



Natural Heritage Discussion Paper

Regional Official Plan Review

June 2020

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Executive Summary

Introduction

The Regional Municipality of Halton is undertaking a Regional Official Plan Review (ROPR) in accordance with Provincial requirements established in Section 26 of the [Planning Act](#). The last comprehensive review of the Regional Official Plan (ROP) was the Sustainable Halton process completed in 2009 that resulted in Regional Official Plan Amendments (ROPA) 37, 38, and 39, which implemented the policies of the Growth Plan for the Greater Golden Horseshoe 2006 and the Greenbelt Plan 2005, amongst other key policy initiatives. The ROPR is being undertaken in three phases and the Natural Heritage Discussion Paper is part of Phase 2. Phase 2 will inform the development of ROP policies during the upcoming policy drafting phase of the ROPR (Phase 3).

Through this ROPR, specific theme areas and policies will be updated, enhanced and refined based on changing demographics, evolving land use trends and changes to the [Provincial Policy Statement](#) (PPS) 2020, [Greenbelt Plan](#) 2017, [A Place to Grow: Growth Plan for the Greater Golden Horseshoe](#) 2019 (Growth Plan) and the [Niagara Escarpment Plan](#) (NEP) 2017. The ROPR also provides an opportunity for a comprehensive review of the effectiveness of existing policies and implementation through a Municipal Comprehensive Review (MCR) process.

Halton Region and the Natural Heritage System

Natural heritage has a central place within the planning vision for Halton as described in the ROP. Within this vision, two concepts feature prominently. The first is “sustainable development”, in which protecting the natural environment is a vital factor. The second is “landscape permanence”, which recognizes that although the Region will urbanize and change, certain landscapes must be preserved permanently.

To strengthen the long-term viability of Halton’s natural heritage and water resources, the ROPR process includes:

- a review of current ROP policies and mapping relating to Halton’s Natural Heritage System (NHS);
- a review of the Region’s Natural Heritage policies to be consistent with updated Provincial Plans;
- incorporating the Natural Heritage System for the Growth Plan and updating the Regional Natural Heritage System mapping;

- identifying actions that are needed to achieve the Region's natural heritage objectives; and
- exploring new opportunities to meet the objectives of the [Halton Region Strategic Business Plan 2019-2022](#).

Relationship with other ROPR Components

Updates to the ROP need to reflect the many changes in the PPS and Provincial Plans since the last ROP review. The planning horizon to accommodate additional residential and employment growth in Halton Region is being extended to 2041, which has implications on decisions on where and how we grow in the Region. In turn, the Regional Municipal Comprehensive review will examine the interrelationship of growth, natural heritage systems, agricultural heritage systems and climate change, which are all key theme components of the review. The Natural Heritage System component of the ROPR will have implications for each theme of the ROPR.

Integrated Growth Management Strategy (IGMS) – where the NHS is identified will help to determine the best location for future growth areas including the amount of developable land and consideration of urban boundary expansions if required.

Rural and Agriculture – natural heritage and agriculture are often located in the same areas and require a balance in priorities to guarantee and strengthen their coexistence. New direction from the Province related to designating prime agricultural areas will have an impact on the approach taken for NHS identification. The outcomes from the two topic areas require close alignment to ensure effective implementation.

Climate Change - NHS protection and enhancement is an important part of responding to climate change in terms of both adaptation and mitigation. The NHS provides for more resilient environments and can allow opportunities to reduce impacts of flooding and other risks associated with extreme weather events. NHS protection and enhancement can also play an important role in acting as a carbon sink to reduce green house gas emissions.

North Aldershot Special Policy Area - The ROP essentially treats the North Aldershot as a distinct policy area based on the North Aldershot Inter-Agency Review Final Report (May 1994) (the “North Aldershot Plan”). The North Aldershot Plan predates the last two reviews of the Official Plan and all current Provincial plans and does not reflect current policies and mapping regarding natural heritage. A relatively large proportion of the area is mapped within the RNHS on Map 1G in the ROP. The recent NHSGP includes several large areas of North Aldershot that are not currently included in the RNHS. Additional information pertaining to the North Aldershot area can be found in the North Aldershot Planning Area Discussion Paper for the ROPR.

Technical Background Work

The Natural Heritage Discussion Paper provides an overview on the analysis completed on the technical background work as part of Phase 2 of the ROPR. Technical analysis was completed on relevant background information, best practices for NHS and Water Resource System (WRS) policy and planning, drinking water source protection, and a review of existing and new policies and mapping. Each section of the Discussion Paper contains a brief overview of the policy area, along with relevant considerations and provides options for discussion and consideration. The Natural Heritage Discussion Paper does not outline all conformity considerations, nor does it detail all housekeeping items identified through the policy audit review. This information can be found in the technical work completed by the Region in support of this Natural Heritage Discussion paper and will be made available on Halton Region's Regional Official Plan Review webpage.

Discussion Paper Questions

Throughout the Natural Heritage Discussion papers, there are discussion questions being presented for each theme and a summary of these questions can be found in Appendix 1. The Region is requesting that the reader respond to these questions in their comments on the Discussion Paper. Additional information and detailed analysis for each topic can be found in the Appendix and Technical Background Memos.

The Natural Heritage Discussion Paper is one of five discussion papers being made available to support public input for the Regional Official Plan Review.

How to get Involved:

Please visit halton.ca/ropr to learn more and provide feedback.

The Regional Official Plan Review page contains more information to support participation as well as a questionnaire on the policy themes being considered by Regional Council.

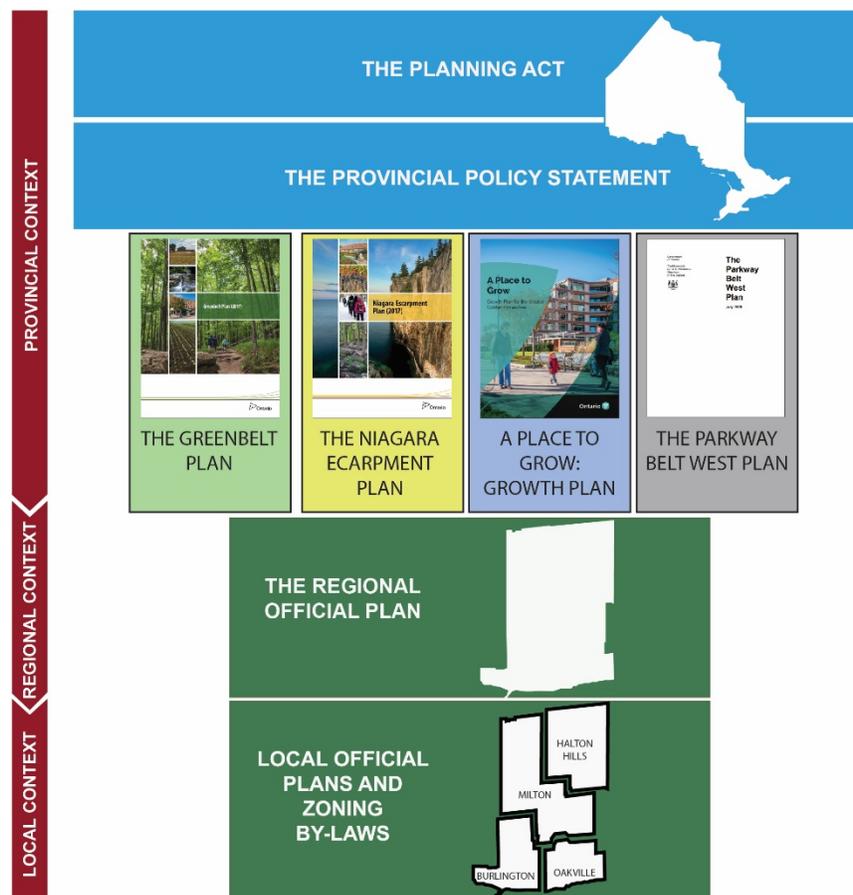
Comments can also be submitted to ropr@halton.ca.

1.0 Background

1.1 Regional Official Plan Review (ROPR)

The Regional Municipality of Halton is undertaking a Regional Official Plan Review (ROPR) in accordance with Provincial requirements established in Section 26 of the [Planning Act](#). The last comprehensive review of the Regional Official Plan (ROP) resulted in Regional Official Plan Amendments (ROPA) 37, 38, and 39, which implemented the policies of the Growth Plan for the Greater Golden Horseshoe 2006 and the Greenbelt Plan 2005, amongst other key policy initiatives. The general framework for land use planning in Halton is set out in below.

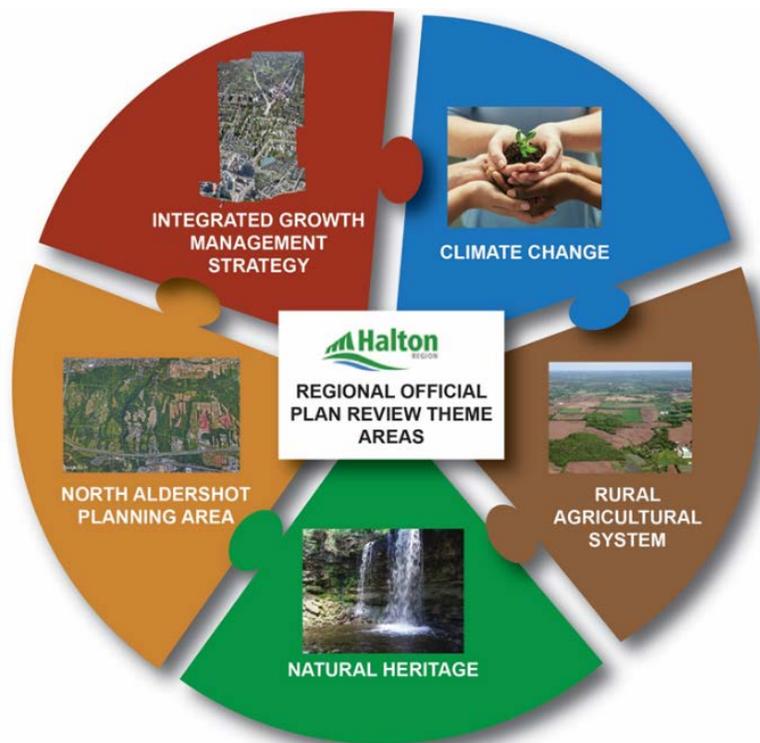
Figure 1: Ontario’s Land Use Planning Framework as Applicable to Halton Region



The current ROPR will ensure consistency with the [Provincial Policy Statement \(PPS\)](#), 2020, as well as conformity to [A Place to Grow: Growth Plan for the Greater Golden Horseshoe](#) (2019), the [Greenbelt Plan](#) (2017) and the [Niagara Escarpment Plan \(NEP\)](#) (2017).

The ROPR is a three-phased process: Phase 1 was completed on October 2016 through the endorsement of Phase 1 “Directions Report” which outlined the tasks and deliverables to be undertaken during the two phases of the ROPR. Phase 2, currently underway, is centered on the production of five discussion papers researching and analyzing potential options to address the ROPR key theme areas shown in Figure 2. The work in Phase 2 will inform the development of ROP policies during the upcoming policy drafting phase of the ROPR (Phase 3).

Figure 2: ROPR Phase 2 key theme areas addressed through research, analysis and discussion papers.



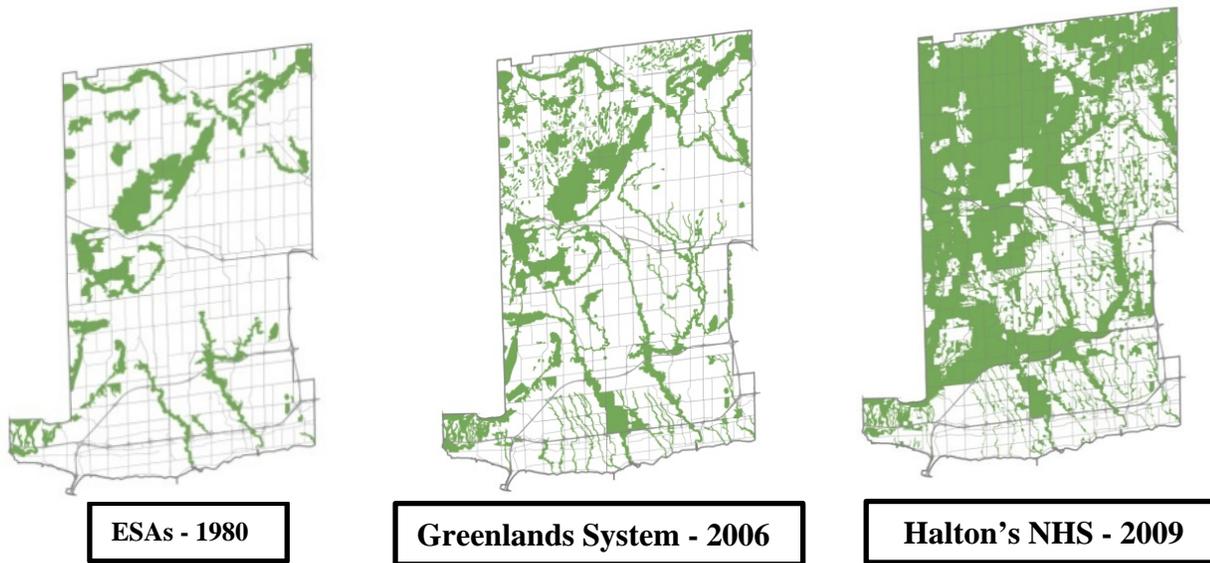
2.0 Evolution of Natural Heritage at Halton Region

Halton Region is well known for its rich natural areas (e.g. forests, wetlands) and physical formations (e.g. Niagara Escarpment, glacial features, valleylands) that provide habitat for a diversity of plants and wildlife. Human settlement has significantly reduced the amount of natural habitat in Halton making it critically important to protect the remaining natural areas, our natural heritage, for current and future generations.

Halton Region has been at the forefront of natural area planning since the 1980s, well before the Province made it mandatory for municipalities to do so. Preserving natural heritage remains a key component of Halton's Planning Vision, which stems from the Region's fundamental value in land use planning: landscape permanence. Consistent with the Region's strong commitment to the environment, natural heritage preservation has been strengthened in each successive Halton ROP.

The 1980 ROP introduced Environmentally Significant Areas, which protected about 13.4% of Halton. As the protection policies targeted sensitive features and areas, they were considered feature-based. The 2006 ROP built on this strong foundation by introducing comprehensive protection of the natural heritage features and areas that as required by the 1997 Provincial Policy Statement. These protected areas, called the Greenlands System, covered about 21.9% of the Region. However, despite its name, the Greenlands System was essentially still a feature-based approach to natural heritage protection. The evolution of natural heritage protection continued through the Sustainable Halton exercise in 2009 as the 2006 Provincial Policy Statement required municipalities to identify and protect an NHS. Halton's NHS mapping from Sustainable Halton is the current NHS that is in force through the ROP. Figure 3 highlights the evolution of the Natural Heritage System mapping.

Figure 3: The Evolution of Natural Heritage Protection in Halton Region



Halton's current Natural Heritage System

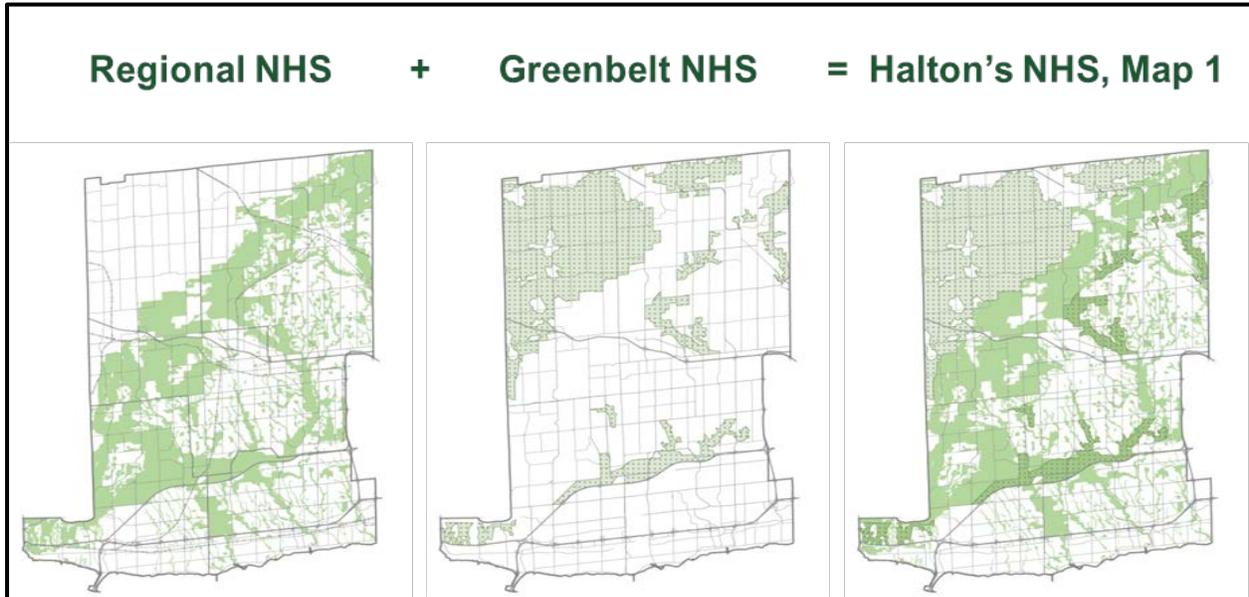
Halton's current NHS, built on the Greenlands System, was introduced through the 2009 ROP (formerly known as Regional Official Plan Amendment 38). The key refinement was the adoption of a true "systems approach" and included the protection of 'non-features' such as linkages and enhancement areas. This systems approach in the 2009 ROP now protects about 50.6% of Halton Region. Below is a brief summary of Halton's current approach to the Natural Heritage System. Additional history and information can be found in the Mapping Technical Audit memo made available on Halton Region's Regional Official Plan Review webpage

Within this vision, two concepts feature prominently. The first is "sustainable development", in which protecting the natural environment is a vital factor. The second is "landscape permanence", which recognizes that although the Region will urbanize and change, certain landscapes must be preserved permanently. The current ROP identifies three principal categories of land uses that will comprise Halton's future landscapes, one of which is the NHS that is to be integrated within the other land uses such as Settlement Areas and the Rural Countryside. Within rural areas of Halton Region, agricultural land uses and the NHS are generally intended to co-exist as compatible uses, outside of key features.

Policies pertaining to Halton's NHS are included within the ROP and are consistent with the Natural Heritage policies of the Provincial Policy Statement 2005. The current conception of the Halton NHS in the ROP consists of two "sub-systems" each with their own policies: The Greenbelt NHS (GBNHS) and Regional NHS (RNHS). The GBNHS must be identified in the ROP as required by the Greenbelt Plan (2017). Together, these Systems create Halton's NHS as identified on Map 1 of the ROP, referenced in Figure 4

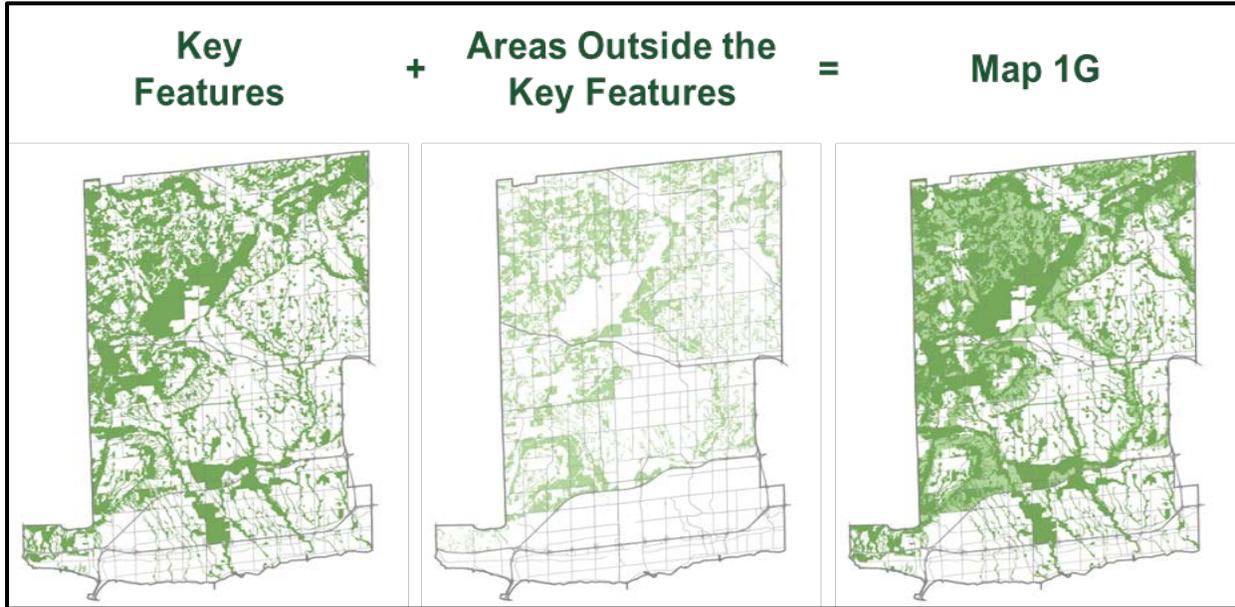
below. The components of the Regional Natural Heritage System are detailed in Appendix 2 and illustrated in Figure 14 – Map 1G in Section 5 of this report.

Figure 4: Halton’s Natural Heritage System



The ROP recognizes that the two systems have different sets of planning policies, but that they complement each other and, “... together implement Halton’s vision of a sustainable natural heritage system ...” (Halton Region 2018, s.139.3.4). The GBNHS is an overlay within the ROP and is identified as a “constraint to development” that applies in addition to any other constraints associated with the underlying land use designation(s). Both the GBNHS and RNHS are comprised of Key Features and additional components (e.g. Linkages, Buffers, and Enhancement Areas) in the system, which are defined slightly different in the two Systems. For example, Buffers in the RNHS are defined differently than Vegetation Protection Zone in the GBNHS. Section 4.2 Policy Considerations provides additional discussion around the two defined terms. Figure 5 shows the Key Features and components that create Halton’s NHS.

Figure 5: Key Features and Components



3.0 Natural Heritage System for the Growth Plan

3.1 Introduction

The most significant changes to the Provincial policy framework since the last ROPR are related to the Growth Plan 2017 and subsequent Growth Plan update in 2019. Whereas the other policy documents have undergone minor refinements, the NHS policies in the Growth Plan, 2019 were greatly expanded since 2005. The Growth Plan, 2019 now identifies a Regional Natural Heritage System for the Growth Plan for the Greater Golden Horseshoe (NHSGP). It only applies outside of settlement areas, at the scale of the Greater Golden Horseshoe and is supported by mapping, and provides a full suite of policies to protect it (Growth Plan policies 4.2.2, 4.2.3, and 4.2.4).

The NHSGP is a comprehensive, integrated, and long-term approach to planning for the protection of the region's natural heritage and biodiversity. The NHSGP builds upon the GPNHS, the Niagara Escarpment Plan's two designations (Natural and Protection Areas) as well as natural areas within the landscape that are located outside of the Greenbelt Plan 2017 and the NEP 2017. For lands within the NHSGP, the ROP must incorporate the NHSGP mapping as an overlay and apply appropriate policies. For lands outside of the NHSGP, existing advances in NHS protection in Halton Region, as discussed in Section 2.0 of this report, should not be lost by incorporating the NHSGP.

3.2 Policy and Mapping Considerations

Policy Considerations

Across the Provincial plans, there has been a general harmonization of policies and definitions through recent updates. The Growth Plan 2019 and Greenbelt Plan 2017 policies and definitions related to natural heritage (and water resources, as discussed below) are almost the same. Many of the ROP NHS were drawn from policies and definitions from previous versions of these Provincial plans but will require revisions to align ROP policies and definitions with the latest versions. The NHSGP does not have an impact on the GBNHS overlay in the ROP as the natural heritage systems in both Provincial Plans are mutually exclusive.

Consideration is required around how to incorporate the new NHSGP into policy, specifically as it relates to the existing RNHS outside of settlement areas. In order to incorporate the NHSGP, the ROP will have to include:

- definitions that describe what comprises the NHSGP;
- policies to prohibit development and site alteration under certain circumstances;
- permitted uses;
- environmental evaluations; and
- vegetation protection zones including the addition of a mandatory 30m buffer on some Key Features and areas.

Mapping Considerations

The Province mapped and issued the NHSGP in 2018 and documented the process followed to create it in a “The Regional Natural Heritage System for the Growth Plan for the Greater Golden Horseshoe, Technical Report on Criteria, Rationale and Methods” (OMNRF 2018) (the “Technical Report”). The NHSGP mapping was completed by the Province for the entire Growth Plan 2019 area, excluding those areas that are subject to the Greenbelt Plan 2017 and NEP 2017. The NHSGP mapping must be incorporated into the ROP as required in Growth Plan policy 4.2.2.2.

Refinements to the Natural Heritage System for the Growth Plan

The Growth Plan 2019 policy 4.2.2.5 provides an opportunity to refine the NHSGP, for areas not included in the Greenbelt Plan 2017 or NEP 2017, with greater precision through a Municipal Comprehensive Review and general guidance for refinement are outlined in the Technical Report. Additionally, the Province may review and update mapping for the NHSGP in response to a municipal request.

As part of the background technical work for this ROPR, the NHSGP was reviewed and recommendations for mapping refinements were identified in accordance with the Technical Report. Owing to the scale and use of more recent data, there are some inaccuracies and differences between the Province’s and Halton’s NHS mapping. Furthermore, the NHSGP has been mapped within settlement boundaries in Halton Region, which is contrary to the Growth Plan 2019 policy 4.2.2.1, where the NHSGP “...excludes lands within settlement area boundaries that were approved and in effect as of July 1, 2017”.

In November 2017, Regional Council endorsed the submission from the Halton Area Planning Partnership (HAPP) to the Province that highlighted the requests for the refinement of certain areas of the NHSGP as part of the review of the draft Provincial

NHS and Agricultural System mapping, and technical criteria for each, through Report No. LPS90-17.

Through the Region's ROPR process and keeping with 2017 HAPP submission to the Province, the Region will seek to make refinements to the NHSGP to better align it with the Regional NHS mapping, and exclude NHSGP from lands within settlement area boundaries in Halton. Until such time that the Province has approved these refinements, the Halton's NHS mapping will continue to show the NHSGP as mapped by the Province.

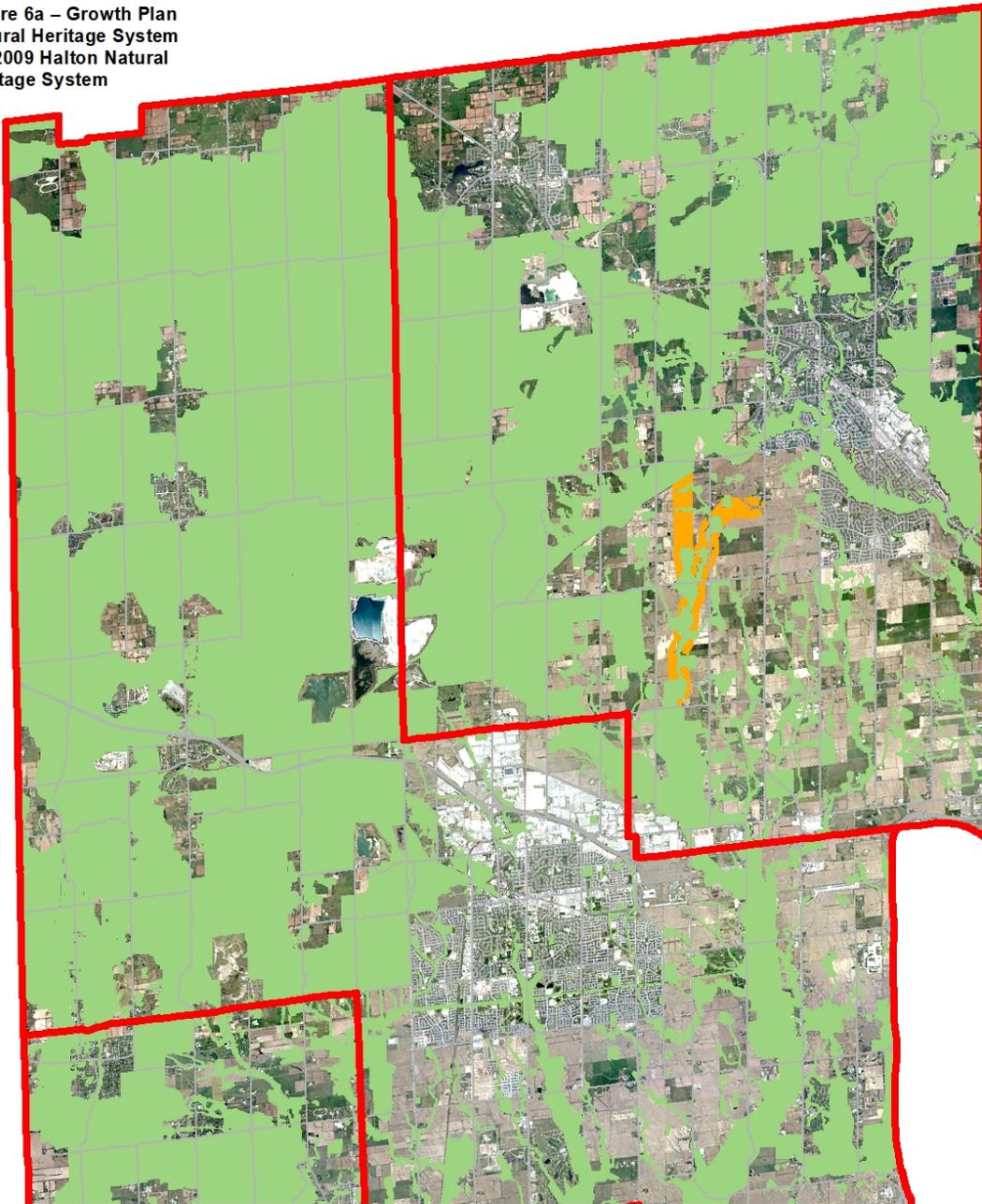
2009 Halton's Natural Heritage System compared to Natural Heritage system for the Growth Plan 2019

The NHSGP is a broad-scale NHS for the entire Growth Plan area and should not be considered to replace the Halton's NHS, which responds to a finer, Halton-based scale. Thus they could be considered to work together such that the NHSGP serves to connect the RNHS with the broader Provincial system. Technical background work found the following comparisons between the NHSGP and the 2009 NHS mapping as shown in **Figure 6a** and **6b**:

- Only 434.11 ha (25%) of the NHSGP in Halton occurs outside Halton's NHS, thus 75% of the NHSGP in Halton already occurs within the 2009 Halton NHS.
- The 434.11 ha that occurs outside of the Halton NHS include many very small (less than 1ha) patches that are possibly a result of mapping discrepancies between the different data sources used by the Province and the Region in mapping the NHS.
- Only 24 areas (mapping polygons) in the NHSGP which occur outside of the 2009 RNHS, were bigger than 1 ha in size, totalling 425.89 ha.
- Each of the 24 areas (mapping polygons) were assessed against the four guidelines for removing areas from the NHSGP provided in the "Technical Report". Of these 24 areas, 18 were considered to have ecological merit for retention, 1 could be considered for removal and 5 warranted further discussion and consideration through the ROPR process.

Review of the Regional Official Plan Natural Heritage System Policies and Mapping
Natural Heritage Report

Figure 6a – Growth Plan
Natural Heritage System
vs. 2009 Halton Natural
Heritage System



Legend

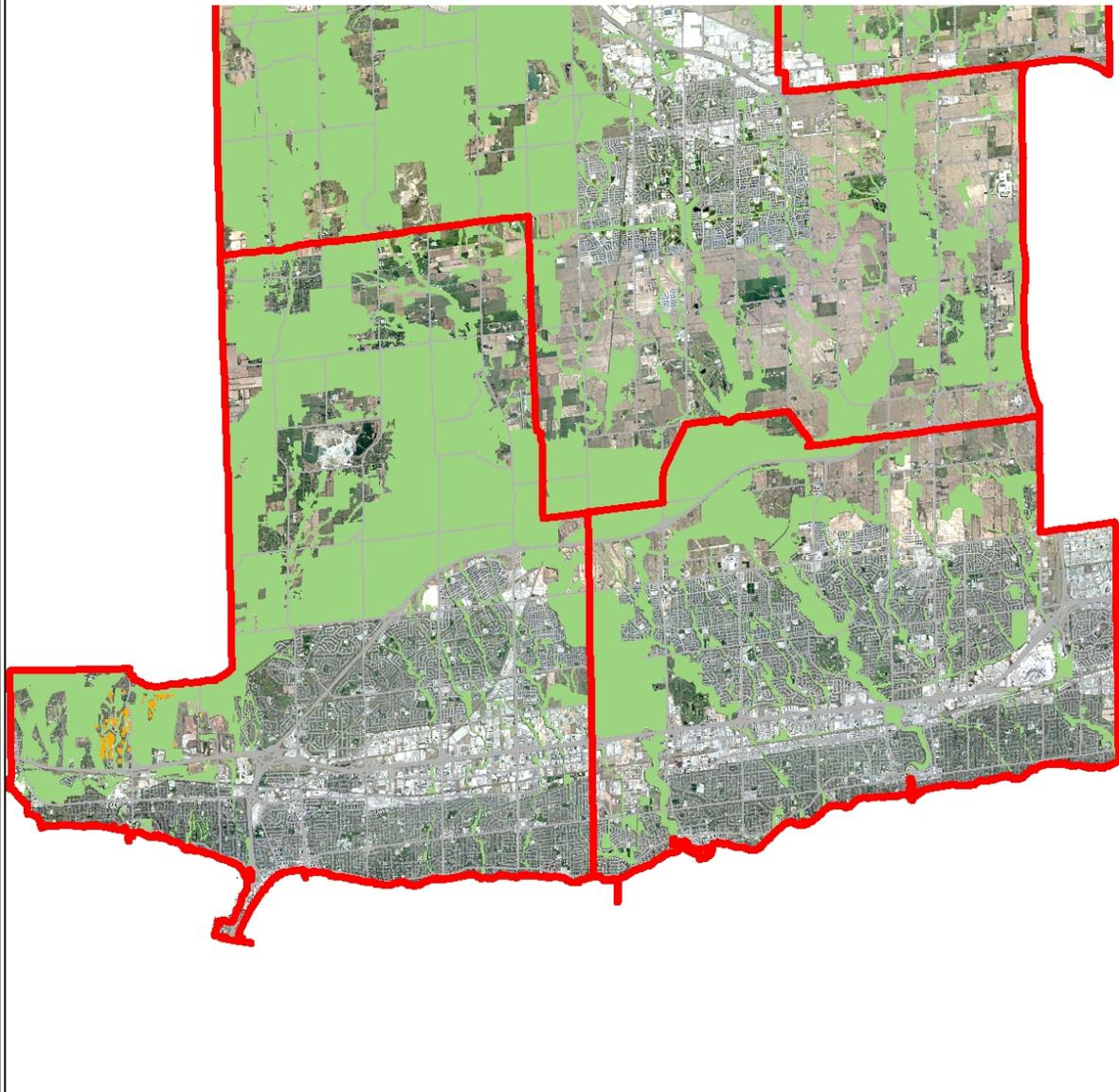
-  Municipal Boundary
-  2009 Halton Natural Heritage System
-  Natural Heritage System for the Growth Plan Outside of 2019 Halton NHS

0 1 2 4 6 8 Kilometers



Review of the Regional Official Plan Natural Heritage System Policies and Mapping
Natural Heritage Report

Figure 6b – Growth Plan
Natural Heritage System
vs. 2009 Halton Natural
Heritage System



Legend

-  Municipal Boundary
-  2009 Halton Natural Heritage System
-  Natural Heritage System for the Growth Plan Outside of 2019 Halton NHS

0 1 2 4 6 8 Kilometers



3.3 Discussion

In light of the policy and mapping considerations outlined in Section 3.2 of this report, Halton Region will need to determine how to incorporate the NHSGP into the ROP recognizing that the ROP contains existing policies and mapping for the RNHS and the GPNHS. As part of this discussion, options to incorporate the NHSGP are outlined below.

When the best approach to incorporating the NHSGP into the ROP has been determined, options on how to clearly represent Halton's Natural Heritage System (NHSGP, RNHS and GPNHS) in ROP policies and mapping need to be discussed. Section 5.0 Overlay and Designation Options outlines policy and mapping options to address the relationship between agriculture and natural heritage in the ROP given the requirements set out by the Provincial plans and to continue to protect and enhance natural heritage, which is strongly enshrined in Halton's planning vision.

The three options are presented as being mutually exclusive. However, there may be opportunities to combine elements of the different options.

Option 1 – Provide Separate Frameworks for Each Natural Heritage System

The RNHS would continue in its current form with policies refined where appropriate/required. The NHSGP would be incorporated into the ROP as an overlay/constraint layer and would include policies from the Growth Plan 2019 (similar to how the GBNHS is currently treated in the ROP). Essentially, the Region would be covered by three separate NHS policy frameworks:

- the Regional Natural Heritage System (RNHS) (which would also extend into the NEP area as it does currently),
- the Natural Heritage System for the Growth Plan (NHSGP);
- the Greenbelt Natural Heritage System (GBNHS)

Outside of the NEP areas and settlement areas, the RNHS and the NHSGP may overlap and where it does, the more restrictive policies would apply. The existing overlay between the RNHS and GBNHS would remain unchanged.

This approach would ensure that the policies relating to Provincial Plan Systems in the ROP are only being applied where they have been identified by each respective Provincial Plan. This would allow for some flexibility in terms of restrictions between each System and not necessarily apply more restrictive policies broadly across the

Region. A challenge with this approach is that it would add complexity to mapping and policies in the ROP and could make it less user-friendly. There would also be a number of policies that would be duplicated or appear similar, given that the policy direction between the Greenbelt Plan 2017, Growth Plan 2019 and ROP policies related to the RNHS are already very similar. Finally, clarity would be required to identify what policies apply in instances where there is overlap between multiple systems.

Option 2 – Harmonize the Provincial Natural Heritage Systems

The RNHS would continue independently with policies refined where appropriate/required. The NHSGP would be incorporated into the ROP and combined with the GBNHS as an overlay/constraint layer. Essentially, the Region would be covered by two layers of NHS policy:

- the Regional Natural Heritage System (RNHS); and
- a combined/harmonized Natural Heritage System for the Growth Plan (NHSGP) and the Greenbelt (GBNHS) (i.e. the Provincial Plan Systems).

While the policies that apply in the NHSGP and the GBNHS would be similar, there would be mutually exclusive elements.

This approach would help to provide some clarity in terms of applying various policy sets while still allowing flexibility to include policies that reflect local considerations for the RNHS. There are some differences between the Greenbelt Plan 2017 and the Growth Plan 2019, however any differences could be reconciled through policy. This option could still be complex; however, it would be slightly less complicated than Option 1. Similar to Option 1, there would likely be similar policies within the sections addressing Provincial policies and the RNHS policies.

Option 3 – Create an updated Regional Natural Heritage System that incorporates the Provincial Natural Heritage Systems

This would be a different approach that involves the establishment of a RNHS that incorporates the NHSGP and the GPNHS plus other NHS lands outside of settlement areas and applying the most restrictive policy framework respecting development and site alteration to the entire NHS. PPS policies on development and site alteration respecting features would apply in settlement areas.

This approach would provide the most clarity to the end user and allow for the use of the current ROP framework for the RNHS; however, achieving a single policy set for all

three natural heritage systems could present some challenges in terms of policy restrictions. If one policy set is presented, the most restrictive policy would apply everywhere. For example, the GPNHS prohibits development in significant woodlands and with one policy set that must meet the minimum standards of the provincial plans, the prohibition of development in significant woodlands will apply to all woodlands in Halton Region. This does not allow for opportunities to provide a unique framework for the RNHS, it would limit flexibility in how it is treated and could result in additional frameworks to address RNHS in the urban context. Finding the appropriate balance in approach in the single consolidated framework would be essential. Careful consideration would be necessary to ensure no existing protections or permissions are removed through such any balancing exercise.

Discussion Question 1:

As required by the Growth Plan, 2019, the new Natural Heritage System for the Growth Plan mapping and policies must be incorporated into the Regional Official Plan. Based on the three (3) options discussed above, what is the best approach to incorporate the NHSGP into the ROP?

4.0 Regional Natural Heritage System

4.1 Introduction

The Natural Heritage policies and mapping will require a number of updates for the following reasons:

- consistency with the PPS and conformity to Provincial plans;
- through the implementation of the current ROP, a number of natural heritage policies and discrepancies in the natural heritage mapping that have been identified for improvement or clarification;
- identifies actions that are needed to achieve the Region's natural heritage objectives; and
- to update the NHS mapping with the best available data sources to improve accuracy of the mapping.

Detailed analysis of these policies and mapping is found in the supporting technical work; however, some of the key considerations for updates to Natural Heritage policies and refinements to the mapping are discussed below.

Why does the ROP require the identification of a Natural Heritage System?

Section 2.1 of the PPS (2020) requires municipalities to identify a NHS based on a list of natural heritage features and areas and contains a suite of policies to protect the ecological function and biodiversity of the natural heritage and water resources in the long-term. The requirement to incorporate natural heritage systems in Official Plans is set out in Section 2.1.3 of the 2020 PPS:

Natural heritage systems shall be identified in Ecoregions 6E & 7E1, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas.

A Natural Heritage System (NHS) is defined in the PPS 2020 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...

This is also a requirement in Section 5.3 of the Greenbelt Plan 2017 to identify the GBNHS:

Official plans shall contain policies that reflect the requirements of this Plan together with a map(s) showing the boundaries of the Greenbelt Area, the Protected Countryside, the Natural Heritage System and the agricultural land base. Municipalities shall 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 identification of the Natural Heritage System boundary will form the basis for applying the policies of section 3.2.

The Growth Plan 2019 suggests a similar approach to that of the Greenbelt Plan 2017. In this regard, Section 4.1 of the Growth Plan 2019 states in part the following:

This Plan also provides for the identification and protection of a Natural Heritage System for the GGH 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.

The NEP 2017 is also applicable to lands identified as part of this plan within Halton Region and is discussed in Section 7.3 Niagara Escarpment Plan (NEP) 2017.

Throughout the discussion paper, the requirements from these Provincial plans with respect to NHS are highlighted and options to incorporate or update the policies and mapping for the NHS are provided.

As discussed in Section 2.0 Evolution of Natural Heritage at Halton Region, the current ROP identifies NHS policies and mapping. The goal of the NHS in Halton's ROP is "... to increase the certainty that the biological diversity and ecological functions within Halton will be preserved and enhanced for future generations" (Halton Region 2018, s.114). This goal has supported the application of the precautionary principle in relation to analysis of proposed NHS impact avoidance and mitigation measures (i.e., faced with uncertainty, err on the side of being conservative in the protection of natural heritage components).

4.2 Policy Considerations

Natural Heritage Policy Review

Many ROP policies and definitions will require a detailed review in light of changes to the Provincial plans. In the case of natural heritage, this will largely mean refining existing definitions and considering best practices based on technical documents, frameworks and guidelines. A Water Resource System will need to be identified in the ROP and is discussed in more detail in Section 6.0 Water Resource System. The relationship between the GBNHS and the RNHS could be further clarified in the ROP. More importantly, the approach taken to incorporate the NHSGP will determine the significance of the changes to the policies for the RNHS, which is discussed in Section 3 Natural Heritage System for the Growth Plan.

The current ROP includes policies that support an approach to the protection of natural heritage grounded in the precautionary principle (i.e., faced with uncertainty, err on the side of being conservative to ensure the protection of natural heritage components). Options to more explicitly entrench this principle should be considered through this review, however, this must be balanced with other Regional objectives where necessary. The options are provided in Section 4.3 Policy Discussion.

Discussion Question 2:

RNHS policies were last updated through ROPA 38. Are the current goals and objectives for the RNHS policies still relevant/appropriate? How can the ROP be revised further to address these goals and objectives?

Buffers and Vegetation Protection Zones

The ROP assumes that one of the principal mitigation measures for achieving no negative impact is the provision of a Buffer around components of the key features within the RNHS. This is not clearly stated within the ROP policies themselves, although the definition of buffer in the ROP (reproduced below) does support this interpretation. This discussion around Buffers within the RNHS does not preclude any requirements relating to buffers as prescribed in conservation authority policies and regulations.

Buffer is defined in Section 220.1.1 of the ROP as

...an area of land located adjacent to Key Features or watercourses and usually bordering lands that are subject to development or site alteration. The purpose of the buffer is to protect the features and ecological functions of the Regional Natural Heritage System by mitigating impacts of the proposed development or site alteration. The extent of the buffer and activities that may be permitted within it shall be based on the sensitivity and significance of the Key Features and watercourses and their contribution to the long term ecological functions of the Regional Natural Heritage System as determined through a Sub-watershed Study, an Environmental Impact Assessment or similar studies that examine a sufficiently large area.

Similar to buffers, vegetation protection zones are addressed for lands outside of settlement areas in the Greenbelt Plan 2017, the Growth Plan 2019 and the NEP 2017. Certain features in the Greenbelt Plan (2017) and Growth Plan (2019) require a mandatory minimum vegetation protection zones under specified circumstances and the minimum width of the vegetation protection zone in some instances cannot be reduced. These updated policies will need to be incorporated into the ROP.

Vegetation Protection Zone (VPZ) is defined in Section 288.1 of the ROP as:

...it applies within the Greenbelt Plan Area, a vegetated buffer area surrounding a Key Feature within which only those land uses permitted within the feature itself are permitted. The width of the vegetation protection zone is to be determined when new development or site alteration occurs within 120 metres of a Key Feature, and is to be of sufficient size to protect the feature and its functions from the impacts of the proposed change and associated activities that will occur before, during, and after construction, and where possible, restore or enhance the feature and/or its function.

The ROP could consider outlining a similar approach to buffers to that included in Provincial Plans. However, other Regional objectives would need to be considered to minimize impacts for example on existing development. Consideration should be given on how to incorporate Buffers or Vegetation Protection Zones into the ROP.

Discussion Question 3:

Based on the discussion provided above, to ease the implementation of buffers and vegetation protection zones, should the Region include more detailed policies describing minimum standards?

The Region has developed a working document called the “Framework for Regional Natural Heritage System Buffer Width Refinements for Area-Specific Planning” that outlines process requirements and resources for determining Buffers in designated Greenfield areas. Consideration should be given to formalize the Buffer framework for use in area-specific planning. This would require consultation with the local municipalities, conservation authorities and the public prior to formalizing the Buffer framework. Following formal consultation, there are three options to incorporate this Buffer framework in Halton’s planning framework: (1) through Council approved ROP Guidelines (most probably the EIA Guidelines or through the development of Subwatershed Guidelines); (2) recognizing the Buffer framework status in policy in the ROP; (3) seek Council direction to use it as a stand-alone guidance document.

4.3 Policy Discussion

Precautionary Principle

As it relates to Natural Heritage, the precautionary principle can be explained by when faced with uncertainty, err on the side of being conservative to ensure the protection of natural heritage components. The current ROP includes policy approaches to the protection of natural heritage that are grounded in the precautionary principle. Through the ROPR, consideration is warranted on how to continue to incorporate this principle into the ROP.

Option 1: Include Policy Direction

The ROP Review will consider if the precautionary principle should be more explicitly referenced in natural heritage ROP. The notion of having a high degree of confidence in considering the impacts on the NHS could be more explicitly articulated in the policies. The term “precautionary principle” could be added into the ROP, perhaps in the Vision.

This option would strengthen existing policies and assist in providing clarity about the approach that should be taken when there is a discrepancy or conflict in policy interpretation (since some reliance is placed on the vision when interpreting policies). A challenge with this is that the language could still be subjective and open to interpretation. There may also be uncertainty about a universally accepted definition of the precautionary principle.

Option 2: Maintain Current Approach

This option would not make any changes to the ROP as it relates to the precautionary principle.

As noted above, a precautionary approach is already implicitly included in the ROP. Not including any additional language related to the precautionary principle would likely not have any negative implications.

Buffers and Vegetation Protection Zones

The current ROP assumes that one of the principal mitigation approaches for achieving no negative impact is the provision of Buffers or Vegetation Protection Zones around components of the key features within the RNHS and GBNHS. Consideration should be given on how to incorporate Buffers or Vegetation Protection Zones into the ROP. It should be noted that these terms are being used interchangeably to reflect the terminology used in the GBNHS and GPNHS.

Option 1: Include Policies in the ROP

This option would consider if implementing policies for vegetation protection zones should be added to the ROP, possibly incorporating minimum vegetation protection zones related to different types of natural heritage features, as is done in the Provincial plans. The role and use of the Region's Buffer Framework could also be clarified through policy or Council endorsed guideline.

This option would help to provide clarification about what buffers or vegetation protection zones apply and where, as well as providing a distinction between buffers or vegetation protection zones that can be modified and those that cannot. Direction on where buffers or vegetation protection zone can be modified could still be provided through a framework or guideline.

Option 2: Do Nothing

This option would continue the current approach taken regarding vegetation protection zone and not include any additional policies, other than those required by Provincial Plans.

This means that additional clarity about how vegetation protection zones apply and how they can or cannot be modified outside of the lands subject to Provincial Plans would not be provided.

4.4 Mapping Considerations

Natural Heritage Mapping

The current mapping (2009) in the ROP is based on the NHS mapping undertaken as part of the Sustainable Halton exercise in preparation for ROPA 38. At that time, three natural heritage system options were developed that approximately reflected “minimum standards”, “systems based” and “enhanced ecological integrity” approaches. Council at the time directed staff to develop the “enhanced ecological integrity” concept as a basis for protecting natural heritage in the ROP in order to provide a high probability that biodiversity and ecological function of natural heritage in the Region was protected in the long term. The concept map for that option was refined concurrently with the development of the policy framework for natural heritage policies. Comments provided by the local municipalities, modifications made by the Province, and settling of Ontario Municipal Board (OMB) appeals (including the Region’s) resulted in multiple changes to the policy structure. However, the NHS mapping had not been completely updated to reflect all these changes at the time that ROPA 38 was approved with modifications by the Province (Nov 24th, 2011).

To address the discrepancies because of ROPA 38, the 2009 NHS maps (Maps 1 and 1G) must be refined to better reflect the policies that define Halton’s NHS and/or the policies that define the Halton NHS themselves should be refined to better reflect how it was mapped. There are also some minor inconsistencies in the extent of the Region’s NHS between Maps 1 and 1G that need to be resolved. Appendix 2 contains a component list of key features and areas that create the NHS.

It should be noted that Section 5.4.2 of the Greenbelt Plan (2017) does not permit refinements to the GBNHS mapping except as a result of amendments to the plan. However, refinements to the boundaries of Key Features within the GBNHS may be considered through site level boundary interpretation by qualified individuals using the guidance in the Province’s Technical Paper 1 (OMNR 2012).

Undertaking these mapping refinements is essential to provide transparent mapping that accurately reflects the policy structure and which incorporates the most current data available. These updates have resulted in a proposed Draft 2019 Region's Natural Heritage System map, which is discussed in Section 4.5 below. Appendix 3 contains a flow chart that describes the technical process to draft the 2019 Natural Heritage System Mapping, which was informed by the Mapping Audit Technical Paper dated May 2020.

4.5 Proposed Refined 2019 Regional Natural Heritage System (RNHS)

Technical Process for Refinement of the RNHS

Maps 1 and 1G of the ROP have been refined as part of this ROPR to better reflect the policies that define the NHS and to recognize some minor inconsistencies in the extent of the RNHS between Maps 1 and 1G. The draft 2019 RNHS also utilized updated base data information available from the Province and conservation authorities to assemble the RNHS. Using updated base layers ensures that NHS mapping in the ROP reflects the most current data available and thus the maps are as accurate as possible. In addition to the base layers updates, a review of the NHS mapping was undertaken to recognize planning decisions and updated information since ROPA 38 and this includes OMB decisions, approved planning applications, special Council Permits and staff refinements based on in-field observations.

Refinements of Buffers, Enhancements Areas and Linkages

An analysis was completed to refine the components of the NHS including Buffers, Enhancement Areas and Linkages. This was necessary to reflect the updated boundaries of Key Features and other feature components of the NHS (watercourses, wetlands, Escarpment Protection Areas and Escarpment Natural Areas). Enhancements and linkages were evaluated to ensure they were still valid after the updates, identify new enhancement and linkages opportunity and that those identified were consistent with the approach taken for the existing, in-force, RNHS.

Quality Assurance/Quality Control (QA/QC) evaluation

The final step in the RNHS mapping update process was a Quality Assurance/Quality Control (QA/QC) evaluation of the draft 2019 RNHS. The purpose of this exercise was to complete a visual inspection of the draft 2019 RNHS to confirm that a consistent approach to the mapping in accordance with the Regional Official Plan, identify mapping errors and apply specific mapping rules (i.e. exclusion of individual storm water management ponds). More importantly, for an open and transparent method for the

refinements of the RNHS with the local municipalities, conservation authorities and the public.

Additional Mapping Considerations

Proxy Data

One challenge that was resolved as part of the overall refinement of NHS mapping is the degree to which it is appropriate to use proxy data to map key features and areas for which no data are available. This process entailed a review of the entire suite of potential data sources that could be incorporated within a refined NHS to determine those that will best fulfil the Region's NHS goal and satisfy policy and mapping requirements in current Provincial Plans. This involved consultation with the conservation authorities and the Region's ecological consultant to determine whether it is valid to use a proxy data source to identify a key feature in the NHS, for example permanent watercourse data to represent fish habitat. Appendix 2 contains a component list of key features and areas that create the NHS.

If it was determined that the proxy data were not sufficient for some features (e.g. limits of Significant Valleylands, Significant Wildlife Habitat), it would remain as unmapped key features. The unmapped key features would be identified through fieldwork completed during an Environmental Impact Assessment, Subwatershed Study or subsequent environmental reports.

Centres for Biodiversity

The concept of Centres for Biodiversity arose from a recognition of the impact of fragmentation of natural communities. The identification and protection of very large (>200 ha) contiguous areas of wildlife habitat was viewed as a means to help represent the main natural heritage landscapes in Halton Region within the RNHS. In the current ROP, Centres for Biodiversity are included in the RNHS as Enhancement Areas, which are a component of the RNHS. Although defined in the ROP, there are no policies that pertain specifically to the identification/refinement and protection of Centres for Biodiversity and therefore, Centres for Biodiversity are subject to the same policies as the rest of the RNHS. Through the ROPR it will be determined how the Centres for Biodiversity will be identified as part of the RNHS mapping and policies.

Environmentally Sensitive Areas

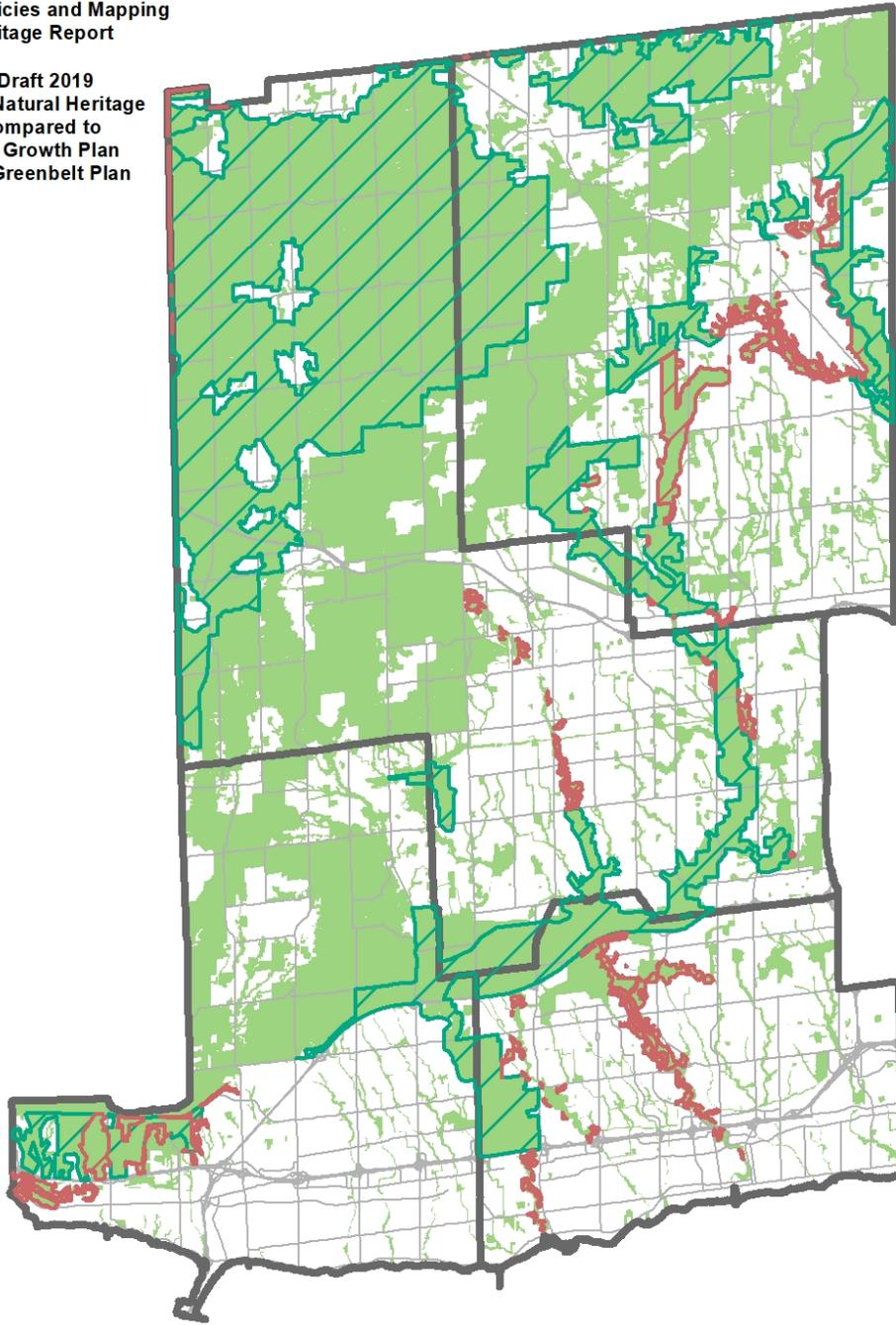
Environmentally Sensitive Areas (ESA) have a regional significance and support a system-based approach to the NHS which is instilled in Halton's Planning Vision "To maintain Halton as a desirable and identifiable place for this and future generations, certain landforms within Halton must be preserved permanently. This concept of landform permanence represents Halton's fundamental value in land use planning and will guide its decisions and actions on proposed land use changes accordingly." (ROP 2006, Part II, s. 26). The original criteria and objectives of the ESA program were not explicitly carried through into the current ROP, nor were ESAs listed as components of the RNHS (s. 115.3). However, ESAs were used as a data source layer in the mapping of the RNHS. Most of the ESAs include other key features and areas of the Region's NHS but there are some ESAs that are located outside of these key features and components, in particular some Earth Science ESAs. With the absence of policies in the current ROP that specifically identify the ESAs and provide guidance on their protection, it has created a void that has resulted in some confusion about their role in the RNHS. As part of the ROPR, the Region will clarify the role of the ESAs in the RNHS.

Proposed Refined Draft 2019 Regional Natural Heritage System Mapping

The proposed draft 2019 RNHS map was created using the parameters outlined above that were established through the technical background review and are shown in Figure 7. Figure 7 illustrates the RNHS and identifies where the NHSGP and GBNHS overlap. The draft 2019 NHS mapping will continue to evolve through this process based on availability of new data, policy changes and consultation with local municipalities, Halton's Advisory Committees, agencies and the public.

Review of the Regional Official Plan Natural Heritage
System Policies and Mapping
Natural Heritage Report

Figure 7 - Draft 2019
Regional Natural Heritage
System Compared to
Provincial Growth Plan
NHS and Greenbelt Plan
NHS



Legend

-  Municipal Boundary
-  Growth Plan NHS
-  Draft 2019 Halton NHS
-  Greenbelt Plan NHS

0 1.25 2.5 5 7.5 10 Kilometers



4.6 Comparison Mapping

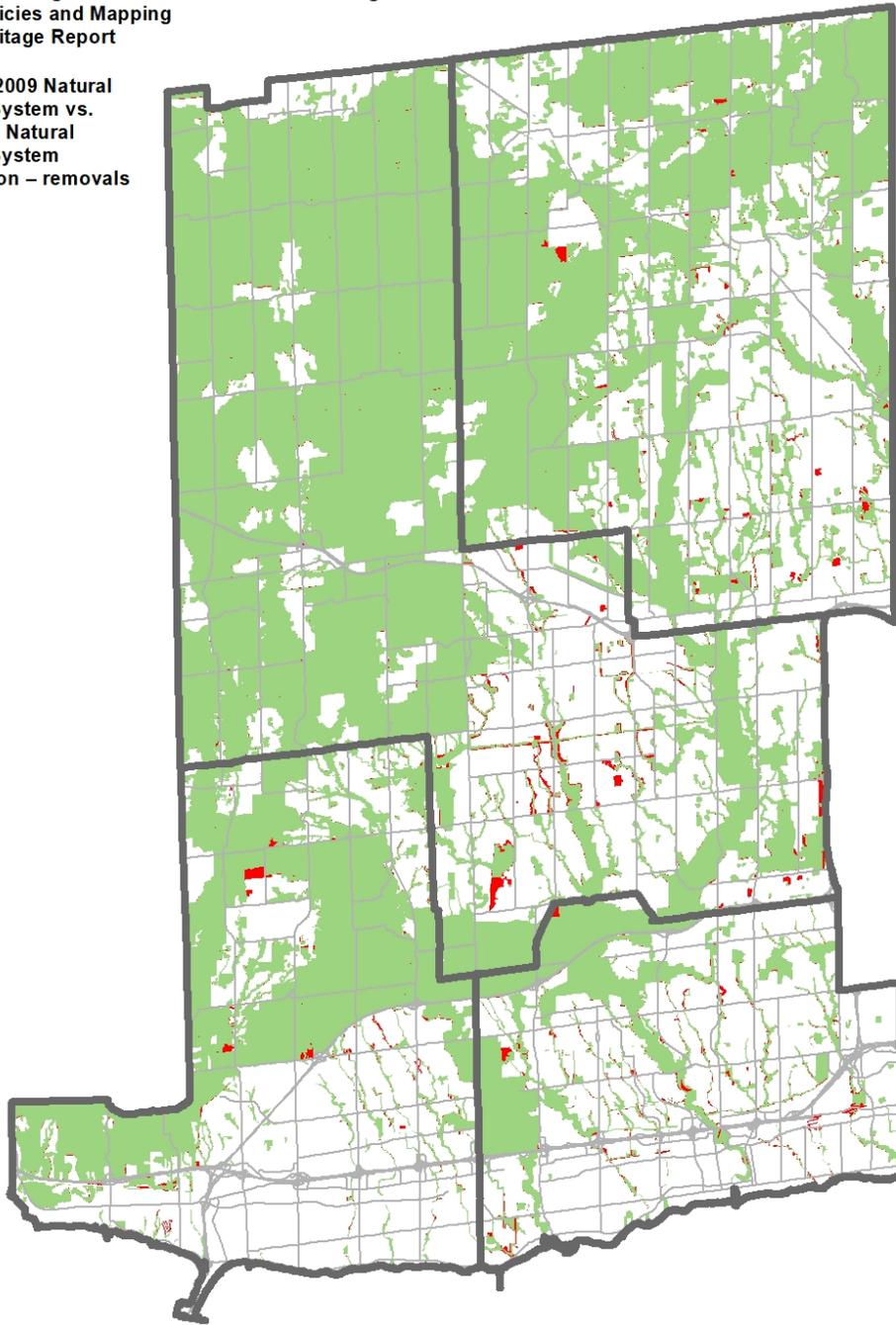
Draft 2019 Halton NHS compared to 2009 Halton NHS

The current conception of the Halton NHS (2009) in the ROP consists of two “sub-systems” each with their own policies: The GBNHS and RNHS. Together, these Systems create Halton’s NHS as identified on Map 1 of the ROP. The Draft 2019 Halton NHS continues to be comprised of the GBNHS and the RNHS as well as the NHSGP that has now been introduced in the Halton’s NHS based on provincial policy requirements (as outlined in Section 3: Natural Heritage System for the Growth Plan). Note that the draft Halton NHS does include the NHSGP mapping without any refinements as outlined in Section 3.2 Policy and Mapping Consideration for the NHSGP.

Figures 8 and 9 below highlight the removals and additions to Halton’s NHS. The Provincial Systems are not shown separately in the 2009 and 2019 mapping to simplify the visual comparison of the systems. The 2019 draft NHS mapping (including the provincial system) accounts for approximately 52.8% of Halton Region, which is a slight increase from the 2009 NHS mapping, which was 50.6%. The increase can be attributed to updated data sources and updated provincial plans including the addition of the NHSGP mapping. Further refinement will occur before the finalization of Halton’s NHS based availability of new data, policy changes and consultation with municipalities, agencies and the public.

Review of the Regional Official Plan Natural Heritage
System Policies and Mapping
Natural Heritage Report

Figure 8: 2009 Natural
Heritage System vs.
Draft 2019 Natural
Heritage System
Comparison – removals
shown



Legend

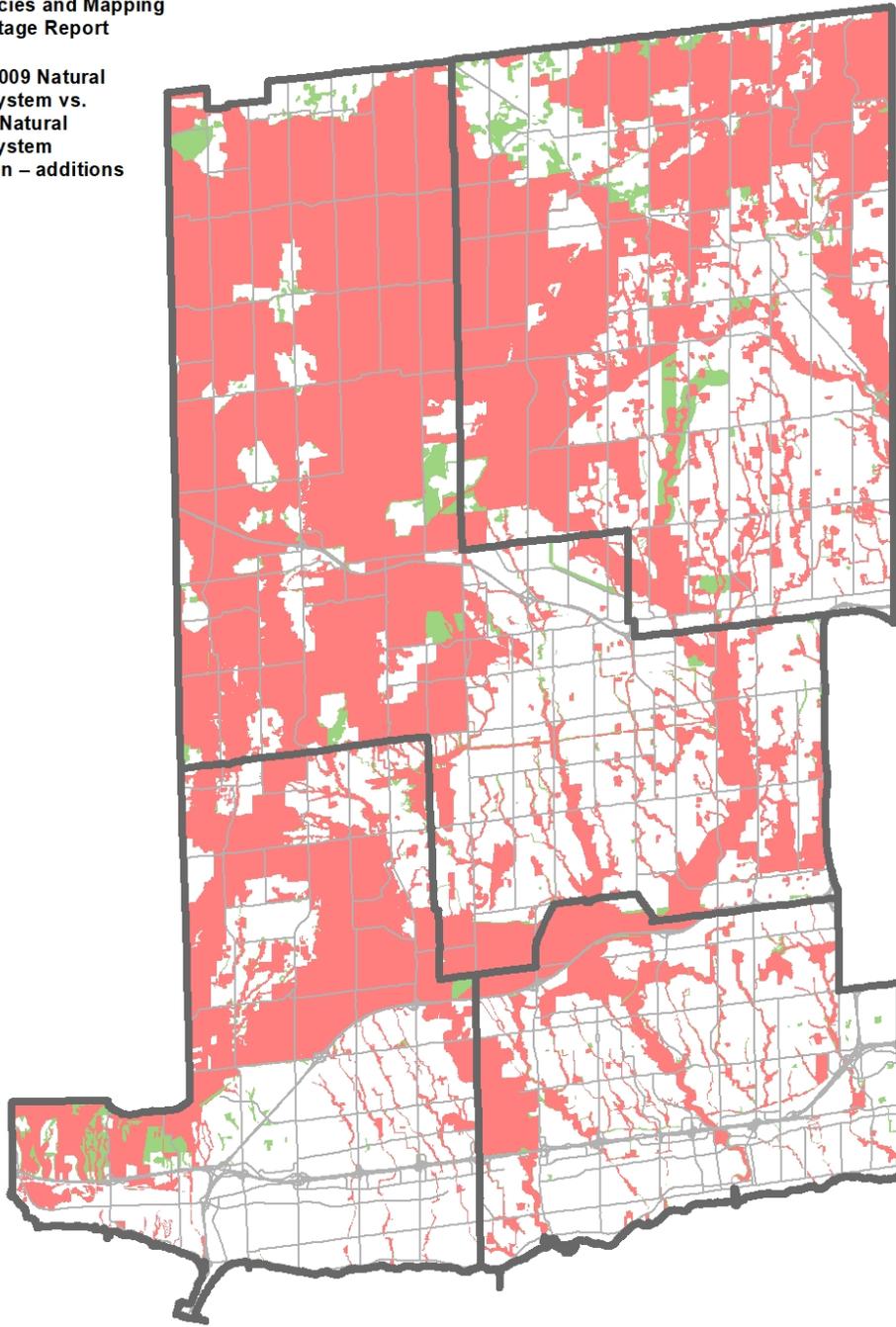
-  Municipal Boundary
-  Draft 2019 Halton NHS
-  2009 Halton NHS Removed in 2019 NHS

0 1.25 2.5 5 7.5 10
Kilometers



Review of the Regional Official Plan Natural Heritage System Policies and Mapping
Natural Heritage Report

Figure 9: 2009 Natural Heritage System vs. Draft 2019 Natural Heritage System Comparison – additions shown



Legend

-  Municipal Boundary
-  2009 Halton NHS
-  Draft 2019 Halton NHS

0 1.25 2.5 5 7.5 10 Kilometers



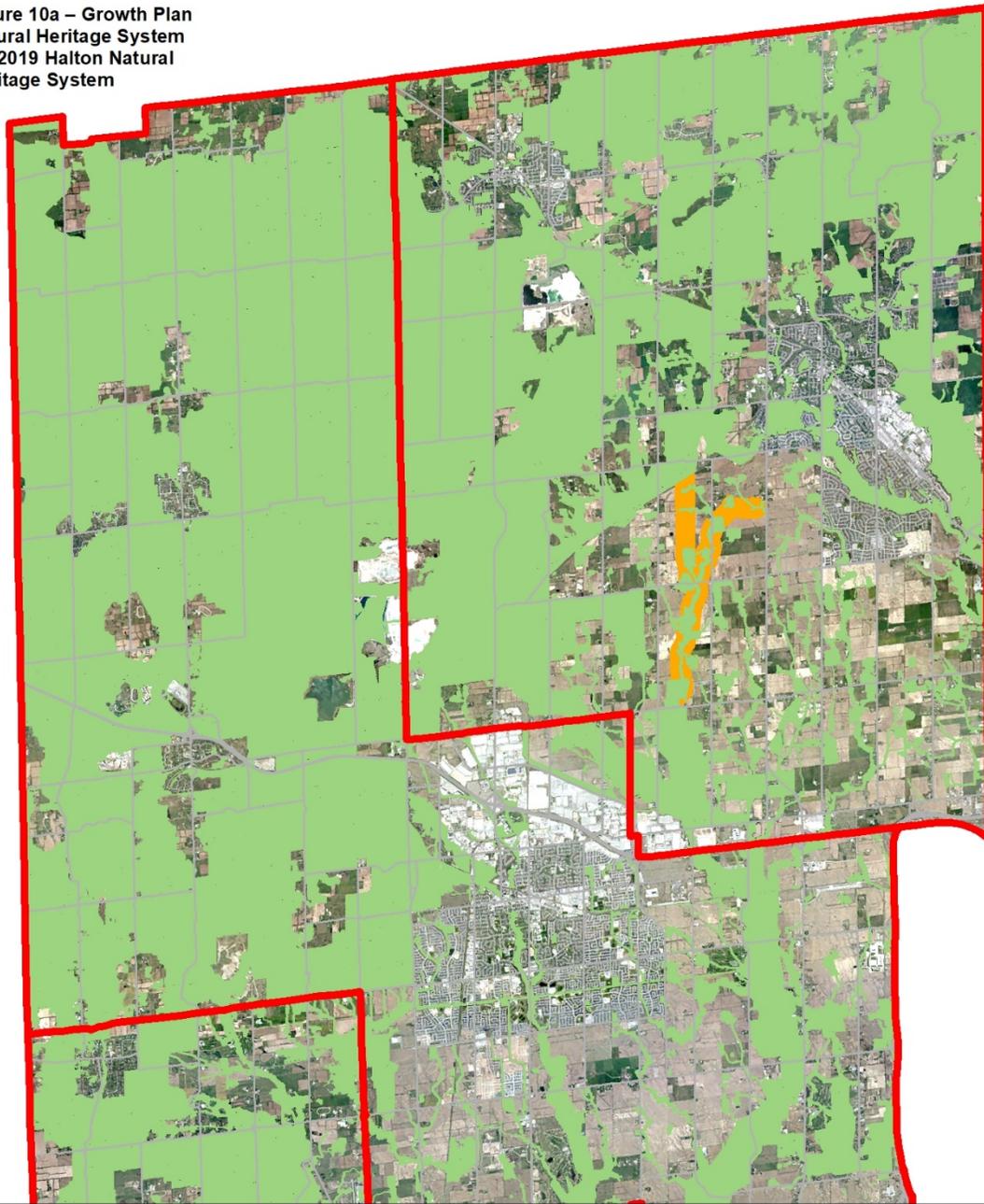
Draft 2019 Natural Heritage System compared to Natural Heritage System for the Growth Plan

Figure 10a and 10b compare the NHSGP to Halton's draft 2019 NHS mapping. Many of the areas in the NHSGP that are outside the draft 2019 NHS are extremely small patches that could be a result of mapping discrepancies from the two systems using different base layers. The draft 2019 NHS uses up-to-date base mapping which has resolved some mapping discrepancies with the NHSGP. The mapping technical work resulted in the following information based on the comparison of the two systems for the rural area. This data will be used to further discussions on incorporating the NHSGP into the ROP and establishing potential refinements to the NHSGP.

- Only 349.54 ha (20.5%) of the NHSGP in Halton occurs outside the 2019 RNHS, thus 79.5% of the NHSGP in Halton already occurs within the 2019 Halton NHS.
- The 349.54 ha that occurs outside of the RNHS include many very small (less than 1ha) patches that are possibly a result of mapping discrepancies between the different data sources used by the Province and the Region in mapping the NHS.
- Only 23 areas (mapping polygons) in the NHSGP, which occur outside of the 2019 RNHS, were bigger than 1 ha in size, totalling 340.15 ha.

Review of the Regional Official Plan Natural Heritage System Policies and Mapping
Natural Heritage Report

Figure 10a – Growth Plan
Natural Heritage System
vs. 2019 Halton Natural
Heritage System



Legend

 Municipal Boundary

 Natural Heritage System for the Growth Plan outside of the 2019 Halton NHS to be excluded as per Section 3.2

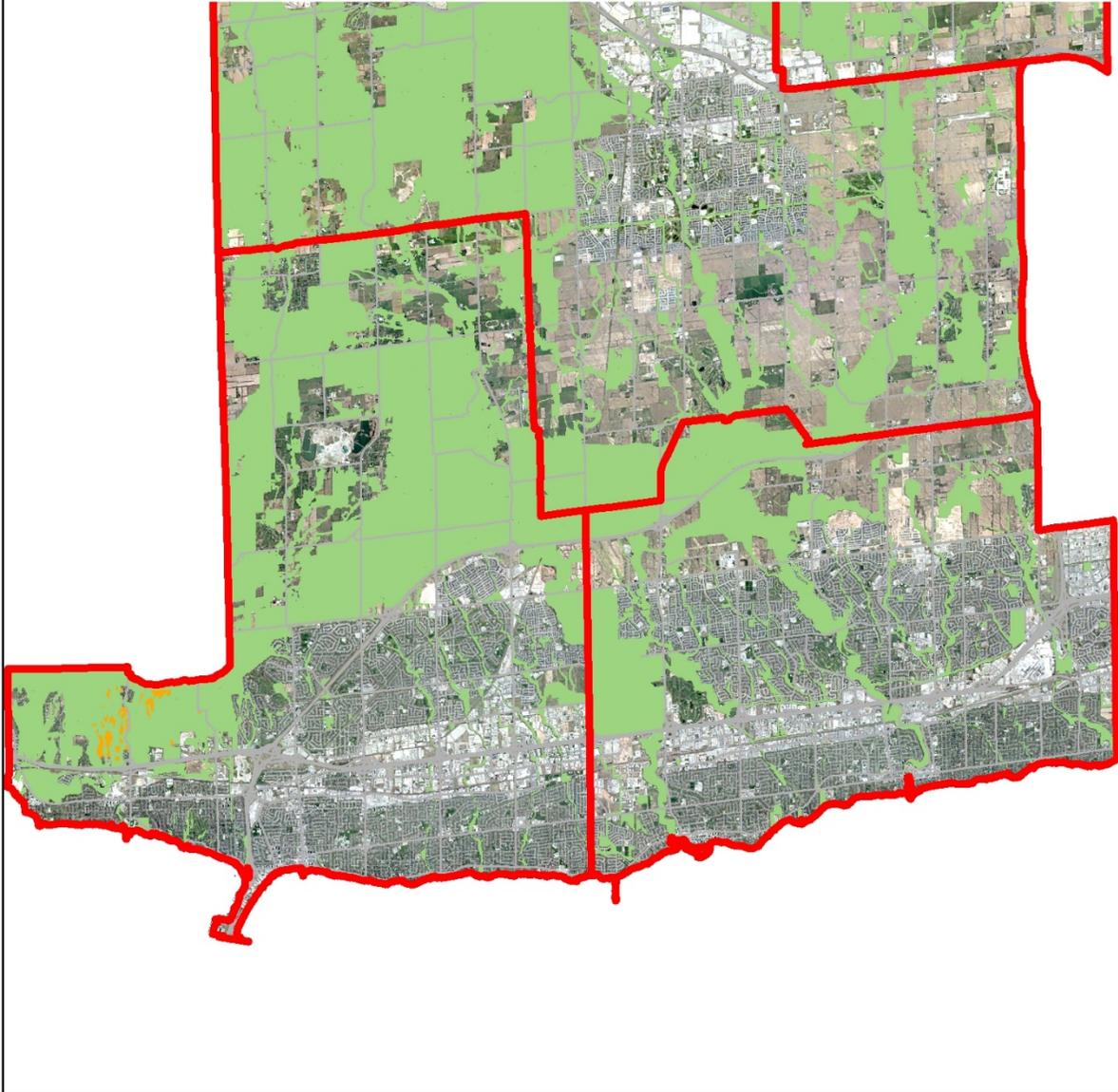
 Draft 2019 Halton NHS

0 1 2 4 6 8 Kilometers



Review of the Regional Official Plan Natural Heritage
System Policies and Mapping
Natural Heritage Report

Figure 10b – Growth Plan
Natural Heritage System
vs. 2019 Halton
Heritage System



Legend

-  Municipal Boundary
-  Natural Heritage System for the Growth Plan outside of the 2019 Halton NHS to be included.
-  Draft 2019 Halton NHS

0 1 2 4 6 8 Kilometers



5.0 Overlay and Designation Mapping Options

5.1 Introduction

The overall planning vision of the ROP as amended by ROPA 38 was to deliver:

- Strong, vibrant, healthy and complete communities;
- An enhanced Natural Heritage System;
- A strong and sustainable agriculture industry; and
- A sustainable land use decision-making process.

Natural heritage and agriculture are often located in the same areas and require a balance in priorities to guarantee and strengthen their coexistence. The outcomes from the two topic areas require close alignment to ensure effective implementation.

This section provides options on the best approach in clearly representing the relationship between agriculture and natural heritage in the ROP given the requirements set out by the Provincial plans for lands outside of the settlement areas.

5.2 Policy and Mapping Background

In the current ROP, the RNHS is shown as a designation, and the GBNHS as a constraint overlay for lands outside settlement areas. Within the settlement area, the RNHS is shown as a designation. Prime Agricultural Area in the RNHS shown on Map 1G is shown as an overlay with policies for agricultural uses permitted in parts of the RNHS but outside of Key Features. Recent changes to the Growth Plan 2019 require that Prime Agricultural Areas including specialty crop areas be designated. The Growth Plan 2019 provides more direct policy guidance with respect to the designation of agricultural lands.

Section 4.2.2.2 of the Growth Plan 2019 indicates:

Municipalities will incorporate the Natural Heritage System for the Growth Plan as an overlay in official plans, and will 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 in this subsection and the policies in subsections 4.2.3 and 4.2.4.

Section 4.2.6.2 of the Growth Plan 2019 indicates:

Prime agricultural areas, including specialty crop areas, will be designated in accordance with mapping identified by the Province and these areas will be protected for long-term use for agriculture.

These sections require all municipalities to designate prime agricultural areas in accordance with Provincial mapping and to protect these lands for long-term use for agriculture. Provincial policies also require that Key Natural Heritage and Key Hydrologic Features must be protected from new uses, development, and site alteration.

As discussed in Section 3.0. Natural Heritage System for the Growth Plan, the Province released the mapping for the NHSGP in February 2018. The policies of the Growth Plan 2019 pertain only to the NHS identified within the Growth Plan area (i.e., only the Greenbelt Plan 2017 policies apply to the Greenbelt NHS, the Oak Ridges Moraine Conservation Plan policies apply to the Oak Ridges Moraine NHS, etc.). However, the recent iteration of the Growth Plan 2019 also includes policies that require municipalities to identify in their Official Plans. Section 6.0 Water Resource System provides additional context and discussion around the incorporation of the WRS into the ROP.

And then Section 4.2.2.2 states:

Municipalities will incorporate the Natural Heritage System as an overlay in official plans, and will 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 in this subsection and the policies in subsections 4.2.3 and 4.2.4.

The designation in the NHS in the ROP going forward is relevant to the question of how agricultural lands are to be designated because of the current approach that has certain lands designated NHS with agriculture as part of a constraint overlay. Additionally, not all of the rural area in the Region is considered to be prime agricultural land. As a consequence, a new 'Rural' designation will also be required for these areas should a Prime Agricultural designation be introduced, since there would be a need to apply a land use designation to those lands that are not considered to be within the prime

agricultural area. Additional information with regard to this discussion can be found in the Rural and Agriculture System Discussion Paper.

5.3 Discussion

As described above in Section 5.2 Policy and Mapping Considerations, the Province is now requiring planning authorities to designate Prime Agricultural Areas in accordance with guidelines developed by the Province. Provincial policies also require that Key Natural Heritage and Key Hydrologic Features must be protected from new uses, development, and site alteration and that a Water Resource System (WRS) be identified in Official Plans.

To address these requirements, four (4) options are being considered to determine the best approach in clearly representing the relationship between agriculture and natural heritage in the ROP given the requirements set out by the PPS and Provincial plans.

Figures 11 to 14 below provides an illustration of the mapping options that are described in this section.

Discussion Question 4:

Given the policy direction provided by the PPS and Provincial plans, how should policy and mapping address the relationship between natural heritage protection and agriculture outside of the Urban Area or the Natural Heritage System?

Figure 11. Mapping Option 1: Prime Agricultural Area with NHS Outside Key Features overlay and NHS Key Features overlay.

Option 1 Mapping Concept

NHS Outside of the Key Features (Overlay)



The **NHS Outside of the Key Features** and **NHS Key Features** are represented as overlays to form the Region's Natural Heritage System.

NHS Key Features (Overlay)



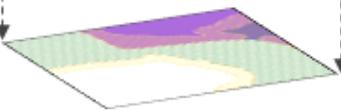
As overlays, the **NHS Outside of the Key Features** and **NHS Key Features** provide additional constraints and conditions on top of the underlying land use designation, which may be **Prime Agricultural Areas** or **Rural Areas**.

Prime Agricultural Areas (Designation)



The **Prime Agricultural Areas** are represented as a land use designation.

As a land use designation, the **Prime Agricultural Areas** have their own set of permitted uses.



Conceptually, Mapping Option 1 shows **Prime Agricultural Areas** as a mutually exclusive land use designation with the **NHS Outside of the Key Features** and **NHS Key Features** as overlays.

Option 1 Considerations



Pros

Map User Friendliness:

- Clearly identifies the extent of Prime Agricultural Areas
- Distinguishes between Key Features and Linkages/Enhancements/Buffers of the NHS since two separate overlays are used

Provincial Direction:

- Meets provincial direction for designating Prime Agricultural Areas and identifying Key Features

Cons

Map User Friendliness:

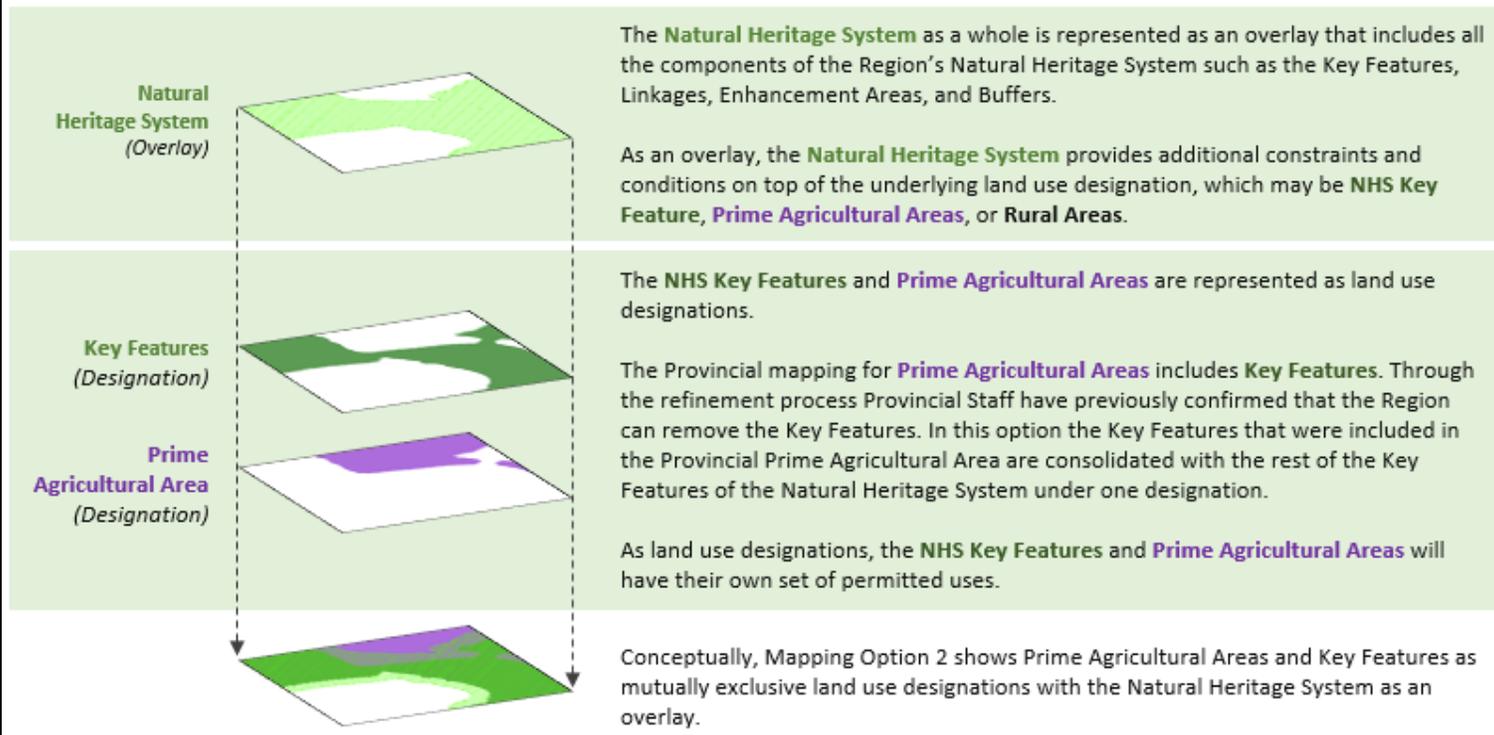
- 2 overlays makes the map look very busy
- Watercourse lines are not well represented as they cannot be mapped as a hatch

Policy Application:

- Does not depict the NHS as a system based approach
- Designation of Prime Agricultural Areas without the designation of Key Features could be perceived to place uneven emphasis on the protection of Prime Agricultural Areas over the protection of Key Features

Figure 12. Mapping Option 2: Prime Agricultural Area and Key Features are designated with a Natural Heritage System overlay. Key features that overlap with the Prime Agricultural Area are cut out of the Prime Agricultural Area and incorporated into the Key Features designation.

Option 2 Mapping Concept



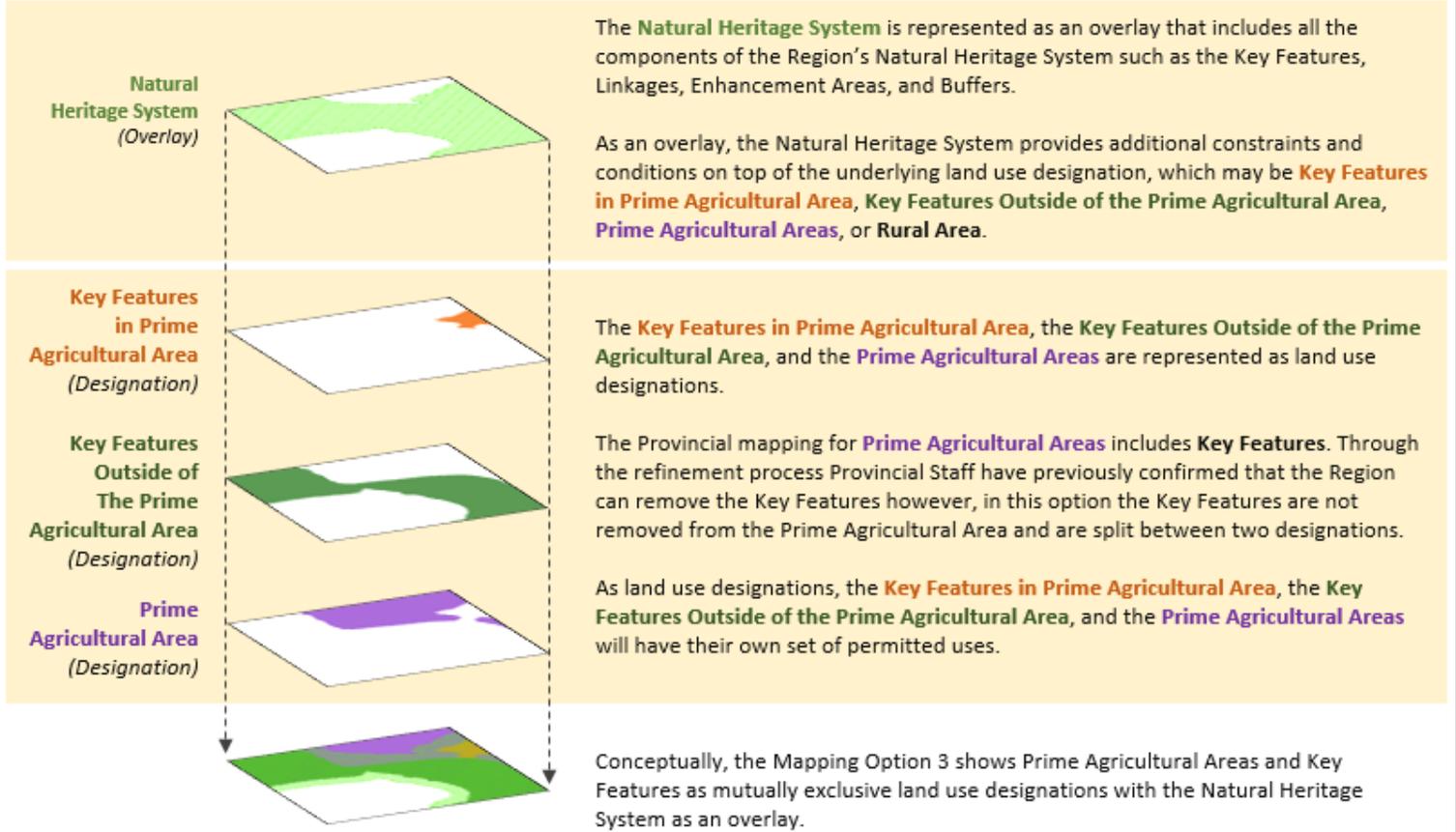
Option 2 Considerations



Pros	Map User Friendliness:	<ul style="list-style-type: none"> Clear visualization of how the Prime Agricultural Areas, NHS, and Key Features interconnect
	Policy Application:	<ul style="list-style-type: none"> Balanced approach and clear representation of the NHS as a system with emphasis on the protection of Key Features and Prime Agricultural Areas Policies for Key Features are applied consistently through one designation (instead of 2 designations in Option 3)
	Provincial Direction:	<ul style="list-style-type: none"> Meets Provincial direction for designating Prime Agricultural Areas and identifying Key Features Easiest method to identify Key Features in the RNHS, GBNHS, and NHSGP
Cons	Map User Friendliness:	<ul style="list-style-type: none"> Does not identify Linkages, Enhancements, and Buffers as a separate layer (they are included in the Natural Heritage System Overlay which includes the entire system)
	Policy Application:	<ul style="list-style-type: none"> Detracts from the systems approach on which the RNHS is based on by creating two tiers; Key Features being treated differently from other components in the RNHS

Figure 13. Mapping Option 3: Prime Agricultural Area and Key Features are designated with a Natural Heritage System overlay. Key Features that overlap with the Prime Agricultural Area are designated separately as 'Key Features in Prime Agricultural Area.'

Option 3 Mapping Concept



Option 3 Considerations



Pros	Map User Friendliness:	<ul style="list-style-type: none"> ▪ Clear visualization of how the Prime Agricultural Areas, NHS, and Key Features interconnect
	Policy Application:	<ul style="list-style-type: none"> ▪ Balanced approach and clear representation of the NHS as a system with emphasis on the protection of Key Features and Prime Agricultural Areas
	Provincial Direction:	<ul style="list-style-type: none"> ▪ Meets provincial direction for designating Prime Agricultural Areas and identifying Key Features
	Cons	<ul style="list-style-type: none"> ▪ Does not identify Linkages, Enhancements, and Buffers as a separate layer (they are included in the Natural Heritage System Overlay which includes the entire system)
	Map User Friendliness:	<ul style="list-style-type: none"> ▪ Does not identify Linkages, Enhancements, and Buffers as a separate layer (they are included in the Natural Heritage System Overlay which includes the entire system)
	Policy Application:	<ul style="list-style-type: none"> ▪ Detracts from the systems approach on which the RNHS is based on by creating two tiers; Key Features being treated differently from other components in the RNHS ▪ Policies for Key Features are applied through two designations. This will create duplications of policies given that the level of protection and permitted uses for Key Features within and outside of Prime Agricultural Areas is identical

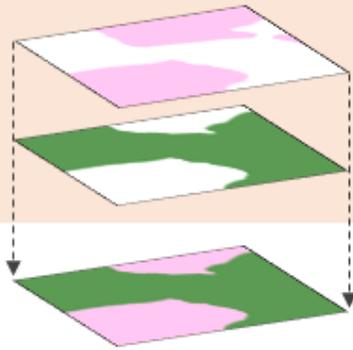
Figure 14. Mapping Option 4: Sustainable Halton - Existing Policy and Mapping Approach

Option 4 Mapping Concept

Map 1 – Regional Structure

Agricultural Area
(Designation)

Natural Heritage System
(Designation)



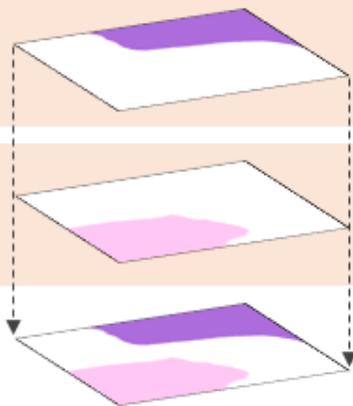
The **Agricultural Area**, which includes the **Prime Agricultural Areas**, and the **Natural Heritage System** are represented as land use designations. As land use designations, the **Agricultural Area** and **Natural Heritage System** have their own set of permitted uses.

Conceptually, Map 1 of the current ROP shows the Agricultural Area which includes the Prime Agricultural Areas and the Natural Heritage System which includes Key Features, Enhancement Areas, Linkages, and Buffers as mutually exclusive land use designations.

Map 1E – Agricultural System

Prime Agricultural Area
(Constraint)

Agricultural System outside Prime Agricultural Area



The **Prime Agricultural Area** is represented as a constraint layer. As a constraint layer, the **Prime Agricultural Areas** provide additional restrictions and conditions in addition to the underlying land use designation, which is **Agricultural Area**.

The **Agricultural System outside Prime Agricultural Area** is the component of the Agricultural Area designation outside the Prime Agricultural Area.

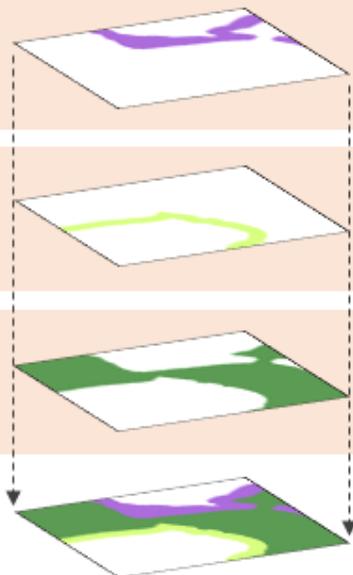
Conceptually, Map 1E of the current ROP shows the components of the Agricultural Area designation.

Map 1G – Natural Heritage System

Prime Agricultural Areas in NHS Enhancements/ Linkages/ Buffers

Enhancement Areas, Linkages and Buffers

Key Features
(Constraint)



The **Prime Agricultural Areas in NHS Enhancements/ Linkages/ Buffers** is the component of the **Natural Heritage System** designation that is within the **Prime Agricultural Area** and outside **Key Features**.

The **Enhancement Areas, Linkages and Buffers** is the component of the **Natural Heritage System** designation outside of **Key Features**.

The **Key Features** are represented as a constraint to development. As a constraint, the **Key Features** provide additional restrictions and conditions in addition to the underlying land use designation, which is **Natural Heritage System**.

Conceptually, Map 1G of the current ROP shows the components of the Natural Heritage System designation.

Option 4 Considerations



Pros

Policy Application:

- Continues Halton's long-standing history of the protection of agriculture and natural heritage that is strongly enshrined in Halton's planning vision

User Friendliness:

- Familiarity with Halton's approach as there has been extensive training done within and throughout the Region.



Cons

User Friendliness:

- Mapping is complex and requires reference to three separate ROP Schedules

Policy Application:

- Designation of NHS without the designation of Prime Ag could be perceived to place uneven emphasis on the protection of the NHS over protection of Prime Ag

Provincial Direction:

- While accepted and approved as an approach to ROPA 38, Provincial direction has indicated that Prime Agricultural Areas must be designated
- Provincial direction has indicated that the Agricultural System is made up of Prime Agricultural Areas and Rural Areas. The Agricultural Area designation does not fully conform with this structure



6.0 Water Resource System

6.1 Introduction

The current ROP policies on water are included in the Environmental Quality section of Part IV Healthy Communities Policies. They include the overall objective of maintaining, protecting and enhancing the quality and quantity of groundwater and surface water. The current OP establishes requirements for hydrogeological studies, hydrological studies and Environmental Impact Assessments in the context of development and site alteration in or near sensitive surface or groundwater features, or in cases where development has potential to release or discharge contaminants that affect the quality of groundwater. The ROP directs the Region to prepare watershed plans in partnership with Conservation Authorities and in consultation with Local Municipalities. It requires Local Municipalities to carry out sub-watershed studies prior to or as part of an area-specific plan process.

6.2 Policy and Mapping Considerations

Water Resource System Policy Review

Changes to the PPS 2020, Growth Plan 2019 and Greenbelt Plan 2017 have created a consistent approach across these plans and policies concerning water resources, with prominence given to watershed planning and identifying and protecting a Water Resource System (WRS). Supported by the PPS 2020, policies in the Growth Plan 2019 and Greenbelt Plan 2017 require that a WRS be identified to provide for the long-term protection of key hydrologic features, key hydrologic areas, and their functions.

The Growth Plan 2019 Policy 4.2.1.2 states:

Water resource systems will be identified to provide for the long-term protection of key hydrologic feature, key hydrologic areas, and their function.

The Greenbelt Plan 2017 Policy 3.2.3.3 states:

Water Resource Systems shall be identified, informed by watershed planning and other available information, and the appropriate designations and policies

shall be applied in official plans to provide for the long-term protection of key hydrologic features, key hydrologic areas and their functions.

In the Growth Plan 2019, the WRS is defined as:

A system consisting of ground water features and areas and surface water features (including shoreline areas), and hydrologic functions, which provide the water resources necessary to sustain healthy aquatic and terrestrial ecosystems and human water consumption. The water resource system will comprise key hydrologic features and key hydrologic areas.

In the Growth Plan 2019 and Greenbelt Plan 2017, policies on the NHS and WRS are very much connected, as Key Hydrologic Features are considered components of both Systems and protection approaches for these features are similar. Policy direction often applies to Key Natural Heritage Features and Key Hydrologic Features together where they coincide. While the two systems share many of the same elements, there are also components that are unique to each system. For example, wetlands are shared between the two Systems, while highly vulnerable aquifers are unique to the WRS. In addition to the shared elements, there are functional relationships between the two systems; for example some Key Features in the NHS may partially depend on groundwater, which is encompassed within the WRS.

Due to the overlap between the two systems, it is important to identify the relationship between the NHS and WRS in order to determine how the interdependency of the two systems should best be addressed in the ROP policy and mapping. Although key features in both systems are treated similarly in policy, the policies (and therefore protections) pertaining to each system as a whole are different. When developing or refining policies, the commonalities and functional relationships should be recognized, either through text or by cross referencing.

Although the ROP has a section on water, it does not identify a WRS, map it, or apply policies that pertain to it. To satisfy this expanded area of Provincial plans, the ROP will be required to incorporate new terms, definitions, mapping and policies that address and protect a new Halton WRS. Also related to water, policies in the Growth Plan 2019 and Greenbelt Plan 2017 establish that decisions on allocation of growth and planning for water, wastewater, and storm water infrastructure shall be informed by applicable watershed planning or equivalent (Growth Plan 2019 policy 4.2.1.3 & Greenbelt policy 3.2.3.4).

6.3 Discussion

In considering how the ROP can be brought into conformity and made consistent with the Provincial plans and policies, a key issue to be addressed is whether the NHS and WRS should be addressed in an integrated fashion or separately.

Option 1 – Combine the NHS and WRS

The NHS and WRS policies would be integrated in a unified policy section which highlights the relationship of the two systems in a narrative sense. The ROP would still include separate policies pertaining to the two systems, but could also present a common set of policies for Key Natural Heritage Features and Key Hydrologic Features. A separate set of policies would apply to Key Hydrologic Areas.

This approach would provide recognition of the integration and overlap between the two systems and would be similar to the approach taken in the Greenbelt and Growth Plan 2019. Another benefit would be to reduce duplication in the policies pertaining to Key Natural Heritage Features and Key Hydrologic Features, by outlining them once together, rather than separately in two different sections.

Option 2 – Separate the NHS and WRS

The water sub-section could be expanded to meet the requirements of the Provincial plans and policies concerning WRS, separate from, but with reference to the NHS section. Key Hydrologic Features and Key Hydrologic Areas would be mapped separately from Key Natural Heritage Features, potentially on a specific map dedicated to the WRS.

While this option would not highlight the integration of the two systems to the same extent as Option 1, it would provide clarity in terms of mapping and policy application. Some challenges with this option would be that there could be some instances where there is policy duplication or two sets of policies may apply to the same area or feature.

Discussion Question 5:

The Greenbelt Plan 2017 and Growth Plan 2019 require municipalities to identify a Water Resource System (WRS) in Official Plans. Based on the two (2) options presented, how should the WRS be incorporated into the ROP?

7.0 Other Considerations

There are additional considerations and key themes that have been reviewed through the background technical work. Section 7.0 highlights some additional themes that could be further investigated through the ROPR.

7.1 Halton Region's Natural Heritage Strategy

Halton Region has placed significant emphasis on the protection and enhancement of Halton's NHS through each successive Halton ROP. A healthy and connected system of features and linkages is essential to preserve the Region's natural heritage and biodiversity. The [Halton Region Strategic Business Plan 2019-2022](#) has continue to builds on this fundamental value through the objectives set out in this plan including the commitment to prioritizing the protection of the natural environment and agricultural areas, responding to climate change and reducing Halton's carbon footprint. The Regional efforts, through a system-based approach, has resulted in 50.6% of Halton Region located in the NHS. Section 114 of the ROP states:

The goal of the Natural Heritage System is to increase the certainty that the biological diversity and ecological functions within Halton will be preserved and enhanced for the future.

In order to meet the goal outlined above, Halton Region should develop a Natural Heritage Strategy, similar to Halton's Rural Agricultural Strategy. The Natural Heritage Strategy would align with the action items identified in the Halton Region Strategic Business Plan 2019-2022 and provide a context for Regional decision-making that supports a sustainable, natural environment. The goal of a Natural Heritage Strategy would be to provide a framework for initiatives to:

- restore habitat and increase forest cover through restoration and stewardship;
- promote natural heritage education and community awareness;

Figure 15: Halton Region Natural Heritage Strategy



- secure greenlands and their linkages;
- explore opportunities to mitigate climate change; and
- promote and protect the natural environment.

Halton Region has existing programs that would fall under this strategy and help achieve, maintain, protect and enhance Halton’s NHS. These existing programs include

Discussion Question 6:

Preserving natural heritage remains a key component of Halton’s planning vision. Should Halton Region develop a Natural Heritage Strategy and what should be included in such a strategy?

Greenland Securement, State of NHS Reporting, Halton Region’s Tree By-law, Forest Management Plans, and strategies for natural heritage preservation and restoration for the Waterfront Parks Masterplans. Consideration should be given on how to incorporate policies in the ROP that would support the development of a Natural Heritage Strategy.

7.2 Climate Change

Halton’s NHS protection and enhancement is an important part of responding to climate change in terms of both adaptation and mitigation. The NHS provides for more resilient environments and can allow for opportunities to reduce impacts of flooding and other risks associated with the more frequent and severe weather events. NHS protection and enhancement can also play an important role in acting as a carbon sink to reduce green house gas emissions.

Through the ROPR, there are opportunities to strengthen a number of natural heritage, hazard lands and water resource goals, objectives and policies to better respond to climate change and address provincial conformity requirements. ROP policies should be enhanced to address climate change mitigation and adaptation measures, including the following:

- Building on the existing research and literature to require studies such as Subwatershed studies to mitigate climate change and extreme weather impacts on NHS features;
- Development of a Natural Heritage Strategy for Halton Region;
- Preserve and restore biological diversity, water resources and natural features;
- Explore ways to mitigate against climate change events and protect water resources using low impact development and green infrastructure approaches to stormwater management; and
- Encouraging joint partnerships with local municipalities and conservation authorities to find opportunities to enhance and restore Halton’s NHS to help

mitigate against climate change as part of Halton Region's Natural Heritage Strategy.

7.3 Niagara Escarpment Plan (NEP) 2017

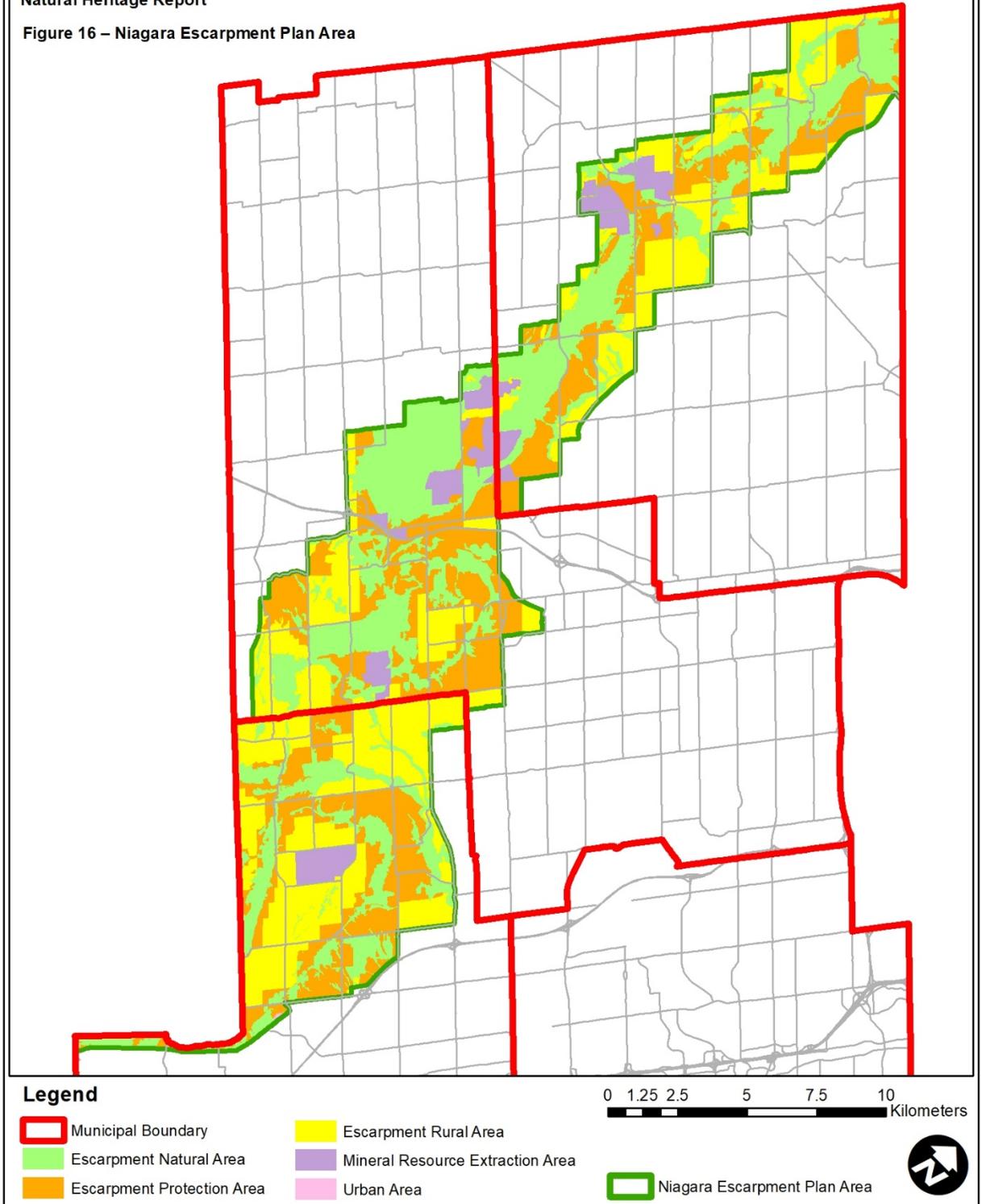
Although many of the policies of the NEP 2017 have undergone significant change, the overall structure of the plan, which establishes land use designations and details development criteria, has remained the same. The purpose and objectives relative to natural heritage are unchanged. New text in the introduction explains the landscape approach taken by the NEP 2017 and the relevance of natural heritage:

The land use designations of this Plan focus on the continuous landform of the Escarpment and provide a series of connected and protected areas. These land use designations ensure a broader landscape approach to protecting the natural environment and should be implemented in a way that recognizes the natural heritage system of the Niagara Escarpment and associated natural heritage features.

Under this section, similar to the other provincial plans, the text of the NEP 2017 conceptualizes natural systems as made up of natural heritage features and hydrologic features that often coincide.

Natural heritage continues to be among the criteria for identifying certain land use designations, particularly Escarpment Natural Area and Escarpment Protection Area. The objectives, criteria for designation and permitted uses for these land use designations have been refined. Although the NEP 2017 does not define a natural heritage system per se, the combination of Escarpment Protection and Escarpment Natural Area designations are a de facto NHS. The NEP 2017 includes updated provincial mapping to reflect changes to the lands within the Niagara Escarpment designations. These designations are shown in Figure 16 Niagara Escarpment Plan Area. Specifically, the Escarpment Natural Area has increased in size, whereas the Escarpment Rural Area has decreased. Consideration should be given to determine how the NEP 2017 Escarpment Natural and Protection areas mapping should be reflected in the ROP.

Figure 16 – Niagara Escarpment Plan Area



The greatest area of substantive change regarding natural heritage is within the development criteria in Section 2.7 of the NEP. This is a new section which establishes an expanded set of policies regarding development affecting natural heritage. The objective listed for the designation criteria is “to protect and where possible enhance natural heritage features and functions, in order to maintain the diversity and connectivity of the continuous natural environment.”

Consideration should be given to the broader approach to conformity with the NEP 2017. While generally aligned with the Growth Plan 2019, there are differences in policy. These policy differences could be reflected in the ROP, or the ROP might simply indicate that its own policies are subject to the NEP 2017.

7.4 Cootes to Escarpment EcoPark System

The Cootes to Escarpment EcoPark System is an innovative partnership to protect, connect and restore natural lands and open space between the Niagara Escarpment and Cootes Paradise in Hamilton Harbour. The EcoPark System consists of six core natural areas referred to as “Heritage Lands”, named to reflect the natural and cultural components of each area. The Heritage Lands include both publicly- and privately-owned lands and Management Plans have been undertaken for each of the Heritage Areas on partner-owned lands.

There are no policies currently in the ROP that recognize the Cootes to Escarpment EcoPark System partnership, support its vision, or implement the Management Plans. The Cootes to Escarpment EcoPark System is located within the Greenbelt Plan 2017. There are no protective policies that apply to the Cootes to Escarpment EcoPark System per se, although there are numerous areas within the EcoPark System that are subject to the policies of the RNHS, the GBNHS, and/or the NHSGP. The Greenbelt Plan 2017 does contain policies that require municipalities, agencies, and other levels of government to consider “geographic-specific park or public land management plans” when making decisions on land use or infrastructure proposals.

As there are Management Plans for the Cootes to Escarpment EcoPark System that address public lands, the Region should consider them when making decisions on land use or infrastructure proposals as required by the Greenbelt Plan 2017. This may be

Discussion Question 7:

Should the ROP incorporate objectives and policies to support/recognize the Cootes to Escarpment EcoPark System?

most applicable where there are development proposals within/adjacent to NHS. In such cases impact analyses and mitigation recommendations (for example as part of Environmental Impact Assessments) should account for the role the Heritage Areas play in the overall Cootes to Escarpment EcoPark System. It could also involve working with the responsible public agency to undertake or support management within the Natural Heritage Lands themselves to mitigate the inevitable increased use associated with development. Based on this discussion, the Region must determine if the ROP should include policies to encourage recognition and support continued collaboration with partners and landowners and consider including requirements for environmental impact assessment for Cootes to Escarpment Eco Park System Heritage Areas.

7.5 Drinking Water Source Protection

The Clean Water Act, 2006 (CWA) was created to help protect drinking water sources from contamination and overuse as the first step in a multi-barrier staged approach. The Region introduced policies related to drinking water source protection during the Sustainable Halton process through policies and directions contained in the Aquifer Management Plan (refer to council report number PW-05-17/LPS07-17 – “Aquifer Management Plan Update”). The current ROP contains policies and mapping to protect and enhance the quality and quantity of Halton Region’s ground and surface water resources as directed through the Aquifer Management Plan. These policies were included in the ROP prior to the Provincial approval of Source Protection Plans (SPP) applicable to Halton Region.

SPPs have now been developed in Halton Region in keeping with the CWA science-based process for the local development and continuous refinement of SPP policies which are intended to protect drinking water. SPPs are applicable law in the Planning Act, Condominium Act, 1998 and the Building Code Act, 1992, meaning that planning and building officials within municipalities play a role in implementation.

Each SPP applies to a discrete area based on watersheds and Conservation Authority jurisdiction so the boundaries do not correspond with municipal boundaries. Halton Region is located in three different watersheds and as such is subject to the policies of three SPPs:

- Halton-Hamilton Source Protection Plan
- CTC Source Protection Plan
- Grand River Source Protection Plan

These SPPs include policies and mapping that must be implemented through land-use planning and require that official plans be updated to conform to the SPPs as part of a ROPR. The land use policies contained in the applicable SPPs will replace the need for some of the existing ROP policies.

Consideration is needed to determine the best approach in implementing the SPPs into the ROP in a clear and concise way. The three SPPs that affect Halton apply to different geographic areas which complicates policy implementation. The applicable SPPs used modelling to determine drinking water source vulnerability and the significance of existing and future threats. Because this approach is outlined in the CWA, many policies among the SPPs affecting Halton Region are similar. Despite these similarities, there are unique policies and subtle differences among related policies according to the context and conditions of the associated watersheds. Mapping of vulnerable areas will be complicated given that SPP policies cross municipal boundaries and there are multiple SPPs to take into consideration. There is also a concern with changes to the SPP mapping occurring during the life of the ROP.

Discussion Question 8:

The ROP is required to conform to applicable Source Protection Plans and must be updated through this ROPR process. What is the best approach to address Drinking Water Source Protection policies and mapping?

7.6 Natural Hazards

PPS 2020, Section 3.0 Protecting Public Health and Safety, has revised policies to indicate greater emphasis on avoidance as compared to mitigation of natural and human-made hazards. The PPS indicates that development should be directed away from areas where there is an unacceptable risk to public health or safety or of property damage, and not create new or aggravate existing hazards. The PPS also emphasizes reducing the potential for public cost or risk to Ontario's residents from natural or human-made hazards. Natural Hazards in the PPS include hazardous lands, flooding hazards, erosion hazards, dynamic beach hazards and wildland fire.

The current ROP policies relating to Natural Hazards need to be strengthened and do not provide clear direction on Natural Hazard policy and mapping requirements for Local Municipalities. Consideration also needs to be given on how to include the revised PPS

policies into the ROP. The recommendations in the recent report from Ontario's Special Advisor on flooding [Protecting people and property: Ontario's flooding strategy](#) should also be considered through the development of ROP policies and creation of guidelines.

Conservation Authorities have been delegated responsibilities from the Minister of Natural Resources and Forestry to represent the provincial interests regarding natural hazards encompassed by Section 3.1.1-3.1.7 of the PPS. These delegated responsibilities require Conservation Authorities to review and provide comments on municipal policy documents (Official Plans and comprehensive zoning by-laws) and applications submitted pursuant to the Planning Act, as part of the Provincial One Window Plan Review Service. Halton Region is located within the jurisdiction of three Conservation Authorities: Conservation Halton, Credit Valley Conservation and the Grand River Conservation Authority.

Although the ROP must be consistent with the natural hazards policies of the PPS, the ROP should also align with the policies and regulations of Conservation Authorities where possible, as per the Memorandum of Understanding (July 16, 2018) between Halton Region, local municipalities and the Conservation Authorities. Through the ROPR, Halton Region has and will continue to work closely with our conservation authority partners on the review of natural hazard policies and mapping.

In the 2009 RNHS mapping, erosion hazards, dynamic beach hazards and wildland fire are not shown on Map 1G but regulated flood plains, as mapped by the Conservation Authority, have been included in Map 1G as a component within the System. Even though flood plains are identified as a natural hazard, some flood plain areas do offer an ecological benefit to the RNHS and can be a source to help map possible enhancement areas or linkages. Criteria to identify flood plain areas that do offer ecological benefit to the RNHS will need to be developed as part of the ROPR. In order for Regional and Local Official Plans to conform to the PPS, the approach to mapping Hazard Lands needs to be clarified in the ROP, specifically within settlement areas. There are three options to identify Natural Hazards in mapping:

1. create a separate Schedule in the ROP that maps the Natural Hazards;
2. on the RNHS schedule (Map 1G), show the Natural Hazards as an overlay; and

Discussion Question 9:

The ROP is required to conform to the updated Natural Hazards policies in the PPS. What is the best approach to incorporate Natural Hazards policies and mapping?

3. do not map Natural Hazard in the ROP but rather include additional policies to direct the Local Municipalities to map Natural Hazards in their Official Plans.

7.7 Significant Woodlands

Significant Woodland is a key feature in the RNHS as required by Provincial policies and is a key component in the protection of Halton Region's Natural Heritage. The definition of significant woodlands was approved through a ROPA 38 OMB decision and is defined in Section 277 of the ROP as follows:

SIGNIFICANT WOODLAND means a Woodland 0.5ha or larger determined through a Watershed Plan, a Sub-watershed Study or a site-specific Environmental Impact Assessment to meet one or more of the four following criteria:

- 277(1) the Woodland contains forest patches over 99 years old,**
- 277(2) the patch size of the Woodland is 2 ha or larger if it is located in the Urban Area, or 4 ha or larger if it is located outside the Urban Area but below the Escarpment Brow, or 10 ha or larger if it is located outside the Urban Area but above the Escarpment Brow,**
- 277(3) the Woodland has an interior core area of 4 ha or larger measured 100m from the edge, or**
- 277(4) the Woodland is wholly or partially within 50 m of a major creek or certain headwater creek or within 150m of the Escarpment Brow.**

Through consultation, it was identified that there should be consideration for the quality of the woodland in the definition of significant woodlands. In the 'Technical Definitions and Criteria for Key Natural Heritage Features in the Natural Heritage System of the Protected Countryside Area Paper' (2005) prepared by the Province, woodland quality is addressed by taking into consideration the extent of non-native tree species present within the woodland. However, only two tree species are included in this criterion from the Province. A decision is required on whether this approach should be considered in the ROP and if this approach should be applied Region-wide or not.

Invasive tree species are impacting the character and integrity of woodlands in Halton Region to varying degrees, and some are experiencing severe disturbance as a result of this stressor, particularly in areas anthropogenic influence. Through the implementation phase of the ROPR, consideration should be given to reviewing the definition of woodlands and significant woodlands to include criteria to address the quality of the woodland in addition to the existing four criteria. Regardless of tree

species, woodlands help mitigate climate change through removing carbon from the atmosphere and storing it, contribute to mitigating urban heat impacts, assist in maintaining a healthy hydrological cycle, and even areas with a relatively high proportion of non-native trees can provide wildlife habitat. These and other ecological functions should also be considered and any change in the definition of significant woodland must consider how these functions can be maintained and enhanced as part of the NHS, where appropriate. Consideration should also be given to the development of policies that provide a greater protection to these woodlands.

Another stressor influencing the character of woodlands in Halton Region is extreme weather events and the impact of forest pathogens. Dead trees have often been precluded from tree density counts involved in identifying “woodlands”, based on an interpretation that the current definition only requires consideration of live trees. Therefore it is possible that an area that would have qualified as a woodland no longer qualifies due to the amount of dead/removed trees (and therefore it is possible that a former significant woodland is no longer significant). Consideration should be given to refining the existing definition of “woodland” (ROP 295) similar to the Greenbelt Plan technical paper that addresses this issue: “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”. Dead trees also provide habitat for wildlife and their value to Significant Wildlife Habitat as well as potential areas for enhancement to the NHS should continued to be assessed.

Discussion Question 10:

How can Halton Region best support the protection and enhancement of significant woodlands, through land use policy?

8.0 Next Steps

The overall goal of the NHS Policies and Mapping portion of the ROP Review is to identify opportunities to strengthen the long-term viability of Halton’s natural heritage and water resources. It addresses where ROP policies and mapping could be updated, enhanced, and refined based on experience with the implementation of the current ROP, best practices and changes to the Provincial policy framework since the last ROP Review, including the Provincial Policy Statement, A Place to Grow, the Greenbelt Plan and the NEP) and the recently released Provincial NHSGP mapping.

This report summarizes the key findings from the background technical work, identifies the principal issues the ROP Review will address and outlines potential options and considerations for addressing these issues through revised policies and mapping in the ROP.

This report will form the basis for consultation with municipalities, conservation authorities and the public. Following the consultation component, a policy directions report will be brought forward to Council to guide Phase 3.

Discussion Question 11:

Are there any additional considerations or trends that Halton Region should review in terms of the Natural Heritage component of the ROP?

Acronym Glossary

CWA	Clean Water Act
ESA	Environmentally Sensitive Areas
GBNHS	Greenbelt Natural Heritage System
GP	Growth Plan
IGMS	Integrated Growth Management Strategy
MCR	Municipal Comprehensive Review
MNRF	Ministry of Natural Resources and Forestry
NEP	Niagara Escarpment Plan
NHS	Natural Heritage System
NHSGP	Natural Heritage System for the Growth Plan
NHSPC	Provincial Greenbelt Plan Natural Heritage System for the Protected Countryside
PPS	Provincial Policy Statement
RNHS	Regional Natural Heritage System
ROP	Regional Official Plan
ROPA	Regional Official Plan Amendment
ROPR	Regional Official Plan Review
SPP	Source Protection Plan
VPZ	Vegetation Protection Zone
WRS	Water Resource System

Glossary of Terms

Agricultural system: The system mapped and issued by the Province in accordance with this Plan, comprised of a group of inter-connected elements that collectively create a viable, thriving agricultural sector. It has two components: 1. an agricultural land base comprised of prime agricultural areas, including specialty crop areas, and rural lands that together create a continuous productive land base for agriculture; 2.) An agri-food network which includes infrastructure, services, and assets important to the viability of the agri-food sector. (Greenbelt Plan 2017)

A system comprised of a group of inter-connected elements that collectively create a viable, thriving agricultural sector. It has two components:

- a. An agricultural land base comprised of prime agricultural areas, including specialty crop areas, and rural lands that together create a continuous productive land base for agriculture; and
- b. An agri-food network which includes infrastructures, services, and assets important to the viability of the agri-food sector. (PPS 2020)

Area Specific Plan: means a Local Official Plan Amendment applying to a specific geographic area such as a secondary plan or a Regional Official Plan Amendment applying to a specific geographic area.

Key hydrologic areas: Significant groundwater recharge areas, highly vulnerable aquifers, and significant surface water contribution areas that are necessary for the ecological and hydrologic integrity of a watershed. (Growth Plan 2019)

Key hydrologic features: Permanent streams, intermittent streams, inland lakes and their littoral zones, seepage areas and springs, and wetlands. (Growth Plan 2019)

Key natural heritage features :Habitat of endangered species and threatened species; fish habitat; wetlands; life science areas of natural and scientific interest (ANSIs), significant valleylands, significant woodlands; significant wildlife habitat(including habitat of special concern species); sand barrens, savannahs, and tallgrass prairies; and alvars.

Municipal comprehensive review: A new official plan, or an official plan amendment, initiated by and upper- or single-tier municipality under section 26 of the Planning Act that comprehensively applies the policies and schedules of A Place to Grow: Growth Plan for the Greater Golden Horseshoe. (Growth Plan, 2019)

Natural heritage system: A system made 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. The system can include key natural heritage features, key hydrologic features, federal and provincial parks and conservation reserves, other natural heritage features and areas, lands that have been restored or have the potential to be restored to a natural state, associated areas that support hydrologic functions, and working landscapes that enable ecological functions to continue (Based on PPS, 2020 and modified for the Growth Plan, 2019)

Natural heritage system for the growth plan: The natural heritage system mapped and issued by the Province in accordance with this Plan (Growth Plan, 2019)

Prime agricultural area: An area where prime agricultural lands predominate. This includes areas of prime agricultural lands and associated Canada Land Inventory Class 4 through 7 lands and additional areas where there is a local concentration of farms which exhibit characteristics of ongoing agriculture. Prime agricultural areas are to be identified by the Ontario Ministry of Agriculture, Food and Rural Affairs using guidelines developed by the Province as amended from time to time (Based on PPS, 2020 and modified for the Growth Plan, 2019)

Settlement Areas: Urban areas and rural settlements within municipalities (such as cities, towns, villages and hamlets) that are:

- a) Built-up areas where development is concentrated and which have a mix of land uses; and
- b) Lands which have been designated in an official plan for development in accordance with the policies of the Growth Plan. Where there are no lands that have been designated for development, the settlement area may be no larger than the area where development is concentrated (Growth Plan, 2019).

Subwatershed Plan: A plan that reflects and refines the goals, objectives, targets, and assessments of watershed planning, as available at the time a subwatershed plan is completed, for smaller drainage areas, is tailored to subwatershed needs and addresses local issues.

A subwatershed plan should: consider existing development and evaluate impacts of any potential or proposed land uses and development; identify hydrologic features, areas, linkages, and functions; identify natural features, areas, and related hydrologic functions; and provide for protecting, improving, or restoring the quality and quantity of water within a subwatershed.

A subwatershed plan is based on pre-development monitoring and evaluation; is integrated with natural heritage protection; and identifies specific criteria, objectives, actions, thresholds, targets, and best management practices for development, for water and wastewater servicing, for stormwater management, for managing and minimizing impacts related to severe weather events, and to support ecological needs. (Greenbelt Plan 2017)

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Appendices

Appendix 1: Discussion Section

We would welcome your feedback on options discussed around the Natural Heritage System in Halton. Here is a summary of reflection questions posed throughout the discussion paper. Please take a moment to answer these questions and provide your valuable insight into these issues:

1. As required by the Growth Plan, the new Natural Heritage System for the Growth Plan mapping and policies must be incorporated into the Regional Official Plan. Based on options outlined in Section 3.3, what is the best approach in incorporating the NHSGP into the ROP?

2. RNHS policies were last updated through ROPA 38. Are the current goals and objectives for the RNHS policies still relevant/appropriate? How can the ROP be revised further to address these goals and objectives?

3. Based on the discussion in Section 4.2, to ease the implementation of buffers and vegetation protection zones, should the Region include more detailed policies describing minimum standards?

4. Given the policy direction provided by the PPS and Provincial plans, how should policy and mapping address the relationship between natural heritage protection and agriculture outside of the Urban Area or the Natural Heritage System? Options are provided in Section 5.3.

5. The Greenbelt Plan 2017 and Growth Plan 2019 require municipalities to identify Water Resource Systems (WRS) in Official Plans. Based on the two (2) options provided in Section 6.3, how should the WRS be incorporated into the ROP?

6. Preserving natural heritage remains a key component of Halton's planning vision. Should Halton Region develop a Natural Heritage Strategy and what should be included in such a strategy?

7. Should the ROP incorporate objectives and policies to support/recognize the Cootes to Escarpment EcoPark System?

8. The Regional Official Plan is required to conform to applicable Source Protection Plans and must be updated through this ROPR process. What is the best approach to address Drinking Water Source Protection policies and mapping?

9. The ROP is required to conform to the updated Natural Hazard policies in the PPS. What is the best approach to incorporate Natural Hazard policies and mapping?

10. How can Halton Region best support the protection and enhancement of significant woodlands, through land use policy?

Appendix 2: RNHS Components List 2018

Proposed Refined Halton NHS Components	Included (Y/N)	Key Feature (K)	System Component (S)	Remains as an unmapped feature due to limited data source (Y)
Key Features and Areas				
Key Natural Heritage Features				
Provincial Life ANSI	Y	K		
Regional Life ANSI	Y	K		
Candidate Life ANSI	Y		S	
Provincial Earth ANSI	Y		S	
Regional Earth ANSI	Y		S	
Candidate Earth ANSI	Y		S	
Significant Wildlife Habitats (including habitat of special concern species)	Y	K		Y
Significant Coastal Wetlands and Significant Wetlands ¹	Y	K		
MNR Provincial Significant Wetlands	Y	K		
Coastal Wetlands	Y	K		
Candidate Significant Woodlands	Y	K		
Significant Valleylands	Y	K		Y
Urban River Valleys				
Habitat of Threatened or Endangered Species	Y	K		Y
Fish Habitat	Y	K		
Sand barrens, savannahs, and tallgrass prairies,	Y	K		
Alvars,	N			

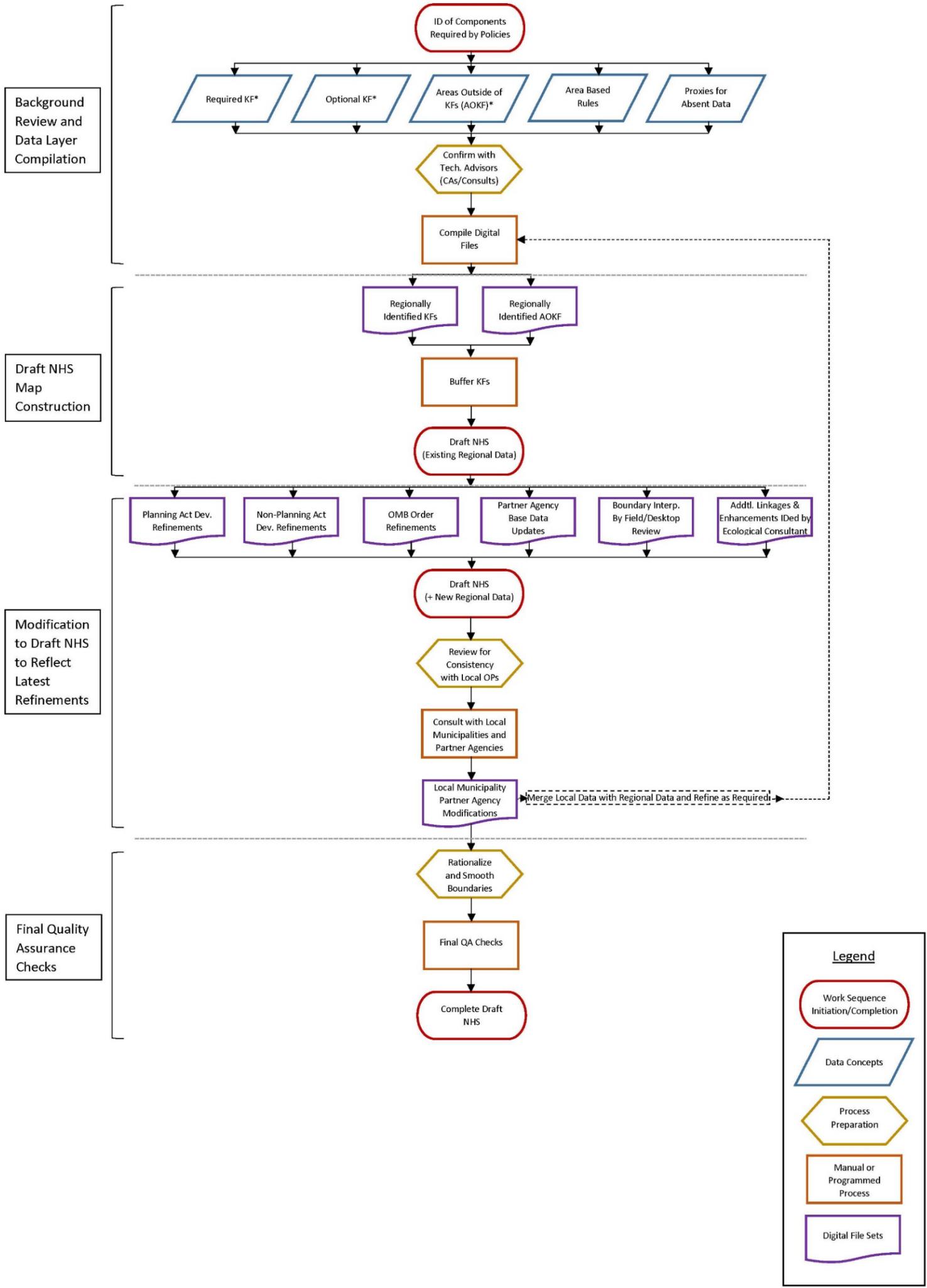
¹ Wetlands significance varies geographically across the Region. Current ROP definitions tie the significance threshold for wetlands to the specific threshold identified in each Provincial Plan area (e.g. Section 276.5 of the 2009 ROP). Where the term significant wetland is used here, it is assumed that this includes (a) for lands within the Niagara Escarpment Plan Area, provincially significant wetlands and wetlands as defined in the Niagara Escarpment Plan; (b) within the Growth Plan Area and Greenbelt Plan Area, but outside the area describe in (a), provincially significant wetlands and wetlands as defined in the Growth Plan, 2017, and Greenbelt Plan, 2017; (c) for lands within the Halton NHS outside the areas describe in (a) and (c), provincially significant wetlands and wetlands that make an important ecological contribution to the Halton Natural Heritage System; and (d), for all lands outside the areas described in (a), (b), and (c), provincially significant wetlands.

Proposed Refined Halton NHS Components	Included (Y/N)	Key Feature (K)	System Component (S)	Remains as an unmapped feature due to limited data source (Y)
Key Hydrologic Features				
Significant Wetlands ¹	Y	K		
Seepages and springs	Y	K		Y
Permanent and Intermittent Streams	Y	K		
Lakes (and their littoral zones)	Y	K		
Other Natural Heritage Features and Areas important for their environmental and social values as a legacy of the natural landscape of Halton				
Environmentally Significant Areas	Y		S	
Great Lake Dunes	Y	K		
Certain headwater drainage features	Y	K		Y
Rehabilitated Mineral Aggregate Resource Extraction Sites	Y		S	
Areas Outside of Key Features				
Natural Hazards				
Flooding Hazards	Y		S	
Buffer and/or Vegetation Protection Zones				
Buffer (30m)	Y		S	
Vegetation Protection Zone	Y		S	
Minimum Vegetation Protection Zone	Y		S	
Linkages	Y		S	
Key Feature Enhancement Areas	Y		S	
Other Suitable NHS Enhancement Areas (reviewed by Ecological Consultants)				
CA Regulated watercourses that provide linkage to a wetland and/or significant woodland	Y		S	
Lands designated and/or zoned for	Y	K		

Proposed Refined Halton NHS Components	Included (Y/N)	Key Feature (K)	System Component (S)	Remains as an unmapped feature due to limited data source (Y)
environmental protection within Settlement Areas in Local OP/Zoning By-laws as of 2009				
Growth Plan 2017 Natural Heritage System	Y		S	
Greenbelt Plan 2017 Natural Heritage System	Y		S	
Lands designated open space in the Parkway Belt West Plan	Y		S	
Lands designated Escarpment Natural Area in the NEP 2017	Y		S	
Lands designated Escarpment Protection Area in the NEP 2017	Y		S	
Conservation Reserves and similar				
Cootes to Escarpment EcoPark System Partner Lands – only where nominated for inclusion by Partners	Y		S	
Greenland Securement Program Partner Lands	Y		S	
Restored lands – only where nominated for inclusion by landowner	Y		S	
Working landscapes that enable ecological functions to continue - where nominated for inclusion by local municipality and landowner	Y			Y
Lake Iroquois Shoreline	Y		S	Y

Appendix 3: Technical Process for Draft 2019 Natural Heritage System Mapping

Technical Process for Draft 2019 Natural Heritage System Mapping



* Note: Key Hydrological Features, Key Hydrologic Areas, and other components of the Water Resource System were not included in this technical process, except where they overlap with Key Natural Heritage Features such as wetlands, watercourses, etc.

Regional Official Plan Review