

APPENDIX 2

DISCUSSION PAPERS



TOGETHER, WE GROW – AGAIN!

Municipality of Thames Centre Official Plan Review

Discussion Paper:
Agricultural Policies

April 2022

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Introduction

With approximately 364 farms located in the Municipality of Thames Centre, agriculture and its economic benefits play an important role (Statistics Canada, 2017 as cited by Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), n.d.). Prime agricultural land comprises the majority of the Municipality's land base and contributes to field crop production, the growing of fruits and vegetables, and the raising of livestock, among other existing agricultural uses in the Municipality. Although Thames Centre is fortunate to have a strong agricultural land base, prime agricultural land is a non-renewable resource with less than 5% of Ontario's land base accounting for prime agricultural land (OMAFRA, 2014). It is important that Thames Centre's prime agricultural land is protected for the long term through policies within the Official Plan.

This Discussion Paper has been prepared to provide a background of the current agricultural policy framework to be considered during Thames Centre's Official Plan Review. This paper also highlights several topics of interest related to agricultural policies in Thames Centre and concludes with recommended next steps for the Official Plan Review.

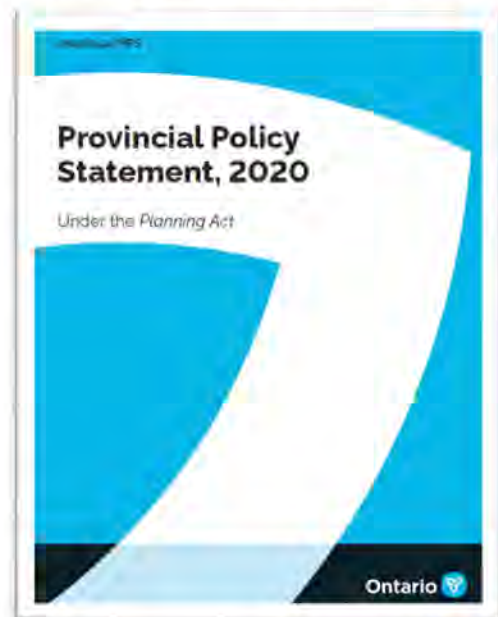
Policy Background

Agricultural policies that inform the Thames Centre Official Plan come from the direction of the Province of Ontario and the County of Middlesex through policy, plans, and other sources such as OMAFRA's *Guidelines on Permitted Uses in Prime Agricultural Areas*. This section will provide policy context in relation to agricultural policies.

Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS), issued under the Planning Act, lays out the foundation for land use planning in Ontario with respect to matters of provincial interest. The policies that are set out in the PPS pertain to building strong healthy communities, the wise use and management of resources, and protecting public health and safety. As an important tool to describe the policies within the PPS at the local level and with local context, the Thames Centre Official Plan is required to be consistent with the PPS. This includes ensuring that the updated Official Plan provides planning strategies for the next 25 years. (Ministry of Municipal Affairs and Housing, 2020)

Agriculture is a matter of provincial interest as it contributes to the economic growth of Ontario and the quality of life of Ontarians. Policies surrounding agriculture and prime agricultural areas are set out in the PPS. In particular, the PPS states "*Prime agricultural areas shall be protected for long-term use for agriculture*" (MMAH, 2020). Per the policies set out in the PPS, planning



authorities are required to designate prime agricultural areas and specialty crop areas (MMAH, 2020). In the County of Middlesex, all of the land located outside of settlement areas is designated Agricultural Area and is considered Prime Agricultural Areas as defined by the PPS (County of Middlesex, 2021). The PPS also affirms that all types, sizes, and intensities of agricultural uses and normal farm practices are to be promoted and protected within prime agricultural areas (MMAH, 2020).

OMAFRA's Guidelines on Permitted Uses in Prime Agricultural Areas

OMAFRA's Guidelines on Permitted Uses in Ontario's Prime Agricultural Areas explains the intent of the PPS policies and definitions as they relate to agriculture. The guidelines are consistent with and complement the PPS and help to work towards increasing the consistency of municipal approaches related to agriculture throughout Ontario (OMAFRA, 2014). As stated previously, prime agricultural land is a non-renewable resource. It provides a foundation for food production in Ontario and needs to be protected for the present and for the future (OMAFRA, 2014). The guidelines explores the three types of permitted uses within prime agricultural areas:

- agricultural uses
- agriculture-related uses
- on-farm diversified uses

Examples of each of the three types of permitted uses are laid out in the guidelines in addition to the PPS criteria for permitted uses. The criteria for these uses were developed using policies and definitions from the PPS (OMAFRA, 2014). The guidelines are an important tool that will help to add clarity to the PPS when creating Thames Centre's policies regarding the permitted uses in prime agricultural areas.



County of Middlesex Official Plan

The County of Middlesex is an upper-tier government comprised of eight local municipalities, including Thames Centre. The County has an Official Plan that directs land use planning policy on a broad basis and is intended to set forth an upper tier policy foundation to provide policy direction to local municipalities in the development of local Official Plans and Zoning By-laws (County of Middlesex, 2021). Currently, the County is undergoing an Official Plan update to ensure that the policies within the Official Plan are consistent with the PPS.



The County's Official Plan contains agricultural policies in regards to resource management in the County, growth management and includes detailed land use policies for Agricultural Areas. As mentioned, the County Plan indicates that all of the land within Middlesex, other than land identified as Settlement Areas is designated Agricultural Area and is considered Prime Agricultural Areas as defined by the PPS. As such, agriculture plays an important role in the County. The County Plan also requires local Official Plans to further identify specific land uses, including agriculture (County of Middlesex, 2021). It will be necessary to ensure that the policies within the Thames Centre Plan are in conformity with the County Plan being a requirement under the Planning Act.

Thames Centre Official Plan

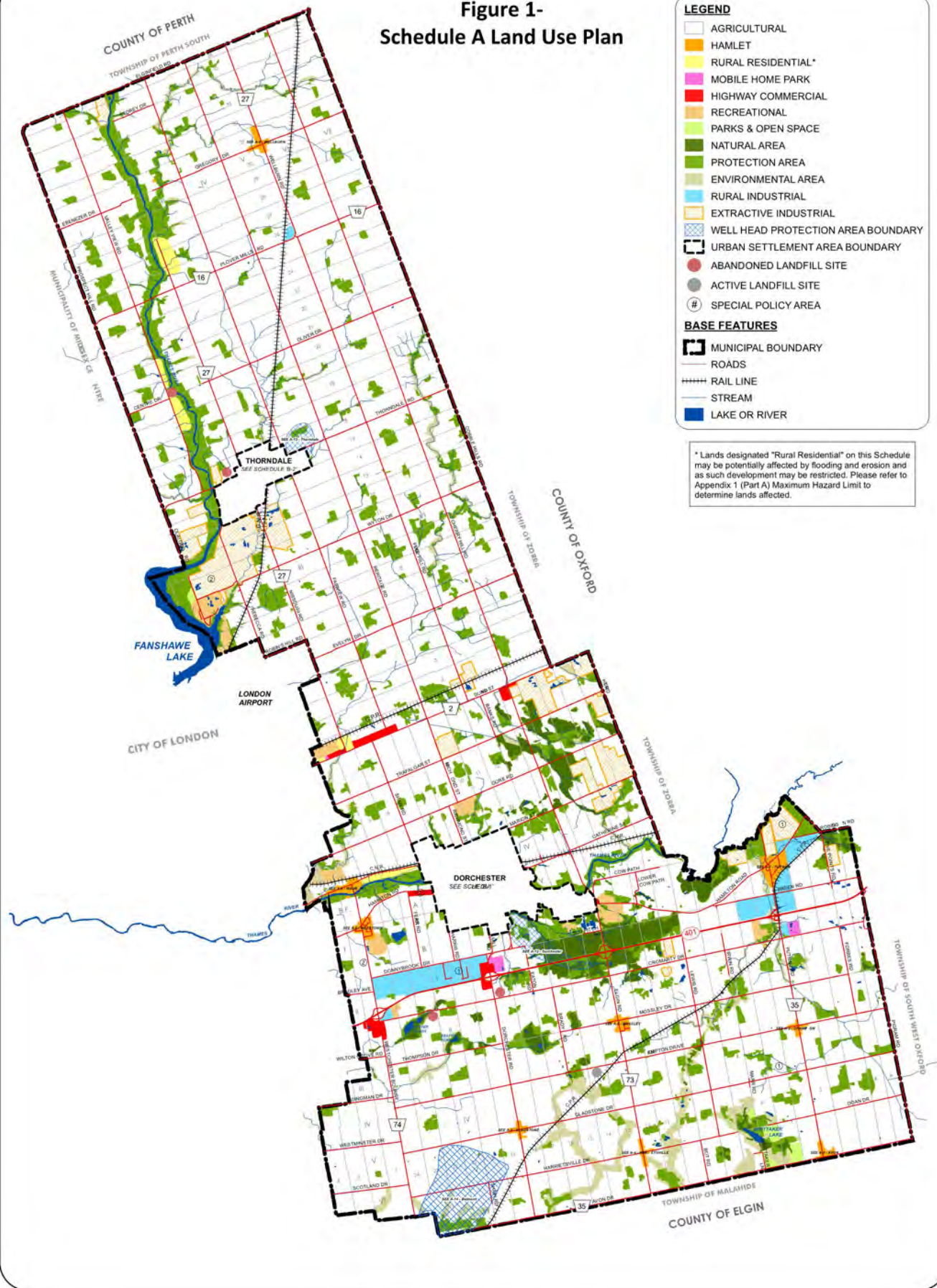
Thames Centre's Plan provides policies for agricultural areas within the Municipality. One of the primary goals under the agricultural policies of the Plan is *"to preserve and enhance prime agricultural lands and lands being used for agriculture,"* (Municipality of Thames Centre, 2003). As shown on **Figure 1**, areas designated Agricultural comprises the majority of the Municipality.

The agricultural land use designation is described in the Plan and refers to all agricultural land, including specialty crop areas as well as lands with Canada Land Inventory classes but is neither limited by areas designated for development or designations that apply to Thames Centre's Natural Heritage "Green System" Features (Municipality of Thames Centre, 2003). Further to the Canada Land Inventory classes, **Figure 2** shows the soil capability for agriculture within the Municipality. It is indicated by the dark orange colour and the light orange colour that Class 1 and Class 2 soils are predominant in the Municipality (Municipality of Thames Centre, 2003). This is important considering Class 1, 2 and 3 soils are prime agricultural land as defined by the PPS.

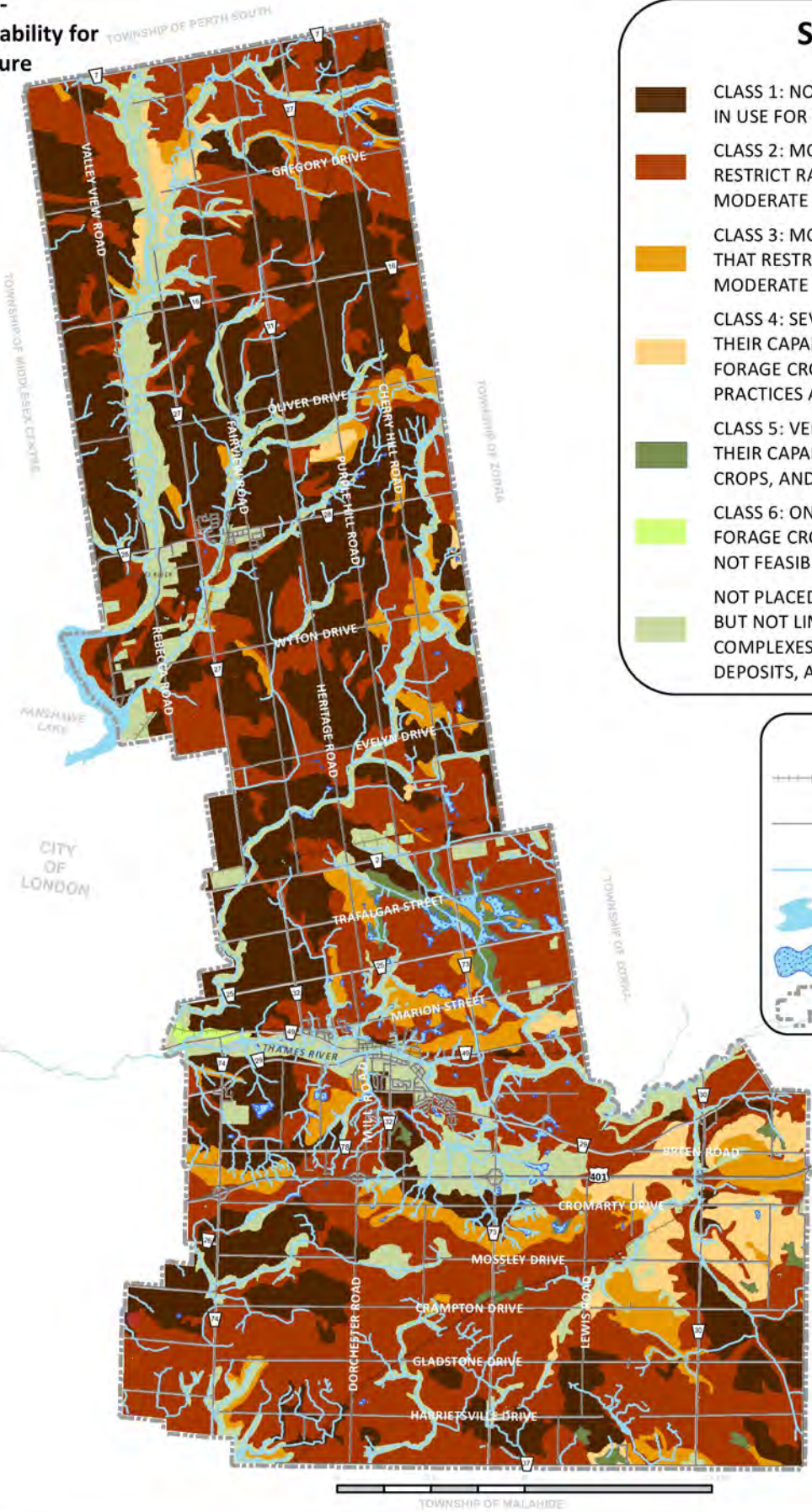
Additional policies under the Agricultural designation include policies regarding existing vacant lots, which may be used for the purposes of a single unit dwelling subject to various conditions, temporary second dwelling units on existing agricultural parcels, and second dwelling units either within a single detached dwelling or within an accessory building, and severances including farm splits and the disposal of a dwelling surplus to a farming operation as a result of farm consolidation.



**Figure 1-
Schedule A Land Use Plan**



**Figure 2-
Soil Capability for
Agriculture**



SOIL CLASSES

-  CLASS 1: NO SIGNIFICANT LIMITATIONS IN USE FOR CROPS
-  CLASS 2: MODERATE LIMITATIONS THAT RESTRICT RANGES OF CROPS OR REQUIRE MODERATE CONSERVATION PRACTICES
-  CLASS 3: MODERATELY SEVERE LIMITATIONS THAT RESTRICT RANGE OF CROPS OR REQUIRE MODERATE CONSERVATION PRACTICES
-  CLASS 4: SEVERE LIMITATIONS THAT RESTRICT THEIR CAPABILITY TO PRODUCING PERENNIAL FORAGE CROPS, AND IMPROVEMENT PRACTICES ARE FEASIBLE
-  CLASS 5: VERY SEVERE LIMITATIONS THAT RESTRICT THEIR CAPABILITY TO PRODUCING PERENNIAL FORAGE CROPS, AND IMPROVEMENT PRACTICES ARE FEASIBLE
-  CLASS 6: ONLY CAPABLE OF PRODUCING PERENNIAL FORAGE CROPS, IMPROVEMENT PRACTICES ARE NOT FEASIBLE
-  NOT PLACED IN CAPABILITY CLASSES (INCLUDING BUT NOT LIMITED TO ORGANIC SOILS, VALLEY COMPLEXES, ERODED CHANNELS, ALLUVIAL DEPOSITS, AND AREAS NOT MAPPED)

BASEMAP

-  RAILWAY
-  ROADWAY
-  WATERCOURSE
-  WATERBODY
-  WETLAND AREA
-  MUNICIPAL BOUNDARY

APRIL 2022

SOIL CAPABILITY FOR AGRICULTURE

MUNICIPALITY OF THAMES CENTRE



Topics of Interest

This section explores topics of interest related to agricultural policies, including the review of current policies and new policies to be considered to help inform the Official Plan Review.

On-Farm Diversified Uses

On-Farm Diversified Uses (OFDUs) have been identified as a permitted use within Prime Agricultural Areas subject to criteria laid out in the PPS and in OMAFRA's Guidelines on Permitted Uses in Prime Agricultural Areas. The criteria includes the use being located on a farm, secondary to the principal agriculture use of the property, limited in area, includes but is not limited to home occupation, home industries, agri-tourism uses and uses that produce value-added agricultural products, and lastly the use must be compatible and must not hinder surrounding agricultural operations. OFDUs are an opportunity for farmers to diversify and supplement their income in addition to accommodating value-added and agri-tourism uses in prime agricultural areas. Examples of OFDSs include wine tasting, retail uses such as a farm market, value-added uses such as a cheese factory, and home industries such as the seasonal storage of boats or trailers.

As part of its Official Plan review, the County is proposing new policies that reference OFDUs within the general policies (County of Middlesex, 2021) to ensure consistency with the PPS. OFDUs are not currently referenced within the Thames Centre Plan although this is an opportunity to set out policy direction for OFDUs to ensure consistency with the PPS within the Official Plan's agricultural policies.

Agriculture-Related Uses

Another permitted use in prime agricultural areas identified by the PPS is agriculture-related uses (OMAFRA, 2014; MMAH, 2020). Agriculture-related uses are defined as *"farm-related commercial and farm-related industrial uses that are directly related to farm operations in the area, support agriculture, benefit from being in close proximity to farm operations, and provide direct products and/or services to farm operations as a primary activity,"* (OMAFRA, 2014). The following criteria must be met in order for a use to qualify as an agriculture-related use:

- being a farm-related commercial or farm-related industrial use
- must be compatible with and must not hinder surrounding agricultural operations
- must be directly related to farm operations in the area, supports agriculture
- provides direct products and/ or services to farm operations as a primary activity



Examples of uses that could be considered agriculture-related uses include the processing of produce grown in the area, such as cider making, a flourmill, agricultural research centre, a farm equipment repair shop, and a farmer's market that primarily sells produce grown in the area (OMAFRA, 2014).

As part of its Official Plan review, the County is proposing new policies regarding agriculture-related uses to replace 'Farm-related commercial and industrial uses' (County of Middlesex, 2021). The Thames Centre Official Plan also touches on agriculture-related commercial and industrial uses which are quite similar to agriculture-related uses. To ensure that the Thames Centre Plan is consistent with the PPS and in conformity with the County Plan, it will be necessary to add agriculture-related use policies within the agricultural policies of the Thames Centre Official Plan, including a definition of the term as well as the prescribed criteria.

Consents in Agricultural Areas

The PPS, the County Plan and the Thames Centre Plan include policy to ensure that agricultural lots that are created are the appropriate size for agricultural uses in the present and in the future. The PPS states that lot creation in prime agricultural areas is discouraged and may only be permitted for agricultural uses, agricultural-related uses, a residence surplus to a farming operation, and infrastructure. The PPS also states that the creation of new residential lots in prime agricultural areas is not permitted except in the case of a consent to sever a dwelling considered surplus to a farming operation as a result of farm consolidation (MMAH, 2020).

The County Official Plan states that non-farm related uses in agricultural areas have the potential to hinder the effectiveness of agriculture operations. Further, there can be more negative environmental impacts from scattered development in the form of residential, commercial, and industrial uses. To protect the agricultural area for agricultural uses, the County OP states that consents to sever a residence surplus to a farming operation may be permitted subject to criteria including the dwelling being built prior to January 1, 1999. It is noted that the January 1, 1999 date is currently under review as part of its Official Plan update (County of Middlesex, 2021).

Consents regarding minor boundary adjustments for legal or technical reasons are also discussed in the County Plan which states that they shall be considered granted that non-viable farm parcels are not created and no adverse impacts on agriculture are anticipated. For consents regarding new farm lots where the result would be the creation of a farm lot generally less than 40 hectares (99acres) in size, the consent would generally not be considered. The 40-hectare policy is under review as part of the County's Official Plan review. Additional consent policies within the County Plan include policies for consents for agriculture-related commercial and industrial uses and consents on land located within 300 metres of an active gravel pit (County of Middlesex, 2021).

When considering applications for consents in agricultural areas, the Thames Centre Plan states that regard shall be had for the need to discourage the fragmentation of farmland, agricultural capability of the land, the type of agricultural activity that is currently taking place and what is being proposed, the requirements of the Planning Act, the PPS, the County Plan, as well as the minimum farm parcel size set out in the Thames Centre Comprehensive Zoning By-law. Additional policies for consents are set out in the Thames Centre Official Plan including consents involving minor boundary adjustments, for

agricultural related commercial and industrial uses and consents on land located within 300 metres of an active gravel pit. It is noted that consents for the creation of a farm lot less than 40 hectares (99 acres) in size shall not be considered (Municipality of Thames Centre, 2003).

Consents to sever a dwelling considered surplus to a farming operation are common planning applications that are processed at Thames Centre. These consents are intended to help farmers expand their operations while also ensuring that the surplus dwelling, which may otherwise be considered a nuisance for a farmer to own and maintain, can be sold and occupied by a third party. The PPS, the County Plan and the Thames Centre Plan include policies for consents to sever a surplus farm dwelling. The Thames Centre Plan requires several criteria that need to be satisfied in order to sever a dwelling from a farm. This criteria generally includes:

- demonstration of farm consolidation (consolidation has or will occur through the acquisition of additional farm parcels)
- demonstration that the dwelling is surplus to the needs of the farming operation
- the dwelling has been inhabited as a residence of at least 10 years and provided the residence was built prior to the date specified in the County Plan
- the dwelling has been deemed to be habitable for human occupancy
- the parcel that is being created is the minimum sized needed to accommodate the use and the required water and sanitary waste disposal system.

It may be beneficial to review these policies to ensure they are clear and can that they can be understood by the general public. This may include further clarification of what farm consolidation means, what is required to demonstrate farm consolidation (i.e.: does the farming operation need to abut the subject lands?) as well as what is required to demonstrate that a dwelling is surplus to a farming operation. Additionally, it may be beneficial to further clarify the intention behind consents to sever a surplus farm dwelling to better inform why they may or may not be permitted.

Minimum Distance Separation Formulae

An important tool to help reduce incompatibility issues related to odour produced from livestock operations is the Minimum Distance Separation (MDS) formulae and the setbacks that it establishes (Municipality of Thames Centre, 2003). The PPS requires new land uses such as the expansion of livestock facilities and the creation of new lots to comply with MDS formulae (MMAH, 2020). The County Plan also includes policies regarding MDS and is proposing revised policies to require agriculture-related uses and OFDUs to be located in conformity with MDS. Further, new proposals for non-



agricultural uses in the agricultural area are to comply with the MDS formulae. The County Plan notes that local Official Plans must contain implementation policies regarding MDS (County of Middlesex, 2021).

Similarly, the Thames Centre OP requires development in agricultural areas, such as new or expanding livestock operations, to comply with MDS requirements. The Thames Centre OP states that livestock and agricultural operations will be permitted in agricultural areas so long as the location of the livestock and agricultural operation complies with the MDS formulae, the Zoning By-law, and the Nutrient Management By-law. It is noted that along with the need to comply with the MDS setbacks, a buffer area will be established in the Zoning By-law to ensure that incompatibility issues between livestock operations and other sensitive uses are reduced. It may be beneficial to have all MDS policies located under the Agricultural designation policies rather than located in two different sections of the Thames Centre Official Plan. Additionally, it may also be beneficial to revise the policy that references the Zoning By-law establishing a buffer area to ensure incompatibility issues between livestock operation and other sensitive uses are reduced since the MDS formulae is relied upon to reduce incompatibility issues.

Definitions

The PPS and the County Official Plan under review both lay out several definitions related to agriculture that are new or have been revised. The definitions within the Thames Centre Plan should be updated to be consistent with the definitions within the PPS and the County OP under review. This includes definitions such as on-farm diversified uses, agriculture-related uses, and a farm operation.

Recommendations and Next Steps

This discussion paper has provided a background of the policies related to agriculture to help inform the draft official plan policies for the Thames Centre Plan. The various updates and revisions that may be required include the following:

- It is recommended that the Thames Centre OP sets out policies for OFDUs and agriculture-related uses.
- It is recommended that the home occupation policies within the Thames Centre OP are reviewed and revised if required.
- It is recommended that consent policies, including policies regarding severances for dwellings considered surplus to a farming operation, are revised to further clarify what is meant by the policies and criteria including their rationale.
- It is recommended that MDS policies are reviewed to ensure that they are clear and concise.
- It is recommended that the definitions within the Thames Centre OP are revised if necessary and include new definitions that are laid out in the PPS and within the County Plan under review.

Questions and comments for consideration can be submitted to mbancroft@thamescentre.on.ca.

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Introduction

Climate change is predicted to result in more frequent and intense storm and weather events, increasing pressure on water resources, increasing smog and heat waves, and will impact all areas of life and the community (Government of Canada, 2015). This includes natural heritage features and systems, agricultural land, housing and employment. Climate change has become a global challenge that municipalities need to be prepared to face head-on.

The Thames Centre Official Plan (Thames Centre OP) is an important document that will help guide land-use planning in the Municipality to the year 2046. Because the Thames Centre OP provides planning strategies for the next 25 years, it is necessary to ensure that it lays out how the Municipality will prepare for and adapt to climate change and remain a resilient, vibrant and healthy community for future generations.

This discussion paper has been produced to provide a background of the current climate change policy to be considered during Thames Centre's Official Plan Review. This paper also highlights several topics of interest related to climate change policies in Thames Centre and concludes with recommended next steps for the Official Plan Review.

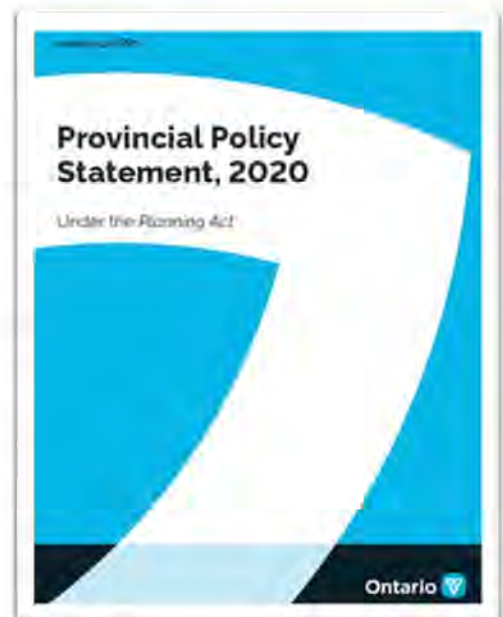
Policy Background

Climate change policies that will inform the Thames Centre OP come from the direction of the Province, the County, and the Municipality, through policy, plans, and other sources such as Conservation Authorities, the Thames Centre Strategic Plan, the Healthy Rural Communities Toolkit, and the Middlesex Cycling Strategy. This section will provide policy context in relation to climate change policies.

Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS), issued under the Planning Act, lays out the foundation for land use planning in Ontario with respect to matters of provincial interest. The policies that are set out in the PPS pertain to building strong healthy communities, the wise use and management of resources, and protecting public health and safety.

Under the Planning Act, the mitigation of greenhouse gas emissions and adaptation to a changing climate is listed as a matter of provincial interest. To implement that provincial interest, the PPS makes it clear that planning authorities must support energy conservation and energy efficiency, improved air quality, reduced greenhouse gas emissions, and prepare for the impacts of a changing climate with to respect water resource systems, natural hazards, air quality, infrastructure, and public service facilities, stormwater management, long-term economic prosperity, and energy conservation (MMAH, 2020).



Additionally, planning authorities must support energy conservation and efficiency. It is stated that communities that are strong, liveable, and healthy are resilient to climate change (MMAH, 2020, p.5). To prepare for the impacts, the PPS notes that supporting land use and development patterns which support promoting compact form, efficiently use land and resources, the use of active transportation and transit between residential, employment and institutional uses, encouraging intensification, minimizing negative impacts to air quality and climate change as well as promoting energy efficiency, and maximizing vegetation within settlement areas will be essential (MMAH, 2020, p. 22-23).

Conservation Authorities

Conservation Authorities play an important role in local municipalities as they are local watershed management agencies who work towards ensuring that Ontario's land, water, and natural habitats are conserved, restored, and responsibly managed through programs and services that they provide. Conservation Authorities are also responsible for providing feedback on policy documents, such as official plans, as part of their duty to represent the provincial interest in natural hazards (Conservation Ontario, 2021). Furthermore, Conservation Authorities have a role in mitigation and adaptation measures for climate change (Conservation Ontario, n.d.) In terms of mitigating climate change impacts, Conservation Authorities offer different programs that help to mitigate greenhouse gases such as reforestation, carbon sequestration (such as restoring wetlands, etc.), low impact development, as well as partnering in opportunities to offset carbon (Conservation Ontario, n.d.). For climate change adaptation, Conservation Authorities offer programs that monitor and report watershed conditions, work with agencies, businesses and residents to put into action various green infrastructure, water quality, stormwater management strategies and practices among in addition to other adaptation programs offered (Conservation Ontario, n.d.).

Out of the five Conservation Authorities that have jurisdiction in the County, the Upper Thames River Conservation Authority (UTRCA) and the Kettle Creek Conservation Authority (KCCA) have jurisdiction in Thames Centre. It will be necessary to consult with the UTRCA and KCCA to ensure these agencies are satisfied with the proposed policies, in particular, the policies related to mitigating the potential risk to public health, safety, or property damage from natural hazards, including any possible risks generated from the impacts of climate change on natural hazards.

County of Middlesex Official Plan

The County of Middlesex, an upper-tier government, is made up of eight local municipalities, including Thames Centre. The County has an Official Plan that directs land use planning policy on a broad basis and is intended to set forth an upper-tier policy foundation to provide policy direction to local municipalities in the development of local Official Plans and Zoning By-laws (County of Middlesex, 2021).

The County is currently undergoing an Official Plan update to ensure that the policies within the Official Plan are consistent with the PPS. Through that process, the County is proposing policies regarding climate change. Proposed policies include that "local official plans will promote the creation of resilient communities. As such, development



impacts that may result from a changing climate,” (County of Middlesex, 2021, p.2-11). Additionally, proposed County policies state that planning authorities must consider the impacts of a changing climate that has the potential to increase the risk associated with natural hazards (County of Middlesex, 2021, p.2-9). Lastly, proposed County policies also state that natural heritage features and areas... contribute to climate change mitigation...” (County of Middlesex, 2021, p.1-1). It will be necessary to ensure that the policies within the Thames Centre OP are in conformity with the County OP.

Thames Centre Official Plan

The Thames Centre OP currently does not address climate change although there is an opportunity to incorporate climate change policies within the existing policies. This includes incorporating climate change policies within natural heritage/ natural hazards policies, summation of issues and strategies, energy conservation and green renewable energy, transportation policies (specifically walking and cycling path), etc. in addition to considering a new section to the plan that sets forth municipal goals and policies regarding climate change.

Relevant Documents

The following are several documents that are relevant to the Thames Centre Official Plan Review regarding climate change policies however, the Official Plan Review is not limited to these documents.

Thames Centre Strategic Plan

The Thames Centre Strategic Plan for 2020 to 2024 outlines initiatives and objectives that the Municipality aims to achieve. The strategic plan helps to guide Council with decision-making and sets out the future direction for the Municipality. Further, the strategic plan sets forth the Municipality’s vision, mission, core values, and strategic pillars, which consist of community development, infrastructure, and responsive leadership (Municipality of Thames Centre, 2020, p.3). For community development, goals include a tree planting program as well as a trails and cycling master plan. In terms of infrastructure, the strategic plan has a long-term goal of climate change initiatives such as waste management and energy-efficient opportunities. Additionally, sidewalks are to be updated where necessary and any opportunities for connection to support active transportation. For responsive leadership, an environmental sustainability focus is listed a long-term goal (Municipality of Thames Centre, 2020). It would be beneficial to ensure that the Thames Centre OP reflects the goals and priorities presented in the Strategic Plan to work towards strengthening the community and preparing for climate change.

Middlesex County Cycling Strategy

The County has developed a cycling strategy to help guide the planning, design, implementation, and operation of cycling infrastructure and programming. The guide explains various reasons for investing in cycling and lists the environment, including lowering greenhouse gas emissions and air pollution, water pollution from pollutants related to driving, as well as the protection of green space and natural environments. (Middlesex County & WSP, 2018, p.12). Active transportation will be addressed further in



this paper although this strategy would be beneficial to assist with revising the active transportation policies found within the Thames Centre OP.

Healthy Rural Communities Toolkit

The Healthy Rural Communities Toolkit was developed in collaboration with health units across Ontario, a project team from the University of Guelph, and an advisory committee to provide various planning and development strategies to assist with creating healthier rural communities (Caldwell et al, 2015). The toolkit brings a rural perspective and recognizes that rural communities are unique and have different challenges when it comes to the built environment and land use planning such as greater distances between uses and different infrastructure (Caldwell et al, 2015).



To assist rural municipalities with becoming healthier, thirteen key mechanisms for action were identified. These key mechanisms include a range of actions although, in relation to climate change, several action items can be explored as possible future steps including community design and land use planning, active transportation, water quality, air quality, nature, and climate change (Caldwell et al, 2015). The toolkit is a useful guide that could be used to inform policy for the Thames Centre Official Plan Review.

Topics of Interest

This section will explore topics of interest related to climate change policies, including new policies to be considered and the review of current policies to help inform the Official Plan Review. Many of these topics are interconnected and complement each other. Overall, they can help to create a more resilient community.

Active Transportation

Active transportation can have many benefits including reducing air pollution and greenhouse gas emissions, improving physical and mental health, tourism, and social equity (Caldwell et al, 2013, p.29 ; CIP, 2012 as cited in Caldwell et al, 2015, p.29; Middlesex County & WSP, 2018, p. 12; Greenbelt Foundation, 2020, p.26). Active transportation is defined as “any form of human-powered transportation” (Transport



Canada, 2011 as cited in Caldwell et al 2015, p. 5). The PPS states “a land-use pattern, density of mix of uses should be promoted that minimize the length and number of vehicle trips and support current and future use of transit and active transportation” (MMAH, 2020, p. 20).

Proposed County OP policy states “the County recognizes the important role transportation has in promoting opportunities for physical activity and cost-effective travel...” and encourages “an integrated transportation system that supports a variety of safe, sustainable and energy-efficient modes of transportation” (County of Middlesex, 2020p. 2-36, 2-39). Within the Thames Centre OP, it is stated that one purpose of the OP is to establish policies that support active transportation. It is also stated that “walking and cycling are recognized as active transportation modes that serve not only as popular recreational activities but also a means of purposeful transportation that is affordable and accessible for most of the population” (Municipality of Thames Centre, 2003, p.115). Sidewalks and bike lanes may not be feasible in many rural areas, however, wide paved shoulders, often found in rural areas, have the potential to be used for cycling (Caldwell et al, 2013). Furthermore, trail networks may be present in rural areas and may be used for active transportation purposes (Caldwell et al, 2015). It would be beneficial to expand on the current policies within the Thames Centre OP to describe the benefits of active transportation in relation to climate change and reducing greenhouse gas emissions.

Encouraging Compact Form in Settlement Areas

A common approach taken by municipalities to reduce car dependency and therefore reducing greenhouse gas emissions is through the implementation of compact form. In Thames Centre, there are settlement areas, in particular Dorchester and Thorndale, that can benefit from being more compact. In regards to encouraging compact form, the PPS states “planning authorities shall promote economic development and competitiveness by...encouraging compact, mixed-use development that incorporates compatible employment uses to support liveable and resilient communities..,”(MMAH, 2020, p.14). Proposed County OP policy states that “new development should proceed in an integrated and compact form and “settlement areas shall develop in a phased, compact manner that does not result in a strip pattern of development” (County of Middlesex, 2021, p. 2-30, 3-2). Proposed County OP policy also states that “Councils of local municipalities shall include... policies that promote the reduction of greenhouse gas emissions, improvement in air quality, promotion of compact form, use of green infrastructure and development that maximized energy efficiency and conservation including the use of alternative and renewable energy sources,” (County of Middlesex, 2021, p.2-27).

The Thames Centre OP states that one of the purposes of the plan is to “establish a land-use pattern that ensures sufficient lands have been identified in settlement areas and specific land use designations identified for development to accommodate a variety of housing and employment opportunities to meet current and future needs,” (Municipality of Thames Centre, 2003, p. 5). Furthermore, to “encourage the provision of a variety of housing types in a variety of designated locations,” (Municipality of Thames Centre, 2003, p. 5). Although the Thames Centre OP does not specifically state ‘compact’ development, densities are addressed. It is recommended that the Thames Centre OP includes a specific policy that states the Municipality encourages compact form in settlement areas in addition to the benefits that compact form can provide such as a reduction in greenhouse gas emissions.

Encouraging Sustainable Building Design Practices

As stated in the PPS, one of the ways planning authorities are to support energy conservation, air quality and climate change is to “promote design and orientation that maximizes energy efficiency and conservation, and considers the mitigating effects of vegetation and green infrastructure” (MMAH, 2020, p. 23). The Thames Centre OP includes policy regarding energy conservation and states “the Municipality shall promote energy conservation by encouraging developers to implement designs that attempt to minimize energy use. Such techniques including innovated building designs...shall be encouraged,” (Municipality of Thames Centre, 2003, p.29).

When it comes to encouraging sustainable building design practices, Leadership in Energy and Environmental Design (LEED) certification and net-zero building are both design types/ techniques that can be addressed in the Thames Centre OP. LEED certification refers to third-party verification that a building has been designed and built using strategies for achieving high performance in regards to location and transportation, sustainable site development, water savings, energy efficiency, materials selection as well as indoor environmental quality (Canada Green Building Council, 2021). Net-zero building refers to “buildings that use as much energy as they could produce using renewable energy” (Government of Canada, 2018). It would be beneficial to encourage or require new development to be LEED-certified and/or net-zero to ensure that it is sustainable. It is recommended that the Thames Centre OP includes and sets goals for sustainable building design such as LEED certification and net-zero buildings to help prepare for climate change

Encouraging the Use of Renewable Energy & Alternative Energy

The burning of fossil fuels, including coal, oil, and natural gas is responsible for approximately 70-90% of all the human emissions of carbon dioxide, a prominent greenhouse gas (Government of Canada, 2015). As such, it is important to use renewable energy when possible to lower greenhouse gas emissions that



Source: Canva.com

are produced. The PPS states that “planning authorities should provide opportunities for the development of energy supply including... renewable energy systems and alternative energy systems to accommodate current and projected needs,” (MMAH, 2020, p. 22). Proposed County OP policies includes a section regarding alternative and renewable energy systems and states that “the County shall encourage the development of alternative and renewable energy systems...These systems significantly reduce the amount of harmful emissions to

the environment... The County encourages the use of wind, water, biomass, methane, solar and geothermal energy,” (County of Middlesex, 2021, p.2-46). The Thames Centre OP includes policy regarding green renewable energy and states “the municipality supports the development of green or renewable energy systems and facilities...as production sources of electricity for the economic and environmental benefit of the Municipality and the Province,” (Municipality of Thames Centre, 2003, p.29). It would be beneficial to update the energy policies within the Thames Centre OP to state that the Municipality also encourages the use of renewable energy as it reduces the amount of greenhouse gas emissions in addition

to also stating a variety of types of renewable energy and alternative energy options such as solar, geothermal, biomass, etc.

Sustainable Stormwater Management Strategies

Future impacts of climate change include more frequent and intense extreme weather events such as heavy rain events and flooding (Government of Canada, 2015). The PPS includes states “planning for stormwater management shall... minimize erosion and changes in water balance, and prepare for the impacts of a changing climate through the effective management of stormwater, including the use of green infrastructure,” (MMAH, 2020, p.20). In addition to this, the PPS states that “planning for stormwater management shall also maximize the extent and function of vegetative and pervious surfaces... and promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and low impact development,” (MMAH, 2020, p.20). Two strategies that can be used to manage stormwater are low impact development and green infrastructure.

Encouraging Low Impact Development

To mitigate flooding that may occur, low impact development (LID) can be used as a strategy to assist with stormwater management. LID is a way to manage stormwater by simulating the natural movement of water. There are many benefits to LID including conserving water and energy, improving water quality, and reducing urban flooding (Upper Thames River Conservation Authority, n.d.). Examples of LID features include constructed wetlands, rain gardens, and biofilters (Upper Thames River Conservation Authority, 2022). Stormwater management policies are included within the Thames Centre OP although LID is not mentioned. It would be beneficial to incorporate LID within the existing policies and describe how it can be used to mitigate negative impacts of climate change, in particular, flooding events.

Encouraging Green Infrastructure

Green infrastructure is defined as “natural vegetative systems and green technologies that collectively provide society with a multitude of environmental, social, and economic benefits” (Friends of the Greenbelt Foundation & Green Infrastructure Ontario Coalition, 2017, p.4). There is an opportunity for green infrastructure to contribute to the implementation of a variety of policy areas including climate action, water, health, agriculture, growth, and disaster risk management. Examples of green infrastructure include



green roofs, bioswales, filter strips, green walls, hedge rows, and tree canopy expansion (Friends of the Greenbelt Foundation & Green Infrastructure Ontario Coalition, 2017). Similar to LID, green infrastructure can help with stormwater management although it also has other applications such as improving water and air quality, becoming a habitat for wildlife and plants, and also improving human health. Green infrastructure can also help communities become more resilient to climate change since it can adapt to different fluctuations in the environment more than traditional infrastructure, also referred to as ‘grey’

infrastructure, such as storm sewers (Friends of the Greenbelt Foundation & Green Infrastructure Ontario Coalition, 2017). With all the benefits of green infrastructure, it is recommended that the Thames Centre OP includes green infrastructure policies within existing policies such as stormwater management policies, drains and wetlands.

Working Towards Creating Complete Rural Communities

A concept that incorporates many, if not all, of the topics as well provincial, county, and local policies that are mentioned above is the concept of complete communities. This is referring to communities that offer a variety of options for residents to live, work, play and move regardless of age, socioeconomic status, and abilities (Greenbelt Foundation, 2020b, p.1). Complete communities are better equipped to tackle the challenges brought on by climate change in addition to being economically successful, and healthier for residents since these communities allow residents to have easy access to a range of services, are attractive to employers and businesses, offer a variety of housing options within the same place, allows for the efficient use of services and infrastructure, supports active transportation, and preserves natural heritage features and agricultural lands (Greenbelt Foundation, 2020, p.9). The Thames Centre Strategic Plan states that a goal of the Municipality is to “have opportunities for all to live a vibrant, engage life, making the municipality an attractive place to enjoy life long vitality,” which aligns with the concept of complete communities (Municipality of Thames Centre, 2020, p.8).

Although rural areas function differently compared to urban areas in regards to having lower population densities, scattered populations, and expansive landscapes, there are opportunities for rural communities to work towards becoming complete communities (Greenbelt Foundation, 2020, p.10). The Greenbelt Foundation’s document Growing Close to Home: Creating Complete Rural Communities explains that in the past, historic settlement areas were examples of complete communities since they were usually compact, walkable, offered mixed-use development, housing options, workplaces, and services that met the everyday needs of residents (Greenbelt Foundation, 2020, p. 55). Today, these settlement areas, with a bit of investment, can take steps towards meeting most of the residents’ daily needs and providing many aspects of a complete community (Greenbelt Foundation, 2020, p.55). It is recommended that the Thames Centre OP includes policies regarding complete communities, such as encouraging the implementation of the aspects that make up complete communities (compact mixed-use development, active transportation, etc.) and including the creation of complete rural communities as a goal for the Municipality as a means of becoming more resilient to climate change.

Definitions

The PPS and the proposed County OP policies provide several definitions related to climate change that are new or have been revised. The definitions within the Thames Centre OP should be updated to be consistent with the definitions within the PPS and the draft County OP. This includes definitions such as green infrastructure, climate change, low impact development, complete communities, and renewable energy source.

Recommendations and Next Steps

This discussion paper has provided a background of the policies related to climate change to help inform the draft official plan policies for the Thames Centre OP. The various updates and revisions that should be considered include the following:

- It is recommended that the active transportation policies within the Thames Centre OP are updated to include the benefits of active transportation in relation to climate change and reducing greenhouse gas emissions.
- It is recommended that the Thames Centre OP includes a specific policy that states the Municipality encourages compact form in settlement areas in addition to the benefits that compact form can provide such as a reduction in greenhouse gas emissions.
- It is recommended that the Thames Centre OP includes policies regarding sustainable building design such as LEED certification and net-zero buildings to help prepare for climate change
- It is recommended that the Thames Centre OP includes updated energy policies including the different types such as solar, geothermal, biomass, etc., and the benefits regarding climate change.
- It is recommended that the Thames Centre OP includes policies regarding low impact development and green infrastructure as stormwater management strategies
- It is recommended that the Thames Centre OP includes policies and goals for complete rural communities within Thames Centre.
- It is recommended that the definitions within the Thames Centre OP are revised if necessary and include new definitions that are laid out in the PPS and within the proposed County OP.

The recommendations in this discussion paper should be confirmed with the County and Conservation Authorities to ensure the recommendations are considered appropriate.

Questions and comments for consideration can be submitted to mbancroft@thamescentre.on.ca.

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TOGETHER, WE GROW – AGAIN!

Municipality of Thames Centre Official Plan Review

Discussion Paper:
Employment Policies

April 2022

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Introduction

Employment lands include areas that accommodate industrial, business parks and rural industrial opportunities. Employment lands include a broad range of industrial uses including manufacturing, distribution, logistics, offices as well as opportunities for associated retail and ancillary facilities. Employment lands play a significant role in the local economy which can provide direct and indirect benefits to the Municipality.

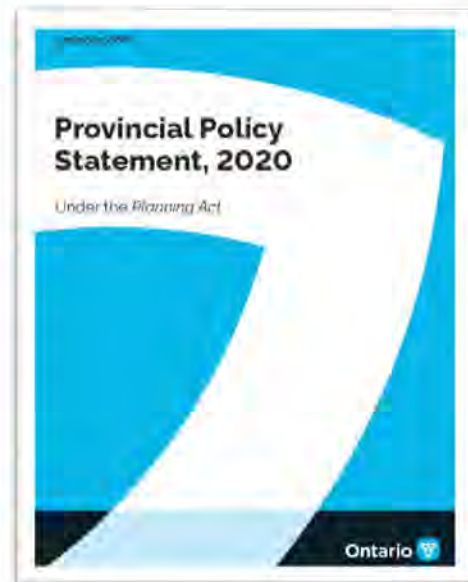
This Discussion Paper has been prepared to provide a background of the current employment policies to be considered during Thames Centre’s Official Plan Review. This paper also highlights several topics of interest related to employment lands in Thames Centre including an analysis of the current supply and demand of employment lands and concludes with recommended next steps for the Official Plan Review.

Policy Background

Employment policies that inform the Thames Centre Official Plan come from the direction of the Province of Ontario through the Provincial Policy Statement and the County of Middlesex through their Official Plan. This section will provide an overview of that policy context in relation to employment policies.

Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS), issued under the Planning Act, lays out the foundation for land use planning in Ontario with respect to matters of provincial interest. The policies that are set out in the PPS pertain to building strong healthy communities, the wise use and management of resources, and protecting public health and safety. As an important tool to describe the policies within the PPS at a local level and with local context, the Thames Centre Official Plan is required to be consistent with the PPS. This includes ensuring that the updated Official Plan provides planning strategies for the next 25 years and beyond. (Ministry of Municipal Affairs and Housing, 2020)



Municipalities are required to plan for the protection and preservation of employment areas for current and future uses and ensure that the necessary infrastructure is provided to support current and projected needs. This would include the need to assess designated employment lands to ensure that this designation is appropriate for the planned function of the employment areas.

According to the PPS, sufficient land shall be made available to accommodate an appropriate range and mix of land uses to meet projected needs for a time horizon of up to 25 years. For employment areas, nothing shall prevent the planning for employment beyond a 25-year planning horizon through the identification of future employment areas.

The PPS also states that the conversion of lands within employment areas to non-employment uses will be considered only through a municipal comprehensive review subject to criteria and only where it has been demonstrated that there is a need for the conversion and that the land is not required for employment purpose over the long term.

County of Middlesex Official Plan

The County of Middlesex is an upper-tier government comprised of eight local municipalities, including Thames Centre. The County has an Official Plan that directs land use planning policy on a broad basis and is intended to set forth an upper tier policy foundation to provide policy direction to local municipalities in the development of local Official Plans and Zoning By-laws (County of Middlesex, 2021). Currently, the County is undergoing an Official Plan update to ensure that the policies within the Official Plan are consistent with the PPS.



The County Plan recognizes the importance of economic development and in particular the agricultural industry. It is however recognized that there is a need to diversify the County's economic base. According to the Official Plan, the County seeks to monitor the supply of employment lands to ensure that a sufficient supply is available throughout the County and notably those municipalities with access to provincial highways and major arterial roads. The County also seeks to cooperate with local municipalities, the business community and other agencies to ensure that employment centres are serviced by modern infrastructure including road, rail and telecommunication networks. The County also supports local municipalities in the promotion of economic development opportunities adjacent to Provincial 400-series highways.

Thames Centre Official Plan

According to the Thames Centre Official Plan, employment areas comprise lands designated Settlement Industrial and Rural Industrial. Settlement Industrial lands represent the primary employment areas in the Municipality. Within this designation, a broad range of industrial uses is permitted as well as a limited range of non-industrial uses. All development in this designation is to be full serviced by municipal water and municipal sanitary sewers although municipal sewers are currently not available for Settlement Industrial lands in Dorchester located in the northwest quadrant of the village. Uses permitted in this designation include manufacturing, fabrication, assembling, wholesaling or processing of raw



materials, warehousing, storage of bulk commodities and repair, servicing and maintenance operations.

Lands designated Rural Industrial lie outside designated Settlement Areas and have been designated to recognize similar designations in the former official plans of the Municipality prior to amalgamation.

As part of the last official plan review approved in 2015 through Amendment No. 12 to the Thames Centre Official Plan, there was a re-allocation of vacant industrial land supply to more strategic areas primarily along the 401 corridor and following the direction of the Highway 401 Corridor Land Use Strategy prepared by Monteith Brown Planning Consultants for the Municipality in 2006. Primarily situated in the Donnybrook areas, the Municipality understood the value of having large contiguous parcels of industrial land with proximate access and visibility to Highway 401 to attract new industry to the community.

Vacant Employment Land Supply

In Thames Centre, employment designated lands are located primarily in four areas. Although employment lands are situated in Dorchester and Thorndale, lands on full municipal services (water and sanitary) are only available in Thorndale considering Dorchester’s employment lands are located north of the Thames River where sanitary sewers are not available. Beyond those settlement areas, employment areas are also found just north of Highway 401 in the Donnybrook and Putnam areas where private wells and septic systems are necessary in the absence of municipal servicing.

Table 1 below provides a summary of the Municipality’s vacant employment land supply. Currently, Thames Centre has a total of approximately 236 net hectares of vacant employment land. A significant portion of this supply is situated along the 401 corridor in the Donnybrook and Putnam areas accounting for 80% of the total land supply. Although these lands benefit from close proximity to Highway 401, employment uses are limited to dry-industry characterized as being low-water volume uses such as logistics, warehousing and contractor yards. Fully serviced employment lands are limited to the Thorndale area in the order of 31 net hectares. The vacant land supply is also mapped on **Figures 2, 3, 4 and 5**.

Table 1- Employment Vacant Land Supply Municipality of Thames Centre

Area	Gross Vacant Employment Land Supply (ha)	Environmental Constraint Factor (ha)	Adjustment for Roads and Internal Infrastructure (ha)	Net Developable Vacant Lands Adjusted to Land Vacancy (ha)	Share of Total Vacant Land
	(A)	(B)	(C)	$D=A-(B+C) \times 0.85$	
Thorndale	54	9	9	31	13%
Dorchester	15	0	0	13	6%
Donnybrook	155	2	31	104	44%
Putnam	118	7	23	88	37%
Total	344	18.1	63	236	100%

VACANT EMPLOYMENT LAND SUPPLY

FIGURE 2 - THORNDALE

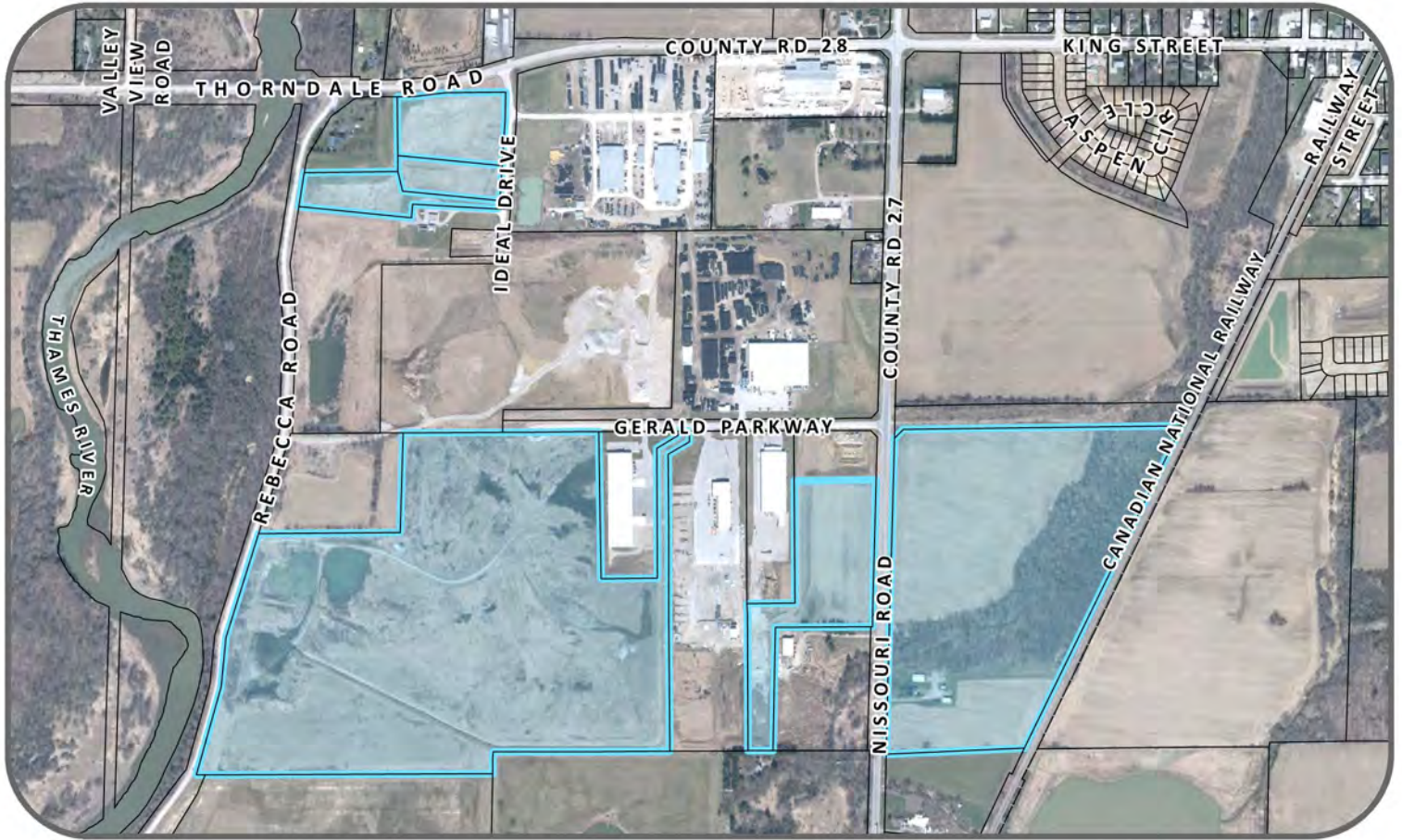


FIGURE 3 - DORCHESTER



VACANT EMPLOYMENT LAND SUPPLY

FIGURE 4 - DONNYBROOK AREA

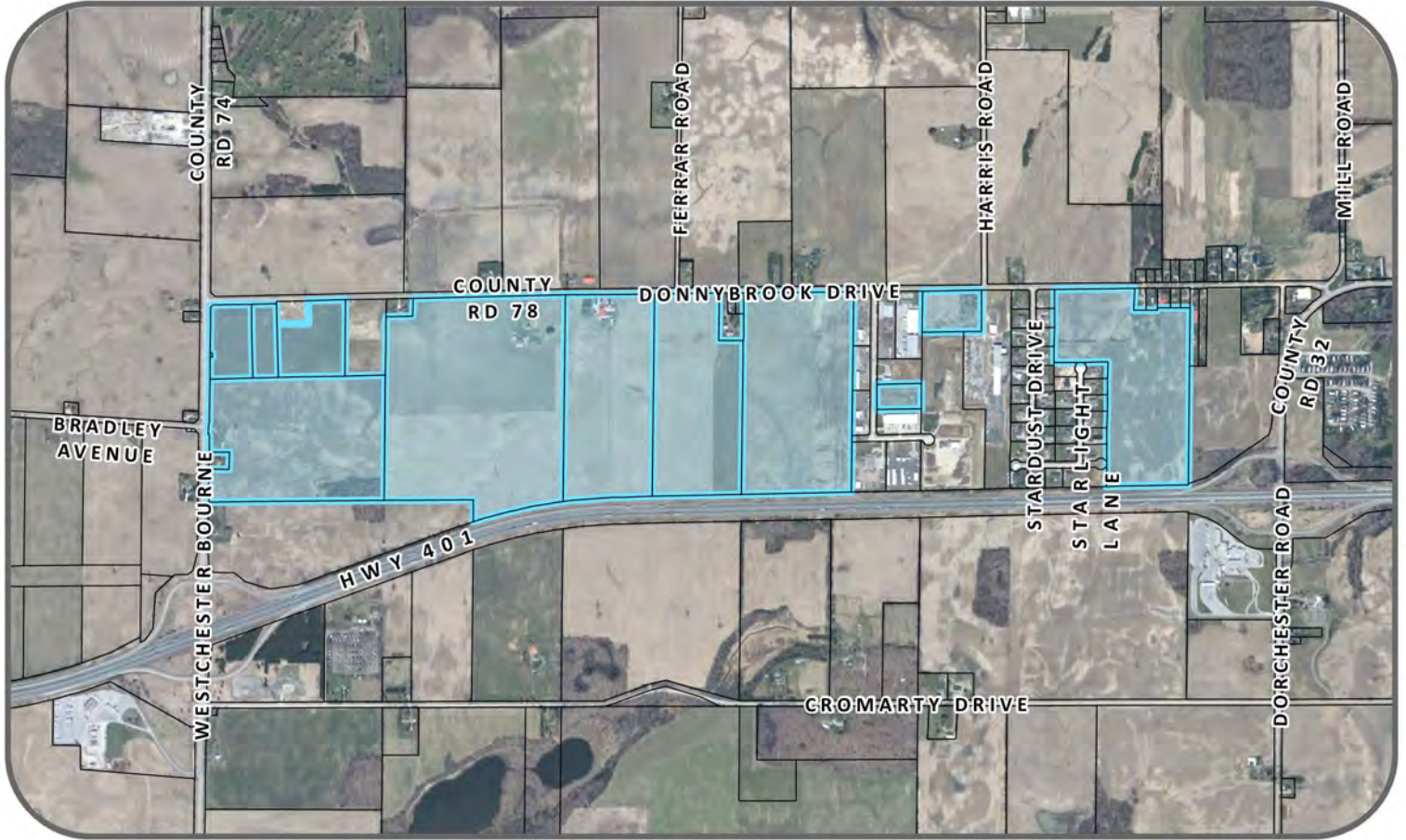
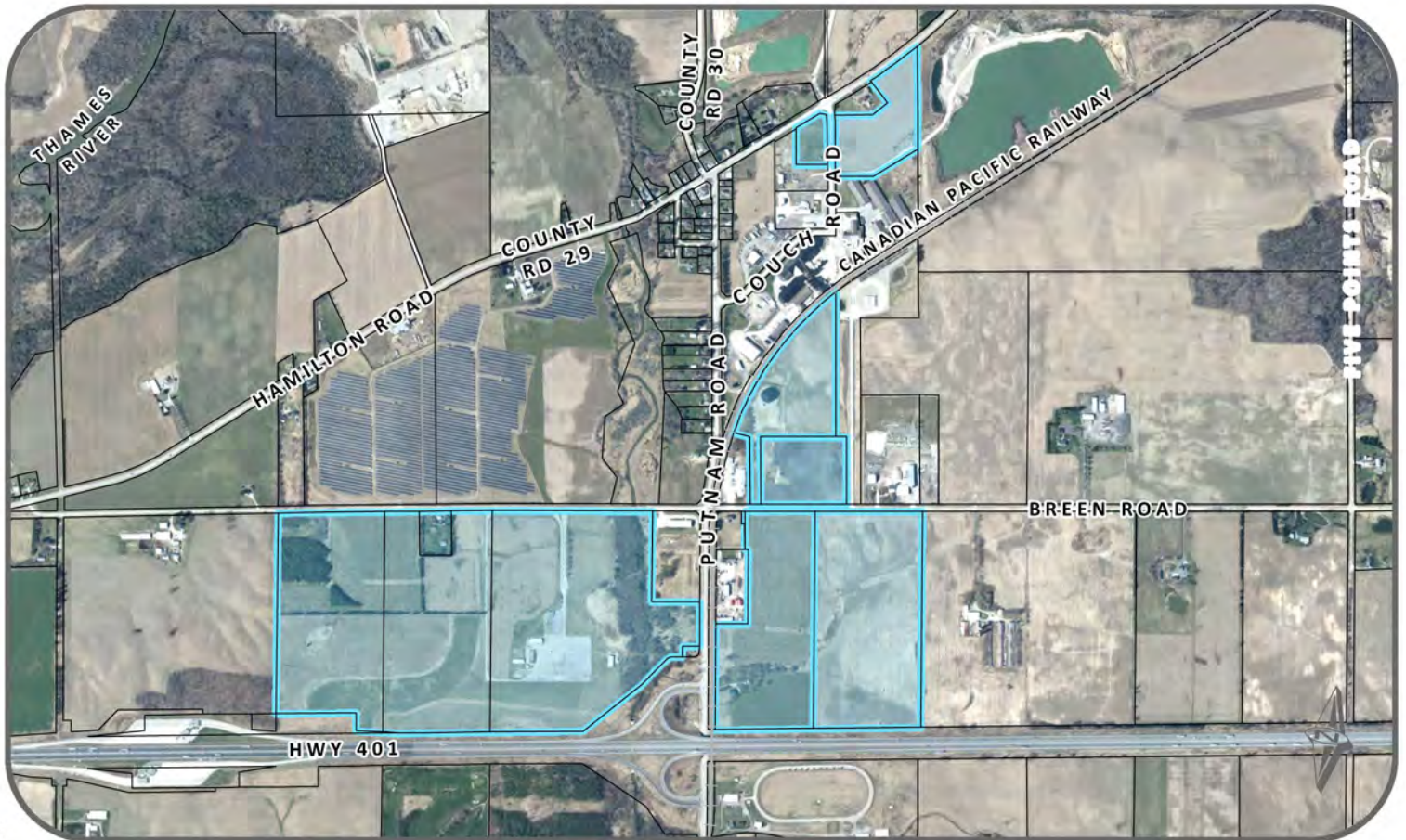


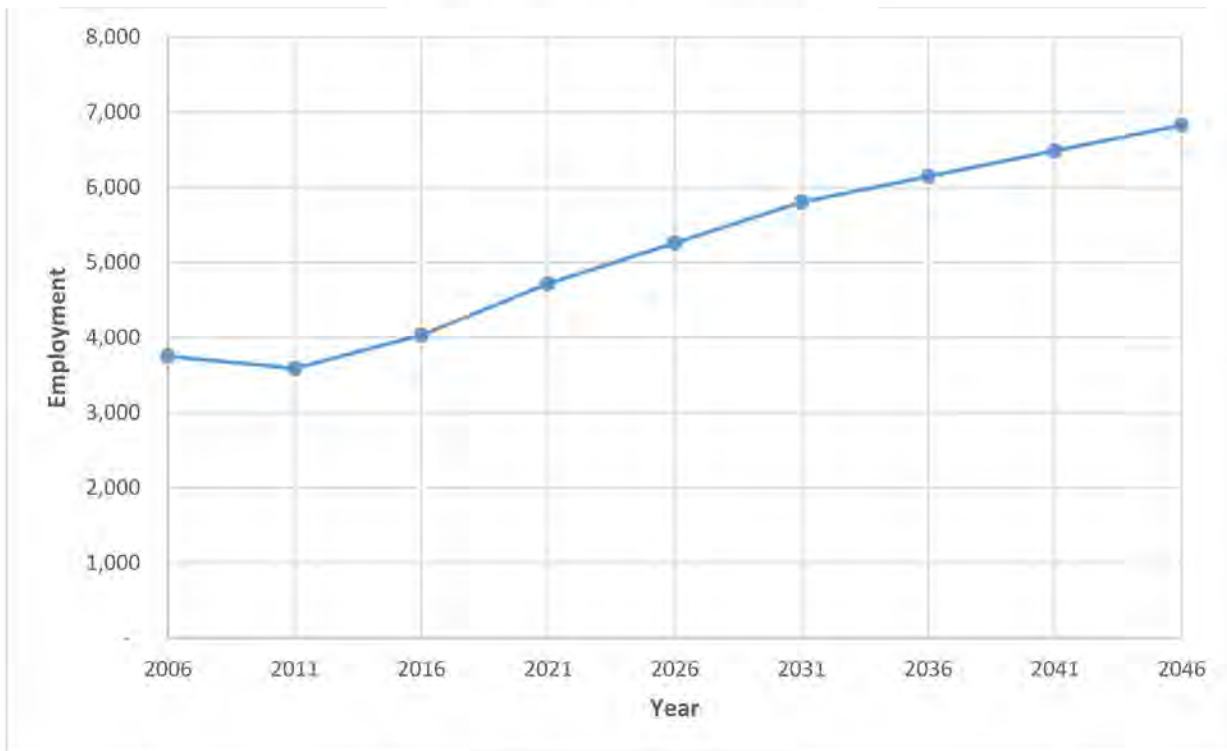
FIGURE 5 - PUTNAM AREA



Employment Forecast

As part of the Thames Centre Development Charges (DC) Background Study dated December 27/21 and undertaken by Watson & Associates, an employment forecast was provided to assist in generating the number of additional jobs anticipated by the 2046 planning horizon. **Figure 6** below provides the long-term employment forecast for the Municipality of Thames Centre compared to past trends. By 2046, Thames Centre’s employment base is projected to total approximately 6,800 jobs which translates into an increase of approximately 2,100 jobs since 2021.

Figure 6
Employment Forecast – 2021 to 2046
Municipality of Thames Centre



Note: data for the years 2026, 2036 and 2041 was derived from averages between 2021-2031 and 2031-2046.

Source: DC Background Study – December 27/21 by Watson & Associates

Employment density meaning the number of jobs per unit area is declining in the manufacturing industry through the reliance on mechanization. Demand for warehousing and logistics to support the transportation of goods given Highway 401 proximity is also affecting the decline. The rationale for the employment density used in this land needs analysis is based on a blended approach comparing fully serviced and un-serviced employment areas, being 13 jobs per hectare and 7 jobs per hectare, respectively. It is therefore assumed that an employment density during the planning period of 2021 to 2046 will average 10 jobs per hectare.

Table 2- Employment Land Needs – 2021 to 2046 Municipality of Thames Centre

A)	Employment Growth on Employment Lands	2,100
B)	Work from Home	728
C)	Employment Growth Accommodated through Intensification (5%)	105
D)	Employment Growth Less Work from Home & Intensification (D=A-B-C)	1,267
E)	Density Assumption (number of jobs / net hectares)	10 jobs/ha
F)	Land Required (D/E)	127 ha
G)	Vacant Employment Land Supply (Net)	236 ha
H)	Vacant Employment Land Need (Net) – Surplus (G-H)	- 109 ha

Table 2 provides a summary of the projected employment land needs for the next 25 years. Thames Centre is anticipated to need 127 hectares of land to satisfy projected employment growth equivalent to 5 hectares per year. The Municipality currently has vacant land supply of designated employment land totaling 236 net hectares. This analysis confirms the supply of vacant designated employment land exceeds the demand for employment lands, translating a surplus of 109 net hectares. As such, the Municipality has sufficient vacant lands designated for employment purposes to satisfy its future growth needs for the next 25 years.

Topics of Interest

This section will explore topics of interest related to employment policies, including new policies to be considered and the review of current policies to help inform the Official Plan Review.

Conversion of Employment Lands

Currently, Thames Centre Official Plan policies are lacking in direction regarding the conversion of employment lands to another land use. The policies need to be amended to reflect the PPS which allows the conversion of employment lands to an alternative land use through the undertaking of a comprehensive review and only where it has been demonstrated that the land is not required for employment purposes over the long term and that there is a need for the conversion.

Identifying Future Employment Lands Beyond 2046

Despite the Municipality having a surplus vacant lands designated for employment purposes to satisfy its future growth needs to 2046, the PPS does allow for planning authorities to plan for employment areas beyond a 25-year planning horizon. It would be appropriate for the Municipality to consider identifying and protecting additional lands for future employment purposes as potential candidates for inclusion as future designated employment lands as part of the next Official Plan review and subject to a comprehensive review process.

For direction on candidate lands for future employment development, the Highway 401 Corridor Land Use Strategy provides



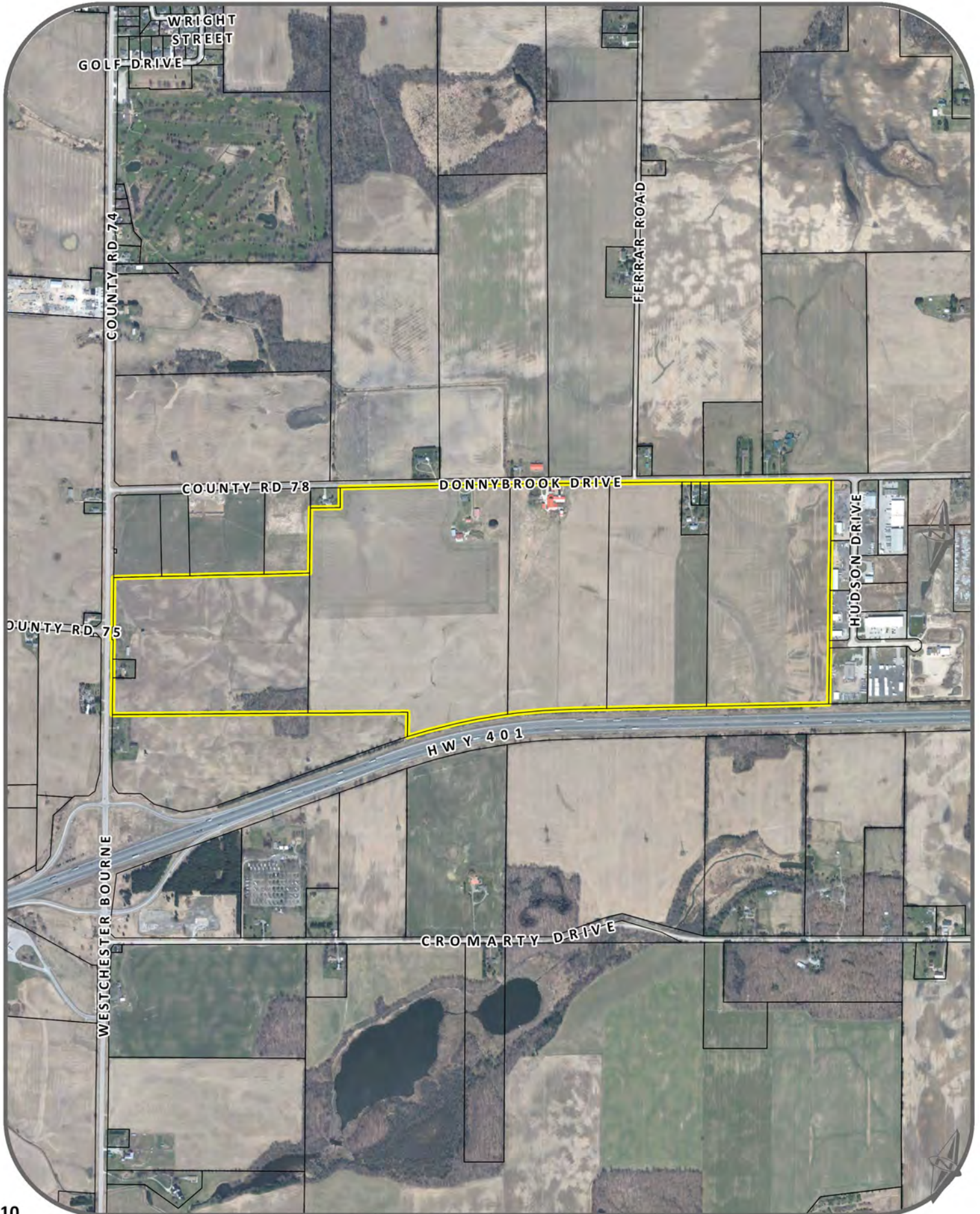
a comprehensive report and comparative site evaluation process for future employment uses along the Highway 401 corridor. Through that document, lands were identified as high priority and potentially for future industrial or employment development. With the aid of that document, candidate lands should be recognized and protected for their future development potential for industrial purposes. To protect candidate lands, existing land uses should be permitted however the construction of new livestock buildings or structures which could constrain the development potential of the area should be prohibited. Furthermore, surplus farm dwelling severances should be prohibited in this area by preventing a residential use from being retained which could pose a land use conflict with future industrial uses.

Secondary Planning

Secondary plans may be used to establish unique or more detailed land use policies through the development of a coordinated process which provides detailed policy direction for a particular area. In the case of the development of employment lands, such plans may also establish locations for regional stormwater management facilities and road network. Secondary plans are ultimately approved as an amendment to an Official Plan. Similar to all official plan amendments, a secondary plan would be subject to the agency and public consultation process.

Under the Community Development portion of the Thames Centre Strategic Plan 2020-2024, the undertaking of a secondary plan is noted as a medium-term goal to foster development opportunities along Highway 401. The need for a secondary plan is also noted in the 2021 DC Background Study as a growth-related study with a primary focus on infrastructure including direction for regional stormwater management and roads. As such, it would be appropriate for a secondary plan to apply to vacant employment lands located in the Donnybrook Industrial Area as shown on **Figure 7**.

FIGURE 7: PROPOSED DONNYBROOK SECONDARY PLANNING AREA



Lack of Fully Serviced Industrial Land

As noted previously, 79% of the Municipality's employment land supply is situated in areas where full municipal services are not available including the Donnybrook and Putnam areas. Although these lands benefit from proximity to Highway 401, employment uses are limited to dry-industrial opportunities. Fully serviced lands are only available in the Thorndale area in the order of 54 hectares accounting for 16% of the total land supply. Extension of full services to Donnybrook would not be feasible considering the exorbitant cost involved in extending services from the existing Dorchester systems.

Recommendations and Next Steps

This discussion paper has provided a background of the policies related to employment lands to help inform the draft official plan policies for the Thames Centre OP. The following recommendations are provided to ensure conformity with the County Plan and consistency with the PPS:

- It is recommended that policy direction be provided to identify and protect lands for potential future industrial or employment purposes beyond the 25-year planning horizon.
- It is recommended that the vacant lands designated Rural Industrial in the Donnybrook Industrial Area as shown on Figure 7 be redesignated to Rural Industrial – Special Policy Area # to require the undertaking of a secondary plan.
- It is recommended that policy direction be included to allow the conversion of employment lands to an alternative land use subject to criteria as noted in the PPS.
- It is recommended that the definitions within the Thames Centre OP are revised if necessary and include new definitions that are laid out in the PPS and within the County Official Plan.

Questions and comments for consideration can be submitted to mbancroft@thamescentre.on.ca

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TOGETHER, WE GROW – AGAIN!

Municipality of Thames Centre Official Plan Review

Discussion Paper:
Housing Policies

April 2022

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Introduction

The designated Urban Settlement Areas of Dorchester and Thorndale are intended to be the primary focus of future growth and development opportunities the Municipality. Both areas contain the highest concentration and mix of land uses including housing and both have municipal water and wastewater services capable of accommodating new development, being the highest level and preferred method of servicing following direction from the Province.

The Municipality also contains nine (9) designated Hamlet Settlement Areas including Avon, Crampton, Gladstone, Harrietsville, Mossley, Nilestown, Putnam, Waubuno and Wellburn. They are characterized by smaller populations consisting of residential areas with limited commercial, industrial or institutional function. Under the Official Plan, development opportunities in these hamlet areas are limited considering there are no municipal services available. The cost required to provide such services would be financially unfeasible.

This Discussion Paper has been prepared to provide a background of the current housing policies to be considered during Thames Centre's Official Plan Review. This paper also highlights several topics of interest related to housing in the Municipality including an analysis of the current housing supply and demand and concludes with recommended next steps for the Official Plan Review.

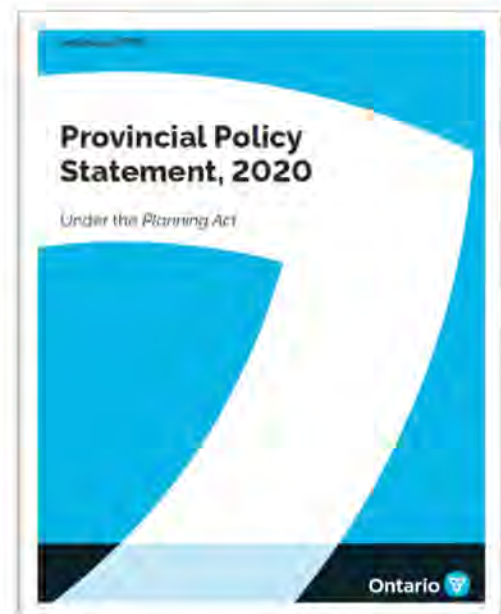
Policy Background

Housing policies that inform the Thames Centre Official Plan come from the direction of the Province of Ontario through the Provincial Policy Statement and the County of Middlesex through their Official Plan. This section will provide an overview of that policy context in relation to housing policies.

Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS), issued under the Planning Act, lays out the foundation for land use planning in Ontario with respect to matters of provincial interest, including housing. The policies that are set out in the PPS pertain to building strong healthy communities, the wise use and management of resources, and protecting public health and safety. As an important tool to describe the policies within the PPS at a local level and with local context, the Thames Centre Official Plan is required to be consistent with the PPS. This includes ensuring that the updated Official Plan provides planning strategies for the next 25 years. (Ministry of Municipal Affairs and Housing, 2020)

The provision of housing is a key component of the PPS which seeks to encourage strong, sustainable and resilient communities for people of all ages while protecting the environment, public health and safety, and facilitating



economic growth. The PPS seeks to achieve this objective by ensuring that not only a wide range of housing options are available to meet current and projected needs but that the necessary infrastructure is in place and efficiently used to meet changing needs.

The PPS stipulates that healthy, liveable and safe communities are sustained by accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons). To provide for an appropriate range and mix of housing options and densities required to meet projected requirements of current and future residents, planning authorities shall maintain at all times the ability to accommodate residential growth for a minimum of 15 years through residential intensification, redevelopment and in designated growth areas. The findings in this regard are in the housing assessment section found later in this Discussion Paper.

The PPS also requires a minimum 3-year supply of residential units available through lands suitably zoned to facilitate residential intensification and redevelopment, as well as draft approved and registered plans. The findings in this regard are in the housing assessment section found later in this Discussion Paper.

Settlement area expansions under the PPS can only occur at the time of a comprehensive review and only where it has been demonstrated that sufficient opportunities to accommodate growth and to satisfy market demand are not available through intensification, redevelopment and designated growth areas to accommodate projected needs over the identified planning horizon (being the next 25 years), provided the evaluation criteria is satisfied including infrastructure and public service facilities being available or planned for the development over the long term and the assessment for prime agricultural areas is met. The findings in this regard are in the housing assessment section found later in this Discussion Paper.

County of Middlesex Official Plan

The County of Middlesex is an upper-tier government comprised of eight local municipalities, including Thames Centre. The County has an Official Plan that directs land use planning policy on a broad basis and is intended to set forth an upper tier policy foundation to provide policy direction to local municipalities in the development of local Official Plans and Zoning By-laws (County of Middlesex, 2021). Currently, the County is undergoing an Official Plan update to ensure that the policies within the Official Plan are consistent with the PPS.

Both Dorchester and Thorndale are designated as Urban Settlement Areas under the County of Middlesex Official Plan being the highest concentration and intensity of land uses in the County. They are the focus for future growth in the Municipality and are expected to accommodate a significant portion of projected growth over the planning period due to their ability to provide full municipal services.



The County Plan encourages a wide range of housing types, size and tenure to meet projected needs of current and future residents of Middlesex County. To achieve this objective, local municipalities are required to support intensification and redevelopment opportunities and housing accessible to low to moderate income households. In this regard, the County requires that 15 percent of all development occur by means of intensification and redevelopment and that 20 percent of all housing be affordable (equivalent to in the case of home ownership), being at least 10 percent below the average purchase price of a resale unit in the regional market area.



Thames Centre Official Plan

Existing policies primarily direct residential growth and development opportunities to the Urban Settlement Areas of Dorchester and Thorndale where municipal water and municipal sewage services are available. These communities contain the highest concentration and mix of land uses within the Municipality. To a lesser extent, limited development and growth opportunities are available within Hamlet Settlement Areas considering individual wells and septic systems are required.

Following the direction of the PPS and the County Plan, the Thames Centre Official Plan encourages the development of a greater variety of housing types, sizes and tenures. In particular, the Plan supports housing types that promote continuum of lifestyle to allow residents to remain within the community throughout the course of their lives. This would include opportunities for low density residential

development in the form of single-detached, semi-detached, duplex and tri-plex housing. The Plan also encourages opportunities for medium density residential uses including townhouses, horizontal multiples and low-rise apartments (3 storeys or less). The Plan also encourages the addition of a second dwelling either within a single-detached, a semi-detached, or townhouse dwelling unit; or within an accessory building (i.e. detached garage) located on the same lot.

Consistent with the County Plan, the 15 percent target for all housing opportunities must be in the form of intensification and redevelopment. Furthermore, the Municipality is also required to meet the 20 percent affordable housing target imposed by the County.

Housing Assessment

The following assessment provides a review of the residential supply inventory, a housing forecast and the anticipated residential land needs to the year 2046 to determine the Municipality's capacity to accommodate future housing growth.

Housing Supply

The supply of housing is provided in **Table 1** below and broken down according to development status for the entire Municipality. As of April 2022, a total of 2,716 housing units were identified within the development approvals process including preliminary submissions. This includes final approved, draft plan approved, proposed applications as well as concepts. The following observations are worth noting:

- Dorchester accounts for just over 74% of the total residential housing supply in Thames Centre over the short and long term, with Thorndale taking up the balance.
- Both Dorchester and Thorndale are however more evenly split with short-term housing supplies of approximately 500 and 450 units, respectively, which are classified as being final approved or draft plan approved.
- Hamlet areas only account for less than 1 percent of the housing potential being 5 housing units in regards to a draft plan of subdivision situated in Nilestown. This is not surprising considering there are no municipal services in hamlet areas which have growth opportunities limited to infilling and intensification.
- Thames Centre's future potential housing supply includes 62% comprised of singles and semi-detached units, 28% comprised of townhouse units and 10% comprised of apartment units. This represents a significant shift in the housing market considering the 2016 Statistics Canada Profile for Thames Centre indicates 92% for singles and semi-detached units, 1% for townhouse units and 3.5% for apartment units.

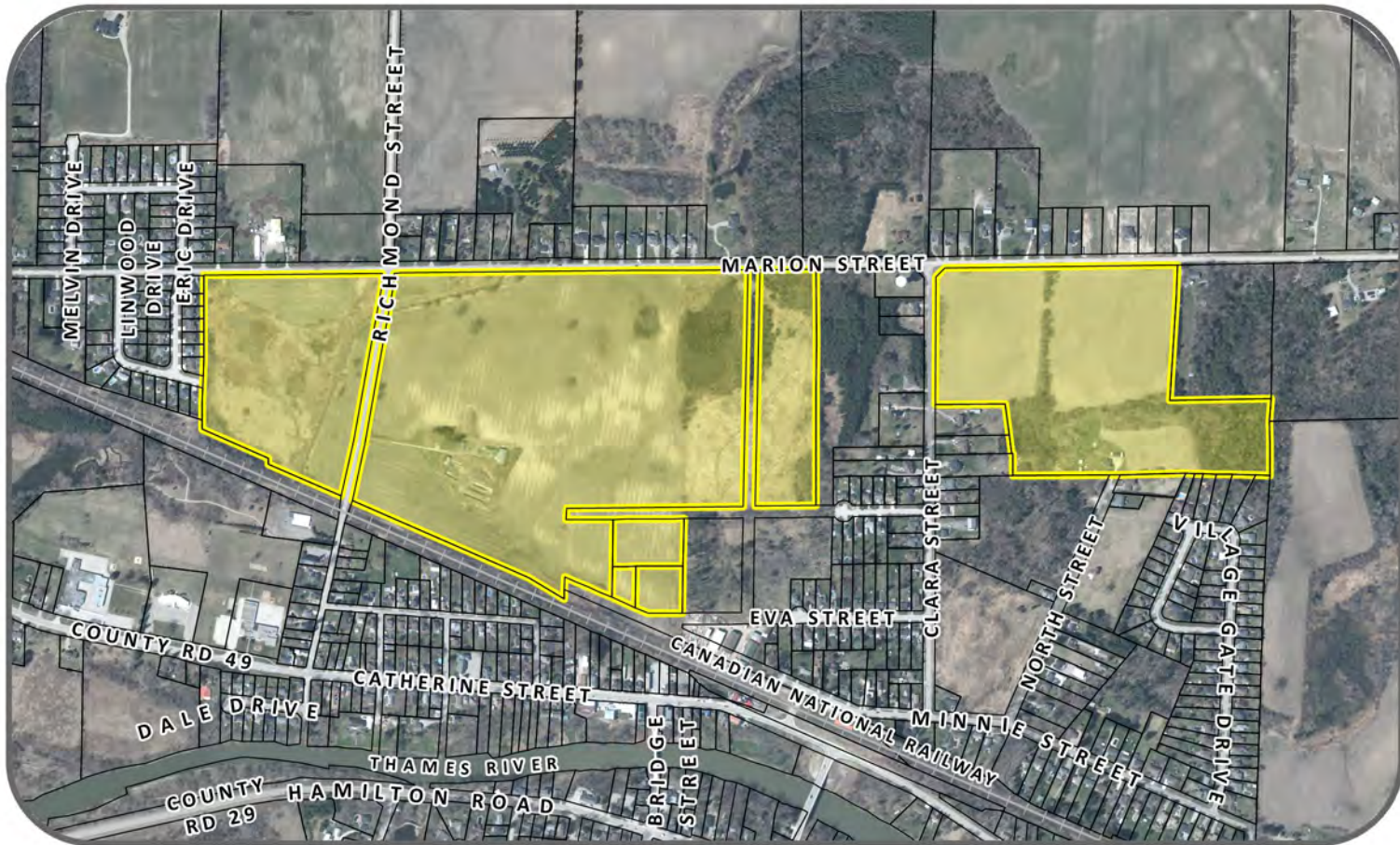
Table 1- Total Housing Potential, Municipality of Thames Centre

Subdivision Status	Total Housing Potential			Total
	Singles & Semi	Townhouse Units	Low Rise Apartments	
Final Approved	126	0	0	126
Draft Plan Approved	658	0	0	658
Proposed	343	397	232	972
Preliminary	555	350	55	960
Total	1,682	747	287	2,716
Percentage Share	62%	28%	10%	100%

In addition to the foregoing inventory, there are also vacant lands designated Residential that are not within the development approvals process including preliminary submissions. These lands are limited to Dorchester on both sides of the Thames River and account for a total of 83 hectares of land as shown on **Figure 1** below. This total however needs to be discounted by 25% to exclude environmental features (woodlots, floodplains) which cannot be developed. As a result, the 83 hectares of gross land represents 62 hectares of net land. Applying a density of 13 units per hectare, this would translate into an additional 806 housing units over the long-term.

Figure 1- VACANT RESIDENTIAL LAND SUPPLY

NORTH SIDE OF THE THAMES RIVER, DORCHESTER



SOUTH SIDE OF THE THAMES RIVER, DORCHESTER

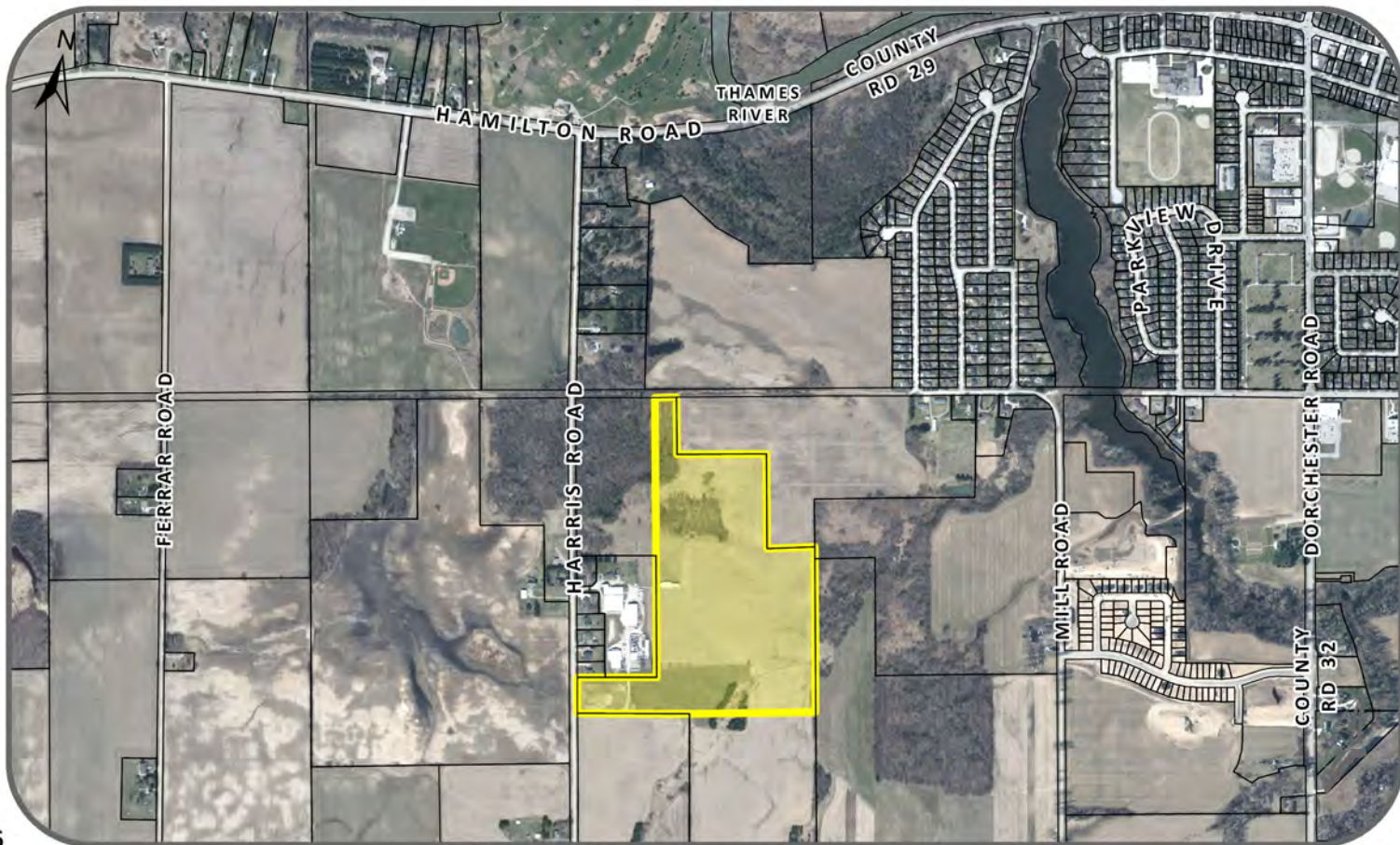


Table 2- Total Residential Supply, Municipality of Thames Centre

	Development Stage	Housing Units
A	Total Housing Potential within development approvals process	2,716
B	Residential Intensification Factor (15%)	407
C	Vacant Residential Designated Lands Unit Yield (13 u/ha)	806
D	Total Residential Supply (A+B+C)	3,929
E	Total Residential Supply Less Land Vacancy Factor¹ (E=D-15%)	3,339

Note

¹Vacancy Factor is to apply to recognize that long-term vacancy of lands may occur with sites that remain undeveloped due to physical constraints, site inactivity or unwillingness to develop lands.

The Municipality's total residential supply indicates that there are 3,339 potential housing units which includes the total number of housing units within the development approvals process, opportunities for intensification and the unit yield anticipated from vacant lands designated Residential. These findings will be compared to the Housing Forecast to generate a Housing Need to confirm whether the Municipality has a potential housing deficit or surplus.

Housing Forecast

The County of Middlesex retained Watson & Associates to undertake population and housing projections for local municipalities under the report entitled Middlesex County Housing Growth Forecast and Allocations by Local Municipality (2020). This report included a low scenario, reference scenario and high growth projection scenarios including a review of anticipated trends including not limited to age groups and average household size.

More recently, the Municipality of Thames Centre retained Watson & Associates to update their development charges and prepared the Development Charges Background Study (2021). As part of that exercise, **Table 3** below provides an estimate of the anticipated amount, type and location of housing units between period of 2021 and 2046.

Table 3- Housing Unit Forecast By Location and Unit Type (2021-2046) Municipality of Thames Centre

Development Location	Singles & Semi-Detached	Multiples¹	Apartments²	Total Housing Units
Dorchester	1,282	358	256	1,897
Thorndale	602	19	30	651
Hamlets and Rural Areas	174	0	0	174
Total	2,058	377	286	2,721

Notes

¹Includes townhouse and duplex units

²Includes accessory apartments, bachelor, 1-bedroom and 2-bedroom units

Source: Watson & Associates – DC Background Study 2021

Key observations from the foregoing analysis indicate:

- Dorchester is anticipated to account for over 69% of housing development for the long term which is generally consistent with the total residential housing supply, compared to 24% for Thorndale.
- Low-density residential development in the form of single and semi-detached units are anticipated to account for 75% of the total housing demand with the remaining 25% comprised of medium density residential development in the form of townhouse and apartment unit.

Housing Needs

To recap, the Municipality is anticipating a housing demand of 2,721 units up to year 2046. The housing supply analysis concluded that the Municipality has 3,339 potential housing units to satisfy its future growth needs over the same period which includes potential units in the development approvals process including conceptual designs along with the development yield through vacant lands designated Residential which are not subject to the development approvals process. As such, the Municipality of Thames Centre has sufficient lands designated Residential to satisfy its future growth need for the next 25 years.

As previously indicated, the PPS requires a minimum 3-year supply of residential units available through lands suitably zoned to facilitate residential intensification and redevelopment, as well as draft approved and registered plans. Based on the average number of housing starts per year projected for the next 25 years by Watson Associates, being 109, and 784 draft approved or registered lots, the Municipality exceeds the PPS's minimum requirement yielding a 7-year supply. To provide for an appropriate range and mix of housing options and densities required to meet projected requirements of current and future residents, the PPS also required that planning authorities maintain at all times the ability to accommodate residential growth for a minimum of 15 years through residential intensification, redevelopment and in designated growth areas. Based on the average number of housing starts per year projected for the next 25 years by Watson Associates, being 109, and the total potential number of housing units in the order of 3,339, the Municipality exceeds the PPS's minimum requirement yielding a 30 year supply.

Topics of Interest

This section will explore topics of interest related to housing policies, including new policies to be considered and the review of current policies to help inform the Official Plan Review.

Housing Crisis

In response to the housing crisis, the Smart Prosperity Institute including Mike Moffat, Professor at Western University's Ivey Business School, authored a recent report in entitled Baby Needs A New Home – Projecting Ontario's Growing Number of Families and Their Housing Needs. It is a comprehensive report based on a projection for housing demand in Ontario. Over the next ten (10) years, this report projects that one (1) million new homes will be required considering the demand for housing has outpaced supply resulting in escalating housing prices. This trend is not limited to the GTA since it is affecting all of southern Ontario.

Following that, the Province of Ontario released a document entitled a Report of the Ontario Housing Affordability Task Force, which recommends five (5) keys areas to quickly increase the supply of market housing being 1.5 million homes over the next ten (10) years. Those key areas include:



- Make changes to planning policies and regulations to allow for greater density and increase the variety of housing
- Reduce and streamline urban design rules to lower costs of development
- Depoliticize the approvals process to address NIMBYism and cut red tape to speed up housing.
- Prevent abuse of the appeal process and address the backlog at the Ontario Land Tribunal by prioritizing cases that increase housing.
- Align efforts between all levels of government to incentivize more housing.

It remains to be seen what changes are to come about to the land use planning framework following this report.

Promoting Housing Mix

The Municipality is currently experiencing a change with development community proposing more housing options than ever before. Historically comprised of a predominantly single-detached housing stock, the housing market has evolved in response to the housing supply shortage, escalating land prices and the need to provide a more affordable housing alternative. Despite this market response, municipalities have a role to encourage a mix and wide range of housing types. To promote that objective, it is recommended that the Municipality implement targets for low and medium residential development being 65% and 35% respectively. These targets will assist in addressing housing affordability and create a more sustainable community by having housing choices to satisfy a broad demographic and give local residents the choice to stay in the community.

Under the Thames Centre Official Plan, proposals for medium density residential uses in the form of low-rise apartments and townhouse dwellings are required to satisfy at least two of the following locational criteria: frontage on an arterial road; abut a major park; abut a commercial area; and, overall development application has a land area of at least 2 hectares (5 ac). Should two of the criteria not be satisfied, an Amendment to the Official Plan is required. Compared to other local municipalities in the County, this policy direction is the most restrictive. To further encourage a mix of housing types, existing policies should be revised to alternatively encourage these types of uses to locate in proximity to those areas and to remove the minimum area requirement. Standards governing height and density are more appropriately addressed through zoning. The remaining evaluation criteria under the Plan would continue to apply which would warrant an Amendment to the Official Plan if not met.

To further encourage a mix of housing types, it is recommended that street townhouse dwellings be allowed in a low-density residential settings similar to single-detached and semi-detached dwellings. This would be appropriate considering street townhouse dwellings offer a similar layout to single-detached or semi-detached dwellings with units facing the street including a driveway for garage access and a rear yard. Cluster townhouse dwellings which form part of a residential complex however would continue to be treated as medium density residential.

Additional Dwelling Units

To address housing affordability, municipalities are mandated to permit additional dwelling units (ADUs) in both the primary building and an accessory building to a total of three (3) dwelling units on the same lot, following the Province's direction through an amendment to the Planning Act. For example, an existing dwelling can be converted to include a basement apartment unit as well as a dwelling unit within a detached garage. For clarity, the primary building can include a single-detached, semi-detached or townhouse dwelling. As such, the Thames Centre Official Plan needs to be amended accordingly. Currently, the Official Plan only permits second units in either the primary building or an accessory building.

Garden Suites

Another means of addressing housing affordability is through the provision of a garden suite or granny flat, being a self-contained portable dwelling unit typically in the form of a mobile home to provide temporary accommodation for an elderly person. Currently, a garden suite is permitted through an approved temporary rezoning limited to a maximum of ten (10) years as noted in the Official Plan. The Planning Act has been amended to allow garden suites to a maximum of twenty (20) years. As such, the Official Plan should be amended accordingly.

Recommendations and Next Steps

This discussion paper has provided a background of the current housing policy framework and a housing needs assessment to help inform the draft official plan policies for the Thames Centre OP. The following recommendations are provided to ensure conformity with the County Plan and consistency with the PPS:

- It is recommended that a housing mix targets apply in the form of 65% for low density residential development and 35% apply for medium density residential development.
- It is recommended to encourage a further mix of housing types that street townhouse dwellings be recognized as low density residential uses.
- It is recommended that to further encourage a mix of housing types, the locational criteria for medium density residential proposals for low-rise apartments and cluster townhouse dwellings be revised to alternatively encourage these types of uses to locate in adjacent to arterial roads, major parks and commercial areas as well as remove the minimum 2 hectare land requirement.
- It is recommended that policy direction be provided to allow Additional Dwelling Units (ADU) and Garden Suites/Granny Flats consistent with the direction from the Province.
- It is recommended that the definitions within the Thames Centre OP are revised if necessary and include new definitions that are laid out in the PPS and within the County Official Plan.

Questions and comments for consideration can be submitted to mbancroft@thamescentre.on.ca

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TOGETHER, WE GROW – AGAIN!

Municipality of Thames Centre Official Plan Review

Discussion Paper: Natural Heritage Policies

April 2022

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Introduction

Natural heritage features, including natural hazards are important for the overall well-being of the Municipality. These features not only provide natural landscapes that residents can enjoy but they also perform important ecological functions such as providing habitat for wildlife and mitigating erosion and flooding. This discussion paper has been prepared to provide a background of the current natural heritage policies at the provincial-level, at the county-level and at the local-level to be considered during Thames Centre's Official Plan Review. This paper also further examines the policies related to the natural heritage system, including the natural heritage/ ecological systems-based approach and natural heritage features, including significant woodlands and natural hazards, to determine if any revisions should be made. Along with this, the paper also touches on the policies for Environmental Impact Studies (EIS) and the definitions related to natural heritage found within the Thames Centre Official Plan. This paper concludes with recommended next steps for the Thames Centre Official Plan Review.

Policy Background

Natural heritage policies that inform the Thames Centre Official Plan come from the direction of the Province, the County and the Municipality, through policy, plans, and other sources such as Conservation Authorities and the Middlesex Natural Heritage Systems Study. This section will provide policy context in relation to natural heritage and natural hazards.

Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS) lays out the foundation for land use planning in Ontario with respect to matters of provincial interest. The PPS includes policies pertaining to building strong healthy communities, wise use and management of resources, and protecting public health and safety. As an important tool to describe the policies within the PPS at a local level and with local context, the Thames Centre Official Plan is required to be consistent with the PPS.

In regards to natural heritage and the PPS, natural heritage is identified as a matter of provincial interest under the Planning Act as it provides environmental, social, and economic benefits for the province and for residents. The PPS states "*Natural Heritage features and areas shall be protected for the long term*" and indicates that development and site alteration are not permitted within certain natural heritage system features (Ministry of Municipal Affairs and Housing, 2020). These features include significant wetlands, significant woodlands, significant valleylands, significant wildlife habitat and significant areas of natural and scientific interest unless it can be demonstrated that there will be no negative impacts on natural features or their ecological functions. It is also noted in the PPS that nothing in the natural heritage policies is meant to limit the ability of agricultural uses to continue to operate (MMAH, 2020).

Per the PPS, municipalities within Ecoregions 6E and 7E must identify within their official plans the natural heritage systems that are located within Ecoregions 6E and 7E (MMAH, 2020). Since the County of Middlesex, which encompasses the Municipality of Thames Centre, is located within Ecoregion 7E, it is necessary for natural heritage systems to be reflected in County and local Official Plans. The PPS notes that although the Province has a recommended approach to identifying natural heritage systems,

municipalities may use other approaches provided that they achieve the same objective or exceed the objective.

In addition to natural heritage policies, natural hazards policies are also featured within the PPS. Natural hazards are defined as lands or property “*that could be unsafe for development due to natural occurring processes*”. These policies generally steer development away from natural hazards/ hazardous lands. The PPS requires municipalities to *prepare for the impacts of a changing climate* as there may be an increase in the risk associated with natural hazards (MMAH, 2020).

Conservation Authorities

Conservation Authorities play an important role in local municipalities, particularly in relation to natural hazards. They are local watershed management agencies who work towards ensuring that Ontario’s land, water, and natural habitats are conserved, restored, and responsibly managed through programs and services that they provide (Conservation Ontario, 2021). Conservation Authorities are also responsible for providing feedback on policy documents, such as official plans, as part of their duty to represent provincial interest in natural hazards. Out of the five Conservation Authorities that have jurisdiction in the County of Middlesex, only two have jurisdiction in Thames Centre including the Upper Thames River Conservation Authority (UTRCA), which accounts for 90% of the Municipality’s land area compared to only 10% for the Kettle Creek Conservation Authority (KCCA), whose jurisdiction is limited to the extreme southerly portion of the Municipality including the Hamlets of Avon, Gladstone and Harrietsville.

Middlesex Natural Heritage System Study

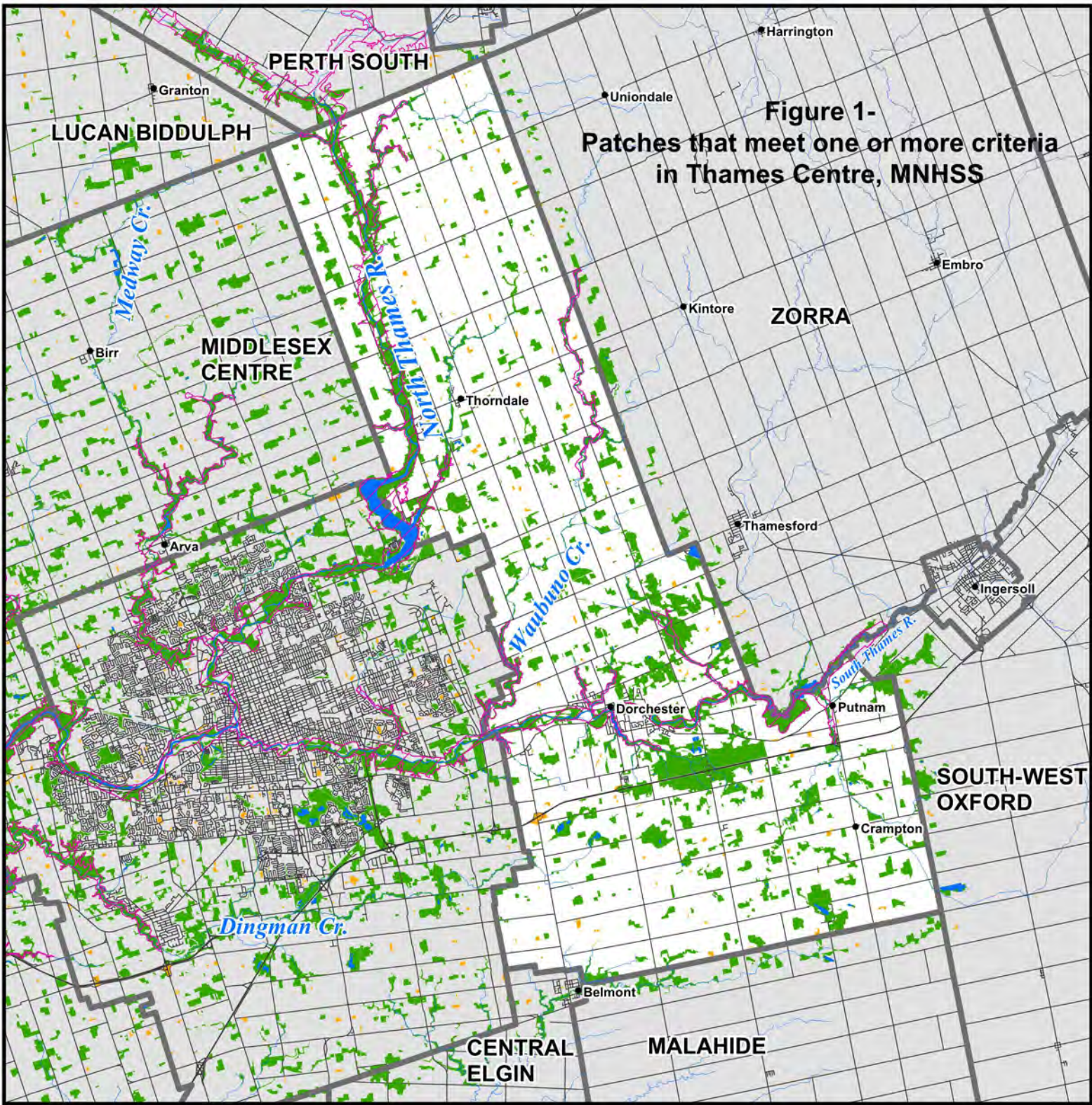
The Middlesex Natural Heritage Systems Study (MNHSS) was conducted in 2014 and provides a landscape level assessment of natural heritage features and functions within the County of Middlesex. This current MNHSS further builds on the previous 2003 version and is meant to be a local approach to determining the elements of the natural heritage system (Upper Thames River Conservation Authority, 2014). In relation to Thames Centre, the MNHSS includes modelling results for significance criteria for all vegetation patches within Thames Centre in addition to providing mapping of the vegetation patches located within the Municipality. The current Thames Centre Official Plan relies on information from the previous 2003 version and as such needs to be updated to reflect the 2014 version, considering the last Official Plan review was locally adopted in 2014 prior to the latest version (and subsequently approved by the County in 2015).

As shown in **Table 1** and **Figure 1**, MNHSS identified that there are 402 significant vegetation patches in Thames Centre, making up 7,146 hectares (18,123 ac) of land or 16.3% of the area of the Municipality (UTRCA, 2014). The study shall form the basis for updating the natural heritage policies information within the Thames Centre Official Plan.

Table 1- Results of Modeling Significance Criteria for all Patches in Thames Centre

Number of Patches			Area of Patches				
# patches	# patches that are significant	% of patches that are significant	Municipal Area (ha)	Area of all patches in (ha)	Area of patches that are significant (ha)	% of patch area that is significant	% of Municipality that is significant
524	402	76.7	43,746	7,334	7,146	97.4	16.3

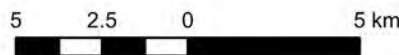
Source: UTRCA, 2014







**Figure 1-
Patches that meet one or more criteria
in Thames Centre, MNHSS**

Middlesex Natural Heritage Systems Study 2014

**Thames Centre
Significant Vegetation Patch**



Legend

-  Meet No Criteria
-  Meet at Least One Criteria
-  Significant Valley System
-  Municipality Boundaries

Produce by Upper Thames River Conservation Authority, July 2014,
Basemapping :Land Information Ontario, Copyright © Queens Printer, 2014.

Vegetation Patch and Significant Valley Systems defined by Conservation
Authorities: Ausable Bayfield, St. Clair Region, Upper Thames River, Lower
Thames Valley, based on 2010 imagery.

County of Middlesex Official Plan

The County of Middlesex, an upper-tier government, is made up of eight local municipalities, including Thames Centre. The County has an Official Plan that directs land use planning policy on a broad basis and is intended to set forth an upper tier policy foundation to provide policy direction to local municipalities in the development of local Official Plans and Zoning By-laws (County of Middlesex, 2021).

The County is currently undergoing an Official Plan update to ensure that the policies within the Official Plan are consistent with the PPS. The proposed changes to the County Plan includes policy regarding the development of an ecological systems-based approach to planning to ensure there is coordination of land use and planning activities within and outside of the County. This involves adopting a comprehensive approach to natural heritage system planning, to maintain and protect natural heritage features and areas, the ecological functions, and the ecological interactions that occur within the environment. The proposed policy changes to the County Plan indicates that Middlesex's natural environment is comprised of natural hazards elements, natural heritage system elements as well as groundwater features elements and generally seeks to protect, maintain and steer development away from these elements (County of Middlesex, 2021).

Thames Centre Official Plan

The Municipality of Thames Centre's Official Plan (Thames Centre OP) provides land use planning policy and strategies for the Municipality up to the year 2022. The Thames Centre OP is to be reviewed to ensure that it is in conformity with the County of Middlesex Official Plan and consistent with the PPS and provides policy and strategies for the next 25 years. The current OP includes policies regarding natural heritage features and natural hazard areas and highlights natural heritage features located within Thames Centre including the Dorchester Swamp and the North and South Branches of the Thames River (The Municipality of Thames Centre, 2003).

The Thames Centre OP has a natural heritage "green-space" system with an overall goal to grow the size of the green space system and to improve the ecological condition and diversity of the system's components to help enhance the quality of life for biodiversity, protect groundwater areas and strengthen the appearance of the landscape within the Municipality. The green space system is composed of three groups of features: Group A, Group B and Group C (see **Table 2**). Each feature group requires a different level of evaluation and consideration prior to any planning approvals being granted (The Municipality of Thames Centre, 2003).

The natural heritage "green-space" system is composed of three groups of land use designations that correspond to the group features. The natural area designation provides policy direction for Group A features and areas, the Protection Area designation provides policy direction for Group B features, and the environmental area designation provides policy direction and guidance for Group C features. The Thames Centre OP requires applicants to conduct an Environmental Impact Study (EIS) when development or site alteration is proposed near or within the general locations of Group A, B, or C features (The Municipality of Thames Centre, 2003). These Groups will be further discussed in the topics of interest section.

Table 2-Thames Centre Natural Heritage Green Space System Features

Group A Features	Group B Features	Group C Features
<ul style="list-style-type: none"> • Provincially significant wetlands • Habitats for endangered and threatened species • Fish habitat 	<ul style="list-style-type: none"> • Regionally significant wetlands • Significant woodlands and woodland patches identified by the MNHSS • Significant valley lands • Significant wildlife habitat • Provincially significant areas of natural and scientific interest (ANSIs) • Regionally significant ANSIs & environmentally significant areas (ESAs) 	<ul style="list-style-type: none"> • Stream-bank corridors and flood plains along creeks and tributaries • Natural hazard lands, including floor plains and floor prone areas, areas within the 100 Year Erosion Limit, and areas susceptible to erosion

Natural hazard areas policies are also set out in the current Thames Centre OP. These policies apply to areas that are commonly known for physical hazards, for example, steep slopes, susceptibility to erosion or floods, or other physical conditions that are intense enough to cause damage to property and/or potential loss of life if the lands were to be developed with habitable structures or buildings. The OP states that the majority of the natural hazard areas are within the Environmental Area Designation although natural hazards may also be located within the Natural Area and Protection Area Designations. It is required that all development or site alterations within natural hazards areas be reviewed and approved by the conservation authority having jurisdiction (The Municipality of Thames Centre, 2003).

Topics of Interest

This section will further examine natural heritage policies to identify if any changes need to be made to the Thames Centre Official Plan to ensure it is in consistent with the PPS and in conformity with the County Official Plan.

Natural Heritage System/ Ecological Systems-Based Approach

As previously mentioned, the PPS requires municipalities to identify and map natural heritage systems. The County of Middlesex has utilized the information obtained by the MNHSS to identify and map the natural heritage systems by incorporating this information into the County Official Plan as part of its Official Plan Review. Revised Schedules C and D of the County OP show the natural hazards and natural heritage system as well as natural heritage features within Thames Centre. **Figure 2**, Schedule C of the draft County OP shows the natural hazard areas and natural heritage system. **Figure 3**, Schedule D of the draft County OP shows the natural heritage system features, including wetlands, connecting vegetation, meadows, watercourses, woodlands and thickets. To ensure consistency with the PPS and conformity with the draft County OP, the updated Thames Centre OP will be revised to combine Group A and Group B features which would eliminate the 'Natural Area' and 'Protection Area' designations to form a new 'Natural Heritage System' designation. Group C features would be revised to form the new 'Hazardous Lands' designation which would eliminate the 'Environmental Area' designation.

**Figure 2-
Schedule C, Natural Heritage System, County OP**

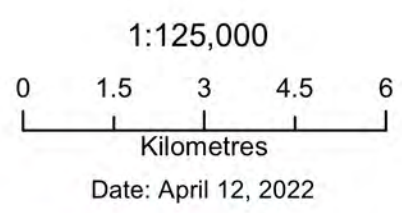
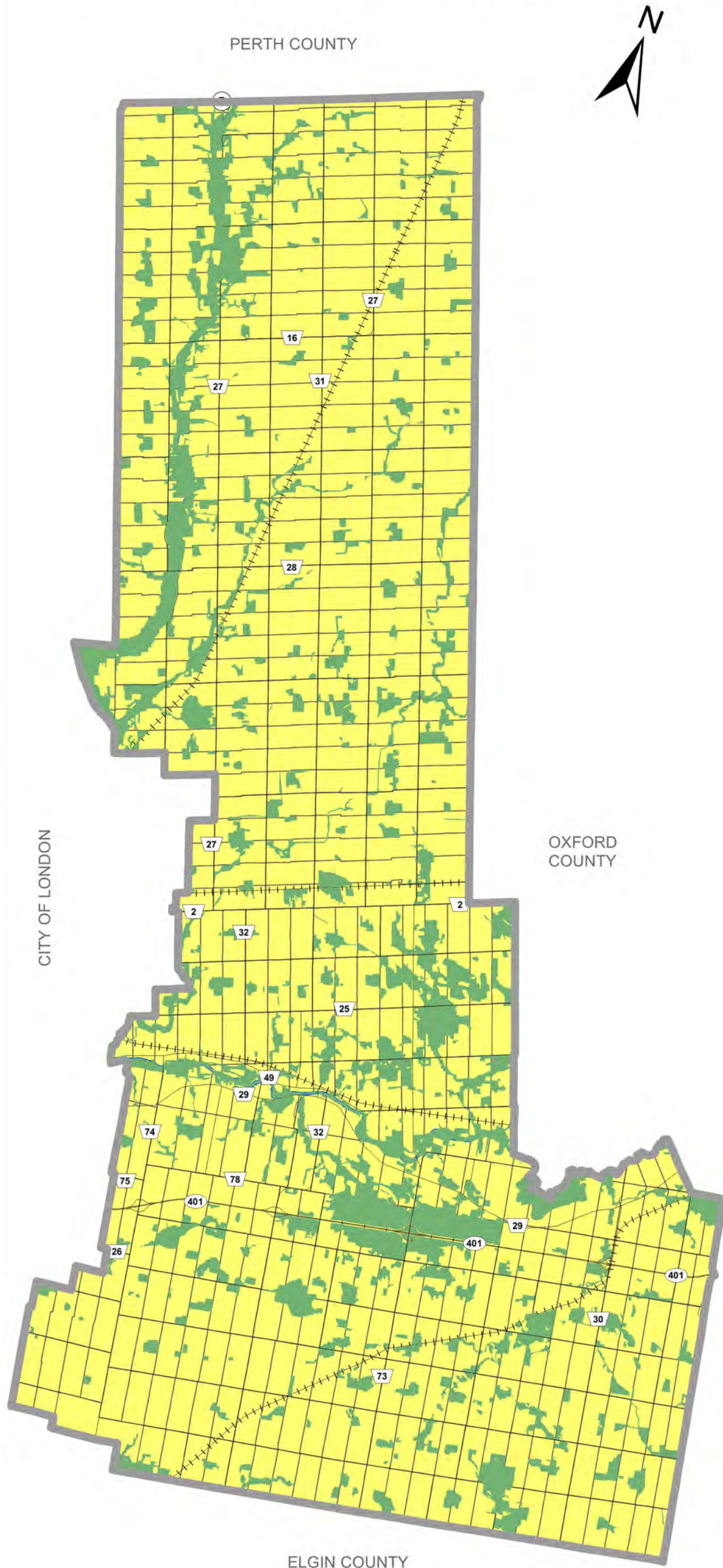


**COUNTY OF MIDDLESEX
OFFICIAL PLAN DRAFT FOR
CONSULTATION ONLY
PART OF SCHEDULE C
NATURAL HERITAGE SYSTEM**

Notations:

Due to the size and scale of the Schedules, the boundaries of features may not appear to be precise; therefore, the limits of these features should be determined through consultation with the County, appropriate Conservation Authority, local municipality and/or the Province.

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 Natural Heritage System

**Figure 3-
Schedule D, Natural Hazard Areas, County OP**

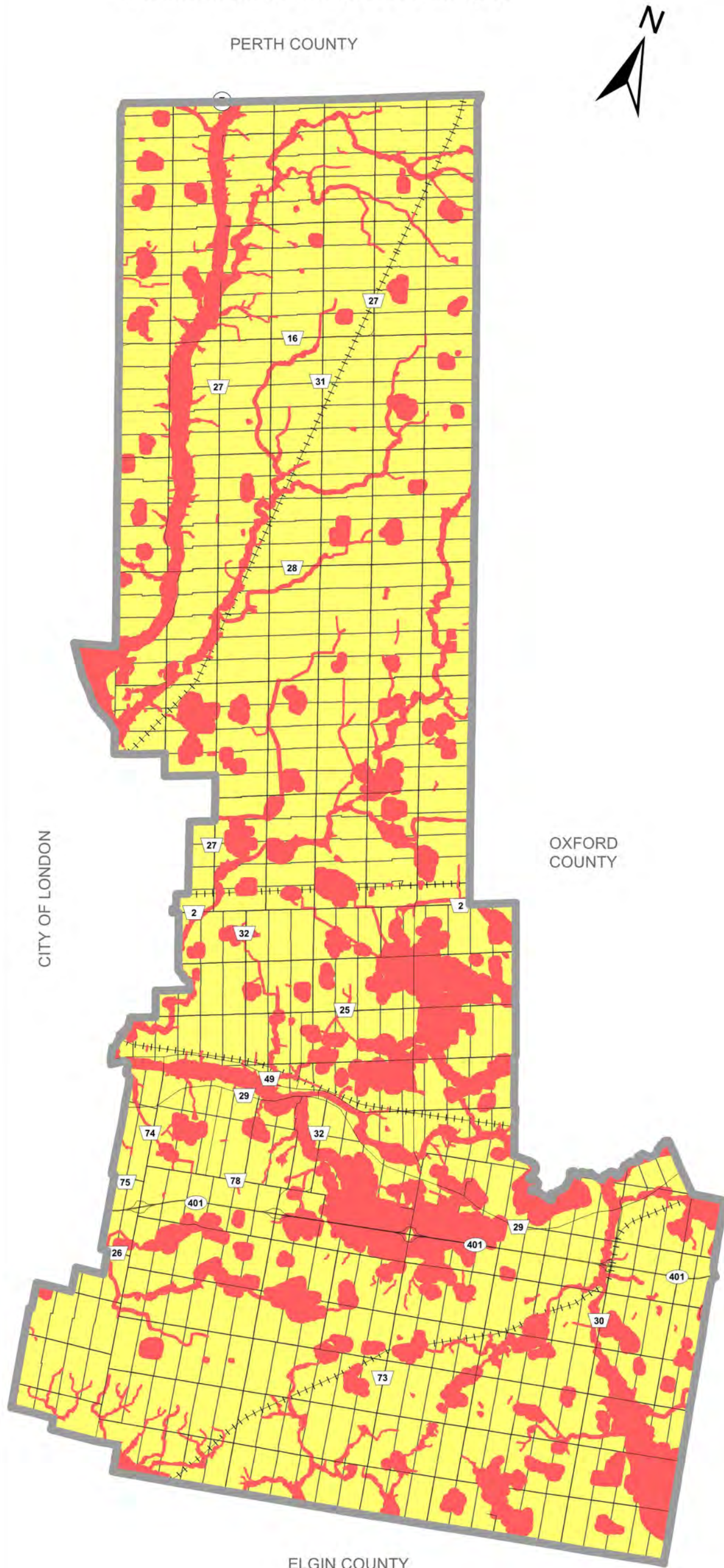


**COUNTY OF MIDDLESEX
OFFICIAL PLAN DRAFT FOR
CONSULTATION ONLY
PART OF SCHEDULE D
NATURAL HAZARD AREAS**

Notations:

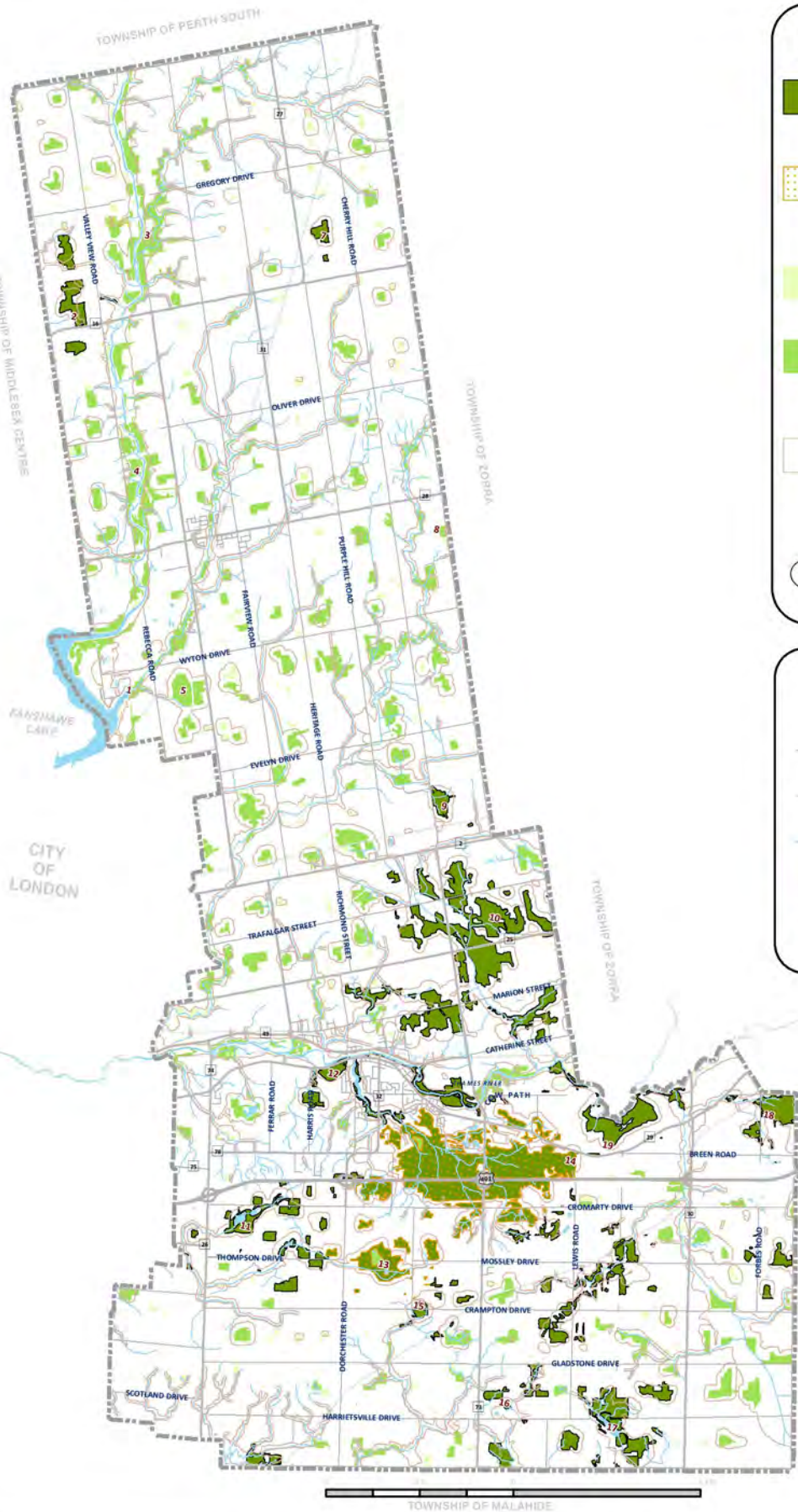
Due to the size and scale of the Schedules, the boundaries of features may not appear to be precise; therefore, the limits of these features should be determined through consultation with the County, appropriate Conservation Authority, local municipality and/or the Province.

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 Conservation Authority Regulation Limits

Proposed County policy requires local municipalities to “*identify Provincial, County, and locally significant elements of the Natural Environment in their Official plans... and develop policies to ensure their protection, maintenance and where necessary, rehabilitation*” (County of Middlesex, 2021). The Thames Centre OP includes mapping regarding natural heritage features, specifically **Figure 4** shows Appendix 1 (Part A). The map indicates where provincially and regionally significant wetlands, woodlands, life science ANSIs, as well as maximum hazard limits.



NATURAL HERITAGE

-  PROVINCIAL & REGIONALLY SIGNIFICANT WETLAND
-  PROVINCIAL & REGIONALLY SIGNIFICANT LIFE SCIENCE AREA OF NATURAL & SCIENTIFIC INTEREST (ANSI)
-  SIGNIFICANT WOODLAND (4 HECTARES OR GREATER IN AREA)
-  WOODLAND UNDER 4 HECTARES IN AREA
-  MAXIMUM HAZARD LIMIT (MAXIMUM LIMIT OF REGULATORY FLOODLINES AND AREAS SUSCEPTIBLE TO EROSION)
-  NATURAL HERITAGE SITES (SEE APPENDIX B FOR DESCRIPTIONS)

BASEMAP

-  RAILWAY
-  ROADWAY
-  WATERCOURSE
-  WATERBODY
-  MUNICIPAL BOUNDARY

To ensure that the Thames Centre OP is consistent with the PPS and in conformity with the County OP, it would be beneficial to utilize the information obtained from the MNHSS to help inform new policies for natural heritage system and ecological system based approaches. It would also be beneficial to include updated mapping based on the MNHSS for the natural heritage system and ecological systems within the OP.

Natural Heritage Features

Natural Hazards

The PPS along with the County OP both state that planning authorities must consider the potential impacts of climate change as it may increase the risks associated with natural hazards. The current Thames Centre OP does not address climate change and its relation to natural hazards. To be consistent with the PPS and in conformity with the County OP, it would be beneficial to include policy regarding the impacts that climate change could have on natural hazards within the Municipality.

Significant Wetlands

The PPS defines Significant wetlands as *“an area that is identified as provincially significant by the Ontario Ministry of Natural Resources and Forestry using evaluation procedures established by the Province and amended from time to time”* (MMAH, 2020). The County OP requires a Development Assessment Report (DAR) to be conducted and submitted for any development applications for lands within or adjacent to natural environment areas, including significant wetlands. Thames



Centre’s current OP places provincially significant and regionally significant wetlands into two different groups, Group A and Group B features. Development and site alteration are generally prohibited within Group A features while development and site alteration within Group B features may be permit provided, that it can be demonstrated through environmental impact studies (EIS) that no negative impacts will occur on the features or their ecological functions.

Significant Woodlands

Significant woodlands are located throughout the County and throughout the Municipality. The PPS defines them as *“an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history. These are to be identified using criteria established by the Ontario Ministry of Natural Resources and Forestry”* (MMAH, 2020). The County OP does not permit development within significant woodlands without demonstrating that no negative impacts will occur on the natural heritage system features or their ecological functions. Similarly, the current Thames Centre OP requires development proposals within Significant Woodlands to

demonstrate no negative impacts on features or their functions through an EIS. Based on the similarities between the PPS, the County OP, and the current Thames Centre OP, it appears that changes do not need to be made in regards to significant woodlands policies.

Significant Valleylands

Significant valleylands are considered 'Natural Heritage Features and Areas' in the PPS. For development or site alteration to occur within a significant valleyland, the PPS and the County OP requires demonstration that there will be no negative impacts on the natural heritage features or their ecological functions. The Thames Centre OP considers significant valleylands to be Group B features and may permit development subject to consultation with and approval by the appropriate conservation authority (with the assumption that there are no other natural heritage features, functions, or values present). It also appears that no changes need to be made in regards to significant valleylands policies as they are consistent with the PPS and in conformity with the County OP.

Significant Wildlife Habitat

Significant wildlife habitat is also considered 'Natural Heritage Features and Areas' in the PPS. The County OP also states that development and site alteration shall not be permitted within significant wildlife habitats unless it has been demonstrated that there will be no negative impacts on surrounding features or their ecological functions. The Thames Centre OP states that development may be permitted provided that an EIS demonstrates there will be no negative impacts on wildlife habitat requirements, including adjacent lands within 50 metres. It appears that no changes need to be made to the Thames Centre policies.

Areas of Natural and Scientific Interest

Areas of Natural and Scientific Interest (ANSI) are defined in the PPS as "*areas of land and water containing natural landscapes or features that have been identified as having life science or earth science values related to protection, scientific study or education*" (MMAH, 2020). The County OP also states that development and site alteration shall not be permitted within significant ANSIs unless it has been demonstrated that no negative impacts will occur on the significant ANSI and its ecological function. Provincially significant ANSIs and regionally significant ANSIs and environmentally significant areas (ESAs) are considered Group B Features in the Thames Centre Official Plan. Similar to the County OP, the Thames Centre OP requires demonstration through an EIS that no negative impacts will occur on the natural features or their ecological or hydrologic functions. This also applies to adjacent lands within 50 metres of the ANSIs. It appears that no changes need to be made to the Thames Centre policies.

Fish Habitat

As defined in the PPS and in the Fisheries Act, Fish habitat refers to "*spawning grounds and any other areas, including nursery, rearing, food supply, and migration areas on which fish depend directly or indirectly in order to carry out their life processes,*" (MMAH, 2020.) The PPS states that development and site alteration are not permitted in fish habitat except in accordance with provincial and federal requirements. The County OP states that when development is to occur within fish habitat, the appropriate studies must be completed to ensure compliance with the Fisheries Act. The Thames Centre OP lists fish habitat as a Group A Feature and states that development and site alteration are not

permitted within the boundaries of fish habitat unless authorized by the Federal Department of Fisheries and Oceans (DFO). This includes land within 30 metres of cold water habitats and within 15 metres of warm water habitats. An EIS would be required to demonstrate no harmful alteration, disruption or destruction of fish habitats adjacent to watercourses or if the development is authorized by the DFO. It would be beneficial to review the policy for fish habitat within the Thames Centre OP to ensure that the wording is simplified and clear (the requirement of an EIS or DFO authorization may benefit from clarification).

Significant Habitat of Endangered/ Threatened Species

The PPS states that *“development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements”*. The County OP states that development and site alteration shall not be permitted within habitats of endangered species and threatened species except in accordance with provincial and federal requirements. The Thames Centre OP considers ‘significant portions of the habitat of endangered and threatened species’ a Group A feature and does not permit development or site alteration within the significant portions of these habitats unless an EIS demonstrates that there will be no negative impacts on surrounding features or their ecological or hydrologic functions including adjacent lands within at least 120 metres. It may be beneficial to revise this policy to remove the word “portions”.

Groundwater Features

In relation to natural heritage and ground water features, the PPS states that *“the diversity and connectivity of natural features in an area... should be maintained, restored, or where possible, improved recognizing linkages between and among natural heritage features and areas, surface water features and ground water features”*. Proposed County OP policies lists groundwater features as an element of Natural Heritage. This includes groundwater recharge areas, highly vulnerable aquifers, and wellhead protection areas. The proposed County OP policies states that significant ground water recharge areas, wellhead protection areas, and highly vulnerable aquifers will be protected and local municipalizes will use the information and mapping obtained from the applicable Source Protection Plans when reviewing development applications and preparing official plans and zoning by-laws.

Amendment No. 20 (OPA 20) to the Thames Centre Official Plan adopted and approved in 2019 brought the Thames Centre Official Plan into conformity with the sourcewater protection plans having jurisdiction in Thames Centre, being the Thames Sydenham and Region Source Protection Plan and the Kettle Creek Source Protection Plan. Through OPA 20, the Thames Centre OP includes additional policies and mapping schedules focused on ensuring the protection, restoration and maintenance of water resources within the Municipality and particularly with respect to municipal drinking water systems. As such, it appears that no changes need to be made to the Thames Centre policies.

Environmental Impact Studies

As previously mentioned, the PPS includes policy regarding development and site alteration within natural heritage features and the need to demonstrate that there will be no negative impacts on natural features or their ecological functions. Proposed County OP policies states that development applications within or adjacent to the natural environment require submission of a Development Assessment Report (DAR). The

DAR is required to provide a description of the development, description of natural hazards, natural heritage system features and their ecological functions, identification of potential impacts, and identification and recommendation of appropriate protection and mitigation measures (County of Middlesex, 2021).

The Thames Centre OP also includes similar policy for Environmental Impact Studies (EIS). The OP states that qualified individuals must evaluate new land use proposals and/or new development, site alteration, or lot creation wherever the proposals are within or near a Group A, B, or C feature. The EIS is required to provide the location of the proposal and usually includes completing an inventory of the life science, earth science and hydrogeology of the natural heritage feature or area to identify and provide a boundary for the feature or area. The EIS also needs to evaluate for the potential impacts (positive and negative) that may result from the development proposal. If it is anticipated that there will be negative impacts, the EIS must explain how the impacts can be mitigated. The OP also states that at the Municipality's discretion, a scoped EIS may be considered appropriate to satisfy the policies of the OP if it is felt that the impacts of the proposed development would be minimal. It may be beneficial to review the EIS policies, in particular, policy regarding scoped EIS to ensure that wording is clear on when a scoped EIS would be acceptable.

In the evaluation of an EIS, the Municipality generally relies on the assistance of the conservation authority to review such studies on behalf of Thames Centre. Considering the conservation authority has previously waived the need for the undertaking of the study based on existing conditions, existing Official Plan policies do not address these types of occurrences. It would be appropriate if a new policy was included to provide direction for such occurrences.

Definitions

The PPS and the proposed County OP policies both provide several new or revised definitions related to natural heritage. The definitions within the Thames Centre OP should be updated to be consistent with these definitions. New or revised definitions under consideration include but are not limited to conservation authority, endangered species, negative impacts, and natural heritage system.

Recommendations and Next Steps

This discussion paper has provided a background of the policies related to natural heritage and natural hazards to help inform draft official plan policies for the Thames Centre OP. The various updates and revisions that may be required include the following:

- It is recommended that the Thames Centre OP adopts a natural heritage/ ecological systems-based approach, as it is essential to protect and maintain ecological functions, ecological interactions and natural heritage features and areas.
- It is recommended that the Thames Centre OP incorporates updated mapping using the information obtained from the MNHSS. This includes mapping of the natural heritage system and its features.
- It is recommended that the Thames Centre OP includes policy regarding climate change and the impacts it may have on natural hazards

- It is recommended that specific policies, such as policies for Fish Habitat, Environmental Impact Studies are revised to provide clarity
- It is recommended that the definitions within the Thames Centre OP are revised if necessary and include new definitions that are laid out in the PPS and within the draft County OP.

The recommendations in this discussion paper should be confirmed with the Upper Thames River Conservation Authority and the Kettle Creek Conservation Authority to ensure the recommendations are appropriate and would ensure consistency and conformity to the PPS and proposed County OP policies.

Comments and questions can be submitted to mbancroft@thamescentre.on.ca.

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