

Discussion Paper #3

County of Elgin Official Plan 5 Year Review

**Elgin Natural Heritage
Systems Study, Source
Water Protection, and
Environmental Policy
Amendments**

September, 2021

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Executive Summary

As part of the County's Official Plan 5-Year Review process, several key topics were identified. These identified topics warrant a larger review and analysis.

As part of the adoption of the 2013 Official Plan for the County of Elgin, a policy was added (D1.2.4) which states..."It is a policy of this Plan that the establishment of a natural heritage system be considered at the time of the next Official Plan Review." There was a commitment to completing a Natural Heritage Systems Study at the time of the next Official Plan Review. The Elgin Natural Heritage Systems Study (ENHSS) was commissioned in 2016, and is a terrestrial science-based study that provides a landscape level assessment of existing natural heritage features and functions. The draft 2019 study provides analysis and maps showing the existing vegetation patches that meet criteria for ecological importance.

The Clean Water Act, 2006 was approved by the province as a result of the contaminated water tragedy in Walkerton Ontario in 2000. Source Protection Plans were developed across the province and include policies to protect municipal drinking water supplies from land uses that may be a risk to them. A firm was retained to assist the County in the implementation of Source Protection Plan (SPP) policies through the preparation of new policy text that would form the basis of future amendments to the County Official Plan and to the Official Plans and Zoning By-laws of local municipalities that have municipal drinking water systems that are regulated by a Source Protection Plan.

As per Council's direction, the public will have an opportunity to review the draft Elgin Natural Heritage Systems Strategy (2019), and the Source Water Protection Implementation Plan (2017), and provide their feedback and input on the recommendations from these reports.

Comments from the Conservation Authorities and specifically the Kettle Creek Conservation Authority have also been summarised in the discussion paper.

When reviewing this document, questions to ask include:

- Why did the County of Elgin do a Natural Heritage Study when the Official Plan already has Natural Heritage policies?
- What Natural Heritage features and areas are included?

- How does this affect my property?
- Was my property affected before this update?
- What can be done with this new information?

Introduction

An Official Plan is a legal statutory planning document required by the province that describes a municipality's land-use strategy. The County of Elgin's Official Plan includes the vision, goals and policy directions of the County, as established by the community, and provides guidance for land use planning decisions including:

- locations for settlement areas, agricultural lands, and natural heritage;
- when and in what order parts of our communities will grow; and
- protection for agricultural, mineral and environmental resources.

The purpose of an Official Plan 5-Year Review update is to ensure that the community vision/values, directions, policies and actions in the Plan reflect changes and meet the needs of the community for the future, and to review for consistency with the Provincial Policy Statement.

Through the public and surveys responses, and stakeholder discussions, several key topics were identified. These identified topics warrant a larger review to understand the current issue, review the background and history, provide a summary of what provincial and neighbouring municipality policy and /or practices exist, and provide possible recommendations for potential policy changes. This discussion paper will be circulated and reviewed by the public, stakeholders and local municipalities, and comments and feedback on this report will be solicited. Recommendations stemming from this report and feedback received will result in draft policy changes to the County Official Plan.

Elgin Natural Heritage Systems Strategy - Introduction

Under the Planning Act, the Provincial Policy Statement 2020 requires that Natural Heritage Systems be identified in Official Plans. Elgin County's first Official Plan was approved in 2013, with the commitment to doing a Natural Heritage Systems Study at the time of the next Official Plan Review.

The Elgin Natural Heritage Systems Study (ENHSS) is a terrestrial science-based study that provides a landscape level assessment of existing natural heritage features and functions including areas of natural and scientific interest, wetlands, woodlands, valleylands, meadows, thickets, young tree plantations, and natural heritage systems (excluding fish habitat and other aquatic habitat features).

The study is based on 2015 aerial photography and uses Geographic Information Systems mapping and modeling. The study provides maps showing the existing vegetation patches that meet criteria for ecological importance. The study also provides statistics showing how much vegetation cover is in the county and local municipalities (as of 2015) and how much of that meets criteria of ecological importance.

The Elgin Natural Heritage Systems Study addresses the need for information on the state of the county's natural areas and systems. The identification of natural features and areas in southwestern Ontario is an important undertaking as past human activities have resulted in the loss or degradation of over 70% of the naturally vegetated areas in the southern Ontario. Elgin County has approximately 20% woodland cover and 24% overall vegetation cover.

Background

The Upper Thames River Conservation Authority (UTRCA) was retained by Elgin County to prepare a Natural Heritage Systems Study. At the time (2016), the ENHSS was overseen by the Rural Initiatives Planning Advisory Committee (RIPAC) consisting of three County Councillors and one citizen appointee. A Project Team consisting of local municipal and conservation authority staff as well as representatives from the Ministries of Natural Resources and Municipal Affairs provided the technical input for the consultant.

The work plan included several meetings which began with an introductory meeting on September 11, 2018, a project team meeting on December 6, 2018 to review the

ecological criteria and mapping of natural heritage features, and a third meeting on April 9, 2019 to review the draft document with the RIPAC.

Following a six-month period for review and revision of the draft document, the final draft was reviewed with the RIPAC on November 26, 2019.

Elgin County Council reviewed the draft ENHSS on January 14, 2020. Several members identified a number of questions/concerns with respect to the study itself as well as possible implications/risks for individual landowners. Ultimately, County Council resolved that the Chief Administrative Officer be directed to provide a report detailing the legislative requirements associated with conducting a Natural Heritage Systems Study, summarizing Elgin County Council's feedback provided at their meeting on January 14, 2020, and recommending next steps including further action required, if any, by Council/Rural Initiatives/Planning Advisory Committee. This follow up report was provided to County Council on February 3, 2020, and summarized feedback received with respect to the ENHSS, legislative requirements, and identified next steps for Council's consideration. Council resolved to take no further action until additional direction/clarity is received from the Province of Ontario through a revised Provincial Policy Statement.

A revised Provincial Policy Statement (PPS) was adopted on May 1, 2020. Only minor changes were made to the natural heritage policies within the PPS. A subsequent report was brought forward to County Council on November 26, 2020, and Council resolved that the public engagement and consultation on the ENHSS be included as part of the required public meetings held during the Official Plan Review process, and that a summary of feedback be provided to County Council along with recommendations for next steps.

Provincial Policy, Guidelines & Official Plan Policy

Provincial Policy Statement (PPS)

Section 3 (5) of the *Planning Act* states...*"a decision of the council of a municipality in respect of the exercise of any authority that affects a planning matter,*

- a) shall be consistent with the policy statements issued under subsection (1) that are in effect on the date of the decision.."*

The Province of Ontario provides policy guidance to municipalities on matters of provincial interest through the Provincial Policy Statement (PPS). Since the time of the draft ENHSS (2019), the PPS was updated in May, 2020. However, the only change that was made to the PPS with respect to natural heritage was the addition of a subclause under Section 2.2 Water:

2.2.1 Planning authorities shall protect, improve or restore the quality and quantity of water by:

- c) evaluating and preparing for the impacts of a changing climate to water resource systems at the watershed level;*

Overall, there were no other changes made to the policies related to Natural Heritage or Natural Hazards. The Provincial Policy Statement continues to place an emphasis on Natural Heritage and the protection and enhancement of natural heritage systems in the Province of Ontario. Local and County Official Plans are required to therefore be consistent with the Provincial Policy Statement.

The PPS includes the following general directives for municipalities related to planning for natural heritage:

According to the PPS, natural heritage features and areas are defined as ...*"features and areas, including significant wetlands, significant coastal wetlands, fish habitat, significant woodlands south and east of the Canadian Shield, significant valleylands south and east of the Canadian Shield, significant habitat of endangered species and threatened species, significant wildlife habitat, and significant areas of natural and scientific interest, which are important for their environmental and social values as a legacy of the natural landscapes of an area".*

Policies related to Natural Heritage are found in Section 2 of the PPS.

2.0 Wise Use and Management of Resources

Ontario's long-term prosperity, environmental health, and social well-being depend on conserving biodiversity, protecting the health of the Great Lakes, and protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits.

2.1.1 Natural features and areas shall be protected for the long term.

It is important to note that the PPS states that natural features and areas shall be protected for the long-term (2.1.1). The use of the word 'shall' in the PPS is intended to indicate a mandatory requirement and therefore, natural features and areas that are considered 'significant' must be protected by planning authorities for the long-term.

2.1.2 The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.

The PPS defines "natural heritage systems" as ...*"a system made up of natural heritage features and areas, linked by natural corridors which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species and ecosystems. These systems can include lands that have been restored and areas with the potential to be restored to a natural state."*

The PPS calls for a natural heritage systems strategy to protect natural heritage resources, provided it is implemented through a comprehensive approach. The County Official Plan should support the protection of natural heritage features and areas, and support policies and initiatives at the local municipal level that pursue the establishment and protection of natural heritage systems.

2.1.3 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.

In order to be consistent with Policy 2.1.3 of the Provincial Policy Statement, an identification of the natural heritage system for the County of Elgin is necessary.

2.1.4 Development and site alteration shall not be permitted in:

- a) significant wetlands in Ecoregions 5E, 6E and 7E1; and*
- b) significant coastal wetlands.*

2.1.5 Development and site alteration shall not be permitted in:

- a) significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E1;*
- b) significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)1;*
- c) significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)1;*
- d) significant wildlife habitat;*
- e) significant areas of natural and scientific interest; and*
- f) coastal wetlands in Ecoregions 5E, 6E and 7E1 that are not subject to policy 2.1.4(b)*

unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

2.1.6 Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.

2.1.7 Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.

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

2.1.9 Nothing in policy 2.1 is intended to limit the ability of agricultural uses to continue.

The implementation of these broad policy statements has resulted in the County's Official Plan policies under Section D: Natural Heritage, Water, and Natural Hazards.

Natural Heritage Reference Manual (NHRM)

The Natural Heritage Reference Manual (NHRM) was released by the Ministry of Natural Resources in 2010. The NHRM provides technical guidance for implementing the natural heritage policies of the PPS and represents recommended technical criteria and approaches to ensure consistency with the PPS. According to the NHRM, the *"recommended technical criteria and approaches [of the NHRM] should be considered for land use planning in the review of development applications under the Planning Act."*

In addition, Section 2.5 of the NHRM states that *"in accordance with the PPS, Planning Authorities should include policies in their Official Plans to:*

- *identify natural heritage systems and ways in which the bio-diversity, connectivity and ecological functions of the system will be maintained, restored or improved;*
- *identify and protect natural heritage features and areas and their ecological functions;*
- *protect these features, areas and ecological functions from incompatible land uses and activities; and*
- *provide a clear and reasonable mechanisms for assessing the impact of applications for land use changes on these features, areas, their adjacent lands and ecological functions."*

The implementation of these broad policy statements and the NHRM have resulted in the County's Official Plan policies under Section D: Natural Heritage, Water, and Natural Hazards.

County of Elgin Official Plan (OP)

The Elgin County Official Plan was approved on October 9, 2013. Detailed natural heritage data was not available at the time the Official Plan was drafted. The collection of such data would have added significant time and costs to the development of the Official Plan, and Council at that time made the decision to undertake a Natural Heritage Systems Study at the time of the 5-year review of the OP.

However, recommended policies to implement the PPS and NHRM were adopted as part of the Official Plan process. A research paper entitled "Natural Heritage, Hazards,

Water and Aggregate/Petroleum Resources” was provided to County Council in June 2011, and this report provided the recommended policy directions for the Official Plan, which resulted in Part D of the Official Plan. Appendix A to this report provides a truncated version of Part D of the County Official Plan for reference.

As part of the adoption of the 2013 OP, a policy was added (D1.2.4) which states...*“It is a policy of this Plan that the establishment of a natural heritage system be considered at the time of the next Official Plan Review.”* As previously stated, there was a commitment to completing a Natural Heritage Systems Study at the time of the next Official Plan Review.

Official Plan Review

In compliance with the Planning Act (RSO 1990, as amended), a review of the County’s Official Plan is required at 5-year intervals to ensure official plans remain relevant to area demographics, land use changes and emerging topics in planning. Under the upcoming review, the County will also ensure its OP is in accordance with Provincial legislation including the new Provincial Policy Statement (2020).

The Official Plan Review process is required under Section 26 of the Planning Act and as such it is a statutory Planning process requiring consultation and public participation. Before revising the Official Plan, County Council shall hold a special meeting of Council, open to the public, to discuss revisions that may be required.

As part of this review, and at the direction of Council, the information and mapping from the draft ENHSS will be provided to the public, and a public meeting held to solicit feedback on the draft ENHSS.

2019 Elgin Natural Heritage Systems Study

The Elgin Natural Heritage Systems Study (ENHSS) addresses the need for information on the state of the county's natural areas and systems. The study provides a landscape level assessment of natural heritage features and functions. The identification of natural features and areas in southwestern Ontario is an important undertaking. Environment Canada¹ identified that human activities, such as agriculture, urban development and associated infrastructure, have resulted in the loss or degradation of over 70% of the naturally vegetated areas in Southern Ontario. In some areas this reduction is greater. The remaining naturally vegetated areas tend to be in unconnected patches across the landscape. Intensive land use activities have also been found to contribute to degraded water quality conditions in many streams and lakes.

The 2019 Elgin Natural Heritage Systems Study (ENHSS) evaluates the existing ecologically important terrestrial (land) resources of the county based on 2015 aerial photography (orthoimagery) using scientific methods and Geographic Information Systems (GIS) modeling.

Chapter 1 introduces the importance of the natural heritage systems planning, including policy rationale and a summary of natural heritage systems studies in other nearby counties. The study scope is discussed, including the study area, project governance, and general limitations of the study. The distinction between "significant" features, as defined in the PPS, and "ecologically important", as defined in this study, is explained. A summary of past natural heritage studies in Elgin County is provided.

Chapter 2 describes how the various components of the county's natural heritage system were defined and mapped. A variety of base mapping layers were developed by the Upper Thames River, Lower Thames Valley, Kettle Creek, Catfish Creek and Long Point Region Conservation Authorities. Using these mapping layers, the first step was to identify and delineate the smallest unit of vegetation, the Vegetation Community. Seventeen types of Vegetation Communities were delineated. The Vegetation Communities were then lumped into six broader categories called Vegetation Groups: woodlands, thickets, meadows, water features, and connected vegetation features. Three Vegetation Ecosystems were defined: terrestrial, wetland and aquatic. The final step consisted of delineating Vegetation Patches, which are a mosaic of one or more abutting Vegetation Groups. The chapter concludes with a summary of mapping results

¹ Environment Canada. 2013. How Much Habitat is Enough? Third Edition. Environment Canada, Toronto, Ontario.

for the Elgin Study Area (geographic Elgin plus a 500 m buffer around all sides except the lake side). In the Elgin Study Area there is 20.77% woodland cover, 0.77% thicket cover, 1.80% meadow cover, 0.48% water feature cover, and 0.07% connected vegetation feature cover. Wetland cover (comprised of woodland, thicket and meadow groups) is 2.64%. The wetland cover is based on MNRF evaluated wetlands plus unevaluated wetlands mapped by the UTRCA using only air photo interpretation. Environment Canada² sets guidelines for sustainability of at least 30% vegetation cover and at least 10% wetland cover at the watershed (or county) scale.

Chapter 3 describes the 13 criteria used to identify ecologically important Vegetation Groups and Vegetation Patches. Each criterion is described, providing rationale, application/mapping rules and modeling results in terms of how many vegetation groups or patches meet each criterion. Maps showing the results for each criterion are included in Appendix H.

Chapter 4 summarizes the overall results of the criteria modeling at the vegetation group and patch levels. Patches meeting one or more criteria are deemed ecologically important in this study. The woodland group criteria for ecological importance also establish significance for woodlands consistent with the PPS. Maps showing the patches that meet one or more criteria for ecological importance are provided for Elgin County and for each local municipality and the City of St. Thomas in Appendix K and L. Approximately 81% of vegetation patches meet at least one criteria, representing 98.8% of the patch area. Some 21.74% of Elgin County is in ecologically important vegetation cover (24.12% for Elgin County Study Area with the 500 m buffer). At the local municipal level, the results range from 10.72% in Aylmer to 32.47% in Bayham.

Chapter 5 provides recommendations for the implementation of this science-based study. A number of land use planning related recommendations are provided along with additional stewardship and education recommendations.

The appendices provide additional information on methodology, rationale, and metadata.

The ENHSS is a technical document based on scientific methods that are consistent with the Provincial Policy Statement definition for “natural heritage system”. This approach has been developed through other natural heritage studies including the

² Environment Canada. 2013. How Much Habitat is Enough? Third Edition. Environment Canada, Toronto, Ontario.

Counties of Middlesex, Oxford, Huron and Perth. This technical document, if adopted, can assist the County and its local municipalities in identifying natural heritage areas and features and enhance the natural heritage and environmental policies in their respective Official Plans. The ENHSS provides a baseline for future comparison and a map that can be included as an appendix to official plans to raise the public's awareness that these natural heritage features are important to the County and its local municipalities and that they should be protected for future generations.

Who will this affect?

Overall, the identification of a natural heritage feature on a property will not likely affect the day to day use of a property.

Lands in a Settlement Area

For example, if a resident owned a lot with a single detached dwelling and a woodlot located to the rear of the property, the homeowner could continue to live in the single detached dwelling and enjoy the use of their property.

Further considerations would only be required if:

- the landowner wants to cut down the woodlot or a portion of the woodlot;

In this circumstance, the County has a Woodlands Conservation By-Law (2005) which regulates tree cutting. Permits and further analysis may be required for any woodlots and woodlands greater than 0.2 hectares (0.5 acres).

- the landowner wants to construct an addition or a garage on the lot, that was in proximity to or within the woodlot feature;
- the landowner wants to sever the lot and that severance line is within or in close proximity to the woodlot; or
- the landowner wants to develop the site for further development through a site plan or plan of subdivision.

All of these examples are considered "development" and could trigger a Planning Act application, which would require further study to demonstrate that there would be no negative impacts on the feature or its ecological function.

Lands in an Agricultural Area

For lands being used for agriculture, those uses and changes in agricultural activities are allowed without a land use planning application.

For example, a farm with lands in row crop production could be converted to pasture or planted as an orchard.

Improvements to farmland, such as stone removal, tile draining a field or fencing a pasture are permitted. Some agricultural activities that would not be considered development or site alteration can also occur within key natural heritage features.

For example, maple tree taps and sap collection lines within a woodlot can continue to be used.

While not subject to an application under the Planning Act, some of these agricultural activities may be subject to the County's Woodlands Conservation By-Law (2005) or regulatory controls under the Conservation Authorities Act (such as alterations to wetlands, or development near a ravine).

New buildings and structures for agricultural uses, agriculture-related uses or on-farm diversified uses are not permitted within natural heritage features.

The involvement of planning considerations and further studies would only occur in circumstances where development or construction is proposed within or adjacent (within 50-120m, depending on the type of feature) to a component of the natural heritage system.

In situations where there may be inconsistencies with mapping, a verification can be made by completing a "scoped environmental report" which would verify the boundaries of a natural heritage feature. A scoped environmental report would also be required in support of proposed development to determine the corresponding impact on the natural heritage feature(s), if any.

It should be noted, however, that this is also the current process as per the County's Official Plan. Development and site alteration within or adjacent to a significant natural heritage feature, as identified on Appendix 1 of the Official Plan, shall not be permitted unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated, through an Environmental Impact Study (EIS), that there will be no negative impact on the natural features or their ecological functions (Policy D1.2.7).

Many of the features shown in the ENHSS have already been identified and shown on Appendix 1 of the Official Plan. The ENHSS is meant to ensure that the features were identified through a scientific, criteria-based method, and are accurate based on the latest mapping tools.

Next Steps

A public meeting will be scheduled to allow the public opportunity to comment on the proposed draft ENHSS and recommendations stemming from that report.

Based on the recommendations from the ENHSS, next steps include:

- 1) Assigning the vegetation groups identified in the study to major natural heritage “categories” as per the terminology used in the PPS categories;
- 2) A revised Appendix 1 of the County Official Plan which includes features mapping as per the ENHSS and the above new categories;
- 3) Recommend policy changes as a result of the mapping changes and new categories, as per the above mapping changes.

Source Water Protection - Introduction

The Clean Water Act, 2006 was approved by the province as a result of the contaminated water tragedy in Walkerton Ontario in 2000. The Clean Water Act ensures communities protect their drinking water supplies through prevention – by developing collaborative, watershed-based source protection plans that are locally driven and based on science. Under this legislation, the Drinking Water Source Protection Program was established by the Government of Ontario. This resulted in the development of science-based assessment reports and local source protection plans by multi-stakeholder source protection committees, supported by Source Protection Authorities. Source Protection Plans have now been approved across the Province. These plans include policies to protect municipal drinking water supplies from land uses that may be a risk to them.

Municipalities are a key partner in Source Protection Planning and are represented on Source Protection Committees. Source Protection Committees lead the process of implementing the Clean Water Act, 2006 through the preparation of Assessment Reports and Source Protection Plans for the areas they represent.

Source protection plans contain a series of locally developed policies that, as they are implemented, protect existing and future sources of municipal drinking water. The objectives of Source Protection Plans (SPPs) are:

- To protect existing and future drinking water sources
- To ensure that where an activity is or would be a significant drinking water threat, activity never becomes a significant drinking water threat, or activity ceases to be a significant drinking water threat.

Water resources could potentially be polluted by a variety of sources including, but not limited to, households, agricultural livestock operations, and businesses carrying out routine, everyday activities if not properly managed. Pollutants can seep into the ground contaminating the water table, and precipitation can transport contaminants to nearby streams and lakes. If pollutants reach drinking water intake areas, they can jeopardize the quality of the drinking water supply. Municipal drinking water sources in the County that are regulated by Source Protection Plans include Wellhead Protection Areas (WHPAs) and Intake Protection Zones (IPZs).

Water resources can be polluted by faulty septic systems, leaking fuel tanks, and the application of fertilizers, manure, pesticides and road salt. Water resources can also be depleted if homes and businesses use more than can be naturally replaced.

To deal with these risks, communities may change the land use to prohibit or restrict an activity. For example, a city might relocate a snow dump to better manage salt runoff or not allow a new waste disposal site if it's to be near a water intake area. Also, the municipality or health unit may set up a septic system inspection program to encourage regular septic system care and maintenance. Many source protection plans set strict conditions on land use activities within 100 meters of a municipal well.

Background

The Province provided one-time funding to qualifying municipalities to assist in the implementation of Source Protection Planning as mandated by the Clean Water Act.

The Source Protection Municipal Implementation funding, was in part, contingent upon addressing Source Protection planning across municipal boundaries. Middlesex and Elgin Counties share Source Protection Plans from the Thames/Sydenham and Lake Erie Region Source Protection Areas, and specifically the Belmont Wellhead Protection Area extends geographically into Middlesex County. In addition, the Counties of Middlesex and Elgin have similar land use planning frameworks with county official plans that are broad in scope with more detailed planning policies applied at the local official plan levels.

The County of Middlesex and the County of Elgin undertook a joint Request for Proposal to undertake "Land Use Planning Services: Drinking Source Water Protection". A firm was retained in November 2016 to assist in the implementation of Source Protection Plan (SPP) policies through the preparation of new policy text that would form the basis of future amendments to the County Official Plan and to the Official Plans and Zoning By-laws of local municipalities that have municipal drinking water systems that are regulated by a Source Protection Plan. As part of this undertaking, mapping to implement the policies of the Source Protection Plans applicable to the County and relevant local municipalities was also prepared. Zoning regulations and mapping was also be prepared for relevant local municipalities to implement the SPP and related Official Plan policy frameworks.

Appendix C to this report contains the Background Report “Source Protection Plan Implementation Elgin County, MHBC Planning, September 2017” prepared for Elgin County.

County of Elgin

There are four (4) Source Protection Plans that apply within Elgin County:

- Kettle Creek Source Protection Plan;
- Long Point Region Source Protection Plan;
- Thames, Sydenham & Region Source Protection Plan; and
- Catfish Creek Source Protection Plan.

There are three (3) municipal drinking water systems regulated by a Source Protection Plan located within Elgin County as follows:

- Central Elgin - Belmont (2 wells)
- Elgin Area Primary Water Supply System - Lake Erie Intake
- Bayham - Richmond (2 wells)

These municipal drinking water systems are owned and operated by the local municipalities with which they serve, and are regulated by the provincial Ministry of the Environment, Conservation and Parks. The Wellhead Protection Area (WHPA-C) associated with the Richmond and Belmont wells both extend into the Township of Malahide. Malahide therefore has two WHPA-Cs associated with municipal wells located within their municipal boundary. Each WHPA is regulated by a different Source Protection Plan.

Next Steps

A public meeting will be scheduled to allow the public opportunity to comment on the proposed draft Source Protection Plan and recommendations and policies stemming from that report.

Based on the recommendations from the Source Protection Plan, next steps include:

- 1) As per the recommendations from the Source Protection Plan report, Section 6 outlines the possible implementation strategy which includes mapping changes and proposed policy:

- a) New Schedules to Official Plans will be required to meet the implementation requirements of the SPPs and serve as a reference for the new policy framework:
 - For Elgin County, identify the boundaries of the Long Point Region, Thames-Sydenham & Region, Kettle Creek, and Catfish Creek Source Protection Plans as they apply to the County and the location and extent of protection areas within Central Elgin, Bayham and Malahide;
 - For Central Elgin, Bayham and Malahide, identify the vulnerable areas as delineated in the report SPPs and their associated vulnerability scores;
 - For Central Elgin, Bayham and Malahide, identify the boundaries of the applicable Source Protection Plan Areas.
- b) Proposed policy for the respective Official Plans is provided under Appendix D of the Source Protection Plan report.
- c) Proposed zoning amendments have also been included in the report under Appendix E. These will be discussed with each of the affected municipalities after adoption of the applicable official plan policies.

Environmental Policy Amendments

Conservation Authorities

The County of Elgin has four conservation authorities within its boundaries:

- Lower Thames Valley Conservation Authority (LTVCA), which includes West Elgin, Dutton Dunwich, and parts of Southwold;
- Kettle Creek Conservation Authority (KCCA), which includes parts of Southwold and Central Elgin;
- Catfish Creek Conservation Authority (CCCA), which includes parts of Central Elgin, Malahide, and Aylmer; and
- Long Point Conservation Authority (LPCA), which includes parts of Malahide and Bayham.

As part of the County's stakeholder consultation, a meeting between all four Conservation Authorities was conducted, and a follow up letter was provided on their collective behalf by the KCCA. Recommendations for policy changes were provided by the KCCA, as detailed below, with staff reviewing each suggested change and providing a response. Any recommendations for changes related to the ENHSS and Source Protection Plans has been addressed through previous sections of this report.

Wetlands

1. All wetlands, including provincially and locally significant, and unevaluated features are included in the areas of Conservation Authority regulatory jurisdiction whereby any change or interference with a wetland requires the prior written permission of the Conservation Authority. As a result, the County of Elgin should consider including additional development policies consistent with the local Conservation Authority's policies for wetland management within the County OP update. Specifically, KCCA wetland management policies include:
 - Provincially Significant Wetlands or wetlands greater than 2 hectares in size:
 - a) Prohibiting development and/or site alterations within 30 metres of a Provincially Significant Wetland or wetland greater than 2 hectares in size; and
 - b) Requiring hydrogeological assessments to be completed by qualified professionals for any development proposed within 30 to 120 metres of a Provincially Significant Wetland or wetland greater than 2 hectares in size to identify whether the proposed development will have a hydrologic impact upon the wetland feature and/or its function.

- Locally Significant Wetlands or wetlands less than 2 hectares in size:
 - a) Prohibiting development and/or site alterations within 15 metres of a Locally Significant Wetland or wetland less than 2 hectares in size; and
 - b) Requiring hydrogeological assessments to be completed by qualified professionals for any development proposed within 15 to 30 metres of a Locally Significant Wetland or wetland greater than 2 hectares in size to identify whether the proposed development will have a hydrologic impact upon the wetland feature and/or its function.

County Response: PPS and County policy does not permit development within significant wetlands. Wetlands are evaluated as either provincially or locally significant. Many provincially significant wetlands occur across the County of Elgin, and many wetlands often overlap with other natural heritage features including woodlands. As part of any development application within 120 m of a significant feature such as a woodland, or wetland, no development or site alteration shall be permitted on these adjacent lands unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated, through an Environmental Impact Study (EIS), that there will be no negative impact on the natural features or their ecological functions. It would be anticipated that as part of any scoping exercise for an EIS, the CA's can ensure that the necessary studies are required as part of the submission. Mapping is proposed through the ENHSS which would identify additional wetland features. Additional policies related to wetlands may be added through the recommendations of the ENHSS.

Source Water Protection

2. The Clean Water Act, 2006 is intended to ensure the protection of current and future sources of municipal drinking water by requiring the development of collaborative, locally-driven and science-based source protection plans. The Kettle Creek watershed is part of the Lake Erie Source Protection Region – one of 19 created by the Clean Water Act. The Kettle Creek Source Protection Plan, 2015 contains policies to address the municipal drinking water threats identified in the science-based Assessment Report. Proposed source water protection policies should consider the Kettle Creek Source Protection Plan and its associated policies and mapping.

County Response: Addressed though previous sections of this report.

Shoreline Hazard

3. The policies of the current version of the County OP identifies that the areas of the shoreline hazard lands be delineated in lower tier Official Plans and zoning by-laws. As part of the County OP update, the associated map schedules could provide a consolidated delineation of the shoreline hazard lands crossing the affected Conservation Authority watersheds and lower tier municipalities within the County of Elgin. As part of its regulatory responsibilities, Conservation Authorities maintain hazardous lands mapping and technical data which can be shared for inclusion into the County OP for consideration of hazard land designations and associated policies at the County level. It should also be noted that the delivery of the 2020 SWOOP aerial photography is anticipated this summer and that KCCA intends to update the extent of the shoreline erosion hazard limit mapping based on depicted toe of slope within the new aerials once received.

4. Provincial guidance documents recommend that new development be prevented from occurring within or upon areas of the Great Lakes – St. Lawrence River shorelines that would be affected by erosion hazards over a 100-year time period. Specifically, the Province of Ontario developed the Understanding Natural Hazards technical guide (MNR, 2001) and the Great Lake-St. Lawrence River Technical Guide (MNR, 2001a) to accompany the PPS and set out the technical requirements for the implementation of this legislation. These technical guides confirm that the provincial perspective on natural hazards is to prevent risk to loss of life and minimize property damage through prevention, protection and emergency response. The highest priority being “preventative measures” which provides the greatest, and most cost-effective means of protecting public health and safety. In addition, Table A7.2 of the Technical Guide for the Great Lakes – St. Lawrence River System Shorelines (MNR, 2001a) states that “It is not the intent of the Provincial Policy Statement (i.e. Policy 3.1 governing Natural Hazards) that the presence of existing development be used as a justification for increasing or intensifying the development. The first and primary premise of Policy 3.1 is to direct development and site alteration to locations outside of hazardous lands.” The shoreline management plans (Phillpott, 1989 & Baird, 2015) prepared for the Lake Erie shoreline within the Kettle Creek watershed have determined that the average annual recession rates for the high bluff reaches of Lake Erie are “very high” and “severe” based on Provincial standards. The average annual recession rate for the high bluff reaches of shoreline within the Kettle Creek watershed and Elgin County

ranges between 1.6m to 2.2m per year. In addition, recent studies completed for the Lake Erie shoreline in consideration of a changing climate, suggest that the existing recession rates will increase and exacerbate erosion based on predicted high lake levels and future impacts of predicted ice-free winters of Lake Erie. The County may wish to consider developing consistent shoreline erosion hazard policies across the reach of the Lake Erie shoreline within the County of Elgin that is consistent with the provincial perspective on shoreline erosion hazards and Conservation Authority regulations.

5. When considering development proposals for existing development and/or relocation of existing buildings already located within or upon shoreline erosion hazard lands, KCCA relies upon the guidance document prepared by the Province entitled “Technical Guide for Great Lakes – St. Lawrence River Shorelines, Appendix A7.2 – Existing Development Within the Hazardous Lands”.

County response: The issue of existing development adjacent to the Lake Erie Shoreline is complicated and has a long history with many stakeholders involved (Conservation Authorities, local stakeholders’ groups such as LENSLA). There may be the potential to look at policies related to lands adjacent to Lake Erie as part of a larger review. It is anticipated that further discussion will need to occur with County Council on the possible direction of this review.

Development in the Floodplain

6. KCCA staff support the existing floodplain policy within the County OP whereby development or site alteration is not permitted within the floodplain of a river or stream system, and where buildings and structures are not permitted within the floodplain, except where written permission is obtained from the appropriate Conservation Authority. However, within the former limits of the Village of Port Stanley, Municipality of Central Elgin, a Two-Zone Floodplain Management is applied based on historical technical studies and approvals. Consistent with associated policies of the PPS for Two-Zone Floodplain Management, KCCA does not permit development and site alteration within a floodway portion of the floodplain regardless of whether the area of inundation contains high points of land not subject to flooding. In addition, development and site alterations may be permitted within the Flood Fringe portion of the floodplain within Port Stanley where the effects and risk

to public safety are minor, could be mitigated in accordance with provincial standards, and where all of the following are demonstrated and achieved:

- a) Development and site alteration is carried out in accordance with floodproofing standards, protection works standards, and access standards;
 - b) Vehicles and people have a way of safely entering or exiting the area during times of flooding, erosion and other emergencies;
 - c) New hazards are not created and existing hazards are not aggravated; and
 - d) No adverse environmental impacts will result.
7. The County OP should also recognize that the flood standard for the associated floodplain policies within the Kettle Creek watershed is the Hurricane Hazel Flood Standard as prescribed within the PPS and Kettle Creek regulations.

County response: Discussions with Central Elgin and a revised policy related to the two-zone flood plain may be added. Draft policy will be provided as part of the draft OPA.

Erosion Hazard Limit and Hazardous Slopes

8. In addition to existing erosion hazard and slope policies, KCCA would recommend consideration of the following additional policy consistent with its lower tier municipal policies:
- That the use of stabilization works as a means to adjust the Erosion Hazard Limit or development setbacks for the purposes of increasing the potential development envelope or permitting new development and/or site alterations within the erosion hazard limit shall not be permitted.

County response: Draft policy will be provided as part of the draft OPA.

Stormwater Management

9. KCCA would recommend that the County consider additional policies for stormwater management considerations that would discourage, if not prohibit the placement of proposed stormwater management facilities from occurring within or upon significant natural heritage features and/or natural hazard areas.

County response: PPS policy does not permit development within significant features, such as significant wetlands. Ultimately, an Environmental Impact Study would need to demonstrate that the location of a SWM within or near a feature will not impact the features and functions, and this will also require review and approval from the CA's.

Maps and Appendices

10. KCCA would recommend that the County consider an additional Map Appendix for Natural Hazard Areas similar to Map Appendix #1 – Natural Heritage Features and Areas. KCCA can assist with providing associated hazard mapping that is currently being used for Conservation Authority natural hazard regulatory purposes. Such mapping should also include identification of the watershed boundaries of the four Conservation Authorities within Elgin County.

County response: mapping that delineates the watershed boundaries for the four conservation authorities will be added to Appendix 1. Hazard mapping is included in the local municipal official plans.

Elgin County Natural Heritage Systems Study & Natural Heritage

11. As requested by the County of Elgin, KCCA staff participated in the technical committee for development of the Elgin County Natural Heritage Systems Study. It is hoped that consideration would be given to incorporating the results of this study and its associated policies into the County of Elgin Official Plan.

12. KCCA requests that the County of Elgin consider developing natural heritage offsetting policies that support the restoration and/or improvement of natural heritage coverage areas with an objective of reaching NET GAIN results. The PPS and the County of Elgin Official Plan states that the diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems (NHS), should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features. With a specific regard to woodlands coverage, KCCA is concerned that there is a potential forest cover loss policy gap within the County. KCCA requests that the County consider NET GAIN policies for natural heritage features within their associated planning and development policies to assist with achieving the County's goal of no net loss and striving for improvements to existing natural heritage coverage.

County Response: addressed though previous sections of this report.

Service Agreements

13. Any proposed policies being considered that may relate to the involvement of the appropriate Conservation Authority for development of Environmental Impact Studies to address natural heritage policy requirements should include an acknowledgement that a Service Agreement with the appropriate Conservation Authority would need to be developed and executed prior to consideration of the Conservation Authority providing such service.

County response: Once the regulations related to the CA Act changes are known, staff will be providing a follow up report to council on possible service agreements that may be necessary.

Conclusion

This report provides possible policy changes based on two draft policy documents – Elgin Natural Heritage Systems Study (2019) and the Source Protection Plan (2017).

Circulation and public engagement is recommended as the next step, to understand public, stakeholder and local municipal comments on proposed policy and mapping changes. A community meeting will be scheduled in order for staff and ultimately Council to hear from the public and determine options for implementation.

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