

Greenlands System

Peel 2041 Discussion Paper

May 2020



This policy discussion paper (including any attachments) has been prepared using information current to the report date. It provides an assessment of provincial policy conformity requirements, recognizing that Provincial plans and policies were under review and are potentially subject to change. The proposed direction contained in this discussion paper will be reviewed to ensure that any implementing amendments to the Regional Official Plan will conform or be consistent with the most recent in-effect provincial policy statement, plans and legislation. Additional changes will not be made to the contents of this discussion paper.

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Executive Summary

As part of the Region's Peel 2041: Regional Official Plan Review process, this Discussion Paper provides an overview of the policy revisions needed to bring the Greenlands System component of the Regional Official Plan into conformity with recently updated Provincial Plans, policies and mapping, including the *Provincial Policy Statement, 2020*, *Greenbelt Plan (2017)*, *Oak Ridges Moraine Conservation Plan (2017)*, *Niagara Escarpment Plan (2017)*, and *Growth Plan (2019)*.

The Greenlands System policy framework includes an overarching theme of sustainability with an environmental imperative to protect and enhance natural systems using an integrated systems approach. This is consistent with recent work undertaken to update the environmental policy framework in the Regional Official Plan which now considers Climate Systems, and Water Resource Systems as key components.

Greenlands systems, also referred to as natural heritage systems, are broadly defined as systems made up of natural heritage features and areas and linkages that provide connectivity between natural heritage features and areas for the movement of plants and animals. Natural heritage features and areas include woodlands, wetlands, valley and stream corridors, wildlife habitat, habitat of endangered and threatened species, Areas of Natural and Scientific Interest and Environmentally Significant or Sensitive Areas

Peel's natural heritage is an important facet of the quality of life in the Region, impacting on environmental health and sustainability. The Region's natural heritage features and areas, protect water resources and enhance air quality, reduce flooding and erosion, and provide important opportunities for outdoors recreation. They also will contribute to making the Region more resilient to climate change.

The discussion paper intended objective is to inform and engage the Region of Peel's stakeholders including local municipalities, conservation authorities and the public. It evaluates, and identifies policy gaps and seeks to clarify how all the policies – provincial, regional and local work together to provide a complete integrated system. It has therefore been structured in the following sections:

1. Introduction;
2. Policy context;
3. Regional and municipal official plans and studies;
4. Policy analysis and proposed amendments;
5. Analysis of mapping requirements;
6. Conclusions and next steps.

Reflected in the discussion paper is an evaluation of the potential implications for the Region of recent provincial policies and plans that address natural heritage system planning including among others the *Provincial Policy Statement, 2020* and the *Growth Plan (2019)* which has provisions for the identification

and protection of a natural heritage system outside the Greenbelt Area and settlement areas and which provincial mapping has identified three small areas in the Region (**Section 2**).

In addition, the paper has reviewed and taken into consideration work undertaken by the local municipalities and the conservation authorities as it relates to natural heritage system planning (**Section 3**) and includes the Regional NHS Integration Project: Conservation Authority Natural Heritage System in the Town of Caledon and Region of Peel (2019), Town of Caledon Delineation of Greenbelt Key Natural Heritage Features and Key Hydrologic Features (2018), City of Brampton Natural Heritage and Environmental Management Strategy (2015) and the City of Mississauga Landscape Scale Analysis of Natural and Semi-Natural Habitats (2014).

The strategic thinking and analysis undertaken for the discussion paper provides the rationale for the policy and mapping changes that are being proposed as a result of this review while respecting and building upon the Greenlands policy framework in the Region's current Official Plan (**Section 4**). This has resulted in proposed policies that:

- provides broad, strategic direction protecting the most significant natural features and areas while looking to the local municipalities to include more detailed objectives and policies to protect, restore and enhance the Greenlands System through their official plans and through the planning and development process;
- permits the continuance of existing agricultural, agriculture-related and on-farm diversified uses, and normal farm practices in the Greenlands System; and
- maintains the existing structure of Core Areas, protected through the Regional Official Plan, and Natural Areas and Corridors (NACs) and Potential Natural Areas and Corridors (PNACs) to be mapped in more detail and protected by the local municipalities.

The paper describes many of the proposed policy changes that are directed at transitioning to a natural heritage system approach, and includes:

- Evaluating and proposing added objectives and policies to:
 - identify, protect, restore and enhance the long-term ecological function and biodiversity of the Greenlands System recognizing linkages between and among features and areas; maintain, restore and improve linkages among features and areas; and
 - support agriculture as a complementary and compatible use within the Greenlands System.
- Providing policy direction to the local municipalities to:
 - identify, protect, restore and enhance natural heritage systems in their official plans;
 - further interpret and identify the Greenlands System and the linkages among components of the Greenlands System and Water Resource System through watershed and subwatershed plans or equivalent studies;
 - update adjacent lands policy and require the identification and establishment of enhancement areas and buffers to support implementation of a natural heritage system approach; and

- update requirements for environmental impact studies to incorporate a natural heritage systems approach, including the identification of buffers, linkages and enhancement areas where appropriate.
- Adding definitions for “buffers”, “linkages” and “enhancement areas”.
- Encouraging the local municipalities to implement ecosystem compensation guidelines and practices to ensure that development and site alteration will not result in negative impacts to the Greenlands System.
- Including policies promoting and supporting habitat restoration and enhancement programs.

Other key discussions and proposed policy changes include:

- Adding a new Section 4.3 titled “Growth Plan Natural Heritage System” incorporating policies to implement requirements of the Growth Plan.
- Updating the definition of the Greenlands System to include the Natural Heritage System and Urban River Valley designations and overlays of the Provincial land use plans.
- Adding new definitions and policies providing a framework for the Region, the local municipalities and other agencies to work together to protect, maintain and enhance the health and extent of the urban forest in urban and rural settlement areas.
- Adding separate stand-alone policies for fish habitat and for habitat of threatened and endangered species.

Based on the analysis of mapping requirements, several changes to the existing Schedules and new Figures are being proposed to be incorporated into the Regional Official Plan (**Section 5 and Appendices A and B**). Examples include among others Schedule A (Core Areas of the Greenlands System) to be deleted and replaced with a new Schedule Y1 updating the Core Areas mapping. Schedule D3 (Greenbelt Plan Area Land Use Designations) to be deleted and replaced with a new Schedule X11, which is to include the addition of the Greenbelt Urban River Valley designation and the Growth Plan Natural Heritage System overlay. A new Figure Y1 (Regional Greenlands System – Provincial Plan Natural Heritage Systems) is to be added which identifies the Provincial plan designations and overlays to be included in the Greenlands System.

This discussion paper has provided an overview of the components which together make-up the Peel 2041 Greenlands System Policy Review. Best practices have been presented and policy options for consideration have been proposed. Ultimately, through the Peel 2041 policy review and update, Peel Region will be updating its Greenlands System policies and mapping. The proposed policy and mapping amendments conform to provincial plans, legislation and policy statements, as well as reflect current best practice guidance in natural heritage system planning.

The Region will be consulting with the general public, stakeholders, municipalities and agencies through the Peel 2041 Regional Official Plan Review process to obtain input on the proposed changes before bringing recommendations to Regional Council for consideration.

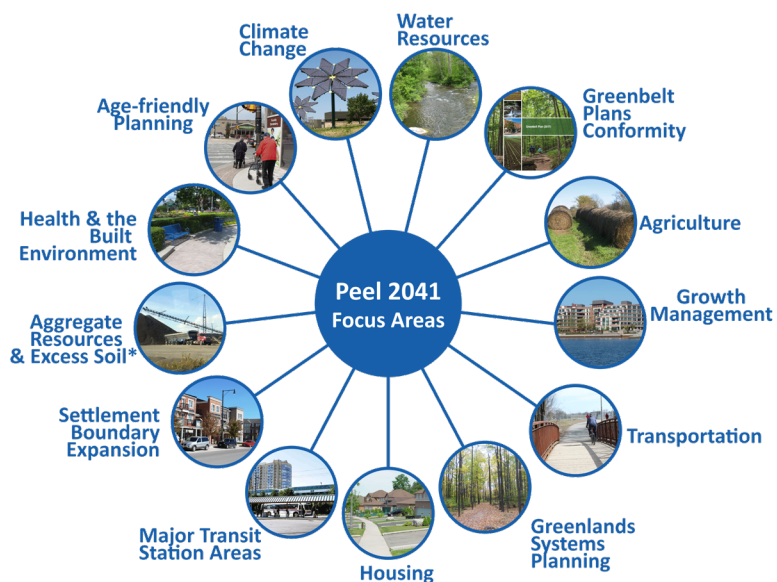
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1. Introduction

1.1 The Greenlands System Regional Official Plan Amendment (ROPA)

The Region of Peel's Regional Official Plan (ROP) is the long-term policy framework for land use planning decision-making. It sets the Regional context for detailed planning by protecting the environment, managing resources, directing growth and setting the basis for providing Regional services in an efficient and effective manner. The *Planning Act* requires municipalities to update their Official Plan every five years to ensure that the policies remain current and are consistent with Provincial plans and policies. The review of the current Regional Official Plan, referred to as *Peel 2041: Regional Official Plan Review*, is being undertaken with the intent to plan for growth to the year 2041.

Peel 2041 includes a review of thirteen focus areas to ensure conformity with recent updates to Provincial plans and policies including the *Provincial Policy Statement, 2020, A Place to Grow: Growth Plan for the Greater Golden Horseshoe* (2019), the *Greenbelt Plan* (2017), the *Oak Ridges Moraine Conservation Plan* (2017) and the *Niagara Escarpment Plan* (2017) which provide Provincial direction for land use planning and the protection of the local environment and resources.



The Region of Peel encompasses three local municipalities (Mississauga, Brampton and Caledon), all of which value the natural environment that characterizes the Region. From a watershed perspective the Region of Peel falls primarily within the jurisdictions of Credit Valley Conservation (CVC) and Toronto and Region Conservation Authority (TRCA), with smaller areas of the Region within the jurisdictions of Conservation Halton (CH), Nottawasaga Valley Conservation Authority (NVCA), and Lake Simcoe Region Conservation Authority (LSRCA) watersheds. With well-managed planning and co-operation with the lower-tier municipalities and the Conservation Authorities, the Region of Peel is committed to protecting, restoring and enhancing the natural environment.

The Greenlands System is defined as including elements of the natural environment e.g. wetlands, forests and surrounding areas that link together, plus specific areas that have been recognized by a planning authority (such as a provincial ministry, conservation authority, or municipality) based on their intrinsic ecological significance or sensitivity. This recognition is often translated into some degree of protected status being assigned to the feature or area, either through provincial or municipal land use policy.

The Greenlands System in Peel consists of Core Areas, Natural Areas and Corridors, and Potential Natural Areas and Corridors, and is intended to support and strengthen the ecological integrity, human benefits, and long-term sustainability of the Region's natural environment. It represents the Region of Peel's natural heritage system as defined in Provincial policies and plans.

The Greenlands System policy review represents a part of a larger environmental themed review which interconnects related focus areas including Water Resources, Climate Change, Agriculture and Rural Systems, Provincial Greenbelt Plans Conformity, and Wildland Fire policy areas.

1.2 Discussion Paper Purpose

The purpose of this Discussion Paper is to provide background information on the provincial policy context and the Region's historical approach to natural heritage planning and to identify potential policy options for the Region of Peel as part of the Peel 2041: Regional Official Plan Review process. Section 16(1) (a) of the *Planning Act, 1990*, requires municipal Official Plans to include "goals, objectives and policies established primarily to manage and direct physical change and the effects on the social, economic, built and natural environment". Through the Peel 2041 Regional Official Plan Review, the Region of Peel is updating its Official Plan to strengthen existing policies as well as include new policies to address provincial policy requirements and regional and local planning needs.

The discussion paper is meant to inform and engage the Region of Peel's stakeholders, local municipalities and the public. It will identify policy gaps and opportunities as well as identify what must be updated to ensure conformity with provincial plans, policies and guidelines. Ultimately it will clarify how all the policies – provincial, regional and local work together to provide a complete integrated system.

This discussion paper will provide the following:

1. Introduction;
2. Policy context;
3. Regional and municipal official plans and studies;
4. Policy analysis and proposed amendments;
5. Analysis of mapping requirements;
6. Conclusions and next steps.

1.3 Background on the Region's Greenlands System Planning Policy Framework

The Regional Official Plan (ROP) outlines the objectives and policies under which protection and wise use of environmental resources is addressed. The Greenlands System policy framework includes an overarching theme of sustainability with an environmental imperative to protect and enhance natural systems using an integrated systems approach.

This is consistent with recent work undertaken to update the environmental policy framework in the ROP which now considers Climate Systems, and Water Resource Systems as key components.

The previous 2007 Peel Region Official Plan Review (RPOPR) included revisions to the ROP's Greenlands System policies and updated mapping to be consistent with the 2005 Provincial Policy Statement (PPS) and other provincial policy documents. The Natural Heritage Policy Review Discussion Paper (October 2008) provided a foundation and suggested direction for a subsequent policy review that was to look more comprehensively at the natural heritage system planning framework currently established in the ROP.

The discussion paper outlined the progression in the development of approaches to the protection of natural heritage in Ontario, from a features-based approach to a systems-based approach. This progression mirrors the same progression in provincial policy. The 2005 PPS stated that natural heritage systems should be maintained, restored or improved, and the 2020 PPS states that natural heritage systems shall be identified in Ecoregions 6E and 7E, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas.

The ROP's Greenlands System natural heritage features policies were updated in the previous Regional Official Plan Review (Regional Official Plan Amendment 21B) (2010). That policy framework now requires updating based on natural heritage science and changes to the provincial planning framework as set out in the PPS, 2020, *Oak Ridges Moraine Conservation Plan* (2017), *Greenbelt Plan* (2017), *Niagara Escarpment Plan* (2017), and Growth Plan (2019).

The policy review through Peel 2041 will finalize that work and update the natural heritage systems (NHS) planning policies of the Regional Plan with text and mapping to provide more detailed guidance for natural heritage system planning and decision making.

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2. Policy Context

2.1 Updating Greenlands Policy: Key Considerations

2.1.1 The Natural Heritage System Approach

Through scientific research it has been found that in a developed landscape such as Peel's, individual natural areas that we value, when existing in isolation, rarely are able to remain healthy and self-sustaining over the long term. It has come to be recognized that the long-term health and integrity of natural areas, and the native species they provide habitat for, are impacted by what happens in the landscape around them. Urban development; infrastructure; aggregate operations; rural development, open space and recreational uses, and climate change all impact the health, diversity and function of the natural environment.

Linkages among natural areas and features play a key role in enabling natural environments to remain healthy by providing natural connections among and between natural features and areas. Linkages allow for the movement of plants and animals between features and areas. This helps natural systems to be resilient by enabling them to respond to and survive stresses such as disease or drought. These linkages may be structural, taking the form of features on the land, such as wooded areas or valleylands, that provide a protective environment for wildlife to move from one natural area to another. They also may be functional linkages representing important ecological functions which are not reflected in features on the ground, such as linkages between bird nesting and feeding areas.

Thus, there has been a movement away from planning for natural features and areas to planning that embodies a natural heritage system approach. Natural heritage system means a system made up of natural heritage features and areas and linkages supporting natural processes necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species, and ecosystems. The Provincial Policy Statement requires municipalities to identify natural heritage systems and the natural heritage system approach increasingly is being incorporated into official plans in Ontario. While the ROP does incorporate a Greenlands System, however, the policies are still largely feature-based. It does not specifically identify what constitutes a corridor or linkage but leaves it up to the local municipalities to identify them.

The natural heritage system approach is concerned with:

- Maintaining, enhancing and restoring connectivity and linkages;
- Providing buffers around natural features and areas to protect them from the impacts of surrounding land uses;
- Environmental restoration and enhancement to restore or improve natural areas and linkages; and
- Recognizing and maintaining linkages between the natural heritage system and water resources.

Natural heritage system planning should begin at the earliest stage in the planning process in conjunction with other high level, strategic planning when it is still possible to ensure that core natural areas and linkages will be protected and the landscape will be able to provide adequate buffers.

Planning then should be refined in subsequent stages of the planning process through watershed, subwatershed and secondary plans.

2.1.2 Climate Change

Climate change will place additional stresses on the natural heritage system, altering the growing conditions that native species are adapted to and depend on. These stresses may include warmer temperatures, changes in precipitation, increases in flooding and erosion, increased evaporation and evapotranspiration, increased spread of invasive species and pests and disease. The risk of local species extinction and the impacts on natural areas will be less if connectivity is maintained or enhanced within the natural heritage system. Ecologically functional linkages will enhance the resiliency of the natural heritage system and its ability to adapt to climate change.

2.1.3 The Relationship Between the Agricultural System and the Natural Heritage System

Prime agricultural area and rural lands designations establish permitted uses where agriculture is supported and protected. Under Provincial and Regional policy, prime agricultural areas are protected for long term use for agriculture. The Provincial Greenbelt and Growth Plan Natural Heritage Systems are overlays on the prime agricultural area, and not designations setting out permitted uses. The PPS makes it clear that nothing in the natural heritage policies of the PPS is intended to limit the ability of agricultural uses to continue (Policy 2.1.9).

As indicated above, the natural heritage system is made up of significant natural heritage and the linkages among them. Where significant natural heritage features exist the land usually has not been farmed for a very long time. The Greenbelt Plan and Growth Plan permits the full range of existing and new agricultural uses, agriculture-related uses, on-farm diversified uses, and normal farm practices within the Provincial Natural Heritage Systems but limits some types of development in and around significant features (Policy 4.2.2.3 b)).

Within key natural heritage features new agricultural uses, agriculture-related uses and on-farm diversified uses requiring *Planning Act* approval are not permitted (A Place to Grow, Policy 4.2.3.1). However, expansions or alterations to existing buildings and structures for such uses are permitted within key natural heritage features if there is no alternative and the impact on the feature is minimized (A Place to Grow, Policy 4.2.3.1 f)). Within 120 meters of a key natural heritage feature, new buildings or structures are required to provide a natural heritage evaluation (A Place to Grow, Policy 4.2.4.1). If the new buildings or structures are for agricultural uses, agriculture-related uses and on-farm diversified uses, however, this evaluation is not required if a 30 metre vegetation protection zone (setback) is provided and best management practices are employed to protect and restore the natural heritage feature and its functions (Growth Plan, Policy 4.2.4.4).

2.1.4 The Peel Planning Context

The Region's Greenlands policy framework is grounded in the set of five fundamental principles that are set out in Section 1.3.2 of the ROP and guide the development of the Plan's strategic policy approach. The principles indicate that the Region's Plan:

- Must be strategic in nature, setting broad, high-level, long-term policy directions for Peel;
- Must add value to planning in Peel and play a role that is distinctive from and complements area municipal planning; and
- Must not complicate, duplicate or infringe on area municipal planning efforts and must not involve the Region in matters that are area municipal responsibilities.

The area municipalities are responsible for planning and development approvals other than approval of the Regional and local Official Plans and Official Plan Amendments.

The development of the Region's Greenlands policy framework has been guided by these principles and reflects the division of planning responsibilities. In its Official Plan the Region has identified and mapped a Greenlands System (natural heritage system) at a broad Regional level. The Plan provides broad, strategic direction to guide the more detailed identification and mapping of the Greenlands System and provide for its protection, restoration and enhancement. It looks to the area municipalities to include more detailed objectives and policies for the Greenlands System in their official plans that conform to the intent of this Plan and to the Provincial policies and plans while enabling each municipality to tailor an approach to meet its particular circumstances.

The following sections describe in more detail the relevant policy context that applies to the Greenlands System policy component of the Region of Peel Official Plan Review (Peel 2041).

2.2 Provincial Policies

The Region of Peel contains ecologically and hydrologically significant natural environments and scenic landscapes, including the Oak Ridges Moraine and the Niagara Escarpment. These natural environments provide drinking water, habitat for many species of animals and plants, recreational opportunities, climate change mitigation and protection for productive farmlands.

As such, recognizing the significance of the environment and resources of this area, the Province has put in place the *Oak Ridges Moraine Conservation Plan* (2017), together with the *Greenbelt Plan* (2017), the *Niagara Escarpment Plan* (2017), and the *Growth Plan* (2019) to minimize the encroachment of urban development and ensure the protection of the agricultural land base as well as ecological and hydrological features and functions.

Provincial policy and plans form a framework for land use planning in Ontario. Provincial policy direction is required to be implemented in municipal official plans to either a consistency or conformity standard. Recent provincial policy, plans and legislation relevant to natural heritage planning in the Region of Peel include:

- *Provincial Policy Statement (2020)*
- *A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019)*
- *Greenbelt Plan (2017)*
- *Oak Ridges Moraine Conservation Plan (2017)*; and
- *Niagara Escarpment Plan (2017)*.

Policies in the ROP must therefore be reviewed and updated to conform with new provisions in the above listed provincial policy and plans. Fig.1.1 shows the provincial plan areas in Peel.

The provincial policies and plans represent minimum standards that municipal plans must meet. A municipal official plan may go beyond these minimum standards to address matters of importance to the municipality and its community, unless doing so would conflict with provincial plans and policies.

2.2.1 Provincial Policy Statement (2020)

The PPS sets the policy foundation for regulating the development and use of land. It also supports the provincial goals to enhance the quality of life for citizens in Ontario. Pursuant to Part 1, Section 3.5 of the *Planning Act* and Part II Legislative Authority of the PPS, a planning authority is required to render land use planning decisions that “shall be consistent with” the PPS.

Municipalities are directed to protect natural features and areas over the long term for the prosperity, environmental health and social well-being of the community.

Natural heritage features and areas are defined as “features and areas, including significant wetlands, significant coastal wetlands, other coastal wetlands in Ecoregions 5E, 6E and 7E, fish habitat, significant woodlands and significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River), habitat of endangered species and threatened species, significant wildlife habitat, and significant areas of natural and scientific interest, which are important for their environmental and social values as a legacy of the natural landscapes of an area. The province has a recommended approach for identifying natural heritage systems, but municipal approaches that achieve or exceed the same objective may also be used”.

Further, the PPS directs that “the diversity and connectivity of natural features in an area, and the long-term ecological function, and biodiversity of natural heritage systems, be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features”.

Although the PPS refers to linkages between natural heritage features, “linkage” is not a defined term.

The 2020 PPS added a requirement that natural heritage systems be identified in municipal planning documents while recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas and prime agricultural areas. The reference to “identified” generally means identified in municipal official plans.

With regards to natural features and areas, the PPS specifies that development and site alteration shall not be permitted in significant wetlands in Ecoregions 5E, 6E and 7E¹, and significant coastal wetlands.

As well, development and site alteration shall not be permitted in the following features unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions:

- significant woodlands in Ecoregions 6E and 7E;
- significant valleylands in Ecoregions 6E and 7E;
- significant wildlife habitat;
- significant areas of natural and scientific interest; and
- coastal wetlands in Ecoregions 5E, 6E and 7E².

Further, development and site alteration are not permitted in the following, except in accordance with provincial and federal requirements:

- fish habitat; and
- habitat of endangered species and threatened species.

In areas adjacent to these significant natural heritage features and areas, development and site alteration are not permitted unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

Importantly, PPS policy 2.1.9 notes that none of the natural heritage policies are intended to limit the ability of agricultural uses³ to continue.

The PPS also requires consideration of water quality and quantity in new development and site alteration to protect, improve and restore water resources both above and below ground. Development and site alteration are to be restricted in or near sensitive surface water features and sensitive ground water features such that these features and their relative hydrologic functions will be protected, improved or restored. Mitigative measures and/or alternative development approaches may be required in order to protect, improve or restore sensitive surface water features, sensitive ground water features, and their hydrologic functions.

¹ The Region of Peel is situated in Ecoregions 6E and 7E.

² In the Region of Peel, a coastal wetland is any wetland that is on a tributary to Lake Ontario and lies, either wholly or in part, downstream of a line located 2 kilometres upstream of the 1:100 year floodline (plus wave run-up) of Lake Ontario to which the tributary is connected. PPS policy 2.1.5 f) applies to non-PSW coastal wetlands, whereas PPS policy 2.1.4 a) applies to coastal wetlands that have been evaluated as provincially significant.

³ Agricultural uses: “means the growing of crops, including nursery, biomass, and horticultural crops; raising of livestock; raising of other animals for food, fur or fibre, including poultry and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm buildings and structures, including, but not limited to livestock facilities, manure storages, value-retaining facilities, and accommodation for full-time farm labour when the size and nature of the operation requires additional employment”.

2.2.2 Growth Plan 2019

A Place to Grow is the Ontario government's growth plan for the Greater Golden Horseshoe (GGH) and an initiative to plan for growth and development in a way that recognizes that the GGH's natural heritage and water resource systems are essential for the long-term quality of life, economic prosperity, environmental health, and ecological integrity of the region. They collectively provide essential ecosystem services, including water storage and filtration, cleaner air and habitats, and support pollinators, carbon storage, adaptation and resilience to climate change.

The Growth Plan provides for the identification and protection of a Natural Heritage System outside of the Greenbelt Area and settlement areas and applies protections similar to those in the Greenbelt Plan to provide consistent and long-term protection throughout the *GGH*.

A Natural Heritage System for the Growth Plan has been mapped by the Province to support a comprehensive, integrated, and long-term approach to planning for the protection of the region's natural heritage and biodiversity. The Natural Heritage System for the Growth Plan excludes lands within settlement area boundaries that were approved and in effect as of July 1, 2017. Within Peel, the provincial mapping identified three small areas in the Town of Caledon as being located in the Natural Heritage System.

Municipalities are required to incorporate the Natural Heritage System for the Growth Plan as an overlay in their official plans, and to apply appropriate policies to maintain, restore, or enhance the diversity and connectivity of the system and the long-term ecological or hydrologic functions of the features and areas as set out in the policies.

Beyond the Natural Heritage System for the Growth Plan, including within settlement areas, municipalities:

- a) are required to continue to protect any other natural heritage features and areas in a manner that is consistent with the PPS; and
- b) may continue to protect any other natural heritage system or identify new systems in a manner that is consistent with the PPS.

2.2.3 Greenbelt Plan (2017)

In Peel, the Greenbelt Area is predominately located within the geographic area of the Town of Caledon, with urban river valley corridors extending through the Cities of Brampton and Mississauga and connecting the Greenbelt to Lake Ontario.

The *Greenbelt Plan* establishes the Protected Countryside designation to enhance the extent of protected lands covered by the *Niagara Escarpment Plan* (NEP) and the *Oak Ridges Moraine Conservation Plan* (ORMCP) while also improving linkages between these areas and the surrounding major lake systems and watersheds. The *Greenbelt Plan* sets out three geographic specific sets of policies that apply within the Protected Countryside designation: the Agricultural System, the Natural

System and Settlement Areas as well as general policies that apply throughout the Protected Countryside. The Natural System of the Protected Countryside is made up of a Natural Heritage System and a Water Resource System that together protect ecologically and hydrologically significant features, areas and functions.

Conformity with the *Greenbelt Plan* is addressed in detail in the discussion paper on that topic prepared for this ROP review (Region of Peel 2019a).

2.2.3.1 Urban River Valley

The Urban River Valley designation and policies were incorporated into the 2017 update of the *Greenbelt Plan* to provide improved protection for these important linkages between the Greenbelt and Lake Ontario. The Urban River Valley designation applies to publicly owned lands within the main corridors of river valleys connecting the Greenbelt to the Great Lakes and inland lakes. Permitted uses in this designation are governed by the applicable policies of Regional and local official plans.

In 2010, the Region adopted Regional Official Plan Amendment (ROPA) 24 to bring the ROP into conformity to the *Greenbelt Plan* (2005). ROPA 24 introduced a new policy section and schedule to the Regional Official Plan (Section 2.2.10 and Schedule D3 – Greenbelt Plan Area Land Use Designations) that reflected the policies of the then *Greenbelt Plan* (2005). As part of Peel 2041, a discussion paper and proposed policy and mapping updates to the ROP has been completed to comprehensively address the provincially legislative changes in the 2017 *Greenbelt Plan*.

2.2.4 Oak Ridges Moraine Conservation Plan (2017)

In Peel, the Oak Ridges Moraine is distinguished by the rolling topography of the northeast quadrant of the Town of Caledon and extends west to connect with the Niagara Escarpment. It includes the Caledon East Rural Service Centre, Albion Hills Conservation Area, and the Palgrave Estates Residential Community. This collective area is home to a mix of environmental, agricultural, mineral aggregate, residential, and recreational uses that benefit from the unique characteristics of the Moraine.

The ORMCP sets out four geographic specific land use designations and policies that apply to specific areas within the Moraine:

- Natural Core Area,
- Natural Linkage Area,
- Countryside Area and
- Settlement Area

The land use designations protect natural heritage lands and linkages within the ORMCP Area while also providing transition between natural areas and the surrounding agricultural and urbanized areas. In Peel these land use designations fall within the Town of Caledon and have been incorporated into the Region of Peel Official Plan.

Collectively, the designations and policies ensure that the ecological and hydrological integrity of the Moraine is protected, and the Moraine is maintained as a continuous natural landform. The policies ensure that land and resource uses maintain, improve or restore ecological and hydrological functions. Policy restrictions protect ecologically and hydrologically significant features, areas and functions. Land use permissions for new development, resource management, recreational and other uses are restricted near key natural heritage features and key hydrological features and are only permitted if they will not adversely affect these features. Development in landform conservation areas is also restricted to ensure that disturbance to landform character is kept to a minimum.

In 2004, the Region adopted Regional Official Plan Amendment 7 (ROPA 7) to bring the ROP into conformity to the ORMCP (2002). ROPA 7 introduced a new policy section (2.2.9), as well as schedules and figures to the ROP that reflected the policies of the ORMCP (2002). As part of Peel 2041, a discussion paper and proposed policy and mapping updates to the Region Official Plan has been prepared that comprehensively addresses conformity with the 2017 ORMCP (Region of Peel 2019c).

2.2.5 Niagara Escarpment Plan (2017)

The Niagara Escarpment is distinguished by the geological landforms and topography which is home to a mix of environmental, agricultural, mineral aggregate, residential, and recreational uses. The purpose of the *Niagara Escarpment Planning and Development Act, 1973* is to provide for the maintenance of the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment, and to ensure only such development occurs as is compatible with that natural environment.

The objectives of the NEP include protection of unique ecologic and historic areas; maintaining and enhancing the quality and character of natural streams and water supplies; providing opportunities for outdoor recreation; maintaining and enhancing the open landscape character of the Escarpment; and ensuring that all new development is compatible with the purpose of the Plan. The intent of the NEP is to maintain a corridor of natural areas in an undisturbed state and to ensure that permitted development is compatible with that natural environment. The NEP contains seven land use designations:

- Escarpment Natural Areas
- Escarpment Protection Areas;
- Escarpment Rural Areas;
- Urban Area;
- Escarpment Recreation Area;
- Resource Extraction Area; and
- Urban Area and Minor Urban Centre.

The Peel Greenlands System includes the Escarpment Natural Areas and Escarpment Protection Areas of the NEP. The Mineral Resource Extraction Area and Escarpment Recreation Area land use designations are not included in the Greenlands System.

In 1997, the ROP was amended to bring it into conformity with the NEP. As part of Peel 2041, a discussion paper and proposed policy and mapping updates to the Region Official Plan has been completed to comprehensively address the changes introduced in the 2017 NEP (Region of Peel 2019b).

Figure 1.1 shows the Escarpment Natural and Escarpment Protection areas in Peel which are elements of the Greenlands System.

2.2.6 Endangered Species Act 2019

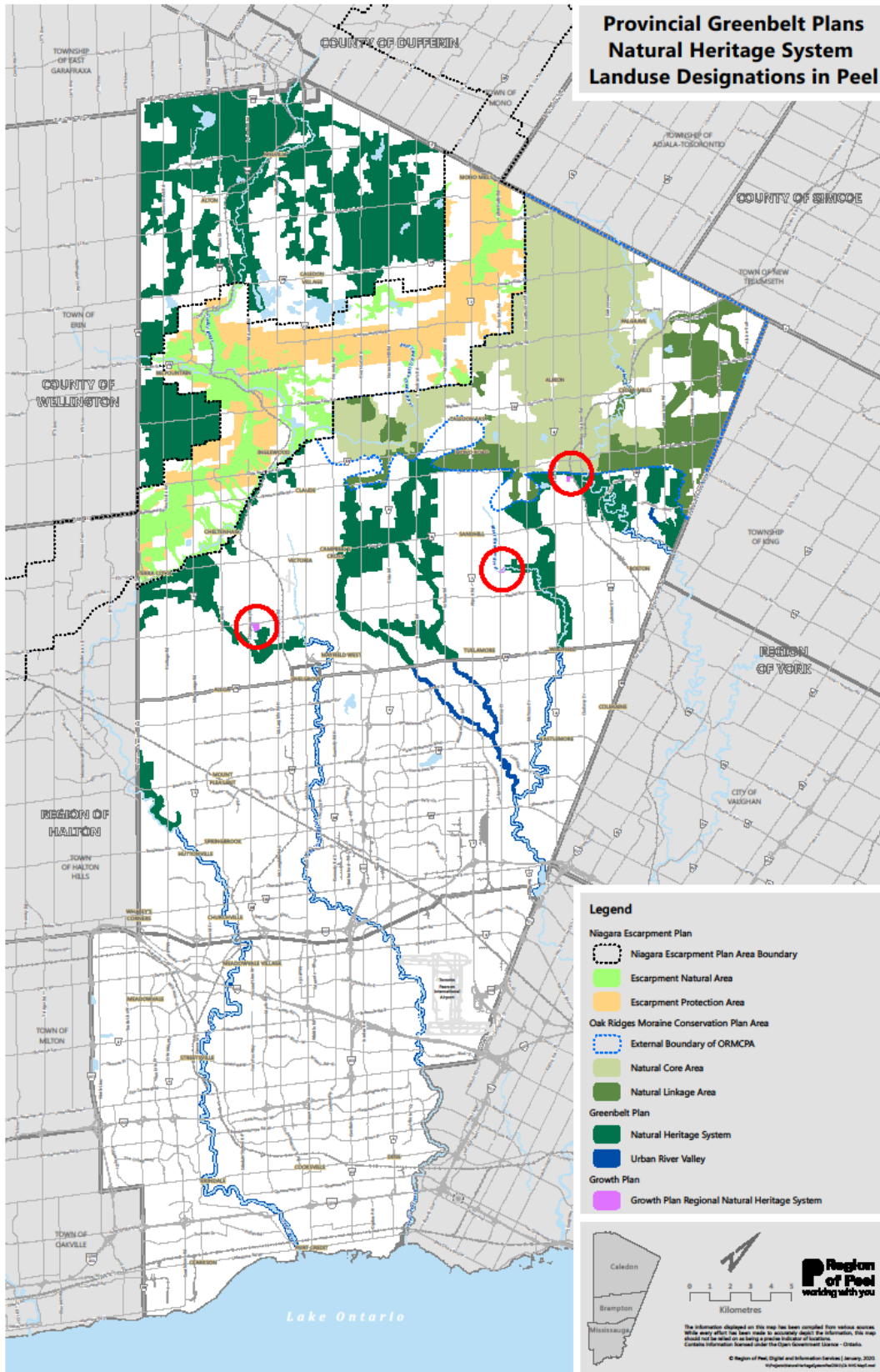
Policy 2.1.7 of the 2020 PPS states that “Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements”. This updated policy is harmonized with the *Endangered Species Act* (ESA) which came into effect in 2008. The ESA provides automatic legal protection to species classified as endangered species or threatened species in Ontario, including habitat protection.

In 2019 the Province undertook a 10-year review of the ESA and proposed a number of changes which included:

- enhancing provincial government oversight and enforcement powers to ensure compliance with the act;
- improving transparent notification of new species’ listings;
- providing for appropriate consultation with academics, communities, organizations and Indigenous peoples across Ontario on species at risk recovery planning; and
- creating new tools to streamline processes, reduce duplication and ensure costs incurred by clients are directed towards actions that will improve outcomes for the species or its habitat.

The Region of Peel’s current ROP lists “significant habitats of threatened and endangered species” as an element of Core Areas of the Greenlands System in Peel (Policy 2.3.2.2). Development and site alteration are prohibited within Core Areas except for a few exceptions.

Figure 1.1: Provincial Plan Areas in Peel Region



3. Regional and Municipal Official Plans and Studies

3.1 Region of Peel Official Plan

The Region of Peel Official Plan (ROP) was approved by the Ontario Municipal Board in 1997. The last major amendments to the Plan were the result of the Peel Region Official Plan Review (PROPR), which began in 2007. The PROPR led to the adoption of seven Regional Official Plan Amendments (ROPAs). ROPA 21B addressed natural heritage and agriculture policies and ROPA 24 addressed growth management, employment areas, and Greenbelt Plan conformity.

The current Office Consolidation includes Regional Official Plan Amendment (ROPA) 27 – Age Friendly Planning & Health and the Built Environment, and Technical and Administrative Updates; ROPA 28 – Bolton Employment Lands OMB Decision; ROPA 30 – Bolton Residential Expansion Area (appealed); and ROPA 31 – Airport Exception Policies.

The natural environment in Peel crosses the boundaries of five watersheds, three lower-tier municipalities, and includes the provincially designated areas of the Niagara Escarpment, the Oak Ridges Moraine, and the Protected Countryside of the Greenbelt. Consequently, policies regarding Peel's natural environment place emphasis on joint efforts with the local municipalities, conservation authorities and other agencies required to protect and restore the natural systems in Peel.

Peel's Greenland System as identified in the Region's Official Plan is based on an ecosystems approach that consists of Core Areas, Natural Areas and Corridors (NACs) and Potential Natural Areas and Corridors (PNACs). Core Areas are protected from development and site alteration by the Regional Official Plan and are mapped in the Regional Official Plan on Schedule A. Protection and stewardship of NACs and PNACs are to be achieved through the local municipal official plans consistent with provincial policy in accordance with the direction of the Regional Plan.

Core Areas have the highest ecological value and receive the greatest level of protection. Detailed interpretation of the location and extent of the Core Areas is to be set out in local municipal official plans.

Natural Areas and Corridors also contain important ecological features, forms and/or functions and play a crucial role in supporting the integrity of Core Areas.

Potential Natural Areas and Corridors may contain important ecological features, forms and/or functions and may support the integrity of the Greenlands System.

While the ROP recognizes NACs and PNACs, they are not designated in the Plan.

The evaluation and protection of these elements are to be achieved through local municipal official plans and related planning documents.

3.2 Regional Natural Heritage System (NHS) Integration Project: Conservation Authority Natural Heritage System in the Town of Caledon and Region of Peel (2019)

The Region of Peel requested CVC and TRCA to work collaboratively with member municipalities and other conservation authorities to produce Natural Heritage System (NHS) mapping that applied science-based criteria at a watershed and regional scale. This project utilized existing natural heritage systems and extended mapping to the entire Region to provide coverage across conservation authority watersheds in Peel, including the Lake Simcoe Region Conservation Authority (LSRCA), Nottawasaga Valley Conservation Authority (NVCA) and Conservation Halton (CH) jurisdictions. The resulting report provides a technical foundation to support implementation of natural heritage systems policy direction provided in the PPS and in provincial plans in the regional and local context.

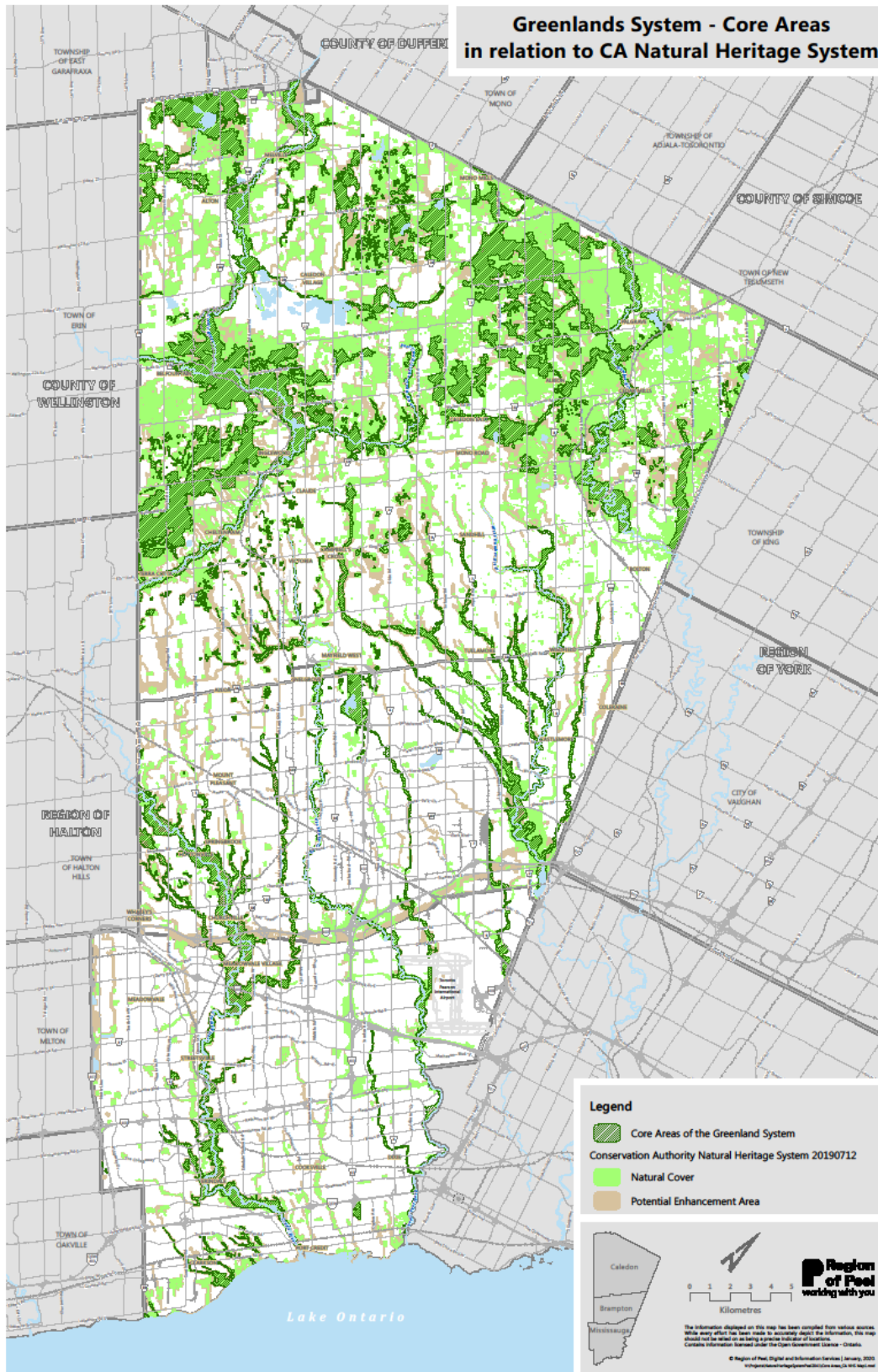
Prior to the initiation of this project, CVC and TRCA provided input to the development of the City of Mississauga's Official Plan Natural Heritage System. Also, the natural heritage systems developed by CVC and TRCA were scaled to the municipal level in the City of Brampton. The CAs NHS was completed by extending a similar methodology within the Town of Caledon and then integrating and merging the mapping produced for the Town of Caledon with the CA mapping that had been developed in the Cities of Brampton and Mississauga.

At the request of the municipalities, the Caledon CA NHS map was refined with available data to incorporate areas where the NHS boundaries had been locally refined based on recent planning approvals (e.g. active aggregate sites, settlement areas).

The Peel CA NHS includes 34% of the land area of the Region of Peel and is 68% natural cover and 32% potential enhancement area. Analysis of the mapping indicates that there is a high degree of overlap between the Peel CA NHS and designated features, areas regulated by Conservation Authorities, and existing provincial and municipal natural heritage systems across the Region. The Peel CA NHS captures 96% of the Peel Greenlands System Core Areas and 88% of the local municipal natural heritage systems. (See Fig. 2.1)

The Peel CA NHS is a landscape-level tool based on current science and is recommended for consideration and use by the Region and its partners for planning and programming purposes. In addition to this, the CA NHS is a tool that supports a number of other municipal initiatives, including determining settlement area boundary expansions, undertaking next generation watershed planning, and prioritizing restoration and stewardship activities. Given the regional/watershed scale of the mapping, further refinements will be needed at local and site-level scales in order to further interpret recommended limits of the NHS. Mapping options to incorporate or reference the mapping in the ROP will be considered in the Peel 2041 ROP review.

Figure 2.1: Conservation Authorities' Modelled Natural Heritage System



3.3 Peel Region Urban Forest Strategy

The Peel Region Urban Forest Strategy (TRCA 2011) is a companion document to the Urban Forest Study Technical Reports provided for Mississauga, Brampton and Caledon. Both the Strategy and the Urban Forest Studies are initiatives of the Region of Peel. Project management of the Strategy was led by the TRCA and a Technical Working Group that consisted of staff from CVC, TRCA, the Region of Peel, and the local municipalities of Mississauga, Brampton and Caledon provided funding, guidance and expertise.

The purpose of the strategy is to provide the strategic direction for the long-term protection and enhancement of the urban forest, as natural infrastructure, in the Region of Peel. The Strategy presents the vision, goals, and actions required to guide and engage individuals and organizations in sustainable urban forest management.

The objectives of the Peel Region Urban Forest Strategy are to:

- Support the development of policies and programs needed to protect urban trees and soils;
- Enhance community engagement and foster effective stewardship of the urban forest;
- Foster effective communication, collaboration, and research across departments and organizations; and
- Improve the long-term flow of ecosystem services to the community in order to promote human health and longevity.

The Peel Region Urban Forest Strategy establishes eight strategic goals to facilitate a coordinated and consistent regional approach to sustainable urban forest management, which are:

1. facilitate partnerships and coordinate action across Peel Region;
2. develop urban forest targets;
3. develop and implement urban forest management plans;
4. create a comprehensive urban forest policy framework;
5. gain formal support from upper levels of government for sustainable management of the urban forest as natural infrastructure;
6. implement effective monitoring and research programs;
7. secure long-term funding for urban forest management; and
8. provide comprehensive training, education, and support for residents and members of the public and private sector.

Actions recommended in association with the fourth goal, which relates to the review of the Region of Peel's Greenlands System policies, include:

- Integrate the strategic goals identified in the Strategy and targets, once defined, into Regional and local municipal Official Plans to recognize the contribution of the urban forest to local quality of life;
- Integrate the goals identified in the Strategy, as well as targets and directions from Urban Forest Management plans, into public initiatives; and

- Develop new municipal standards and guidelines for sustainable streetscape and subdivision design.

3.4 Implementing the Urban Forest Strategy

The Region of Peel has advanced urban forest work with conservation authorities and local municipalities through the implementation of an Urban Forest Strategy (2011) and support for an urban forest working group. The Strategy recommended the development of a “comprehensive urban forest policy framework” and provided a series of actions including a framework for continued collaboration and development of urban forest management plans at the local level.

A Region-wide target for the urban tree canopy has not been established, although the Urban Tree Canopy is monitored across Peel to track progress in meeting the Region’s urban forest management objectives as stated within the Peel Region Urban Forest Strategy (2011). The most recent region-wide assessment in 2015 indicated that the Urban Tree Canopy in Peel Region is approximately 11,925 hectares or 20% of urban areas of Peel Region - including the Cities of Mississauga and Brampton and rural settlement areas of Caledon. The assessment also indicated substantive opportunities for tree planting and enhancement of tree canopy in the Region.

The Region established a Term of Council Priority (2015 – 2018) to adapt to and mitigate the effects of climate change and created an Office of Climate Change and Energy Management (OCCEM) to formalize an approach to mitigate and adapt to the effects of climate change and transition to a low carbon and resilient future in Peel Region. Implementation of the Peel Urban Forest Strategy is being supported through OCCEM in collaboration with local municipal and conservation authority partners.

In 2017, the Community Climate Change Partnership set out a Green Natural Infrastructure Strategy to increase the number of trees planted in heat vulnerable areas. Maps identify three opportunity zones for tree planting in each of the three municipalities. One key milestone in the Strategy includes the development of a Best Practices Manual for Urban Trees to ensure the urban forest thrives through future climate conditions. The Strategy proposes that the Manual include enhanced standards for tree planting, model land use planning policy, and tree protection by-laws. In 2019 the Community Climate Change Partnership’s name was changed to Peel Climate Change Partnership. The Region of Peel also released a Climate Change Master Plan for 2020-2030 which includes direction to incorporate climate change considerations in planning policy.

In 2019, Beacon Environmental was retained by the Region of Peel to complete an Urban Forest Best Practices Manual. This resource manual supports the implementation of the 2011 Peel Urban Forest Strategy, is a deliverable of the Green Natural Infrastructure Strategy and supports the work of the Peel Urban Forest Working Group (UFWG). The Urban Forest Best Practices Manual has four deliverables:

1. Best Practices Guide to Urban Forest Planning in Peel
2. Urban Forest Management Best Practices
3. Tree and Shrub Standards, Specifications for Regional Roads
4. Urban Forest Climate Change Adaptation Guidelines

The Best Practices Guide to Urban Forest Planning in Peel was completed in 2019. It will assist Peel UFWG partners in achieving Urban Forest Strategy's (2011) goal to create a comprehensive urban forest policy framework.

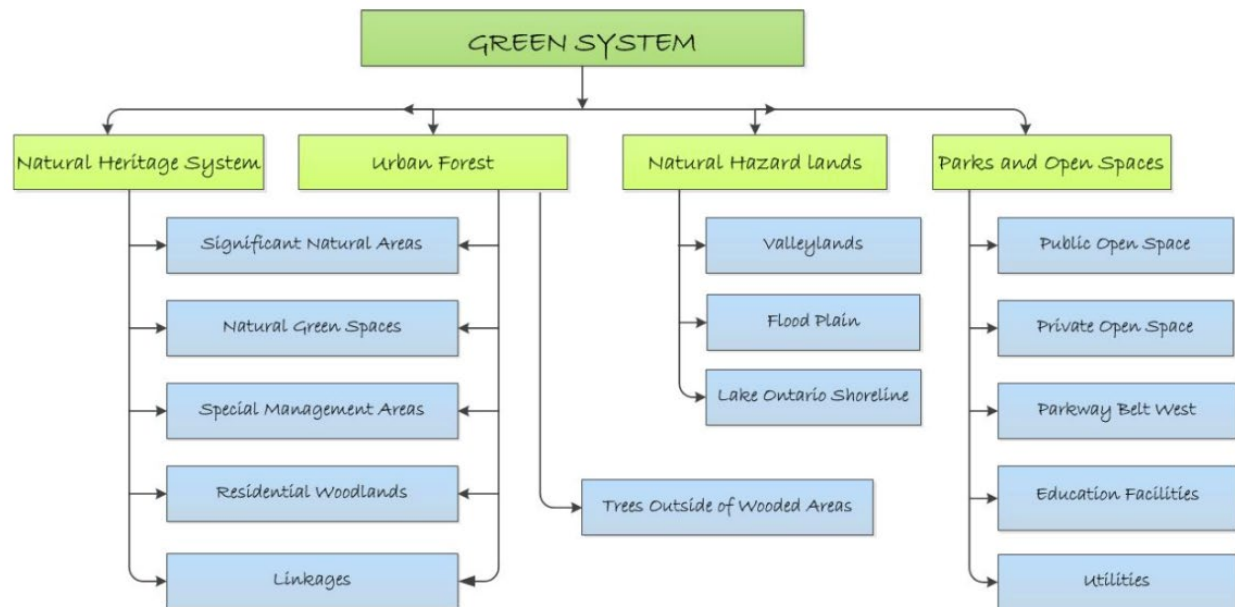
3.5 City of Mississauga Official Plan

The City of Mississauga Official Plan identifies a Green System, consisting of the Natural Heritage System, the Urban Forest, Natural Hazard Lands and Parks and Open Spaces. The Natural Heritage System focuses on the protection of natural heritage features, areas and linkages. It is comprised of Significant Natural Areas, Natural Green Spaces, Special Management Areas, Residential Woodlands, and Linkages:

- Significant Natural Areas are features that meet specific criteria, such as provincially or regionally significance, or habitat of threatened species or endangered species.
- Natural Green Spaces are features such as woodlands and wetlands that are not classified to be significant, and natural areas that are greater than 0.5 hectares that have vegetation that is uncommon in the city.
- Special Management Areas are areas that are adjacent to or near Significant Natural Areas or Natural Green Spaces and will be managed or restored to enhance and support the Significant Natural Area or Natural Green Space.
- Residential Woodlands are woodlands and trees that have established in older residential areas, with large lots having mature trees forming a fairly continuous canopy. Development is to have regard for how the existing tree canopy and understorey are protected, enhanced restored and expanded.
- Linkages are those areas that are necessary to maintain biodiversity and support ecological functions of Significant Natural Areas and Natural Green Spaces but do not fulfill the criteria of Significant Natural Areas, Natural Green Spaces, Special Management Areas or Residential Woodlands. The City of Mississauga's Official Plan (Figure 2) illustrates the components of the City's Green System and the linkage between the Natural Heritage System and the Urban Forest.

Linkages provide connections between and among other lands within the Green System, particularly the Natural Heritage System and Urban Forest.

Development and site alteration are prohibited on specific features, and within or adjacent to Natural Green Spaces, Linkages and Special Management Areas unless it is demonstrated that there will be no negative impact to the natural heritage features and their function.

Figure 3.1: City of Mississauga's Green System

Source: City of Mississauga. (2015). *City of Mississauga Official Plan, Figure 6-5*

3.6 Towards a Natural Heritage System for the City of Mississauga: Landscape Scale Analysis of Mississauga's Natural and Semi-Natural Habitats

This technical report documents the methods and results of a Landscape Scale Analysis (LSA) for the City of Mississauga, which assessed the City's natural and semi-natural areas for their relative importance in contributing to ecosystem function (CVC 2011). In addition, an Enhancement Opportunity Analysis was conducted to identify additional opportunities for restoration and stewardship activities within remaining agricultural and open space areas in Mississauga.

The analysis was undertaken through a partnership led by CVC with the City of Mississauga, Region of Peel, MNR, Conservation Halton, and TRCA. The results of the analysis provided a greater understanding of how natural areas across the City of Mississauga function as a whole and provided context for future land-use planning and conservation initiatives.

The Landscape Scale Analysis represents a technical assessment of natural areas within the City of Mississauga. The mapping presented in the analysis is not a natural heritage system. The technical report points out that to develop a natural heritage system, it is necessary to define a set of criteria for features to be protected under the natural heritage system, and suggests that these criteria should be based on the understanding of natural areas within the City of Mississauga, provided by a combination of the Landscape Scale Analysis, City of Mississauga Natural Areas System, and other relevant local studies. The report also points out that the Region of Peel's Greenlands System should be integrated into the City of Mississauga's natural heritage system.

The Landscape Scale Analysis for Mississauga was one of the background studies that informed the Natural Heritage & Urban Forest Strategy completed by the City of Mississauga in 2014.

3.7 City of Brampton Official Plan

The City of Brampton comprises an area of approximately 269 square kilometres and is characterized by the numerous river and valley corridors of the Credit River, Etobicoke Creek, Mimico Creek, and the Humber/West Humber River watersheds that connect the city to some of Ontario's most significant landscapes and regional ecosystems, including the Greenbelt, Niagara Escarpment, Oak Ridges Moraine and Lake Ontario. Brampton's NHS is a network of conservation lands and waters, linked by natural and restored corridors that become the natural landscape for future generations.

The City of Brampton promotes a systems approach to identify, protect, enhance and restore the natural heritage system in the City. The features and areas that make up the natural heritage system are identified on Schedule D of the Official Plan (2006) and include:

- Valley lands and watercourse corridors;
- Woodlands;
- Wetlands (Provincially Significant and Other Wetlands);
- Environmentally sensitive/significant areas;
- Areas of natural and scientific interest (ANSI);
- Fish and wildlife habitat; and
- Greenbelt Plan Natural System.

The features and areas that make up the natural heritage system and as identified on Schedule D include Core Areas in the Peel Regional Greenlands System, and further interpret and identify the Regional Greenlands System NAC and PNAC natural heritage features and areas. While the components of the natural heritage feature are identified, a conceptual natural heritage system that encompasses all of these features and the linkages between them is not identified.

Restoration Areas are recognized and are described as lands and waters that have the potential to be enhanced, improved or restored to a natural state, contributing to the enhancement of the city's natural heritage system (Section 4.5.6.9). It is the policy of the plan to add Restoration Areas to the natural heritage system over time in accordance with the guidance provided in watershed plans, subwatershed studies, natural heritage system studies and site-specific studies. Further, restoration and enhancement opportunities will be identified through the conservation, restoration and land securement programs of public agencies and through private land stewardship (Section 4.5.6.10). Once identified for protection, Restoration Areas will be protected from development and designated on Schedule D.

The Official Plan encourages the retention, enhancement and development of natural and man-made linkages between elements of the natural heritage system, achieved through the combination of the following:

- Valley and watercourse corridors;
- Woodlands, hedgerows, recreational open space;
- Valley corridors;
- Pedestrian and cyclist trail systems;
- Utility corridors;
- Hedgerows;
- Woodlands;
- Stormwater management facilities and tableland linkages (Section 4.5.13.6).

The Official Plan recognizes the opportunity to create linkages through natural and man-made features.

3.8 City of Brampton Natural Heritage and Environmental Management Strategy (December 2015)

The City of Brampton has completed a Natural Heritage and Environmental Management Strategy (NHEMS) 2015 which consists of three documents:

1. Conservation Authority Natural Heritage System;
2. Background Report; and
3. Implementation Plan.

The proposed NHEMS is a refinement and update of the Natural Heritage System intended to inform and support the City of Brampton's Official Plan Review. The proposed refined Natural Heritage System is comprised of areas that are currently natural (i.e., existing natural cover) as well as areas with the potential to be restored or managed (i.e., potential natural cover/enhancement areas) for ecosystem function. Additional areas of potential natural cover that enhance the existing natural cover and provide ecological linkages are also included. The potential natural cover/enhancement areas are primarily composed of agricultural or successional lands or land adjacent to streams and rivers. By including these lands (in particular, those that fall within the Parkway Belt Plan Area), the City is recognizing the unique ability of these lands to provide east-west linkages to connect Brampton's valleyland corridors.

The Conservation Authority Natural Heritage System Mapping for the City of Brampton – Final Technical Report (CVC and TRCA 2014) was prepared using existing natural heritage features and areas with recommended expansions. The system was based on current science, landscape ecology and monitoring data with the objective of improving the health, resilience and connectedness of existing areas and features to form a robust natural heritage system in the City of Brampton.

The NHEMS recognizes that Brampton's natural heritage system is part of the larger regional-watershed landscape. The study process included a review of current plans, policies, initiatives and practices of the City of Brampton and those of partner agencies (i.e., neighbouring municipalities, the Region of Peel and Conservation Authorities).

3.9 Town of Caledon Official Plan

The Town of Caledon's approach to ecosystem planning and management as set out in its Official Plan includes an Ecosystem Framework, which is comprised of Natural Core Areas, Natural Corridors, Supportive Natural Systems, and Natural Linkages. The Ecosystem Framework incorporates and refines the components of the Region of Peel's Greenlands System.

The Natural Core Areas and Natural Corridors represent the fundamental biological and physical components of the ecosystem. The Natural Core Areas category includes woodland core areas, wetland core areas, Escarpment Natural Areas, Life Science ANSIs, Environmentally Significant Areas, significant habitats of threatened and endangered species, and significant wildlife habitat. Natural Corridors include core fishery resource areas and valley and stream corridors. As well, both categories also include Key Natural Heritage Features, Key Hydrologic Features, and Hydrologically Sensitive Features that are protected by the Oak Ridges Moraine Conservation Plan and the Greenbelt Plan. Both the Natural Core Areas and Natural Corridors are designated Environmental Policy Area (EPA) (Section 3.2.3.1.1). New development is prohibited in EPA designated areas.

Supportive Natural Systems and Natural Linkages perform vital local ecosystem functions and play a crucial role in supporting and enhancing the form, function and integrity of Natural Core Areas and Natural Corridors (Section 3.2.3.1.2). These categories are not designated in the Official Plan.

Despite the high-level categories of Natural Core Areas, Natural Corridors, Supportive Natural Systems, and Natural Linkages, there is no over-arching natural heritage system illustrated that encompasses these categories to form an integrated system.

The Official Plan establishes the Town's intention to initiate the preparation of a Greenways Strategy. The strategy will identify compatible recreational and opens pace opportunities, as a component of the overall ecosystem.

3.10 Town of Caledon Key Natural Heritage and Key Hydrological Feature Study (2018)

The Town of Caledon undertook a project to identify and delineate Key Natural Heritage Features (KNHF) and Key Hydrologic Features (KHF) within the Greenbelt Plan Natural Heritage System. This was primarily to satisfy a requirement in Section 5.3 of the Greenbelt Plan which states that:

"Municipalities should provide a map showing known key natural heritage features and key hydrologic features and any associated minimum vegetation protection zones identified in this plan".

The KNHFs described in the Greenbelt Plan include:

- Habitat of endangered and threatened species;
- Fish habitat;
- Wetlands

- Life Science Areas of Natural and Scientific Interest (ANSIs);
- Significant valleylands
- Significant woodlands;
- Significant wildlife habitat; and
- Sand barrens, savannahs, tallgrass prairies and alvars

The KHF's described in the Greenbelt Plan include:

- Permanent and intermittent streams;
- Lakes (and their littoral zones)
- Seepage areas and springs; and
- Wetlands

Mapping the KNHF's and KHF's (and associated minimum vegetation protection zones) will form the basis for applying the Greenbelt Plan's Natural Heritage System policies and Water Resource System policies contained that protect important natural heritage and hydrologic features and functions.

Various data sources were obtained to identify and delineate KNHF's and KHF's within the Greenbelt Plan NHS in the Town of Caledon. KNHF's and KHF's were delineated based on the best background data available at the time of the project.

The resultant mapping will assist the Town in providing long-term guidance for the management of natural heritage features and water resources when considering such matters as development, infrastructure, open space planning and management, aggregate rehabilitation and private or public stewardship programs. It is the intention of the Town to include this mapping as a new schedule to the Town's Official Plan through an official plan amendment/review process.

The mapping of these KNHF and KHF features in the Town of Caledon will be used by the Region to update its mapping of natural heritage features in Caledon.

3.11 Conservation Authorities

In Ontario, Conservation Authorities regulate development and interference with wetlands and alterations to shorelines and watercourses, under the authority of Section 28 of the *Conservation Authorities Act*. The main objective of the Conservation Authority regulations is to ensure public health and safety and the protection of life and property with respect to natural hazards. In addition to this, CVC and TRCA (the Conservation Authorities that cover the vast majority of the Region of Peel) safeguard watershed health by preventing pollution and destruction of ecologically sensitive areas such as significant natural features and areas, wetlands, shorelines, valleylands and watercourses.

Under Ontario Regulation 160/06 and Ontario Regulation 166/06, any proposed development, interference or alteration within a Regulated Area requires a permit from CVC or TRCA, or other conservation authority.

3.11.1 CVC Watershed Planning and Regulations Policies 2010

The CVC has a mandate and interest in protecting, restoring and enhancing the watersheds within CVC's jurisdiction. The "Watershed Planning and Regulations Policies" provide policy guidance for CVC's role as a regulatory authority under Section 28 of the Conservation Authorities Act and as a commenting agency under the Planning Act.

CVC's Role in Planning Matters

The CVC represents Provincial interests in planning matters as they relate to floodplain management, hazardous slopes, Great Lakes shorelines, unstable soils and erosion. Beyond representing Provincial interests, CVC's role as a commenting agency includes providing plan input and review comments on official plans, zoning bylaws and planning applications under the Planning Act, as well as other legislation CVC may be requested or responsible to provide comment on such as the Canadian Environmental Assessment Act, Ontario Environmental Assessment Act, Fisheries Act, Clean Water Act, Endangered Species Act, Niagara Escarpment Planning and Development Act, Oak Ridges Moraine Conservation Act, Places to Grow Act, and the Greenbelt Act.

CVC reviews applications to ensure they meet CVC, municipal and provincial guidelines related to natural heritage protection, natural hazard management and water management. When an applicant submits a planning application to a municipality, municipal staff may screen the application to determine whether it is within the area of interest of CVC based on service agreements, screening protocols or memorandums of understanding (MOUs).

A Natural Heritage Systems Approach to Watershed Planning

CVC's natural heritage systems approach to watershed planning is based on maintaining a healthy, diverse and connected ecosystem. The key natural features and areas for which diversity and connectivity are to be protected, restored and enhanced are typically identified as core areas of the natural heritage system. The identification of core areas are based on the principles of conservation biology and landscape ecology and include characteristics such as size, shape, proximity, linkage functions, diversity, persistence and uncommon characteristics.

Core areas often include natural features and areas such as valleylands, woodlands, wetlands, habitat of endangered species and threatened species and fish and wildlife habitat. The provision of linkages among natural features and areas is fundamental to a natural heritage systems approach and is necessary to mitigate impacts of fragmentation. Isolated and/or smaller natural features not identified as core may also provide critical functions to the overall health and sustainability of the natural heritage system, including the lands adjacent to it. Additionally, it is important to recognize that the natural heritage system may include lands that have been restored and areas with the potential to be restored to a natural state.

3.11.2 The Credit River Watershed Natural Heritage System 2011 & 2015

Credit Valley Conservation (CVC) has developed a Natural Heritage System Strategy for the Credit River watershed. Central to this strategy is the identification of a Credit River Watershed Natural Heritage System (CRWNHS, abbreviated to NHS).

The NHS is being used to strategically direct CVC programs. It is also used to develop tools to assist provincial and municipal partners, private landowners, non-profit organizations and other stakeholders to protect, manage and enhance natural heritage protection of the Credit River watershed.

Together, “natural heritage features”, their “buffers”, and “natural heritage areas” make up the Credit River Watershed Natural Heritage System. They are essential to be managed jointly and collaboratively for the long-term function and resilience of the watershed’s health.

The NHS specifically provides a watershed and science-based approach that:

- Provides an integrated system of terrestrial and aquatic features and functions to enable better management of the watershed’s natural resources;
- Enables CVC to provide consistent and efficient plan input and plan review on provincial, regional, or area municipal initiatives as part of its technical advisory role, using a common NHS across the watershed;
- Supports CVC’s Strategic Plan 2015-2019 and existing watershed management programs such as the Greenlands Securement Strategy, the Credit River Fisheries Management Plan, the Credit River Water Management Strategy, the Lake Ontario Integrated Shoreline Strategy, and current and future programs, including subwatershed studies and a watershed plan; and
- Provides partners, including municipalities and the Province, with a science-based natural heritage system based on ecological and hydrological principles within a watershed ecosystem context, and with extensive data. The NHS can be used to help refine existing municipal natural heritage systems or can be adapted for development of municipal level natural heritage systems in municipalities that currently lack such systems.

The strategy has been developed in four phases. Phases 1 and 2 were completed in 2011 and involved researching background information and characterizing existing conditions in the Credit River watershed. Phases 3 and 4 were completed in 2015. Phase 3 involved the development of scientific criteria, a methodology and mapping for the system. Finally, Phase 4 developed recommendations for implementation, including actions for protection, restoration, stewardship and land securement.

3.11.3 TRCA Living City Policies 2014

The Living City Policies is the current policy document of the Toronto and Region Conservation Authority (TRCA) approved by TRCA’s Board on November 28, 2014. It is a conservation authority policy document to guide the implementation of TRCA’s legislated and delegated roles and responsibilities in the planning and development approvals process for the next ten years.

Living City Policy Areas include:

- Wetland and Lake Ontario Shoreline policies in accordance with TRCA's Ontario Regulation 166/06, as approved by the Province in May 2006;
- Natural System protection policies based on the science from TRCA's Terrestrial Natural Heritage System Strategy (2007), and as refined in watershed plans and municipal official plans;
- Natural System management policies for redevelopment of existing urban lands that emphasize restoration of degraded natural areas and the remediation of flooding and erosion hazards;
- Policies to address flood risk reduction and redevelopment through comprehensive planning to integrate science, engineering and ecological design in urban intensification areas;
- Stormwater management policies based on TRCA's SWM Criteria Document (2012) that include managing water balance for natural features and groundwater recharge through options such as low impact development measures in a "treatment train" approach;
- Environmental Assessment, Master Plan and Infrastructure policies that incorporate the consideration of cumulative impacts and adaptive management;
- Policies that emphasize an "ecosystem services" perspective in which human health and urban design benefits can be maximized by drawing on both the natural and built elements of "green infrastructure"; and
- Sustainable Communities policies that advocate for other Living City program interests in the planning and development process.

3.11.4 TRCA Regulation Mapping Update 2019

Pursuant to Section 28 of the Conservation Authorities Act, the TRCA administers a "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation (Ontario Regulation 166/06)". The TRCA Regulation mapping is a tool that conceptually shows the area of land within TRCA's jurisdiction that is likely to be subject to this Regulation.

The Regulations prevent or reduce the risk to life and property, minimizes negative impacts on natural features, functions and systems and prevent the creation of new hazards or aggravation of existing hazards.

The mapping does not indicate areas where development is prohibited but rather indicates areas where development will need to take into consideration certain constraints from natural hazards or features and for which a permit is required from TRCA prior to the commencement of development activity.

The mapping is not a "statutory map" in that it does not have the force of law. The actual regulatory requirements are found within the provisions of Ontario Regulation 166/06 (the text of the Regulation prevails in the case of a conflict with the mapping).

Recent updates to TRCA's regulated areas mapping include:

- Revised wetland and area of interference limits associated with new and update wetland evaluations and mapping done by MNRF and TRCA.
- Adjustment to flood hazard limits based on updated flood plain mapping
- Refinements based on site visits (e.g. top of bank staking).

The mapping is used to inform among other things:

- TRCA delegated responsibility to represent the provincial interest for natural hazards.
- Review of application under the Planning Act and Environmental assessment Act.
- Municipal Comprehensive Review (MCR) including NHS mapping, natural hazard mapping and land needs assessment.

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4. Policy Analysis and Proposed Amendments

As stated in Section 2.0 of the Discussion Paper, revisions have been made to provincial policies and plans that now need to be reflected in amendments to the Regional Official Plan (ROP). This includes the *Provincial Policy Statement (PPS) (2020)*, *Oak Ridges Moraine Conservation Plan (2017)*, *Greenbelt Plan (2017)*, *Niagara Escarpment Plan (2017)*, *Lake Simcoe Protection Plan* and the *Growth Plan (2019)*. This Section of the Discussion Paper primarily addresses conformity with the 2020 PPS. Separate Discussion Papers dealing with the *Greenbelt Plan*, *Niagara Escarpment Plan* and the *Oak Ridges Moraine Conservation Plan* address conformity with those Plans. Conformity with the Provincial Growth Plan (A Place to Grow) natural heritage policies is addressed in Section 4.3.

The 2020 PPS (Section 2.1.2) provides direction that the diversity and connectivity of natural features in an area, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and areas and ground water features. Building on that direction, the PPS (Section 2.1.3) now requires that natural heritage systems shall be identified in Ecoregions 6E and 7E, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas and prime agricultural areas.

The last official plan review (PROPR) was undertaken to bring the ROP into conformity with the 2005 PPS. At that time there was no specific requirement to identify a natural heritage system. Further, detailed watershed-based studies remained ongoing for both the Credit River watershed and watersheds in the TRCA's jurisdiction within Peel Region.

The official plan review resulted in policy direction being incorporated in the Regional Official Plan (through ROPA 21B) that the Region review the natural heritage system planning policies of the Greenlands System policy framework and as part of that review, consider the natural heritage system studies being completed by the conservation authorities as well as natural heritage system approaches established in provincial plans as a foundation for updating policy direction in the Regional Plan. The work by the conservation authorities has now been completed and the natural heritage system approaches have been updated in provincial plans.

In addition to providing updated policy direction for natural heritage systems planning, the 2020 PPS has included revisions to the policies protecting natural heritage features including policy changes for fish habitat and habitat of endangered and threatened species, new policy requirements for coastal wetlands and updated criteria for the identification of significant wildlife habitat. Definitions have also been updated in the PPS.

The review by the Region will therefore need to address revisions to the Greenlands System Core Areas, Natural Areas and Corridors (NAC) and Potential Natural Areas and Corridors (PNAC) features based policies. It will also need to provide updated policy direction for natural heritage system planning to ensure that the ROP reflects provincial requirements and current best practices as well as regional and local needs. In updating natural heritage system policy, the Region will need to consider including updated policy for linkages, buffers and enhancement areas to ensure the diversity and connectivity of natural features and areas are maintained, restored or improved.

Providing policy direction to support the implementation of natural heritage system planning by the local municipalities will be an important consideration in the review. New and revised policy direction to implement Greenlands System protection, restoration and enhancement will need to be considered. This direction will need to incorporate provincial requirements while providing flexibility to enable the local municipalities to tailor approaches to their needs.

The review will also need to address the relationship between natural heritage and agriculture to ensure appropriate regard for working landscapes and recognize that the natural heritage and agricultural systems overlap and are mutually supportive.

In addition, the benefits of the urban forest and greenspaces in urban and rural settlement areas is recognized by the Region as having a related role in supporting the Greenlands System. Urban forests and trees are natural assets that require appropriate policy direction to ensure forests and tree canopy are protected, maintained and enhanced.

Existing Regional Official Plan policies for invasive species and greenlands management and stewardship continue to be a relevant and supporting part of the Greenlands System policy framework.

Finally, the review will need to consider required mapping revisions to ensure that schedules and figures depicting the Greenlands System components reflect current mapping data and implement provincial policy direction requiring that natural heritage systems are identified. The mapping will need to consider the identification and integration of Greenlands System components in conformity with provincial policy.

4.1 ROP Natural Heritage Features and Areas

The ROP implements the PPS's natural heritage features policies through the Greenlands System's Core Areas, NAC and PNAC policy framework. The natural heritage features and areas of the Greenlands System are classified as Core Areas, NACs or PNACs based on criteria in the Greenlands System policy framework. Core Areas represent provincially significant and regionally significant features and areas and are considered a sub-set of what would be significant under the PPS.

In accordance with the Greenlands System policy framework, Core Areas are afforded the highest degree of protection, with development and site alteration being prohibited except for certain specified uses. The Plan directs the area municipalities to include objectives and policies in their official plans for the interpretation, protection, enhancement, proper management and stewardship of the Core Areas which conform to the intent of this Plan, consistent with provincial land use plans and policies. The area municipalities are specifically directed to adopt official plan policies to implement the exceptions to the prohibition on development in Core Areas.

The NACs and PNACs also may contain important ecological features, forms and/or functions, and can play a crucial role in supporting the integrity of the Core Areas and the Greenlands System. The interpretation, evaluation and protection and stewardship of these areas is to be achieved through the area municipal official plans and related planning documents and through the local studies required

during the planning approvals process at the municipal level in accordance with Regional, local municipal and provincial policy.

The natural heritage features and areas of the Greenlands System in Peel currently include:

- Areas of Natural and Scientific Interest (ANSIs);
- Environmentally Sensitive or Significant Areas (ESAs);
- Escarpment Natural Areas;
- Escarpment Protection Areas;
- fish and wildlife habitat;
- habitats of threatened and endangered species;
- wetlands;
- woodlands;
- valley and stream corridors;
- shorelines;
- natural lakes;
- natural corridors;
- groundwater recharge and discharge areas;
- open space portions of the Parkway Belt West Plan; and
- other natural features and functional areas

In the following sections the classification, criteria and policies applying to natural heritage features and areas are reviewed to determine if any changes are recommended in accordance with provincial policy requirements.

4.2 Conformity to Provincial Policy and Plans

4.2.1 Areas of Natural and Scientific Interest (ANSIs)

The ROP defines ANSIs as “areas of land and water containing natural landscapes or features which the Ministry of Natural Resources and Forestry has identified as having provincial and regional significance, possessing values related to natural heritage appreciation, scientific study or education:

- Life Science Areas of Natural and Scientific Interest are those areas identified by the Ministry of Natural Resources and Forestry for their high-quality representation of important provincial biotic attributes.
- Earth Science Areas of Natural and Scientific Interest are those areas identified by the Ministry of Natural Resources and Forestry for their high-quality representation of important provincial geological attributes”.

ANSIs are evaluated based on specific criteria and are identified as provincially or regionally significant by the Ministry of Natural Resources and Forestry.

In policy 2.1.5, the PPS states that development and site alteration shall not be permitted in significant ANSIs unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

In the ROP, Provincially Significant Life Science ANSIs are included under Core Areas of the Greenlands System. Regionally Significant Life Science ANSIs and Provincially Significant Earth Science ANSIs are included as NACs in the Greenlands System. Regionally Significant Earth Science ANSIs are listed as a PNAC in the Greenlands System framework.

In the ROP, development and site alteration are prohibited within the Core Areas of the Greenlands System in Peel, except for a few exceptions including minor development and minor site alteration. The ROP directs local municipalities to protect, restore, enhance, properly manage and steward the NACs and PNACs in accordance with the intent of the ROP and provincial plans and policies.

Proposed Policy Change

No change to this policy will be required in the ROP. Minor revisions to update the definition of “Areas of Natural and Scientific Interest” are recommended to align with the definition in the PPS.

4.2.2 Environmentally Sensitive or Significant Areas

The ROP defines Environmentally Sensitive or Significant Area as “places where ecosystem functions or features warrant special protection. They may include but are not limited to rare or unique plant or animal populations or habitats, plant or animal communities, or concentrations of ecological functions. Environmentally Sensitive or Significant Areas are identified by the conservation authorities according to their established criteria”.

In the ROP, Environmentally Sensitive or Significant Areas are included under Core Areas of the Greenlands System.

Potential Environmentally Sensitive or Significant Areas are included under PNACs of the Greenlands System.

The identification of ESAs is based on evaluations completed by the conservation authorities. The conservation authorities are no longer identifying new ESA areas for designation. Although the ESA programs are no longer active, the protection of ESAs has been a core element of the Regional Greenlands System framework. Most ESAs would include significant wildlife habitat, woodlands, valleylands or endangered and threatened species habitat and afford protection of features as integrated areas along with adjacent lands based on ESA evaluation criteria. In recognition that the conservation authorities are no longer identifying new ESAs, the identification of potential ESAs under the PNAC category is no longer needed.

Proposed Policy Change

It is recommended that the policy defining PNACs be amended to delete “potential ESAs” as the further evaluation and identification of new ESAs is no longer applicable.

4.2.3 Escarpment Natural Areas and Escarpment Protection Areas

Escarpment Natural Areas include “Escarpment features that are in a relatively natural state and associated valleylands, wetlands and woodlands that are relatively undisturbed”. Escarpment Natural Areas include the most sensitive natural and scenic resources of the Escarpment. Policies of the Niagara Escarpment Plan aim to protect and enhance these natural areas and to maintain the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment.

Revisions made in the 2017 *Niagara Escarpment Plan* include updated criteria for designation of Escarpment Natural Areas. The updated criteria are now listed as:

1.3.2 Criteria for Designation

1. *Escarpment slopes and Escarpment Related Landforms associated with the underlying bedrock that are in a relatively natural state.*
2. *Where woodlands abut the Escarpment, the designation includes the woodlands 300 metres back from the brow of the Escarpment slopes.*
3. *Provincially significant Areas of Natural and Scientific Interest (Life Science).*
4. *Significant valleylands, provincially significant wetlands and wetlands greater than 20 hectares in size.*

Updated policies for the protection of key natural heritage features and key hydrologic features have also been included in the Niagara Escarpment Plan, which apply to all development within the area of the Niagara Escarpment Plan. Key natural heritage features and key hydrologic features that are subject to development criteria in the Plan include:

Key Hydrologic Features

- Wetlands
- Permanent and intermittent streams
- Lakes and their littoral zones
- Seepage areas and springs

Key Natural Heritage Features

- Habitat of endangered and threatened species
- Fish habitat
- Life Science Areas of Natural and Scientific Interest
- Earth Science Areas of Natural and Scientific Interest

- Significant valleylands
- Significant woodlands
- Significant wildlife habitat
- Habitat of special concern species in Escarpment Natural and Escarpment Protection areas

In the ROP, Escarpment Natural Areas of the Niagara Escarpment Plan are included under Core Areas of the Greenlands System.

The 2017 *Niagara Escarpment Plan* includes updated mapping of Escarpment Natural Areas in accordance with the updated criteria and more recent mapping data of Escarpment features that make up the designation. The criteria for designation of Escarpment Protection Areas did not change in the 2017 *Niagara Escarpment Plan*; however, newer mapping of the Escarpment Protection Area designation is included in the 2017 Plan and should be reflected in the Town of Caledon Official Plan. The *Niagara Escarpment Plan* designations are currently shown on Appendix I to the Town of Caledon Official Plan.

In the ROP, Escarpment Protection Areas of the *Niagara Escarpment Plan* are included as NACs in the Greenlands System framework.

Proposed Policy Change

It is recommended that Escarpment Natural Areas continue to be included as a Core Area of the Greenlands System and that Escarpment Protection Areas continue to be included as a NAC of the Greenlands System.

The mapping of Escarpment Natural Areas as Core Areas of the Greenlands System on Schedule A to the Regional Official Plan should be updated to reflect mapping changes in the 2017 *Niagara Escarpment Plan*.

4.2.4 Fish Habitat and Wildlife Habitat

In the ROP, fish habitat and significant wildlife habitat are listed as NACs in the Greenlands System policy framework. There currently are no standalone policies in the ROP respecting development and site alteration as it relates to fish habitat or significant wildlife habitat. Development and site alteration within or adjacent to fish habitat and significant wildlife habitat are subject to the same policies that apply to other NACs. Policy 2.3.2.11 of the ROP directs local municipalities to include objectives and policies in their official plans for the interpretation, protection, restoration, enhancement, proper management and stewardship of the NACs and PNACs in accordance with provincial policy.

Policy 2.1.5 of the PPS states that development and site alteration shall not be permitted in significant wildlife habitat unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

Policy 2.1.6 of the PPS states that development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.

Policy 2.1.8 of the PPS states that development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5 (significant wildlife habitat) and 2.1.6 (fish habitat) unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

Based on the definition for “significant” in the PPS, criteria for determining the significance of wildlife habitat are recommended by the Province, but municipal approaches that achieve or exceed the same objective may be used. Since the last ROP was prepared, the Ministry of Natural Resources and Forestry has released Ecoregion Criteria Schedules for evaluating the significance of wildlife habitat in Ecoregions 6E and 7E (MNRF 2015). Significant wildlife habitat is now defined in accordance with the Ministry of Natural Resources and Forestry’s Significant Wildlife Habitat Technical Guide and the associated Criteria Schedules for Ecoregions 6E and 7E both of which apply in Peel.

Significant wildlife habitat meeting one or more of the criteria in Figure 5 of the ROP is included under NACs of the Greenlands System. Figure 5 in the ROP references criteria for the identification of significant wildlife habitat that are now superseded by the more recent Criteria Schedules for Ecoregions 6E and 7E.

Proposed Policy Change

It is recommended that the criteria for identification of significant wildlife habitat be amended by deleting the reference to Figure 5 and replacing it with a reference to the Ministry of Natural Resources and Forestry’s Significant Wildlife Habitat Technical Guide and the associated Criteria Schedules for Ecoregions 6E and 7E.

In accordance with the 2020 PPS, it is proposed that the ROP be amended to be consistent with provincial policy and provide a separate standalone policy to reflect the requirements in the PPS, which defers to federal and provincial requirements (e.g. Fisheries Act).

Minor revisions to the definitions for fish habitat and wildlife habitat in the ROP are also recommended to align with the PPS.

4.2.5 Habitats of Threatened and Endangered Species

In the ROP, threatened species is defined as “a species that is listed or categorized as a “Threatened Species” on the Ontario Ministry of Natural Resources’ official species at risk list, as updated and amended from time to time”. In the ROP, endangered species is defined as “a species that is listed or categorized as an “Endangered Species” on the Ontario Ministry of Natural Resources’ official species at risk list, as updated and amended from time to time”. Significant in regard to the habitat of endangered species and threatened species, means “habitat, as approved by the Ontario Ministry of Natural

Resources, that is necessary for the maintenance, survival, and/or the recovery of naturally occurring or reintroduced populations of endangered species or threatened species, and where those areas of occurrence are occupied or habitually occupied by the species during all of any part(s) of its life cycle”.

Since the last update to the ROP, policy revisions have been incorporated into the PPS regarding the definitions and policy direction applying to the habitat of endangered and threatened species to better align with federal and provincial species at risk legislation.

In the 2020 PPS, habitat of endangered species and threatened species: “means habitat within the meaning of Section 2 of the Endangered Species Act, 2007”. Minor revisions to the PPS definitions for endangered species and threatened species have also been included:

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

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

Policy 2.1.7 of the PPS states that “development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements”.

In the ROP, “significant habitats of threatened and endangered species” are incorporated under Core Areas of the Greenlands System. The reference to “significant habitats of threatened and endangered species” was previously added to the ROP to be consistent with the 2005 PPS and will need to be updated to reflect current provincial terminology and policy direction.

The ROP prohibits development and site alteration within the Core Areas of the Greenlands System, except for a few exceptions including minor development and minor site alteration. Under policy 2.3.2.6 of the ROP, which lists the exceptions to the prohibition of development and site alteration within Core Areas, it is stated that permitted exceptions within significant habitat of threatened and endangered species may only be considered in accordance with provincial and federal legislation and policies (e.g., *Endangered Species Act*).

Proposed Policy Change

In accordance with the 2020 PPS, it is proposed that the ROP be amended to be consistent with provincial policy by:

- Deleting “significant habitats of threatened and endangered species” as a Core Area of the Greenlands System and adding “habitat of endangered and threatened species” as a Natural Areas and Corridor of the Greenlands System to align with the classification for fish habitat which is subject to similar policy direction under the PPS.

- Adding a stand-alone policy that states that development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements⁴.
- Deleting and replacing the current definitions for “endangered species” and “threatened species” to be consistent with updated definitions in the PPS.
- Adding a new definition for “habitat of endangered species and threatened species” consistent with the PPS.
- Revising the definition for “significant” in the ROP by deleting the reference to the habitat of endangered species and threatened species.

4.2.6 Wetlands

In the ROP, wetlands are “lands that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface.” In the ROP, “significant” in regard to wetlands, and coastal wetlands, means “an area identified as provincially significant by the Ontario Ministry of Natural Resources using evaluation procedures established by the Province, as amended from time to time”. Current ROP definitions for wetlands and significant wetlands are consistent with the PPS.

Regarding wetlands and coastal wetlands, the definition of “significant” in the PPS is: “an area identified as provincially significant by the Ontario Ministry of Natural Resources using evaluation procedures established by the Province, as amended from time to time”. The MNRF’s Ontario Wetland Evaluation System (OWES) manual provides guidelines on how to evaluate wetlands (MNRF 2014). Wetlands that meet certain criteria provided in that document are considered provincially significant. Policy 2.1.4 of the PPS states that development and site alteration shall not be permitted in significant wetlands in Ecoregions 5E, 6E and 7E and in significant coastal wetlands.

In the ROP, provincially significant wetlands and significant coastal wetlands are included under Core Areas of the Greenlands System. Development and site alteration are prohibited within the Core Areas of the Greenlands System, except for a few exceptions including minor development and minor site alteration. Under policy 2.3.2.6 of the ROP, which lists the exceptions to the prohibition of development and site alteration within Core Areas, it is stated that “permitted exceptions within significant wetlands may only be considered in accordance with provincial and federal legislation and policies”. The policy for significant wetlands and significant coastal wetlands in the ROP is consistent with the PPS.

The PPS further states that development and site alteration shall not be permitted in coastal wetlands in Ecoregions 5E, 6E and 7E that are not subject to Policy 2.1.4 (i.e. coastal wetlands that are not provincially significant) unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

⁴ The ROP current embeds this policy under policy 2.3.2.6. A stand-alone policy would strengthen the policy, bringing it more in line with the PPS and ESA.

The ROP identifies evaluated non-provincially significant wetlands as NACs, and unevaluated wetlands as PNACs of the Greenlands System. The NAC and PNAC categories currently do not specifically reference coastal wetlands as defined in the PPS.

Although significant coastal wetlands are listed in the Greenlands System policy framework and are included within the definition for “significant” in the ROP, there is currently no specific definition or reference to coastal wetlands (i.e. non-provincially significant coastal wetlands) in the Plan. Adding a new definition for coastal wetlands and including coastal wetlands within the NAC and PNAC framework should be considered in the ROP review.

Proposed Policy Change

It is proposed that the NAC and PNAC categories be revised to list non-provincially significant coastal wetlands as NACs and unevaluated coastal wetlands as PNACs and that the ROP include a new definition for “coastal wetlands” in accordance with the PPS.

4.2.7 Woodlands

In the ROP, woodlands are defined as “ecosystems comprised of treed areas, woodlots, forested areas and the immediate biotic and abiotic environmental conditions on which they depend. Woodlands include woodlots, cultural woodlands, cultural savannahs, plantations and forested areas and may also contain remnants of old growth forests.”

Woodlands are further defined as any area greater than 0.5 ha that has:

- a) a tree crown cover of over 60% of the ground, determinable from aerial photography, or
- b) a tree crown cover of over 25% of the ground, determinable from aerial photography, together with on-ground stem estimates of at least:
 - i. 1,000 trees of any size per hectare,
 - ii. 750 trees measuring over five centimetres in diameter at breast height (1.37m), per hectare,
 - iii. 500 trees measuring over 12 centimetres in diameter at breast height (1.37m), per hectare, or
 - iv. 250 trees measuring over 20 centimetres in diameter at breast height (1.37m), per hectare (densities based on the *Forestry Act of Ontario* 1998) and, which have a minimum average width of 40 metres or more measured to crown edges.

Treed portions of a woodland with less than the required stocking level will be considered part of the woodland as long as the combination of all treed units in the overall connected treed area meets the required stocking level. Woodlands experiencing changes such as harvesting, blowdown or other tree mortality are still considered woodlands. Such changes are considered temporary whereby the forest still retains its long-term ecological value.

There is no formal definition of “significant” woodland in the ROP. However, criteria for Core Woodlands, and recommended criteria for NAC Woodlands and PNAC Woodlands (see criteria below), as well as certain other woodlands, have been incorporated in the Greenlands System policy framework in accordance with the Significant Woodlands and Significant Wildlife Habitat Study conducted by the Region as part of the previous five year review of the ROP.

Woodlands are incorporated in the Greenlands System in the following ways:

- Core woodlands meeting one or more of the criteria in Table 1 are included under Core Areas of the Greenlands System;
- NAC woodlands meeting one or more of the criteria in Table 1 are included under NACs of the Greenlands System;
- cultural woodlands and cultural savannahs within the Urban System and Rural Service Centres meeting one or more of the criteria in Table 1 are included under PNACs of the Greenlands System; and
- any other woodlands greater than 0.5 hectares are included under PNACs of the Greenlands System.

Criteria and thresholds for the identification of Core Woodlands are (Table 1 of the ROP):

- any woodland \geq 16 ha in the Rural System
- any woodland \geq 4 ha in the Urban System
- any woodland \geq 4 ha that supports any of the following:
 - any G1, G2, G3, S1, S2 or S3 plant or animal species, or community as designated by NHIC; or
 - any species designated by COSEWIC or COSSARO as Threatened, Endangered or of Special Concern; or
 - The following forest communities: FOC1-2, FOM2-1, FOM2-2, FOM6-1, FOD1-1, FOD1-2, FOD1-4, FOD2-2, FOD2-3 OR FOD6-2.

Criteria and thresholds for the identification of NAC Woodlands are (Table 1 of the ROP):

- any woodland \geq 4 ha up to 16 ha in the Rural System
- any woodland \geq 2 ha up to 4 ha in the Urban System
- any woodland \geq 0.5 ha and less than 4 ha and containing at least 0.5 ha of woodland in native trees older than 100 years and having late successional characteristics (excludes plantations)
- any woodland \geq 0.5 ha supporting a significant linkage function, as determined through a natural heritage study approved by the Region or area municipality
- any woodland \geq 0.5 ha within 100 m of another significant feature supporting a significant ecological relationship between the features
- any woodland \geq 0.5 ha within 30 m of a watercourse, surface water features or any wetland that is or can be identified as a wetland in accordance with the Ontario Wetland Evaluation System (OWES)

- any woodland \geq 0.5 ha up to 4 ha that supports any of the following:
 - any G1, G2, G3, S1, S2 or S3 plant or animal species, or community as designated by NHIC; or
 - any species designated by COSEWIC or COSSARO as Threatened, Endangered or of Special Concern; or
 - The following forest communities: FOC1-2, FOM2-1, FOM2-2, FOM6-1, FOD1-1, FOD1-2, FOD1-4, FOD2-2, FOD2-3 OR FOD6-2.

Criteria and thresholds for the identification of PNAC Woodlands are (Table 1 of the ROP):

- cultural woodlands and cultural savannahs \geq 4 ha in the Rural System and \geq 2 ha in the Urban System and Rural Service Centres (Core Area and NAC criteria related to age, linkage, proximity, surface water quality, and significant species and communities apply)
- all other woodlands $>$ 0.5 ha.

In the ROP, Core woodlands are included under Core Areas of the Greenlands System. Development and site alteration are prohibited within the Core Areas of the Greenlands System in Peel, except for a few exceptions including minor development and minor site alteration.

NAC woodlands and PNAC woodlands (i.e., certain cultural woodlands and cultural savannahs, and any other woodlands greater than 0.5 ha) are included under NACs and PNACs of the Greenlands System. Policy 2.3.2.11 of the ROP directs local municipalities to include objectives and policies in their official plans for the interpretation, protection, restoration, enhancement, proper management and stewardship of the NACs and PNACs in accordance with provincial and regional policy.

Policy 2.1.5 of the PPS states that development and site alteration shall not be permitted in significant woodlands unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

The definition for “woodland” in the Glossary of the ROP and the policy direction for significant woodlands in the ROP’s Greenlands System policy framework are consistent with the PPS.

Proposed Policy Change

Minor editorial revisions to the references for Core, NAC and PNAC woodlands are proposed to clarify the interpretation of the ROP (e.g. in policy 2.3.2.4, deleting reference to “Core” and listing “woodlands meeting one or more of the criteria for Core woodlands in Table 1”). The proposed editorial revisions do not alter the purpose and intent of the policy.

4.2.8 Valley and Stream Corridors

Policy 2.1.5 of the PPS states that development and site alteration shall not be permitted in significant valleylands in Ecoregions 6E and 7E, unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

In the ROP, valley and stream corridors are defined as “the natural resources associated with the river systems characterized by their landform, features and functions, and include associated ravines. Valley corridors and ravines are distinguished from stream corridors by the presence of a distinct landform”.

Valley and stream corridors meeting one or more of the criteria in Table 2 of the ROP are included under Core Areas of the Greenlands System. Policy 2.3.2.2. g) states that “The limit of Core valley and stream corridors shall be determined jointly with the area municipalities in consultation with relevant agencies and in accordance with the definition in the Glossary [of the ROP] and the criteria in Table 2 [of the ROP] to recognize the unique urban and rural character of the region. Core valley and stream corridors include the main branches, major tributaries and other tributaries associated with the Credit River, the Etobicoke Creek, the Mimico Creek, the West Humber River and the Humber River and with the other identified watercourses draining directly to Lake Ontario, except for those portions in the Rural Service Centres and the rural settlements in the Rural System as designated in an area municipal official plan. These valley and stream corridors are continuous linkages connecting to other elements of the Greenlands System Core Areas”.

Criteria and thresholds for the identification of Core valley and stream corridors include the following (Table 2 of the ROP):

- main branches, major tributaries, other tributaries and identified watercourses draining directly to Lake Ontario which are mapped to the furthest upstream extent of their defined valley landform;
- valley and stream corridors are the natural resources associated with the river systems characterized by their landform, features and functions, and include associated ravines;
- ill-defined sections of major valleys; and
- associated ravines within the Urban System subject to specified criteria.

The criteria to identify Core valley and stream corridors were incorporated into the ROP in accordance with the Proposed Methodology to Update Mapping of Core Valley and Stream Corridors (October 2008) that was developed and implemented as part of the previous five-year review of the ROP. In the ROP, development and site alteration are prohibited within the Core Areas of the Greenlands System in Peel, except for a few exceptions including minor development and minor site alteration.

Any other valley and stream corridors that have not been defined as part of the Core Areas are included under NACs of the Greenlands System. Policy 2.3.2.11 of the ROP directs local municipalities to include objectives and policies in their official plans for the interpretation, protection, restoration, enhancement, proper management and stewardship of the NACs and PNACs in accordance with provincial and regional policy.

The current ROP definitions and policies for valley and stream corridor are consistent with the PPS.

Proposed Policy Change

No significant changes are proposed to the Greenlands System policies for valley and stream corridors.

Minor policy revisions to clarify existing policy and align with updated definitions and terms are proposed as follows:

- Adding a reference to the mapping of valley and stream corridors on Schedule Y1 (formerly Schedule A) to support interpretation of the ROP's valley and stream corridor policies by referencing the mapping of Core valley and stream corridors that was included in the previous official plan review and that is currently shown on Schedule A. No changes to the valley and stream corridor boundaries shown on Schedule Y1 are proposed.
- Deleting and replacing the reference to the Rural Service Centres with "the urban settlements of Bolton, Mayfield West and Caledon East" to reflect the proposed direction that identification of Rural Service Centres within the Regional Structure (Urban System vs Rural System) be reviewed and addressed through the Growth Management component of the ROP review. This revision maintains and does not change the existing policy direction in the ROP for valley and stream corridors within the Rural Service Centres.
- Clarifying that expansions to existing compatible active recreation within Core valley and stream corridors within the Urban System should be limited in scale by adding the term "limited" in reference to expansions to existing compatible active recreation. The proposed change is in keeping with the intent of the ROP's Core Area policies.
- Additional minor housekeeping and reorganization of policies to improve clarity and interpretation of the policies.

4.2.9 Shorelines

In the ROP, shorelines, as defined, "include bluffs and lands in immediate contact with, or in seasonally inundated areas adjacent to, lakes, rivers and streams".

"The Lake Ontario shoreline and littoral zone and other natural lakes and their shorelines" are identified as NACs in the ROP.

In addition, portions of historic shorelines are included under PNACs of the Greenlands System. In the ROP, historic shorelines are defined as "the steep slopes or other remnants of the shorelines of glacial Lake Iroquois and Lake Peel".

The PPS (3.1.1) states that development shall generally be directed to areas outside of hazardous lands adjacent to the shorelines of the Great Lakes.

The ROP includes policies directing development away from the Lake Ontario Regulatory Shoreline and other hazard lands.

Proposed Policy Change

No changes to this policy are proposed.

4.2.10 Natural Lakes

In the ROP, a natural lake is defined as “a body of water greater than two hectares in size (approximately 5 acres) created by natural processes”.

Natural lakes and their shorelines are included under NACs of the Greenlands System. Policy 2.3.2.11 of the ROP directs local municipalities to include objectives and policies in their official plans for the interpretation, protection, restoration, enhancement, proper management and stewardship of the NACs and PNACs.

Proposed Policy Change

No changes to this policy are proposed.

4.2.11 Natural Corridors

The Provincial Natural Heritage Reference Manual defines linkage/corridor as “a linear area intended to provide connectivity (at the regional or site level), supporting a complete range of community and ecosystem processes, enabling plants and smaller animals to move between core areas and other larger areas of habitat over a period of generations”.

In the ROP, natural corridors are defined as “naturally vegetated or potentially revegetated lands that connect, link or border critical ecological attributes and functions and provide ecological functions such as habitat, migration routes, hydrological flow, connections or buffering from adjacent impacts. Certain woodlands, waterbodies, water courses, valleylands, riparian zones, shorelines, and portions of the Niagara Escarpment natural heritage system and intervening adjacent lands function as natural corridors in the Greenlands System”.

Natural corridors are included within the elements that make up the Core Areas, NACs and PNACs of the Greenlands System. Natural features and functional areas that are interpreted as part of the Greenlands System NACs and PNACs by individual local municipalities in consultation with the conservation authorities can be included.

In the general description of natural corridors in the ROP, natural corridors on lands that are not in a natural state, but have the potential to be restored to a natural state to improve the integrity and function of the Greenlands System, are to be identified through the preparation of natural heritage studies in accordance with local municipal official plan policy.

Proposed Policy Change

The natural heritage features and areas that are included as elements of the Greenlands System’s Core, NAC and PNAC policy framework and that function as natural corridors should be retained.

It is proposed that the description and definition for natural corridors in the preamble section and Glossary of the ROP be deleted and replaced with updated policy direction to implement a natural

heritage systems approach in accordance with provincial policy along with new definitions for linkages and enhancement areas aligned to provincial policy.

4.2.12 Groundwater Recharge and Discharge Areas

In the ROP, a groundwater recharge area is defined as “an area in which there is a significant addition of water by natural processes to groundwater” and a groundwater discharge area is “an area where there is a significant contribution by groundwater to surface water, including streams, lakes and wetlands”.

“Headwater source and discharge areas” are included under NACs of the Greenlands System. “Sensitive groundwater recharge areas” are included under PNACs of the Greenlands System.

The 2020 PPS (Section 2.2.1.) contains policies to protect, improve or restore the quality and quantity of water by, among other policies, implementing necessary restrictions on development and site alteration to:

- 1) protect all municipal drinking water supplies and designated vulnerable areas; and
- 2) protect, improve or restore vulnerable surface and ground water, sensitive surface water features and sensitive ground water features, and their hydrologic functions.

Policy 2.3.2.11 of the ROP directs local municipalities to include objectives and policies in their official plans for the interpretation, protection, restoration, enhancement, proper management and stewardship of the NACs and PNACs. Updated policies have been incorporated in the draft Water Resources System policies which address water resource protection including policies to protect municipal drinking water supplies, vulnerable surface and ground water, designated vulnerable areas, sensitive ground water features, sensitive surface water features and groundwater recharge and discharge areas.

Proposed Policy Change

Corresponding changes to update the identification of sensitive groundwater recharge and discharge areas within the Greenlands System Core, NAC and PNAC policy framework are proposed to better align with provincial definitions for these terms and provide for the continued integration of groundwater features and areas within the natural heritage planning framework of the ROP.

- The definition of “sensitive groundwater recharge and discharge areas” is proposed to be updated to clarify the meaning of these terms in relation to their ecological functions that support ecologically significant features such as coldwater streams and wetlands.
- A minor clarification to the listing of “headwater source and discharge areas” under the NAC category is proposed to better align to PPS definitions (i.e. revise to “sensitive headwater source and groundwater discharge areas”).

4.2.13 Open Space Portions of the Parkway Belt West Plan

In the ROP, the Parkway Belt West Plan is defined as “a provincial plan implemented in 1978 for the purposes of separating and defining the boundaries of urban areas, linking urban areas with other areas, providing a land reserve for future linear facilities and providing a system of linked open space and recreational facilities”.

Open space portions of the Parkway Belt West Plan are included under PNACs in the Greenlands System. Policy 2.3.2.11 of the ROP directs local municipalities to include objectives and policies in their official plans for the interpretation, protection, restoration, enhancement, proper management and stewardship of the NACs and PNACs.

Proposed Policy Change

No change to this policy will be required in the ROP.

4.2.14 Other Natural Features and Functional Areas

Other natural features and functional areas interpreted as part of the NACs or PNACs by the individual area municipalities may be included in the Greenlands System as appropriate. Policy 2.3.2.11 of the ROP directs local municipalities to include objectives and policies in their official plans for the interpretation, protection, restoration, enhancement, proper management and stewardship of the NACs and PNACs.

Proposed Policy Change

No change to this policy will be required in the ROP.

4.2.15 Adjacent Lands Policies

Adjacent lands are defined by the 2020 PPS as “those lands contiguous to a specific natural heritage feature or area where it is likely that development or site alteration would have a negative impact on the feature or area. The extent of the adjacent lands may be recommended by the Province or based on municipal approaches which achieve the same objectives”.

Policy 2.1.8 of the PPS states that “development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions”.

The current ROP includes a policy (policy 2.3.2.25), which directs the local municipalities to require environmental impact studies for development and site alteration within and on adjacent lands to the Greenlands System.

The ROP definition of “adjacent lands” is consistent with the PPS, but currently does not specify further guidance on what constitutes adjacent lands (e.g., 120 metres from the edge of a provincially significant

wetland, etc.) for the purposes of indicating when environmental impact studies may be required except where study requirements for hydrologic evaluations and natural heritage evaluations have been set out in provincial plans.

The existing policy for adjacent lands in the ROP was developed in accordance with the PPS and the five principles of the Regional Official Plan which indicate that the policies of the ROP are to avoid duplication and unnecessary involvement of the Region in local land use planning. The current ROP approach regarding adjacent lands enables tailoring of policy at the local level and implementation by the local municipalities in accordance with provincial policy.

The option to provide further guidance on what constitutes adjacent lands and to specify or recommend a minimum distance from the Greenlands System's Core, NAC and PNAC features and areas is a consideration in the policy review. A specified or recommended minimum distance could assist local municipalities, landowners and developers by providing clear and consistent guidance on when an environmental impact study is required (i.e., for development or site alteration proposed within the adjacent lands of a natural heritage feature or area).

The Region is also considering policy options to incorporate adjacent lands policies within an updated policy framework to better support the implementation of a natural heritage systems approach within the Greenlands System framework. Options include applying the adjacent lands concept to require environmental impact studies in order to establish limits of development, assess impacts, make recommendations to avoid, minimize and mitigate impacts, establish buffers and enhancement areas, and identify and establish linkages consistent with provincial policy direction.

Further discussion addressing buffers, enhancement areas and transition to natural heritage systems planning is provided in the sections below.

Proposed Policy Change

Proposed changes to the adjacent lands policy of the ROP are recommended to:

- Incorporate the existing adjacent lands policy within an updated policy framework to support the implementation of a natural heritage systems approach for natural heritage planning consistent with the PPS.
- Retain the existing definition for adjacent lands in the ROP consistent with the PPS and permit the local municipalities to establish distance standards identifying where environmental impact studies are required.
- Provide direction that environmental impact studies are to establish limits of development, assess potential environmental impacts, make recommendations to avoid, minimize and mitigate impacts, identify buffers and enhancement areas, and identify linkages.
- Add definitions for enhancement areas, buffers and linkages.
- Provide flexibility to reduce or waive study requirements depending on the scale and potential impact of proposed development and site alteration in consultation with agencies.

4.2.16 Buffers and Enhancement Areas

The requirement for buffers, vegetation protection zones and enhancement areas is a well established mitigation practice in natural heritage planning. Provincial policy, plans and guidance documents including the MNRF's Natural Heritage Reference Manual, require or recommend buffers and enhancement areas to provide protection for natural heritage systems, features and functions.

Specifically, buffers are included around natural heritage features and represent minimum areas that protect the features and their functions in the natural heritage system from the impacts of existing or future land uses adjoining these features. The physical separation of development from natural feature boundaries using buffers is a widely used practice to reduce the impacts of land use changes on adjacent natural features. The lands set aside from development are typically recommended to be kept or restored to a vegetated condition and are commonly referred to as "buffers" or "vegetation protection zones" (MNRF 2010).

For example, the *Greenbelt Plan*, *Growth Plan*, and *Oak Ridges Moraine Conservation Plan* place restrictions on development and site alteration within key natural heritage features (KNHF) and key hydrologic features (KHF), including specifying minimum 30 m vegetation protection zones (VPZ) for some features or providing policy direction that defers to natural heritage or hydrologic evaluations to identify vegetation protection zones of sufficient width to protect features.

The Credit River Watershed Natural Heritage System (CRWNHS) includes identification of minimum buffer widths around specific valleylands, wetlands, woodlands and aquatic habitat to protect these features and their functions from potential negative impacts from existing or potential new adjoining land uses. A 30-meter buffer was recommended for High Functioning Features and a 30 meter buffer for Supporting Features.

The TRCA's Living Cities Policies defines "buffers" as "a strip of permanent vegetation that helps alleviate the negative impacts of development on natural features and functions and can include a non-vegetated erosion access allowance required to manage a natural hazard". TRCA's Living Cities policy guidance for environmental planning recommends establishing the limits of natural heritage systems based on the protection of natural heritage features, the requirements for restoration and protection of potential natural cover, natural hazard limits, and minimum buffers. Minimum buffers of 10 meters from valley and stream corridors and woodlands and 30 metres from wetlands are indicated in the guidance.

The concept of buffers, restoration and enhancement is currently recognized in the preamble sections of the Greenlands System, in the definition of "natural corridors" and in Section 2.5 Restoration of the Natural Environment of the ROP; however, there is no separate definition of "buffer" or "enhancement area" or explicit policy addressing buffers, minimum buffer widths or requirements for further enhancement of the Greenlands System.

Proposed Policy Change

It is proposed that the terms “enhancement area” and “buffer” be listed as PNACs in the ROP and defined to recognize the role that enhancement areas and buffers play in maintaining, restoring and improving the ecological integrity and function of the Greenlands System.

It is also proposed that policy direction be included in the ROP to require the identification and establishment of enhancement areas and buffers through local official plan policy and the development approval process as part of the updated natural heritage system policy framework for the Greenlands System.

4.2.17 Transition to a Natural Heritage System Approach

The ROP’s Greenlands System policy framework represents a primarily features based systems approach to natural heritage planning. Provincial policy direction and current best practices in natural heritage planning have moved progressively toward more modern natural heritage systems-based approaches. These approaches emphasize the importance of policy requirements to maintain, restore, or enhance the diversity and connectivity of natural heritage features and areas as an integrated system, recognizing the importance of linkages between and among natural heritage and water resource system features and areas.

The 2020 PPS defines a natural heritage system as “a system made up of natural heritage features and areas, and linkages intended to provide connectivity (at the regional or site level) and support natural processes which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species, and ecosystems. These systems can include natural heritage features and areas, federal and provincial parks and conservation reserves, other natural heritage features, lands that have been restored or have the potential to be restored to a natural state, areas that support hydrologic functions, and working landscapes that enable ecological functions to continue”.

The 2020 PPS (Section 2.1.2) provides direction that the diversity and connectivity of natural features in an area, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and areas and ground water features.

Building on that direction, the PPS (Section 2.1.3) now requires that natural heritage systems be identified, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas and prime agricultural areas.

The Regional Natural Heritage System (NHS) Integration Project undertaken by the conservation authorities identifies a science based natural heritage system at a regional scale comprised of existing natural cover and potential enhancement areas. It was produced by extending and integrating the natural heritage systems identified for each of the conservation authorities’ watersheds in Peel building from the existing conservation authority NHS systems. The integrated system represents a conceptual depiction of a regional natural heritage system designed to encompass the necessary land base to

protect and restore biodiversity and ecosystem function over the long term. The CAs natural heritage systems have been applied as technical guidance and implemented in Peel through the development approval process. The systems emphasize the importance of protecting natural land cover as well as restoring and enhancing lands to ensure the ecological function of the system is resilient and sustainable.

Providing policy direction that enables the CAs technical guidance and similar studies to be considered and further refined and applied in local municipal official plans and through the planning approval process is a consideration in the policy review.

The features-based policies of the Greenlands System Core, NAC and PNAC policy framework provide recommended criteria to identify and protect natural heritage features and areas; however, natural heritage system protection and enhancement at the regional and local level also requires linkages, buffers and enhancement areas to adequately protect biodiversity and support ecosystem function.

Taking the above into account, an updated policy framework will also need to recognize and build on the natural heritage system approaches contained in the Growth Plan, *Greenbelt Plan*, *Oak Ridges Moraine Conservation Plan*, *Niagara Escarpment Plan* and *Lake Simcoe Protection Plan*. The significant landscapes and natural heritage system designations of the provincial plans are fundamental building blocks of the Greenlands System framework along with policies that provide for the protection of key natural heritage features, key hydrologic areas and key hydrologic features.

Proposed Policy Change

Proposed policy revisions to the Greenlands System policy framework being considered in the review include:

- Providing updated objectives to identify, protect, restore and enhance the long-term ecological function and biodiversity of the Greenlands System; maintain, restore and improve linkages among features and areas; and support agriculture as a complementary and compatible use within the Greenlands System.
- Updating the definition of the Greenlands System to recognize the Natural Heritage System and Urban River Valley designations and overlays of the Growth Plan, Greenbelt Plan, Niagara Escarpment Plan, and Oak Ridges Moraine Conservation Plan and their associated key natural heritage features and key hydrologic features as components of the Greenlands System.
- Adding policy to maintain, restore and improve the diversity and connectivity of natural features and areas within the Greenlands System's components, recognizing linkages between and among features and areas.
- Permitting the continuation of agricultural uses in accordance with normal farm practices within the Greenlands System.
- Updating the Greenlands System Core, NAC and PNAC features based policies in accordance with provincial policy.
- Updating policy direction to apply a systems approach by directing the local municipalities to identify, protect, restore and enhance natural heritage systems in their official plans.

- Providing direction to the local municipalities to further interpret and identify the Greenlands System and its components and the linkages among and between components of the Greenlands System and Water Resource System at an early stage in the planning process through watershed and subwatershed plans, natural heritage system studies, or other equivalent studies.
- Updating adjacent lands policy to support implementation of a natural heritage system approach in accordance with provincial policy.
- Providing policy direction for the implementation of a natural heritage system approach through the requirements for environmental impact studies including requirements for the identification of buffers, linkages and enhancement areas where appropriate.
- Adding new definitions for “buffers”, “linkages” and “enhancement areas”.
- Encouraging the local municipalities to implement ecosystem compensation guidelines and practices developed by the Province and other agencies to ensure that development and site alteration will not result in negative impacts to the Greenlands System.
- Adding policy to promote and support habitat restoration and enhancement programs.

4.3 Growth Plan Natural Heritage System

The 2019 Growth Plan (Section 4.1) provides for the identification and protection of a Natural Heritage System outside of the Greenbelt Area and outside settlement areas to support a comprehensive, integrated, and long-term approach to planning for the protection of the region’s natural heritage and biodiversity. Within Peel, the Growth Plan only identifies three small areas in the Town of Caledon as being located in the Natural Heritage System (see Appendix 1).

The Plan requires the identification of water resource systems and the protection of key hydrologic features and key hydrologic areas, and protection of key natural heritage features similar to the level of protection provided in the Greenbelt Plan to provide consistent and long-term protection throughout the Greater Golden Horseshoe (GGH). The policy protection for key natural heritage features applies within the Growth Plan Natural Heritage System while the policy protection for key hydrologic features and key hydrologic areas apply generally to areas outside the Greenbelt and outside settlement areas.

Municipalities are required to incorporate the Natural Heritage System as an overlay in official plans and apply appropriate policies to maintain, restore, or enhance the diversity and connectivity of the system and the long-term ecological or hydrologic functions of the features and areas as set out in the Growth Plan.

Although policies addressing water resource system features and areas are included in this section, the protection of water resource system features and areas is also being addressed through the Water Resource System Focus Area review.

Proposed Policy Change

In order to address conformity with the 2019 Growth Plan, it is proposed that a new section titled “Growth Plan Natural Heritage System” be added to the ROP and that the section incorporate policies that conform with the requirements of the Growth Plan, including policies that:

- Require proposals for new development or site alteration to demonstrate how connectivity between features will be maintained or enhanced.
- Limit the amount of disturbed area and impervious surfaces within the Natural Heritage System.
- Require protection of key natural heritage features and key hydrologic features.
- Require proposals for new development or site alteration to identify vegetation protection zones adjacent to features.
- Permit the full range of agricultural uses, agriculture-related uses and on-farm diversified uses within the Natural Heritage System subject to the policies of the Growth Plan.
- Require the designation and continued protection of the Natural Heritage System if settlement areas are expanded to include the Natural Heritage System.
- Require the mapping of the Natural Heritage System as an overlay in the Regional Official Plan and Town of Caledon Official Plan.

4.4 Urban Forest

Urban forests include all trees in urban and rural settlement areas, as well as the soils that sustain them, located on public and private property. Urban forests are beneficial to communities because they can help reduce pollution, moderate temperatures, provide carbon sequestration and provide habitat for wildlife. As such, urban forests have an important role to play in supporting the Greenlands System and therefore require appropriate policy direction to ensure forests and tree canopy in the Region are protected, maintained and enhanced.

Proposed Policy Change

It is recommended that a new definition and new policies related to urban forests be included in the ROP. Proposed policies recognize urban forests as a natural asset and provide direction for the development of urban forest strategies, plans and programs that protect, maintain and enhance tree canopy in urban and rural settlement areas. Proposed policies are recommended to establish requirements for tree protection and conservation through the development approval process. Further, policies will be included that support initiatives that provide for ongoing management and stewardship of the urban forest, including increasing tree canopy where feasible.

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5. Analysis of Mapping Requirements

5.1 Regional Greenlands System Core, NAC and PNAC Mapping

Core Areas of the Greenlands System in Peel are shown on Schedule A of the ROP. The mapping of Core Areas provides a representation of the extent of Core Areas using best available data. Accordingly, the mapped boundaries shown on Schedule A are intended to be general in nature. More detailed mapping of the Core Areas is provided in the local municipal official plans. Where there are discrepancies between the mapping shown on Schedule A in the ROP and the identification of Core Areas in the text of the Plan, the text of the Plan takes precedence.

The Greenlands System NAC and PNAC natural heritage features and areas are not mapped in the ROP; however, policies in the ROP direct the local municipalities to further interpret and identify NAC and PNAC features and areas in the local official plans.

Regional scale mapping of Core Areas (shown on Schedule A), NACs and PNACs is maintained by the Region utilizing existing available data to identify features and areas based on criteria in the ROP policy framework. The information is provided to the local municipalities to support their implementation of policy and mapping updates in their official plans. The detailed mapping of the Greenlands System Core, NAC and PNAC natural features and areas is not comprehensively shown in the ROP as the further interpretation and mapping of NAC and PNAC features is determined in accordance with the local official plans.

Proposed updates to the mapping of provincially significant Core wetlands and Escarpment Natural Areas shown in Figures 5.1 and 5.2 are recommended to be included in an updated Schedule Y1 Core Areas of the Greenlands System (formerly Schedule A).

Figure 5.1: Core Wetlands Mapping Proposed Changes

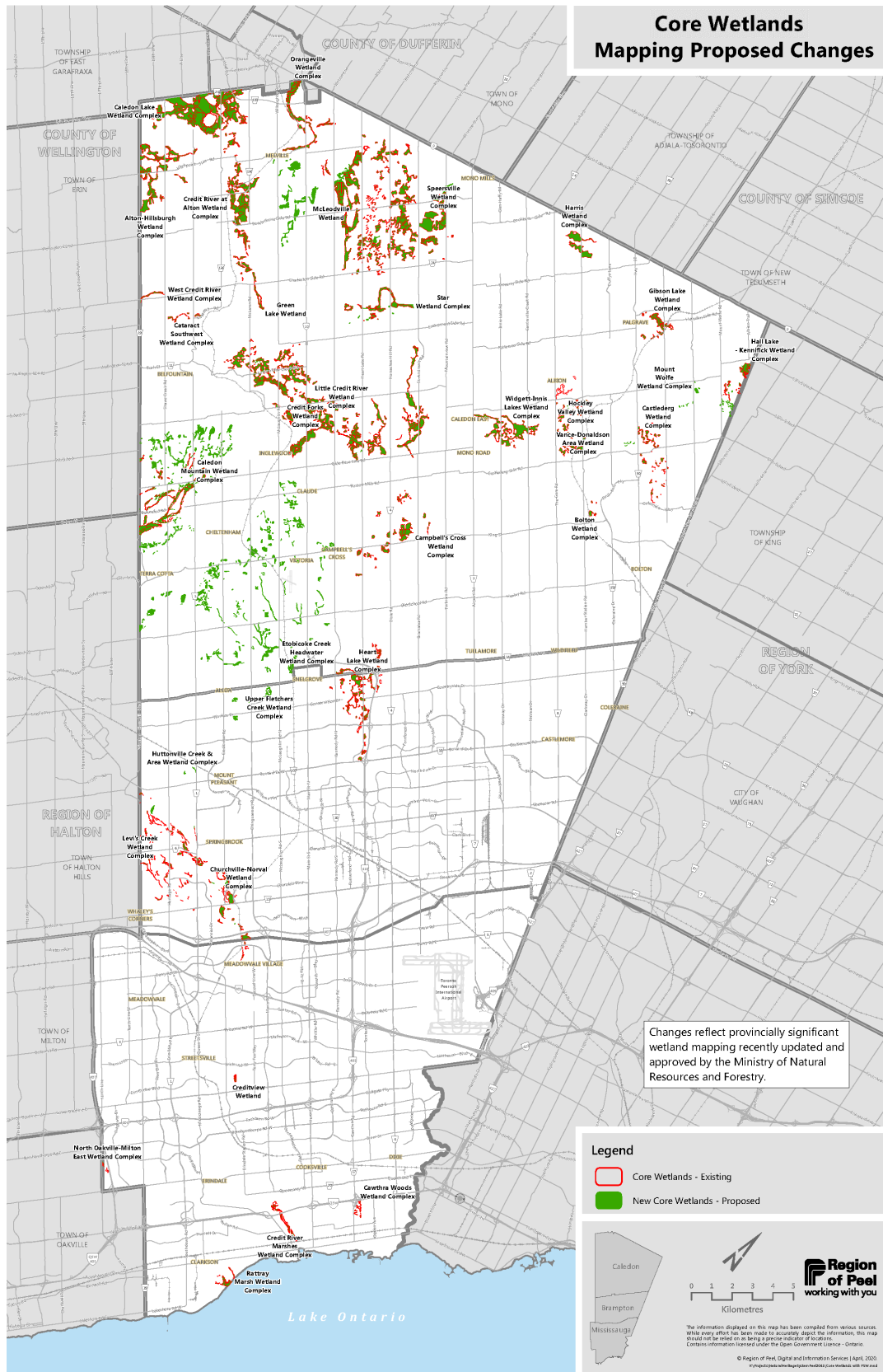
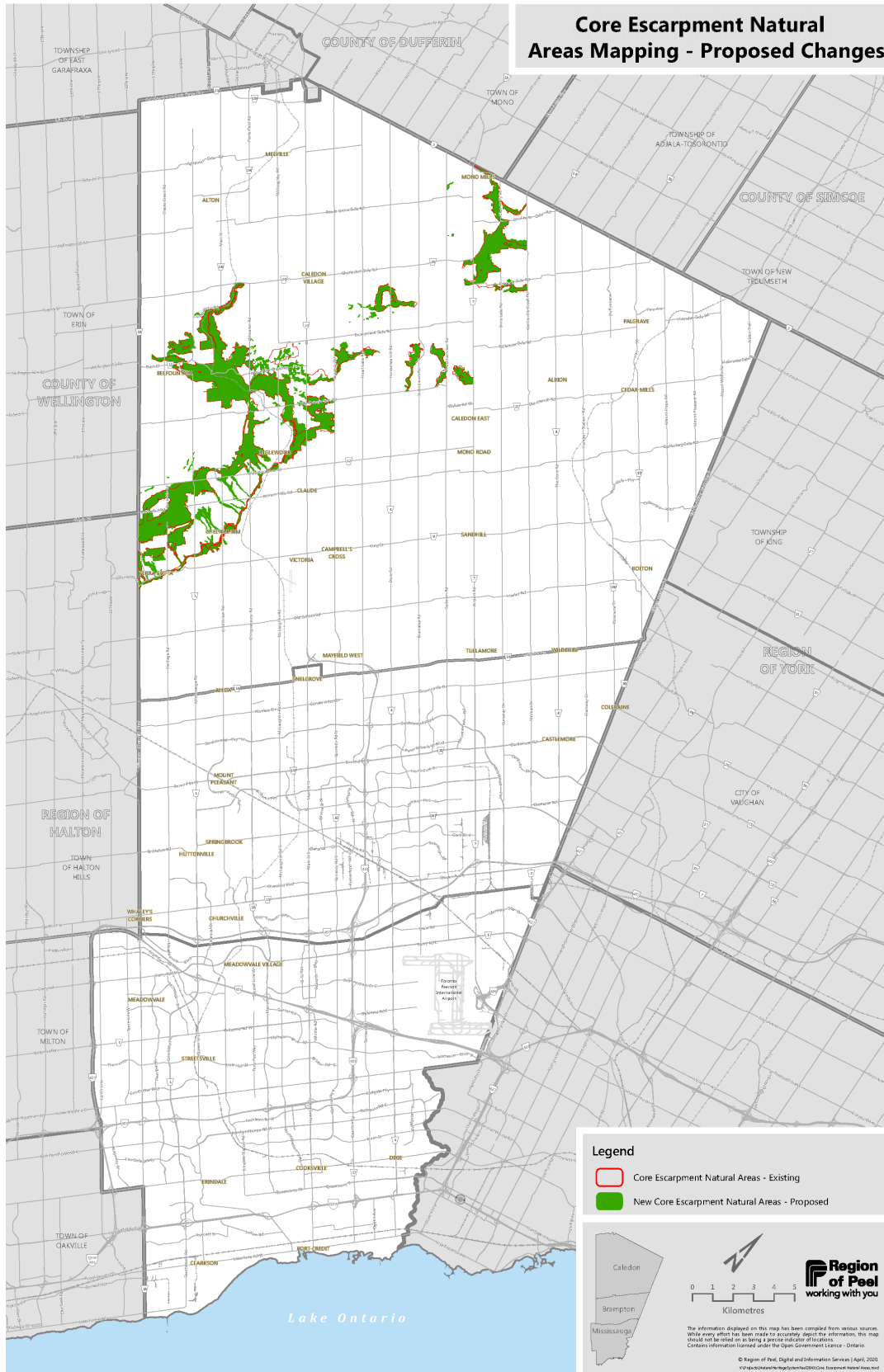


Figure 5.2: Core Escarpment Natural Areas Mapping Proposed Changes



5.2 Provincial Plan Natural Heritage System Mapping

The ROP currently maps the relevant natural heritage system designations and overlays of the Oak Ridges Moraine Conservation Plan (Schedule D1) and Greenbelt Plan (Schedule D3). Currently, there is no separate mapping of the Niagara Escarpment Plan Escarpment Natural Area and Escarpment Protection Area designations or the Growth Plan Natural Heritage System overlay in the ROP.

5.3 Conservation Authority Natural Heritage System Mapping

The Regional Natural Heritage System (NHS) Integration Project undertaken jointly by the CVC and TRCA (referenced in section 3.1 above) has integrated watershed based natural heritage system mapping for all the conservation authority jurisdictions in Peel. The process to develop the NHS mapping involved previous refinements of the watershed-based NHS systems for the City of Mississauga and the City of Brampton and more recently for the Town of Caledon. The natural heritage system mapping has been produced as technical guidance to help inform natural heritage system identification in Regional and local official plans to be considered, as appropriate, through the planning approval process and as an input for watershed-based planning and programming conducted by the conservation authorities.

The CA NHS is mapped at a regional/watershed scale and identifies both natural cover and potential enhancement areas. The mapped NHS is a useful support for the implementation of PPS and provincial plan policy direction recognizing that further interpretation and refinement of the mapping in accordance with municipal policy direction is needed to apply the mapping at the Regional and local level. Several options to incorporate the CA NHS mapping are being considered in the review including:

- Mapping the natural heritage system on a schedule in the ROP;
- Showing the natural heritage system conceptually on a figure attached to but not formally part of the ROP; and
- Referencing the natural heritage system in a technical supporting document.

5.4 Proposed Mapping Changes

It is proposed that:

- Schedule A be deleted and replaced with a new Schedule Y1 – Core Areas of the Greenlands System. Mapping changes on Schedule Y1 include:
 - Updated mapping of provincially significant wetlands which are an element of the Core Areas of the Greenlands System to reflect provincial mapping information
 - Updated mapping of Escarpment Natural Areas to reflect the updated criteria and mapping of Escarpment Natural Areas in the 2017 Niagara Escarpment Plan
- Schedule D3 be deleted and replaced with a new Schedule X11. Changes on Schedule X11 include (list of changes include conformity with 2017 Growth Plan and Greenbelt Plan):
 - Addition of Urban River Valley designation
 - Addition of Natural Heritage System (overlay) for the Growth Plan

- A new Figure Y1 – Regional Greenlands System – Provincial Plan Natural Heritage System be added to identify the Natural Heritage System designations and overlays to identify:
 - Escarpment Protection Area and Escarpment Natural Area designations of the Niagara Escarpment Plan
 - Natural Core Area and Natural Linkage Area designations of the Oak Ridges Moraine Conservation Plan
 - Natural Heritage System overlay of the Growth Plan
 - Natural Heritage System overlay of the Greenbelt Plan
 - Urban River Valley designation of the Greenbelt Plan
- A new Figure Y2– Regional Greenlands System Core Areas, Natural Areas and Corridors and Potential Natural Areas and Corridors be added
- A new Figure Y3 – Conservation Authority Natural Heritage System be added to conceptually show a regional scale natural heritage system of existing natural cover and potential enhancement areas
- Figure 5 – Criteria and Thresholds for the Identification of Significant Wildlife Habitat be deleted

The proposed mapping additions relating to Schedules and Figures are included in Appendix A of this Discussion Paper.

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6. Conclusion and Next Steps

The last official plan review (ROPA 21B) updated the features-based Core Areas, NACs and PNACs. A natural heritage system could not be put in place at that time, as detailed watershed-based studies remained ongoing. Now that natural heritage systems are available for the Credit River watershed and TRCA's jurisdiction, which cover the vast majority of the Region of Peel, a regional natural heritage system was identified by the Conservation Authorities based on an approved scientific system.

The identification of a natural heritage system in Peel does not necessarily negate the identification of Core Areas, NACs and PNACs. The Region of Peel Official Plan currently identifies Core Areas and provides direction to the local municipalities to identify NACs and PNACs. However, natural heritage systems also need linkages, buffers and enhancement areas to adequately protect biodiversity.

This discussion paper has provided an overview of the components which together make-up the Peel 2041 Greenlands System Policy Review. Best practices have been presented and policy options for consideration have been proposed. Ultimately, through the Peel 2041 policy review and update, Peel Region will be updating its Greenlands System policies and mapping. The proposed policy and mapping amendments conform to provincial plans, legislation and policy statements, as well as reflect current best practice guidance in natural heritage system planning.

The Region will be consulting with the general public, stakeholders, municipalities and agencies through the Peel 2041 Regional Official Plan Review process to obtain input on the proposed changes before bringing recommendations to Regional Council for consideration.

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Appendix A: Draft Schedules

