areas and Springs	•	•		•
Lake Simcoe Shoreline			•	
Natural areas abutting Lake Simcoe			•	

It is the policy of Council:

3.4.3 That *key natural heritage features* and *key hydrologic features* in policy 3.4.1 shall be identified and confirmed in accordance with criteria contained within the Plan or, where Regional criteria are not provided, using procedures established by the Province, where applicable.

- **3.4.4** To require local municipalities to implement a natural heritage systems-based approach to identify *key natural heritage features* and *key hydrologic features* in local official plans and zoning by-laws using most current environmental mapping and information available; and to provide appropriate policies for their protection, including: requirements for *environmental impact studies*, minimum *vegetation protection zones*, and the definition of permitted uses.
- **3.4.5** To prohibit development and site alteration within key natural heritage features, key hydrologic features, vegetation protection zones and adjacent lands, unless:
 - **a.** The use is permitted by the Plan, the applicable Provincial Plan and it is demonstrated through an *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. As authorized through an Environmental Assessment; or
 - c. For agricultural, agriculture-related and on-farm diversified uses, subject to the applicable Provincial plan.
- **3.4.6** That notwithstanding policy 3.4.5, applications for *development* or *site alteration* within *fish habitat* and *habitat of endangered and threatened species* are not permitted except in accordance with Provincial and Federal requirements.
- **3.4.7** 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 or other authorities, where applicable. Such delineation shall occur through the approval of *Planning Act* applications supported by appropriate technical studies such as master environmental servicing plans or *environmental impact study(ies)*. Where such delineation refines boundaries shown on related maps within the Plan, updates to these maps can occur without an amendment to the Plan.
- **3.4.8** 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 the Plan as if the feature was still in place. Impacted areas shall be restored to the previous condition or better.
- **3.4.9** 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 the requirements of any applicable Provincial plan.
- **3.4.10** That notwithstanding policies 3.4.5 c., 3.4.9, 3.4.12 and 3.4.13, new buildings and structures for agricultural, agriculture-related or on-farm diversified uses are not required to undertake an environmental impact study if a minimum 30 metre vegetation protection zone is provided from a key natural heritage feature or key hydrologic feature.
- **3.4.11** That outside existing settlement areas 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*.
- **3.4.12** 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 if it is demonstrated through an environmental impact study that the uses will not result in a negative impact on the natural feature or its ecological functions.

3.4.13 That the *vegetation protection zone* and *adjacent land* to *key natural heritage features* and *key hydrologic features* shall be determined through *environmental impact study* and meet the minimum widths identified in Table 3 below:

Table 3: Minimum Buffer/Vegetation Protection Zone (VPZ)

Feature	Feature Minimum Buffer/Vegetation Protection Zone (VPZ)					
	Protected Countryside of the Greenbelt Plan (outside the Regional Greenlands System)	Oak Ridges Moraine Conservation Plan (applies to Natural Core, Natural Linkage, Countryside and Settlement Areas*)	Lake Simcoe Protection Plan	Regional Greenlands System (within the Greenbelt Plan and Future Urban Area)	Urban Areas, Towns and Villages, Hamlets, New Community Areas (outside Oak Ridges Moraine Conservation Plan area)	Minimum Area of Influence/ Adjacent Lands
Habitat of endangered and threatened species	Determined in accordance with Provincial and Federal requirements	Determined in accordance with Provincial and Federal requirements	Determined in accordance with Provincial and Federal requirements	Determined by an Environmental Impact Study***	Determined in accordance with Provincial and Federal requirements	120m
Fish habitat	Determined by an Environmental Impact Study	30m	Determined by an Environmental Impact Study	30m	Determined by an Environmental Impact Study	120m
Areas of natural and scientific interest (ANSI)	Determined by an Environmental Impact Study	Determined by an Environmental Impact Study (earth science heritage evaluation for Earth Science ANSI)	Determined by an Environmental Impact Study	Determined by an Environmental Impact Study	Determined by an Environmental Impact Study	120m (50m for Earth Science ANSI in the ORMCP)
Significant valleylands	Determined by an Environmental Impact Study	30m	30m	Determined by an Environmental Impact Study	Determined by an Environmental Impact Study	120m
Significant woodlands	10m	30m	30m	30m	10m	120m

Table 3: Minimum Buffer/Vegetation Protection Zone (VPZ) (continued)

Feature						
	Protected Countryside of the Greenbelt Plan (outside the Regional Greenlands System)	Oak Ridges Moraine Conservation Plan (applies to Natural Core, Natural Linkage, Countryside and Settlement Areas*)	Lake Simcoe Protection Plan	Regional Greenlands System (within the Greenbelt Plan and Future Urban Area)	Urban Areas, Towns and Villages, Hamlets, New Community Areas (outside Oak Ridges Moraine Conservation Plan area)	Minimum Area of Influence/ Adjacent Lands
Significant wildlife habitat (including significant habitat of special concern species)	Determined by an Environmental Impact Study	Determined by an Environmental Impact Study	Determined by an Environmental Impact Study	Determined by an Environmental Impact Study	Determined by an Environmental Impact Study	120m
Sand Barrens, Savannahs, Tallgrass Prairies	Determined by an Environmental Impact Study	30m	Determined by an Environmental Impact Study	Determined by an Environmental Impact Study	Determined by an Environmental Impact Study	120m
Provincially Significant and Provincial Plan area Wetlands	30m	30m	30m	30m	30m	120m
Other Evaluated Wetlands (outside Provincial Plan area)	N/A	N/A	N/A	N/A	15m	N/A
Permanent and Intermittent Streams	30m	30m	30m	30m	Determined by an Environmental Impact Study	120m
Lakes (and their littoral zones), Kettle lakes	30m	30m**	30m	30m	Determined by an Environmental Impact Study	120m

Table 3: Minimum Buffer/Vegetation Protection Zone (VPZ) (continued)

Feature	Minimum Buffer/Vegetation Protection Zone (VPZ)					
	Protected Countryside of the Greenbelt Plan (outside the Regional Greenlands System)	Oak Ridges Moraine Conservation Plan (applies to Natural Core, Natural Linkage, Countryside and Settlement Areas*)	Lake Simcoe Protection Plan	Regional Greenlands System (within the Greenbelt Plan and Future Urban Area)	Urban Areas, Towns and Villages, Hamlets, New Community Areas (outside Oak Ridges Moraine Conservation Plan area)	Minimum Are: of Influence/ Adjacent Lands
Seepage Areas and Springs	30m	30m	Determined by an Environmental Impact Study	30m	Determined by an Environmental Impact Study	120m
			30m (within shoreline built- up area, as defined in the Lake Simcoe Protection Plan)			120m (within shoreline built-up area as defined in the Lake Simcoe Protection Plan)
Lake Simcoe Shoreline	N/A	N/A	(outside existing settlement areas and shoreline built-up area, as defined in the Lake Simcoe Protection Plan)	N/A	30m	240m (outside existing settlement areas, as defined in the Lake Simcoe Protection Plan)
Natural areas abutting Lake Simcoe	N/A	N/A	30m	N/A	N/A	120m

^{*}In the Urban Area and Towns and Villages, as designated on April 22, 2002, where secondary plans, official plans or zoning by-laws that were approved based on, or Master Environmental Servicing, or Functional Servicing Plans, or 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 Official plans, Secondary plans and/or by-laws shall prevail.

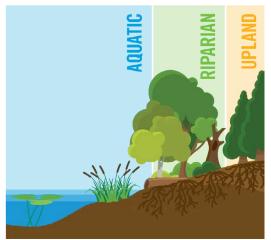
** Minimum vegetation protection zone for Kettle Lakes within Oak Ridges Moraine Conservation Plan area is greater of all land within the surface catchment area or within 30 metres of any part of feature.

Note: Where features overlap, the VPZ and adjacent lands should extend from the furthest extent.

^{***} Evaluation will not be required for a proposal for new development or site alteration on a site where the only key natural heritage feature is the habitat of endangered species and threatened species.

- **3.4.14** That where a *woodland*, *wetland*, or *Life Science Area of Natural and Scientific Interest* identified for protection which is located both within and outside the boundary (i.e. straddles the boundary) of the Oak Ridges Moraine, the *Lake Simcoe watershed*, the Natural Heritage System of the Protected Countryside in the Greenbelt, or the *Natural Heritage System for the Growth Plan* and more than 50% 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 policy 3.4.13 of the Plan.
- **3.4.15** That local municipalities may undertake minor rounding out of shoreline *built-up area* in accordance with Lake Simcoe Protection Plan, Provincial Policy Statement and other Provincial plans.
- **3.4.16** That significant alteration of the Lake Simcoe Shoreline, or the shore of a freshwater estuary of a stream connected to Lake Simcoe, is not permitted except as provided in the Lake Simcoe Protection Plan.
- **3.4.17** 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.
- **3.4.18** That applications 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 1C*.

Typical Wetland



For development in and around key natural heritage features, other environmental approvals and engaging with Indigenous communities 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)

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.

Provincial policy prohibits development in provincially significant wetlands, as well as within identified wetlands within the Oak Ridges Moraine Plan Area, and the Natural Heritage Systems of the Greenbelt Plan and Growth Plan. Other wetlands outside of these areas that have not been identified as provincially significant, but which have been formally evaluated by the Ministry of Natural Resources, also exist in York Region.

Map 4 – Key Hydrologic Features shows the general location of all evaluated wetlands, as well as identified wetlands within the Oak Ridges Moraine, Greenbelt, Growth Plan and Lake Simcoe watershed.



Objective: To protect and enhance wetlands and their ecological functions and ensure no loss of wetland function or area in York Region.

WETLANDS POLICIES:

It is the policy of Council:

3.4.19 That notwithstanding policy 3.4.5 of the Plan, *development* and *site alteration* is prohibited within Provincially Significant and Provincial Plan Area *wetlands* as shown on *Map 4* of the Plan. Due to the scale of the mapping in the Plan, smaller *wetlands* may not be visible. More detailed mapping is available from York Region.

3.4.20 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 3.2.5.c and 3.2.5.d of the Plan.

- 3.4.21 That applications for development and site alteration within 120 metres of wetlands not evaluated per the Ontario Wetland Evaluation System, or wetlands not shown on Map 4 of the 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.
- **3.4.22** That where newly identified *wetlands* are:
 - a. Determined as Provincially Significant Wetlands, or are outside of urban areas and towns and villages, they will be subject to policies 3.4.13, 3.4.19 and 3.4.20 of the Plan and subject to the requirements of the applicable Provincial plan.
 - b. Not captured in policy 3.4.22, they will be subject to policies 3.4.13 and 3.4.21 of the Plan.
- **3.4.23** That Provincial boundary refinements or reclassification of wetlands as shown on Map 4 will not require an amendment to the Plan.
- 3.4.24 That where new wetlands are evaluated and/or approved by the Province, York Region may amend this Plan to include updated information.

WOODLANDS

Trees and woodlands are significant components of York Region's natural systems and provide a variety of important environmental, social and economic benefits within and beyond its borders. These benefits include greenhouse gas absorption, pollution reduction, erosion prevention, water retention, provision of wildlife habitat, recreation and the sustainable harvest of wood.

Over the years agricultural uses, development and urbanization have impacted tree cover and much of the remaining woodland cover is fragmented with limited interior habitat. Maintaining and enhancing significant woodlands and integrating them into the Region's communities is extremely important.

York Region Forest Conservation Bylaw

York Region has a Forest Conservation Bylaw 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.

The policies of this section provide for the identification, management and improvement of significant woodlands and canopy cover to ensure that York Region will maintain or increase current levels of canopy and woodland cover to support biodiversity, increase ecological resilience and minimize the impacts of climate change. These policies are further implemented by the York Region Forest Management Plan.



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

WOODLANDS POLICIES:

- **3.4.25** To increase *woodland* cover to a minimum of 25% of York Region's total land area.
- **3.4.26** To increase canopy cover to a minimum of 40% of York Region's total land area.

Woodland and Canopy cover

Woodland cover is the total area covered by the Region's woodlands sometimes referred to as forest cover. A woodland is treed land of at least 0.2 hectare, or about half an acre, in area.

Canopy cover is the total area covered by all trees and shrubs in the Region. It includes woodland canopy and the canopy provided by trees and shrubs along streets, in parks, yards, cemeteries, on farms, around businesses, and in all other locations.

- **3.4.27** That notwithstanding policy 3.4.5.a of the Plan, *development* and *site alteration* is prohibited within *significant woodlands* and their associated *vegetation protection zone* except as provided for elsewhere within the Plan.
- **3.4.28** 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 3.4.30 and 3.4.31 of the Plan. Due to the scale of the mapping in the Plan, not all *woodlands* are visible. More detailed mapping is available from York Region.
- **3.4.29** That local municipalities shall develop an Urban Forest Management Plan, together with York Region, that may include additional local *woodlands* for protection.
- **3.4.30** 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* including those 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, Towns and Villages, or *Hamlets* and is within 100 metres of a *Life Science Area of Natural and Scientific Interest*, a provincially significant *wetland* or *wetland* including those identified on *Map 4*, *significant valleyland*, 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:

3.4.31 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 3.4.30 of the 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 the Plan;
- b. The woodland is located in an area strategic to the achievement of the community objectives of Section 2.3 and 4.2 of the 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 3.4.30 a. of the 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.

3.4.32 That should policy 3.4.31 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 3.4.30 of the Plan. A *woodland* compensation plan shall be required for removed *woodland* deemed not significant, that would otherwise have been significant in accordance with policy 3.4.30 of the 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

- 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:

- **3.4.33** 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.
- **3.4.34** To require local municipal official plans to include appropriate policies to prepare and enact tree-cutting by-laws in accordance with provisions in the *Municipal Act*.

LANDFORM CONSERVATION

Significant landscapes exist throughout York Region, providing scenic views and vistas, and a sense of place. Such significant landscapes include 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 York Region's character and play a vital role in surface and groundwater hydrology, biodiversity, and micro climate. The policies of the 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, protection and enhancement of significant landscapes, views and vistas.

LANDFORM CONSERVATION POLICIES:

- **3.4.35** 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.
- **3.4.36** That within the Oak Ridges Moraine, applications for *development* or *site alteration* in a landform conservation area as identified in *Map 13* 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.
- **3.4.37** 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.
- **3.4.38** That in considering *development* and *site alteration* applications in the Urban Area, Towns and Villages, and *Hamlets* 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.



Natural hazards such as flooding, wildland fire, erosion, unstable soils, geotechnical concerns 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 naturally occurring and human-made hazards by ensuring that development is directed away from hazards. The policies in this section provide direction to reduce the risk to human health and safety through the land use planning process.



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

MANAGING HAZARDS POLICIES:

It is the policy of Council:

- **3.5.1** To direct development and site alteration in accordance with quidance developed by the Province, outside of hazardous lands and hazardous sites in accordance with provincial guidelines.
- **3.5.2** That *development* be planned and designed to demonstrate no negative flooding and erosion impacts.
- **3.5.3** That development and site alteration are generally prohibited within defined portions of the floodplain, subject to conservation authority regulations.
- **3.5.4** To prohibit new lot creation in *hazardous lands* and *hazardous sites*.
- 3.5.5 To require local official plans and zoning by-laws to contain policies, provisions 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;
 - d. Identify approved Special Policy Areas; and
 - e. Address wildland fire hazard.

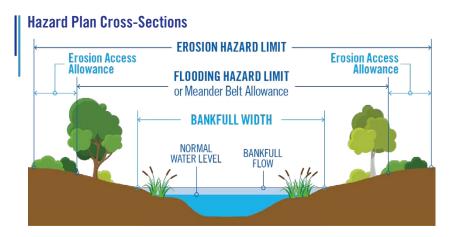
Approved Floodplain Special Policy Areas in York Region

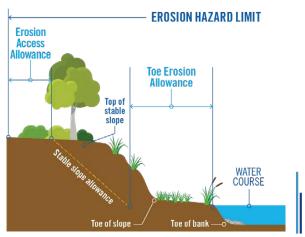
- Woodbridge Special Policy Area Unionville Special Policy Area
- · Lake Wilcox Special Policy Area
- · Schomberg Special Policy Area

It is the policy of Council:

3.5.6 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, the Plan shall not require additional lands.

3.5 MANAGING HAZARDS





- **3.5.7** To support conservation authorities and local municipalities in the management of floodplain areas and *Special Policy Areas*. The identification of a new *Special Policy Area* and any change or modification to official plan policies, land use designations or boundaries applying to existing *Special Policy Area* lands shall be approved by the Province, prior to the approval authority issuing its approval.
- **3.5.8** That local municipalities partner with conservation authorities to identify remediation and mitigation opportunities for *hazardous lands* and *hazardous sites*.
- **3.5.9** 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 the Plan requires that these lands be free and available for public use.