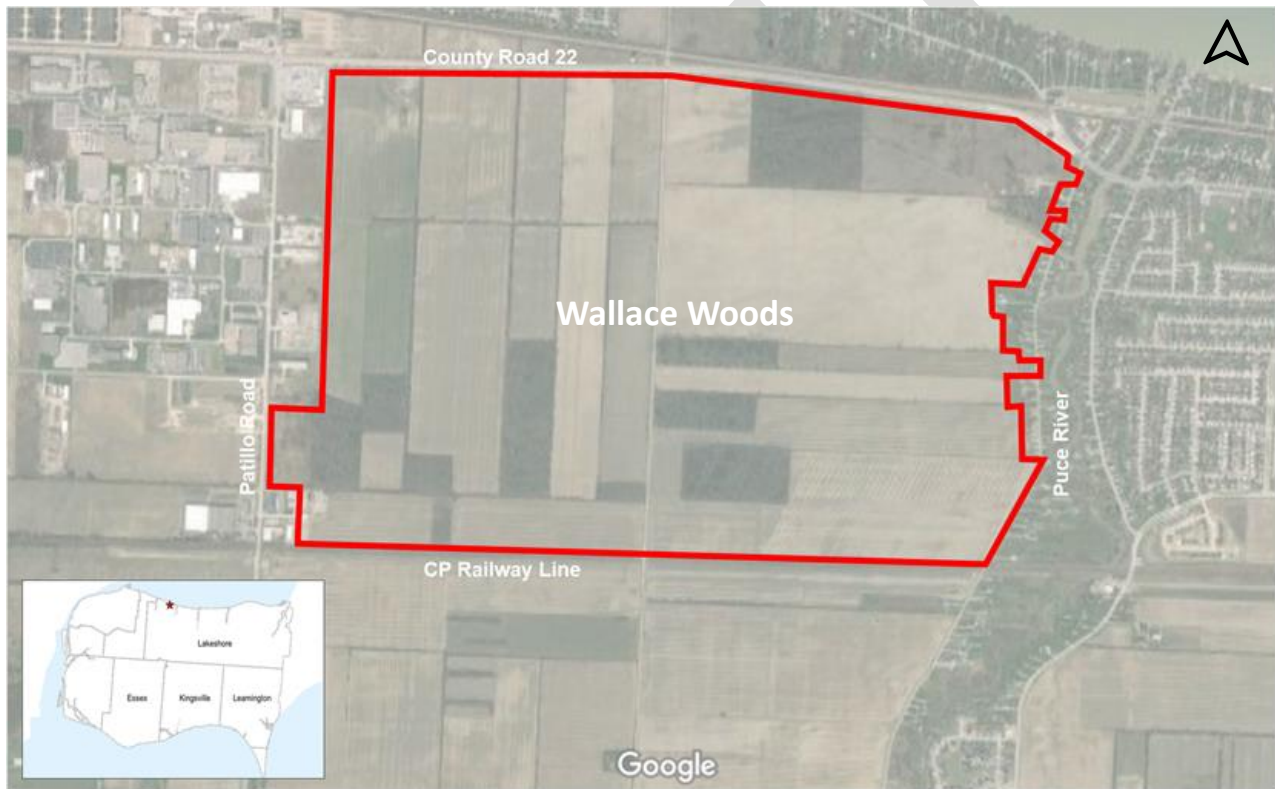


MUNICIPALITY OF LAKESHORE

DRAFT - WALLACE WOODS SECONDARY PLAN REPORT





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MUNICIPALITY OF LAKESHORE

DRAFT

PROJECT NO.: NO.17M-00111-00
DATE: MARCH 18, 2022

WSP

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APPENDICES

APPENDIX A: BACKGROUND REPORTS

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1 INTRODUCTION AND PURPOSE

WSP Canada Inc (WSP) was retained by the Municipality of Lakeshore, on behalf of the Wallace Woods Consortium (WWC), to complete a Secondary Plan, including a Planning Rationale Report, for a proposed mixed-use development in the Municipality, referred to as the Wallace Woods Secondary Plan Area (WWSPA).

The Municipality's Official Plan requires that detailed Secondary Plans be prepared for a number of identified Special Planning Areas in the Municipality, including the Wallace Woods Special Planning Area (Section 3.4, Section 9.0 in the new Council adopted Official Plan dated March 2021). It should be noted that some of the main policy requirements deal with the need to address land use compatibility issues between the existing and proposed land uses and appropriate land use transitions within the Planning Area; support the creation of a linked natural heritage system which will reinforce the protection, restoration and enhancement of identified Natural Heritage Features; address transportation related matters, and promote the integration of stormwater management ponds and community uses, including parks and open spaces, recreational uses, trails and schools and municipal facilities. The Municipality's Official Plan outlines the various components that a Secondary Plan shall address in Section 8.3.1.

The purpose of this Report is to establish the basis and planning framework for the preparation of a Secondary Plan for WWSPA to provide more detailed policies to guide the future development of this area in the context of Provincial, County, and Local policy. This report reviews the existing conditions within the study area, and provides a summary of the planning and policy context in the Municipality of Lakeshore. Supporting studies intended to facilitate the Secondary Plan for the study area are then summarized. Furthermore, this Report provides contextual support for an Official Plan Amendment to implement the Secondary Plan.

2 AREA LOCATION AND SITE DESCRIPTION

The WWSPA is situated in the Municipality of Lakeshore, in Essex County. Essex County is comprised of vibrant urban centres and holds a significant agricultural footprint. Adjacent to Windsor and in close proximity to Detroit, Michigan, Essex County is positioned close to major economic centres. Bounded by water on three sides (Detroit River, Lake St. Clair, and Lake Erie), the County is also a destination for tourism. Wallace Woods is identified as the next logical area for development of a new community heading east from Tecumseh along County Road 22.

The lands subject to the detailed study comprised in this Secondary Plan exercise do not include all lands identified in the Municipality's Official Plan as shown on Schedule C.5 (Figure 1) as much of the residual lands represent existing development that is not proposed to change. The scoped WWSPA are approximately 475 hectares, located between County Road 22 and Canadian Pacific Railway, just south of Lake St. Clair. The Municipality of Lakeshore's Official Plan identifies Wallace Woods as a new mixed-use community with a portion of the lands being a primary node and the remainder of the lands as an Urban Reserve area. Urban Reserve areas are designated to accommodate a portion of the Municipality's projected residential and employment growth in a manner that supports the community's overall goals and vision (Official Plan, Section 3.3.12).

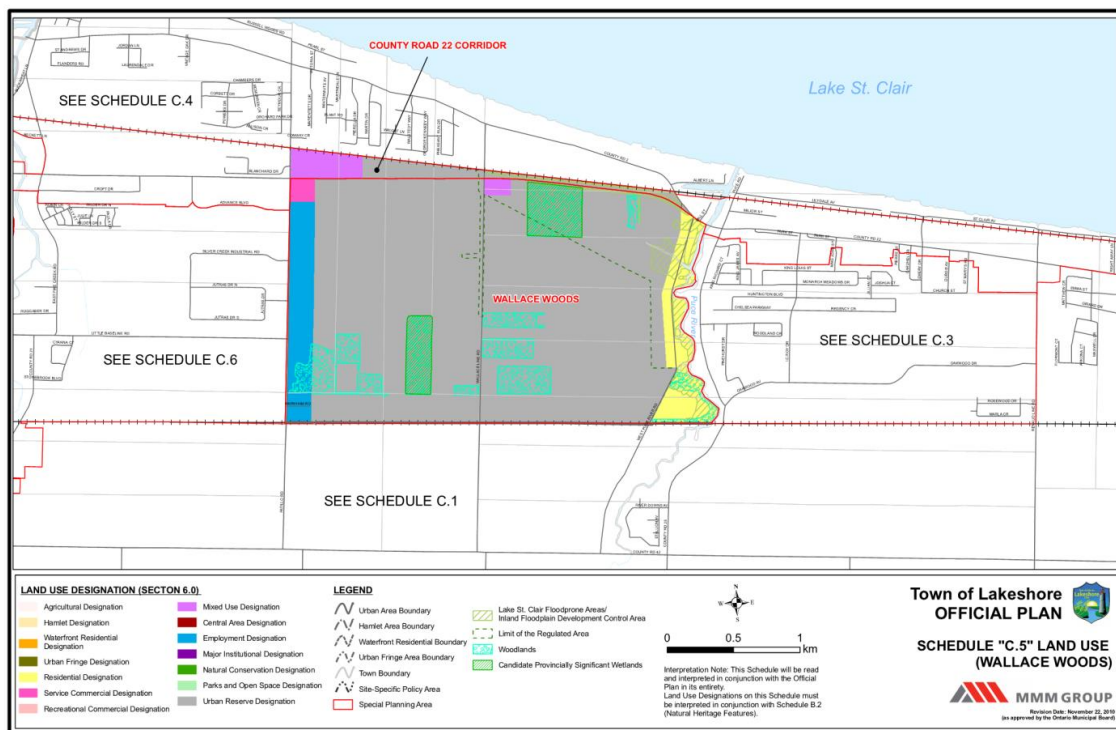


Figure 1 - Lakeshore Official Plan, Schedule C.5

2.1 CONTEXT

While noted previously, the detailed study comprised in this Secondary Plan exercise do not include all lands identified in the Municipality's Official Plan as shown on Schedule C.5 (Figure 1) as much of the residual lands represent existing development that is not proposed to change. This scoped WWSPA is bound by County Road 22 to the north and the Canadian Pacific Railway line to the south. The site ends just east

of Patillo Road on the west and is generally bound by West Puce River Road on the east, just west of the Puce River. Wallace Line Road bisects the site, running north-south, as shown on **Figure 2**.

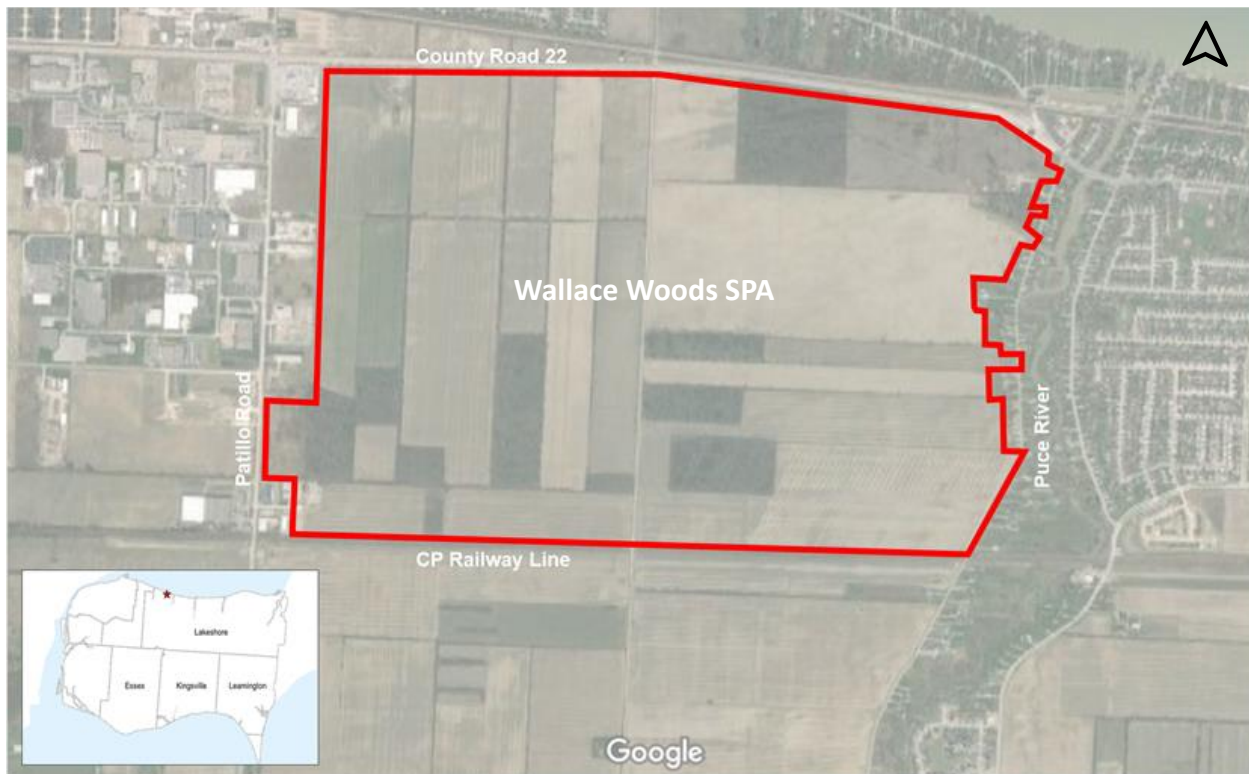


Figure 2: Location of Wallace Woods Secondary Plan Area

2.1.1 EXISTING LAND USES AND SURROUNDING AREA

The WWSPA lands are currently occupied by a mix of land uses as shown on Figure 3 below. The eastern portion of the Study Area contains residential lands, while the western portion of the Study Area is employment lands. Land use in the Study Area is mostly agricultural fields, six (6) scattered woodlots, and two (2) Provincially Significant Wooded Wetlands. The majority of the Study Area is categorized as ‘Urban Reserve’ in the Municipality’s Official Plan, which is protected for future urban development.

The Puce River, which is located to the east, on the east side of West Puce River Road, is oriented in a north-south direction and flows into Lake St. Clair. Agricultural lands south of the Canadian Pacific Railway (CPR) drains to WWSPA via an existing culvert underneath the railway track.

The lands surrounding the WWSPA are described as follows:

- **North:** Land uses to the north of the WWSPA, the Russell Woods district, are primarily single-detached residential dwellings. Public access to the shore of Lake St. Clair is largely restricted, as the lake shore properties are predominately private residences. A boat marina at the Puce River Harbor exists north of County Road 22 to the northeast east of WWSPA. Lands immediately north of the study area on the north side of County Road 22 but south of the rail line include residual lands that are vacant.
- **South:** South of the WWSPA, there is a Canadian Pacific Railway line. Beyond the railway, land uses are designated primarily as agricultural.
- **East:** To the east of the WWSPA, there is Puce River Road. Further to the east is the Puce River, which is oriented in a north-south direction and flows into Lake St. Clair. Land areas adjacent to the Puce River and West Puce River Road are designated as residential and nearly all the land is developed with single-detached dwellings. A small portion of the Puce River floodplain and associated regulated area

extends into the Wallace Woods project area. There is no proposal to change any of these lands as part of this study.

- **West:** Immediately west of the WWSPA, is Patillo Road. Fronting along both sides of Patillo Road, land is designated predominately for employment oriented land uses. Significant portions of this area are already developed with a mixture of commercial, warehousing, and light industrial uses.

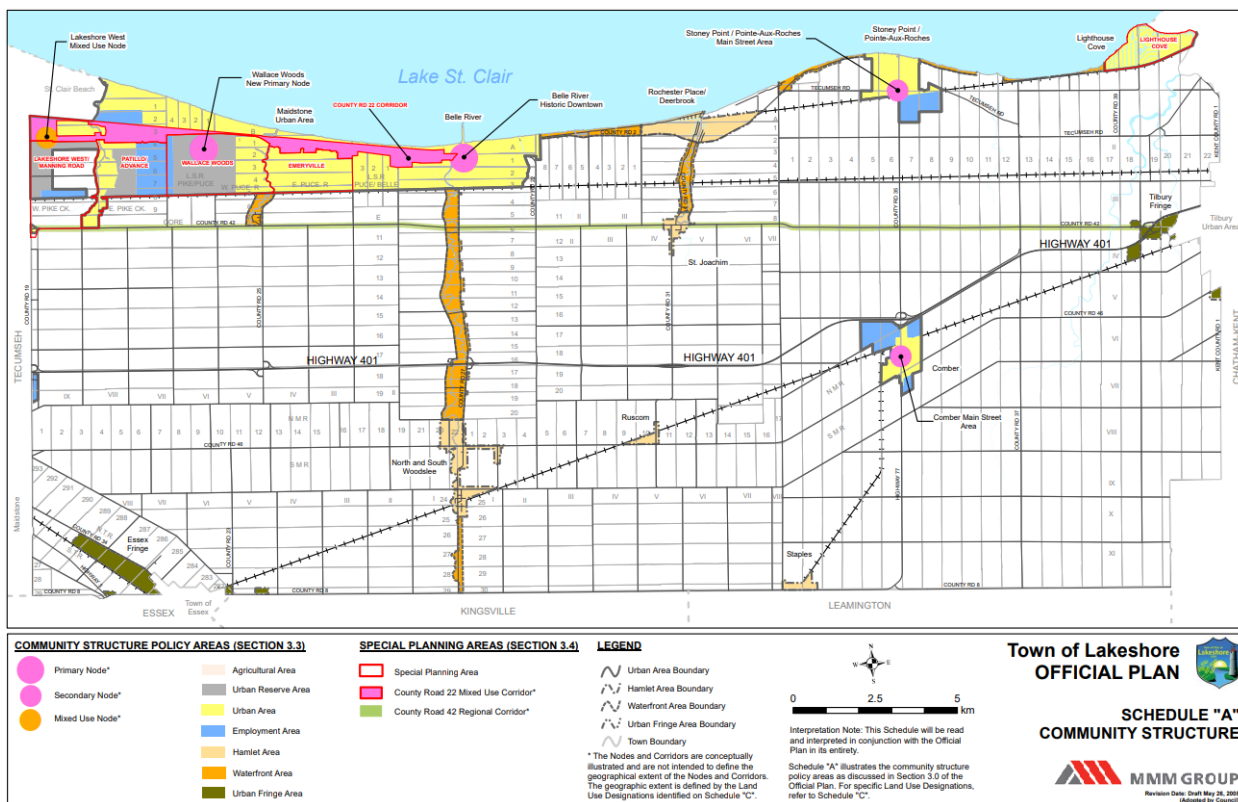


Figure 3 - Community Structure

2.1.1 LAND OWNERSHIP

The Wallace Woods Secondary Plan Area, subject to this scoped study, consists of fourteen individual parcels of land, with seven parcels/owners east of the Wallace Line Road and seven west of Wallace Line Road. Refer to **Figure 4** below for parcels, and their associated sizes.



Figure 4: Wallace Woods Parcels + Area

The Wallace Woods Consortium contains a subset of Wallace Woods property owners and acts as a collective representative for some of the individual owners. The consortium is working together to establish a land use strategy for the entire WWSPA. While some owners of the parcels may not be within the consortium, the Municipality encourages all of the landowners to be engaged in the planning process. Over time, the phasing and implementation strategy associated with the WWSPA will evolve to ensure the WWSPA can be developed in a comprehensive and organized manner.

3 PLANNING CONTEXT

A number of Provincial, Regional and local planning documents will influence the nature of development within the WWSPA and will provide a rationale for a transition from rural to urban development. These planning documents, include the *Planning Act*, the Provincial Policy Statement (2020), the County of Essex Official Plan, and the Municipality of Lakeshore Official Plan, and establish the planning framework for the development of the WWSPA. The discussion of how the proposed WWSPA aligns with the planning policy context is provided and summarized below.

3.1 PLANNING ACT

The *Planning Act* provides the authority for establishing a land use planning framework in Ontario. Section 2 of the *Act* identifies matters of Provincial interest that municipal councils “shall have regard to” when carrying out their responsibilities under the *Act*; of note is the appropriate location of growth and development, the orderly development of safe and healthy communities, and the protection of ecological systems, including natural areas, features and functions. Furthermore, Section 22 of the *Planning Act* outlines the process by which an Official Plan Amendment request can be made. Under this section, a Secondary Plan is described as a land use plan for a particular area of a municipality, that is prepared as an amendment to an Official Plan. A Secondary Plan provides more detailed land use policy direction in respect of that particular area that was provided before the amendment.

3.2 PROVINCIAL POLICY STATEMENT (2020)

The Provincial Policy Statement, 2020 (PPS) came into effect on May 1, 2020, and replaces the Provincial Policy Statement, 2014. The PPS provides provincial policy direction on matters related to key land use planning issues such as housing, infrastructure, economic development, transportation, and the protection of environmental resources. In accordance with Section 3(5) of the *Planning Act*, all land use decisions are required to be consistent with the PPS.

The PPS outlines a broad vision for maintaining strong communities, a clean healthy environment, and a robust economy. Key elements of the PPS relative to the WWSPA include:

- The development of healthy and safe communities by avoiding development and land use patterns which may cause environmental or public health and safety concerns.
- Recognizing the need for efficient land development patterns that are sensitive to environmental impacts and responsive to the characteristics and needs of the individual communities.
- Directing new growth and infrastructure investments to existing settlement areas, which includes those lands within the Wallace Woods Secondary Plan Area.
- Ensuring that necessary infrastructure and public service facilities are or will be available to meet current and projected needs to support new development.
- Provide transportation systems which are safe, energy efficient, facilitate the movement of people and goods, and are appropriate to address projected needs.
- Maintain protection of natural features and adequate access to public open space and parks and community facilities/services.
- Planning for stormwater management that maximizes the extent and function of vegetative and pervious surfaces and promote best practices, including stormwater attenuation and re-use, water conservation and efficiency, and low impact development techniques.
- The need to identify, protect and restore natural heritage systems which are defined to include natural heritage features and areas, and linkages intended to provide connectivity (at the regional or site level) and support natural processes necessary to maintain biological and geological diversity, natural

functions, viable populations of indigenous species, and ecosystems.

- Conserving significant built heritage resources and significant cultural heritage landscapes and restricting development and site alteration on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved.
- Direct development away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage, and not create new or aggravate existing hazards.

The primary purpose of the WWSPA is to provide the framework for a mixed-use development that will create a new core community within the Municipality of Lakeshore. Wallace Woods will provide a mix of residential, employment, recreational, and open space land uses to create a sustainable, healthy, and livable community. Through the preparation of the Secondary Plan, the provincial interests and PPS policies will be considered and addressed. The WWSPA is intended to be consistent with the PPS.

3.3 COUNTY OF ESSEX OFFICIAL PLAN

The County of Essex Official Plan, 2014 establishes a policy framework for managing growth, protecting resources and providing direction on land use decisions to the lower-tier municipalities over the planning period to the year 2031. Local municipal official plans are required to conform to the County Official Plan, while establishing more detailed land use planning at the local level. Specific policies of the County Official Plan which apply to the development of the WWSPA are detailed below.

3.3.1 GROWTH MANAGEMENT

The County of Essex will continue to experience population and employment growth over the planning period to the year 2031.

The rate of population, household and employment growth is expected to be above past levels with most growth occurring in the mid-to-long term. Housing growth is expected to remain largely dominated by low density units, with a modest increase in medium and high density units, while employment growth will favour industrial-related over population-related employment. Sufficient land has been designated to accommodate this anticipated growth. The Plan establishes growth projections for all the local municipalities to guide planning decisions. The Municipality of Lakeshore is forecasted to grow from a 2011 population of 34,546 persons to 41,000 persons to the year 2031. It should be noted that based on the 2021 Census, this population horizon was achieved in 2021; however, the County is currently reviewing its Official Plan and intends on updating the population projections as part of this exercise.

It is the fundamental policy of the Plan to promote healthy and diverse communities where County residents can live, work and enjoy recreational opportunities. In this regard, every attempt should be made to optimize and make efficient use of existing infrastructure. The health of the County requires that long-range land use planning and infrastructure investment is properly managed in a way that will:

- a) Direct non-resource related growth and development to settlements where it can be serviced, with a particular emphasis on Primary Settlement Areas.
- b) Protect and enhance the County's natural heritage system, cultural features and heritage resources (including resources in and under water), and minerals, petroleum, and mineral aggregate resources.
- c) Minimize adverse effects on agricultural lands and operations and be phased in accordance with the availability of appropriate types and levels of services.
- d) Implement the Plans goals for a healthy County.

3.3.2 PRIMARY SETTLEMENT AREAS

The County Official Plan directs future growth to Settlement Areas, and specifically the Primary Settlement Areas (S. 3.2.4). Primary Settlement Areas are the largest and traditional centres of settlement and commerce in the County. Protection of these communities by focusing growth and investment is a priority of the County. In the Municipality of Lakeshore, the Maidstone/Belle River Urban Area and Wallace Woods are identified as a Primary Settlement Areas (Schedules “A1” and “A2”), as shown on **Figure 5**.

With respect to Wallace Woods, the Plan states that: “The identification of Wallace Woods reflects its status as a new Primary Node, and the focus of growth, in Lakeshore’s Official Plan that was approved by the Ontario Municipal Board”. The inclusion of Wallace Woods as a Primary Settlement Area in this Plan is subject to the policy and modifications contained in the memorandum of oral decision of the LPAT dated December 8, 2010 (Case No. PL100211), which is Sections 3.3.12 and 3.4.4 (Section 9.5 in the March version of the Council-adopted Plan) of the Municipality of Lakeshore Official Plan. New development is subject to a future Secondary Plan, which can be approved without amendment to this Plan, provided the intent of this Plan is maintained.

The Plan establishes over-arching policies to guide development within Primary Settlement Areas (3.2.4.1 Policies), which include:

- a) Primary Settlement Areas shall be the focus of growth and public/private investment in each municipality.
- b) Primary Settlement Areas shall have full municipal sewage services and municipal water services and stormwater management services, a range of land uses and densities, a healthy mixture of housing types including affordable housing options and alternative housing forms for special needs groups, and be designed to be walkable communities with public transit options (or long-term plans for same).
- c) Local municipal Official Plans shall establish appropriate land uses in accordance with the policies of this Plan.
- d) All new development within Primary Settlement Areas shall only occur on full municipal water services and municipal sewage services, unless there are interim servicing policies in the local Official Plan that are in effect at the time of approval of this Plan.
- e) Expansions of the boundaries of a Primary Settlement Area shall only occur in accordance with the Local Comprehensive Review policies in Section 3.2.3.1 of this Plan. An amendment to this Plan and the local Plan shall be required to alter the boundary of any “Settlement Area”.
- f) Downtown/Uptown areas should maintain and/or enhance the existing character of these areas. Mixed-use development and an accessible pedestrian oriented streetscape are encouraged. The preparation of Community Improvement Plans is also encouraged.
- g) The County encourages the redevelopment of brownfield properties.
- h) All types of land use are permitted within the “Settlement Areas” designation subject to the specific land use policies of the local Official Plans.
- i) Cost effective development patterns and those which will minimize land consumption and reduce servicing costs are encouraged. Land use patterns which may cause environmental, heritage preservation or public health and safety concerns shall be avoided.
- j) The County supports universal physical access and encourages the building industry to incorporate such features into new structures.



Figure 5: Essex County Official Plan – Schedule A1 (Land Use Plan)

3.3.3 INTENSIFICATION & REDEVELOPMENT

The County Official Plan encourages well-planned intensification development projects in the “Settlement Areas” to encourage more efficient use of land and municipal infrastructure, renew urban areas and to facilitate economic and social benefits for the community (S. 3.2.7). The County also specifically encourages residential intensification and redevelopment within Primary Settlement Areas in order to increase their vitality, offer a range of housing choices, efficiently use land and optimize the use of infrastructure and public service facilities.

3.3.4 AFFORDABLE HOUSING

The County Official Plan supports the provision of affordable housing for low and moderate-income households (s. 3.2.8). The County requires that each local municipality achieve a minimum affordable housing target of 20 percent of all new development. Affordable housing should be focused within Primary Settlement Areas which offer residents easy access to existing services, facilities and infrastructure. The County Official Plan also generally permits second dwelling units within all single detached, semi-detached, and townhouse dwelling units where a residential unit is not permitted in an ancillary structure to those house types on the property. If the principal residential dwelling on the property contains only a single residential unit, then an accessory structure may contain the second dwelling unit on the property. Local municipal Official Plans and implementing Zoning By-laws, are to contain detailed provisions relating to second dwelling units which generally support their creation.

As part of the Municipality’s Official Plan Review, an Affordable Housing Strategy was prepared to support the development of affordable housing choices in the Municipality. Furthermore, policies in the Municipality’s Official Plan are being prepared to permit secondary dwellings within single and semi-detached dwellings or as an accessory structure.

3.3.5 NATURAL ENVIRONMENT

The County Official Plan affords protection to natural heritage features in accordance with provincial policy (S. 3.4), and also establishes a framework for the identification of a natural heritage systems strategy. The County Plan identifies two Provincially Significant Wetlands within the WWSPA that will be protected (Schedule A and B.1), in addition to Natural Environment areas, which relate to existing woodlands (Schedule B.2), as shown on **Figure 6**. It is a priority of the Municipality to preserve these existing natural features, which will be addressed in the Environmental Impact Assessment (EIA) for Wallace Woods.



Figure 6: Essex County Official Plan – Schedule B2 (Natural Heritage System Natural Environment Overlay)

The County encourages and supports the enhancement of the natural heritage system. The natural heritage system contains potential linkages and corridors as well as expansions to the core existing natural heritage features. The Essex Region Natural Heritage System Strategy (ERNHSS) prepared by the Essex Region Conservation Authority supports the creation of a linked natural heritage system and was used to inform the natural heritage policies of the County Official Plan.

The following goals apply to the County’s natural heritage system as they relate to the WWSPA:

- a) To facilitate and support the preservation, protection and enhancement of existing natural heritage features.
- b) To recognize the Essex Region Natural Heritage System Strategy as a means of providing technical direction towards the location and establishment of the County’s natural heritage system as per the PPS.
- c) To establish the framework with which the County and local municipalities will incorporate comprehensive and innovative policies in local Official Plans in an attempt to work with private property owners toward preserving and enhancing natural features. The County encourages local municipalities to develop implementation mechanisms to protect high priority restoration opportunity areas (as outlined in the Essex Region Natural Heritage System Strategy). The most

appropriate implementation mechanism is the local Official Plan and Zoning By-law; however, other mechanisms include, but are not limited to, voluntary landowner stewardship policies, financial programs, bonusing policies, and attaching conditions to development approvals.

- d) To increase the size of core natural areas and to create and protect linkages and corridors as part of a linked natural heritage system connecting wildlife habitat areas to each other, human settlements to human settlements and people to nature. Inter-municipal co-ordination to accomplish this goal is encouraged.
- h) The County supports the creation of new or expanded linkages between natural heritage features, where feasible. Corridors link isolated natural heritage features or enhance existing linkages, improve or enhance the ecological functions of designated natural heritage features, and strengthen the overall natural heritage system. Corridors and linkage areas will be identified in consultation with the Conservation Authorities, non-government organizations and private landowners. Some corridors or linkages may need to be developed over time through initiatives such as reforestation or regeneration projects.

To assist in establishing a natural heritage system, the County Official Plan identifies restoration opportunities through a land use overlay (S. 3.4.5), which have been distinguished by High Priority or Secondary Priority Restoration Opportunity as identified on Schedule “B3” to the Plan, and outlined in the ERNHSS, as shown on **Figure 7**. The “Restoration Opportunities Overlay” applies to lands that do not contain existing natural heritage features; however, they have been identified as potential areas to enhance the fragmented system in the County. The restoration opportunities generally encompass the existing Provincially Significant Wetlands (PSW’s) and identified natural environmental areas to facilitate linkages.

The County Official Plan requires that prior to the approval of any local Official Plans, Official Plan amendments or Secondary Plans, Zoning By-law Amendments, plans of subdivision/condominium, or during the preparation of any Environmental Assessment for infrastructure, an Environmental Impact Assessment shall be undertaken that evaluates the following:

- i. Opportunities to restore and enhance the natural heritage features in the area, including the establishment of linkages.
- ii. The incorporation of Low Impact Development elements into the project.
- iii. Opportunities to establish buffers into the project design that would promote the natural restoration of an area.
- iv. Opportunities to set aside strategic areas for restoration and enhancement.
- v. Opportunities for local stewardship, naturalization, and education about the benefits of enhancing the area’s natural heritage system.
- vi. Public acquisition.
- vii. If lands are not acquired then the lands will be placed in a protected designation and zone.

The environmental impact assessment (EIA) Wallace Woods should provide explicit recommendations on how the natural heritage features will be protected, and the establishment of a natural heritage system which serves to enhance the identified restoration opportunities to facilitate the creation of a linked natural heritage system. The Municipality’s Official Plan Review will include a policy framework to identify a natural heritage system including opportunities for restoration. It is a high priority of the Municipality to ensure that the identified restoration opportunities are adequately addressed through the WWSP.

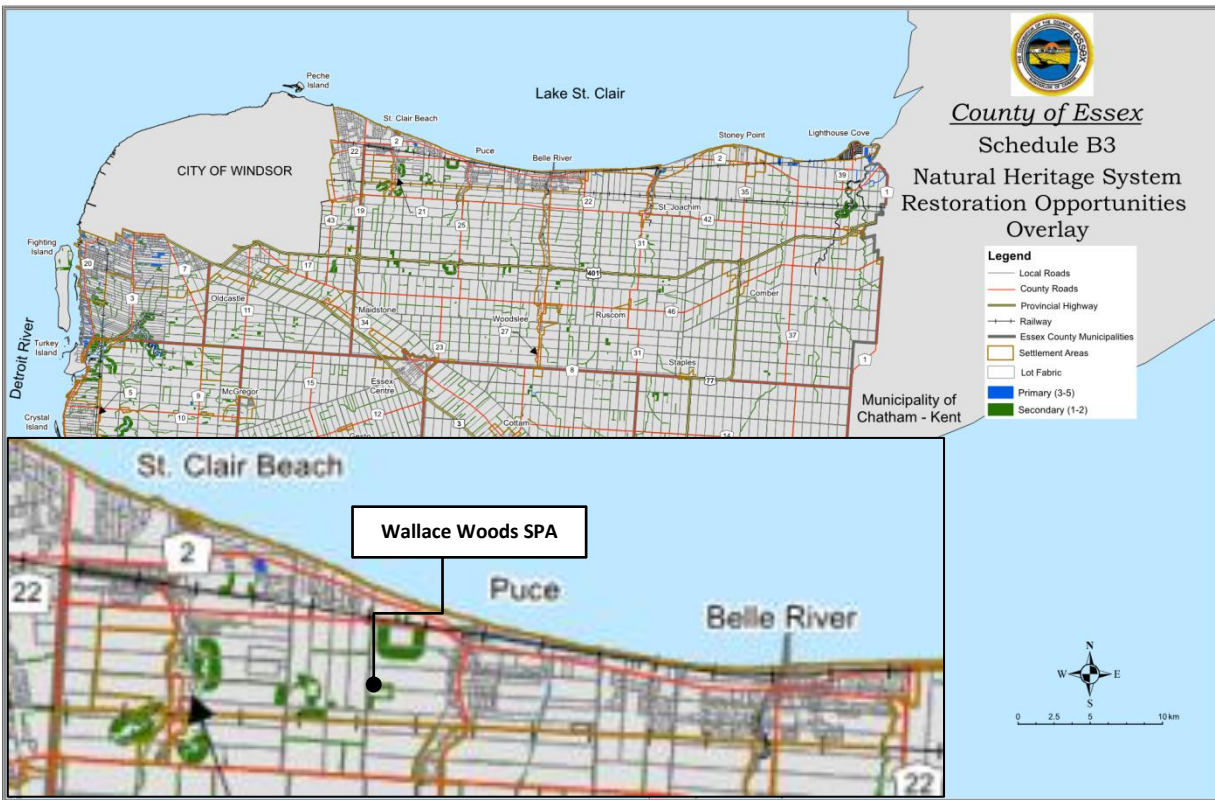


Figure 7: Essex County Official Plan – Schedule B3 (Natural Heritage System Restoration Opportunities Overlay)

3.3.6 TRANSPORTATION

The County encourages that development proposals be considered in the context of all forms of transportation including safe, energy efficient and economical movement of people and goods throughout the County. This is to be facilitated through ensuring that appropriate right-of-way widths for all existing and proposed roads are provided in accordance with the *Planning Act*, promoting the continual development/improvement of the alternative transportation options and the convenient and efficient public transit services throughout the County.

The County establishes the need to promote the continual development and improvement of the active transportation system. This objective includes working together to foster a safe, comfortable bicycle and pedestrian friendly environment by encouraging people of all ages and abilities to engage in non-motorized activities for everyday transportation and recreation.

As it relates to WWSP, all County and local municipal roads must be accessible for active transportation though an approach to cycling that recognizes the bicycle as a vehicle which operates on public roadways with the same rights and responsibilities as motor vehicles. In addition, the County requires local municipalities to ensure the integration of pedestrian and cycling linkages to commercial, transit, schools, trails, parks and municipal facilities when considering development proposals. This specifically includes designing new local roads to have shorter block lengths that are generally less than 250 metres to encourage walking and cycling.

Importance of rail infrastructure is recognized by the County given its critical role in long-term economic growth and the efficient and effective movement of goods and people. Given the CP Railway along the southern boundary of the WWSPA, the County encourages sensitive land uses to not be encouraged adjacent or in proximity to rail facilities. All proposed residential or other sensitive land use development within 300 metres of a railway right-of-way is required to undertake noise studies and a vibration study if

within 75 metres of a railway right-of-way, both to the satisfaction of the local municipality in consultation with the appropriate railway. This allows for the necessary opportunity to mitigate any adverse effects from vibration or noise that may be identified. In addition, it is required that all proposed development adjacent to railways ensure that appropriate safety measures such as setbacks, berms and security fencing are provided.

3.3.7 LOCAL OFFICIAL PLAN

Section 4.4, Local Official Plans, of the County Official Plan affords lower-tier municipalities within the County the opportunity to modify their own local official plans (i.e., secondary plans), subject to being “in conformity with the policy direction” of the County Official Plan.

The proposed WWSP will conform to the County policy directions mentioned above for development within a Primary Settlement Area.

3.4 MUNICIPALITY OF LAKESHORE OFFICIAL PLAN

The Municipality of Lakeshore is comprised of a large geographic community with multiple urban centres and hamlets resulting from municipal restructuring and the historic growth and settlement trends. The Municipality of Lakeshore’s Official Plan (approved in 2010) recognizes the unique challenges faced by the Municipality, and promotes a comprehensive planning framework to appropriately manage future growth and development in multiple urban centres. The community structure for the Municipality promotes the creation of complete communities, which meet immediate and future needs by providing access to a full range and mix of housing, diverse employment and shopping opportunities, a range of community services and facilities, recreational and open space opportunities, convenient transportation choices, and protection and enhancement of agricultural and natural resources.

The Municipality’s Official Plan establishes a community structure to direct growth and development within the Municipality (S. 3.3). Wallace Woods is located within the Settlement Area of Maidstone and the lands are intended for urban development over the planning horizon. The Official Plan designates the majority of the WWSPA, as Urban Reserve Area, and identifies a future Primary Node (S. 3.3.6) within Wallace Woods (Schedule A), as shown on **Figure 8**. Special Planning Studies or Secondary Plans may be prepared for Special Planning Areas, such as Wallace Woods, to comprehensively address the arrangement of the land use patterns for new development areas. They are intended to rationalize development within the existing Settlement Areas, promote redevelopment or intensification within an area, or for any other reason identified by the Municipality.

Land uses within WWSPA are identified on Schedule “C.5” Land Use (Wallace Woods), as shown on **Figure 9**. Portions of the periphery of the Planning Area include active land use designations which generally reflect existing land uses and include: lands designated as Employment Designation (lands fronting Patillo Road), Service Commercial Designation (southeast corner of Patillo Road and County Road 22), Mixed Use Designation (southeast corner of Wallace Line Road and County Road 22), and Residential Designation (lands generally fronting West Puce River Road).

Urban Reserve areas are designated to accommodate the Municipality’s projected residential and employment growth in a manner that supports the community’s overall goals and vision. Development within the Urban Reserve Areas shall not proceed until such time as a Secondary Plan and supporting studies are approved for the Special Planning Area. Primary Nodes are envisaged as major Municipal-wide focal points that will accommodate a range of commercial/retail/service uses; Large Format Retail uses; offices and non-industrial and population-related employment uses; a range and mix of residential uses and institutional uses.

The following OP policies are specific to the development of the Wallace Woods New Primary Node (Section 3.3.6.2):

- a) Further policy guidance will be provided through the preparation of the Secondary Plan for the WWSPA to establish the limits and the extent of the Wallace Woods New Primary Node and establish appropriate density targets and objectives to meet these targets.
- b) The predominant use of land will be a mix of medium to higher density residential uses; non-industrial community-related employment uses including: commercial retail, offices, and services; entertainment and cultural facilities; institutional; and municipal and public services including: schools, recreation centres, parks and open space uses within an innovative pedestrian-oriented main street environment.
- c) The Municipality will ensure land use compatibility with adjacent uses through the use of appropriate buffers and land use transitions.
- d) The Municipality will explore opportunities to secure public lands for passive recreation and open spaces.
- e) The Municipality will encourage the creation of an interconnected network of streets and pedestrian pathways to create a walkable neighbourhood.

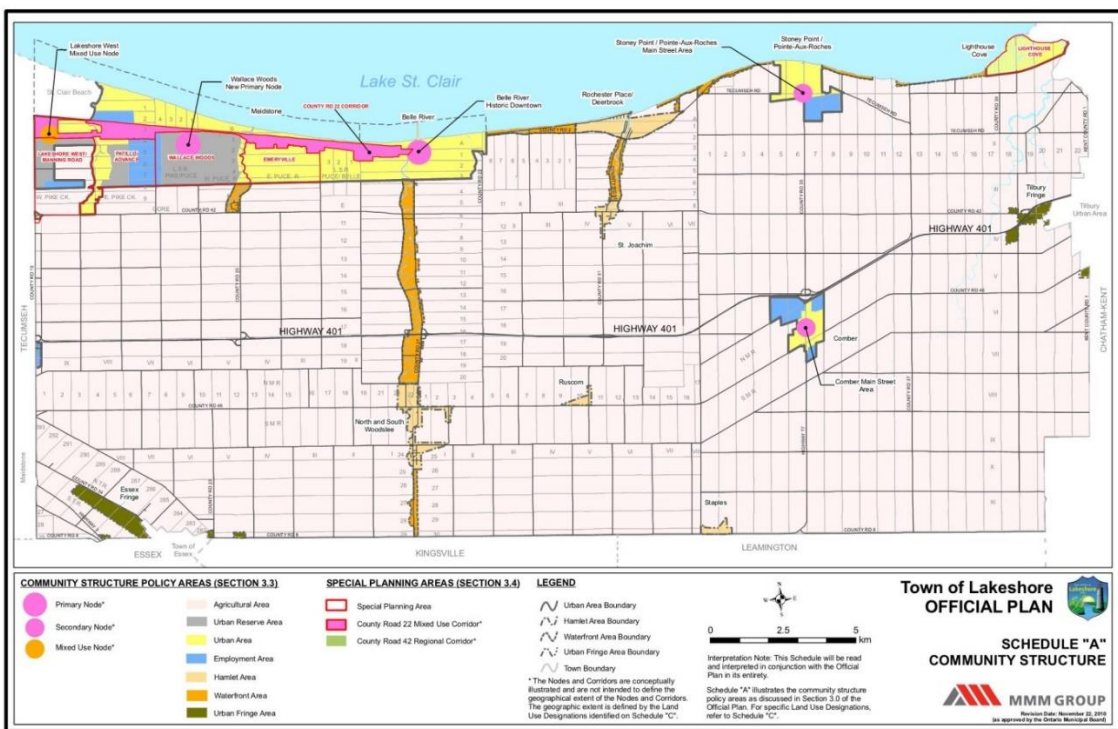


Figure 8: Lakeshore Official Plan, 2010 – Schedule “A” Community Structure

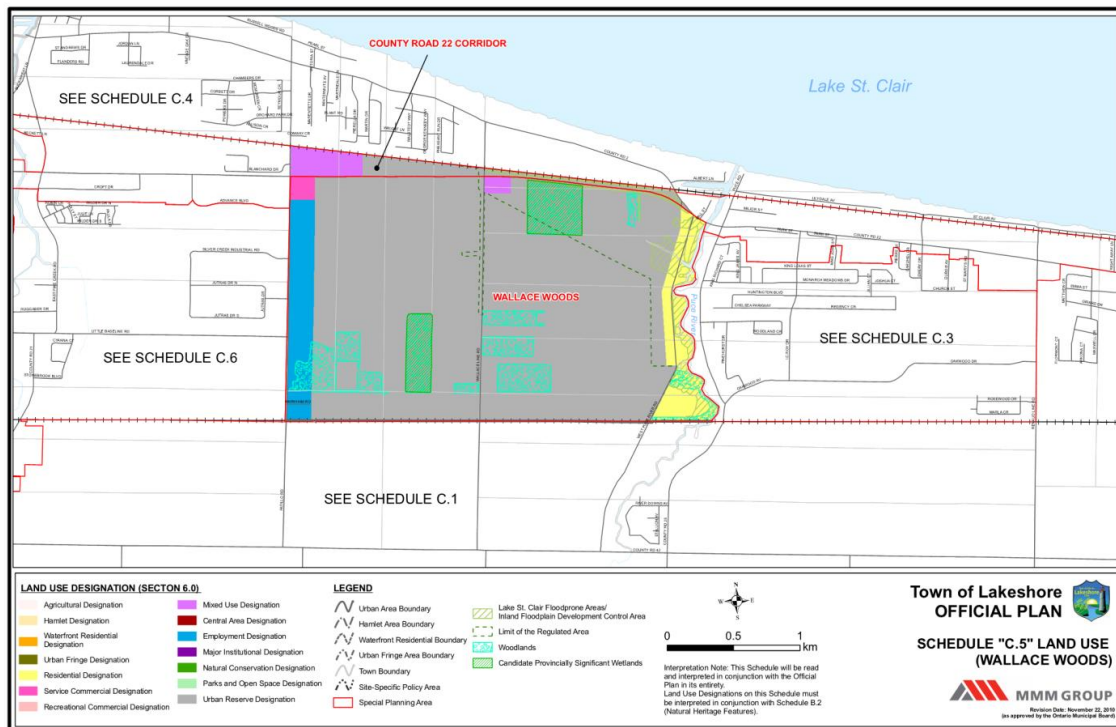


Figure 9: Lakeshore Official Plan, 2010 – Schedule “C.5” Land Use (Wallace Woods)

The Municipality’s Official Plan also identifies two Candidate Provincially Significant Wetlands (PSW), which required further evaluation to determine their significance prior to development occurring, as well as a Woodlands overlay. The wetland adjacent to County Road 22 has since been designated as a PSW, as well as the wetland adjacent to Patillo Road, as identified in the County Official Plan. The Wallace Woods EIA will need to determine and evaluate the significance of the other woodland features and serve to protect and enhance these features and restoration opportunities as identified in the County Official Plan. Eastern portions of WWSPA are also located within the ERCA Regulated Area as well as Lake St. Clair Floodprone Area and the Inland Floodplain Development Control Area, and these hazards will need to be addressed and appropriately mitigated prior to development occurring. A Natural Heritage Study has been completed for the WWSPA to include a review of relevant policies, a review of available background information for the study area and adjacent lands, and field inventories to characterize functions of natural features. The Study identified opportunities to enhance the proposed Natural Heritage System (NHS) identified. The proposed NHS and recommendations of the study are summarized in **Section 4.7.3** of this report.

The Municipality’s Official Plan (S. 3.4.4, and S. 9.5 in the March 2021 Council adopted version) provides specific policies to guide the preparation of a Secondary Plan for the WWSPA, which include, among other matters:

- determine the preferred land use, community design, transportation and servicing policies for these lands;
- the development of the Wallace Woods New Primary Node for the lands generally within the north-central portion of the WWSPA;
- address land use compatibility issues between the existing and proposed land uses and appropriate land use transitions within the WWSPA;
- establish land uses and land use policies that are consistent with the land budget identified in the Policy Directions and Growth Structure Report, prepared in support of this Plan;
- establish an appropriate residential phasing plan and policies to ensure the orderly, efficient and timely progression of residential development, in accordance with the anticipated growth projections;

- provide that subsequent to an initial phase of development, of approximately 100 hectares of land for residential development, additional lands will only be designated for residential and related urban land uses in accordance with Section 6.0, and subject to the criteria outlined in Section 3.4.4 f) (and S. 9.5 in the March 2021 Council adopted version) of the Plan;
- make recommendations on required improvements to the road network, including the provision of additional transportation capacity between County Road 22 and County Road 42;
- support the creation of an innovative, mixed use, and pedestrian-oriented main street environment, through the preparation of an urban design study; and
- support the creation of a linked natural heritage system which will reinforce the protection, restoration and enhancement of identified Natural Heritage Features, the overall diversity and interconnectivity of Natural Heritage Features, and promote the integration of stormwater management ponds and community uses, including parks and open spaces, recreational uses, trails and schools and municipal facilities.

The Official Plan (Schedule “D.2” Road Classification, as shown on **Figure 10**) also establishes a conceptual planned road network and hierarchy for the WWSP area, based on the recommendations of the Municipality’s Transportation Master Plan. This includes a modified grid network of roads to facilitate interconnectedness with the existing road network. The planned road classifications are comprised of Urban Arterial Roads, Urban Residential Collector Roads, and Urban Commercial Employment Collector Roads, to establish appropriate connections to the boundary roadways

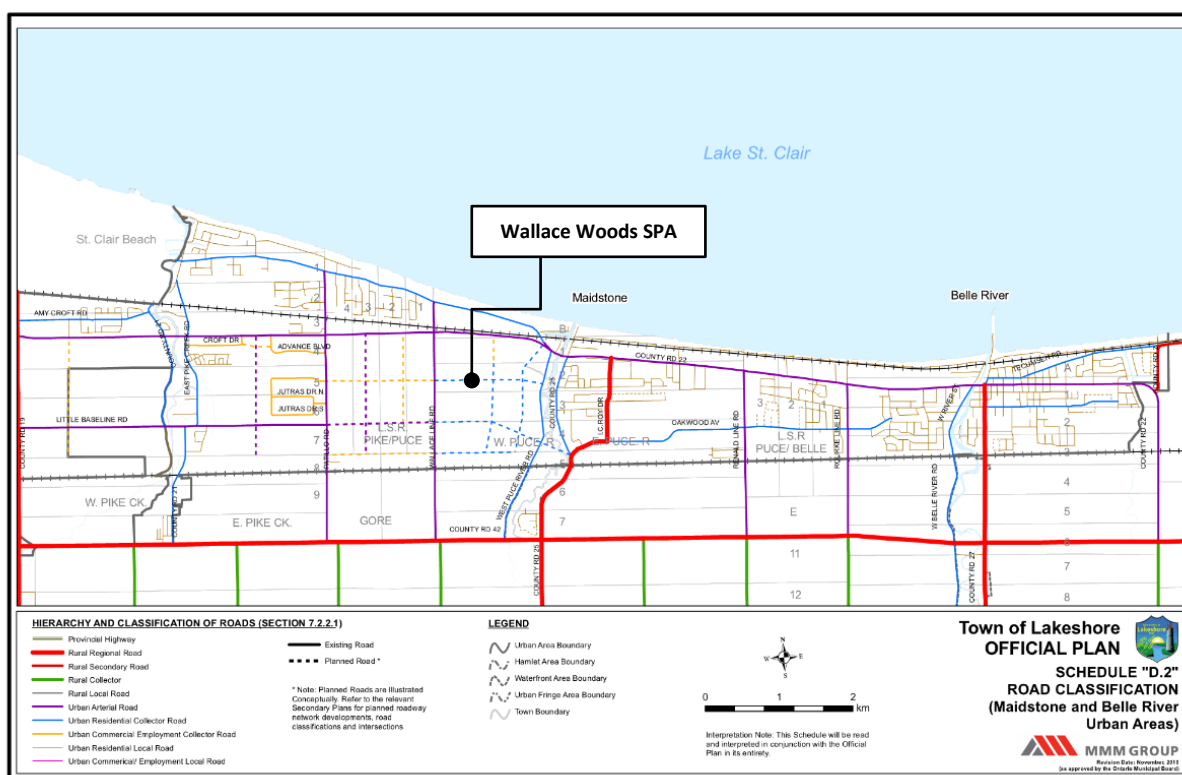


Figure 10: Lakeshore Official Plan, 2010 – Schedule “D.2” Road Classification

3.4.1 COUNTY ROAD 22 SECONDARY PLAN AND CORRIDOR TRANSFORMATION STRATEGY

The Municipality of Lakeshore Official Plan identifies County Road 22 as a Special Planning Area (SPA), requiring a detailed study and Secondary Plan to guide future planning decisions. A Secondary Plan and

Corridor Transformation Strategy has been prepared to provide a more detailed land use and urban design framework for development within the corridor. The Secondary Plan identifies County Road 22 as an Urban Arterial Road with adjacent land uses designated for mixed-use, employment, residential, and urban reserve uses. While the County Road 22 Corridor Secondary Plan does not specifically include lands located within the WWSPA, the existing policy and urban design framework for County Road 22 will be appropriately applied to lands fronting County Road 22 through the WWSP.

As such, the following policies should be considered in the planning and urban design framework for the lands fronting County Road 22 (both north and south of County Road 22) within the WWSPA:

- Land uses, particularly within the Wallace Woods New Primary Node should comprise a mix of land uses, which include commercial, residential, employment and institutional uses
- In an effort to develop an attractive and pedestrian oriented streetscape, consideration should be given to establishing Continuous Street Frontages and Intermittent Street Frontages, whereby a certain percentage of the building frontage is located within a building setback zone. For example, areas identified as Continuous Street Frontages are required have a minimum of 75% of the length of the lot frontage to be occupied by building frontages within a maximum front yard setback as established by the greater of the County’s minimum building setback requirement or 3.0 m.
- Medium to high-profile building heights are encouraged within the Mixed-Use Designation, with a minimum building height of 2 storeys. Additional height should be promoted at key intersections in the Primary Node
- Where development is to be proposed fronting on County Road 22, buildings are to be oriented towards County Road 22 where possible and appropriate with primary entrances from an internal road network.
- A high quality of urban design along the Corridor will be promoted in accordance with the design guidelines of the Corridor Transformation Strategy.
- Parking areas are to be located away from County Road 22 and in appropriate locations that prioritize the rear and/or side of buildings.

3.4.2 MUNICIPALITY OF LAKESHORE OFFICIAL PLAN REVIEW

The Wallace Woods Secondary Plan was undertaken concurrently with the Municipality’s Five-Year Review of the Official Plan. In support of the Official Plan Review a number of studies were undertaken to provide input into the Official Plan Review, which include:

- Growth Forecast Update and Employment Land Needs, 2016
- Residential Intensification Strategy, 2016
- Affordable Housing Strategy, 2016
- Natural Heritage Discussion Paper, 2016
- Lakeshore Parks and Recreation Master Plan, A Community Connected by Parks, 2017
- Water and Wastewater Master Plan Update, 2017

A revised draft Official Plan was circulated for review and comment in October 2020. Council adopted the Official Plan through Official Plan amendment no. 16, in March of 2021. As of the writing of this report, the Amendment is under review by the County of Essex.

4 SUMMARY OF SUPPORTING STUDIES

In support of the preparation of the WWSP, and in response to the requirements in Section 3.4.4 (S. 9.5 of the March 2021 Council adopted version) of the Municipality's Official Plan, a number of technical supporting studies have been undertaken to assist in developing a more detailed planning framework for the future development of Wallace Woods. These supporting studies have been organized in themes below, and include the following:

Servicing

- Wallace Woods Secondary Planning Area Stormwater Management Report, July 2014 (IBI Group)
- Wallace Woods Secondary Planning Area Servicing Design Brief, Draft, November 2014 (Amico Engineering Inc.)

Transportation

- Wallace Woods Secondary Planning Area Transportation Study, July 2014 and revised November 2021 (IBI Group)

Natural Environment

- Environmental Issues Scoping Report, (EISR), April 2016 (BioLogic Inc.)
- Phase One Environmental Site Assessment (ESA), July 2016 (Exp Services Inc.)
- Wallace Woods Subwatershed Study, September 2020, (WSP Canada and LGL Limited)

Noise and Vibration

- Environmental Noise Feasibility and Railway Vibration Studies, July 2016 (Valcoustics Canada Ltd.)

Archaeology

- Stage 1 &-2 Archeological Assessment, July 2016 (The Archaeologists Inc.)
- Stage 3 Site-Specific Archaeological Assessment Draft Report, November 2016 (The Archaeologists Inc.)

Land Use and Urban Design

- Wallace Woods Concept Plan Report, April 2013 (Smithgroup JJR)
- Wallace Woods Revised Land Use Concept, April 2021 (WSP)

The following is a summary of each of the supporting studies; however, the detailed reports can be found in the Appendices.

4.1 SERVICING

4.1.1 WALLACE WOODS SECONDARY PLANNING AREA STORMWATER MANAGEMENT REPORT, JULY 2014 (IBI GROUP)

The Wallace Woods Secondary Planning Area Stormwater Management Report, July 2014 (IBI Group), documents the stormwater management aspects associated with the development of the WWSPA. The study develops and investigates all applicable alternatives to address adequate storm drainage and stormwater management servicing. It outlines the stormwater management strategy for the proposed development. Hydrological and hydraulic analyses were undertaken to determine the design features of all required drainage elements. A detailed presentation of the features of the recommended stormwater management system to control quality, quantity and erosion is provided. This Report and its recommendations were reviewed and considered in the preparation of the Wallace Woods Subwatershed Study, September 2020,

(WSP Canada and LGL Limited). Despite the fact the recommendations from both reports are not “in-conflict” with each other, both reports should be read in conjunction to understand the various linkages and influences of both reports. See **Figure 11**.

The proposed recommendations of the report are summarized in **Section 4.7.1** of this report.

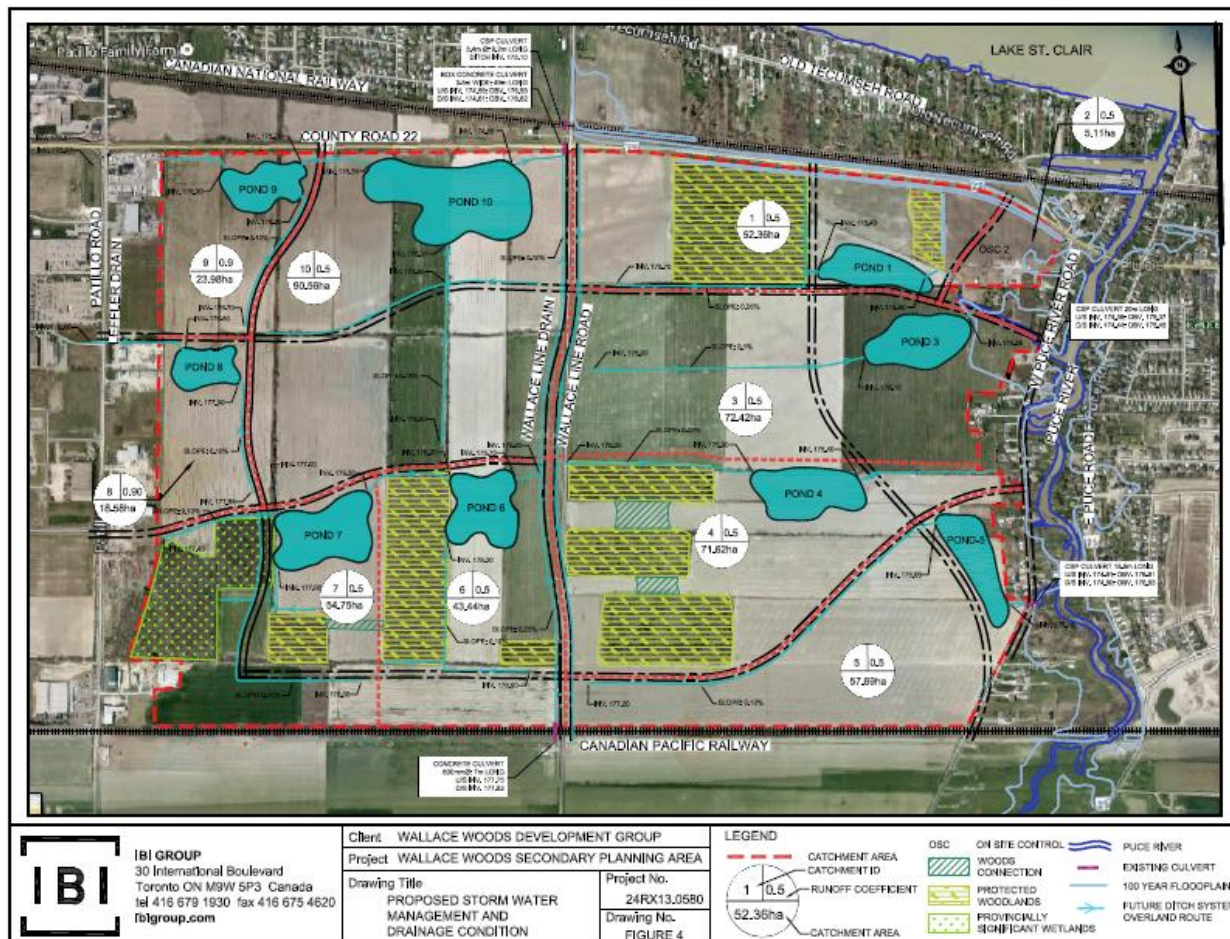


Figure 11: Figure 4 of SWM Report: Proposed Storm Water Management and Drainage Condition

4.1.2 WALLACE WOODS SECONDARY PLANNING AREA SERVICING DESIGN BRIEF, DRAFT, NOVEMBER 2014 (AMICO ENGINEERING INC.)

The Wallace Woods Secondary Planning Servicing Design Brief, November 2014 (Amico Engineering Inc.) was prepared to assess the servicing requirements relating to the WWSPA. The Brief provides the conceptual framework for water distribution, sanitary sewage, and storm drainage for this development.

The proposed recommendations of the brief are summarized in **Section 4.7.1** of this report.

4.2 TRANSPORTATION

4.2.1 WALLACE WOODS SECONDARY PLANNING AREA TRANSPORTATION STUDY, JULY 2014 AND NOVEMBER 2021 (IBI GROUP)

The Wallace Woods Secondary Planning Area Transportation Study, revised in November 2021 (IBI Group), examined the transportation impact of the site on the surrounding road networks as well as proposed mitigation measures for both signalized and unsignalized intersections within the study area.

Once the proposed development is fully built-out, the total trips occurring at peak hours are 3,509 in the AM and 3,914 in the PM. Due to the larger size of the development, the impact of the site is significant.

From 2026 to 2041, the Future Background Conditions anticipate that signalized intersections will operate above the critical capacity thresholds. It is suggested that one of the following mitigation measures can be considered at the signalized intersections, where feasible:

- A possible right-of-way widening by providing additional through lanes to increase road capacity, especially on Essex County Road 22 and 42;
- The provision of a dedicated left-turn and/or right-turn lane to increase storage capacity for turning vehicles; and
- Overall traffic signal timing plans adjustments to accommodate traffic, especially during Weekday AM and PM Peak hours.

These intersections include Essex County Road 22 and Patillo Road, Essex County Road 22 and East Puce Road (Essex County Road 25), Essex County Road 42 and Patillo Road, Essex County Road 42 and East Puce Road (Essex County Road 25). The mitigation measures should especially consider left and right turns at these intersections as they exceed the storage lane capacity of at least two cars in length.

Majority of minor roads are connected to unsignalized intersections where they will also experience significant delays due high volume of traffic on major roads. The minor road approaches include:

- The northbound and southbound approaches at the Essex County Road 22 and Wallace Line Road intersection;
- The northbound approach at the Essex County Road 22 and West Puce Road intersection;
- The eastbound and westbound approaches at the Patillo Road and Little Baseline Road intersection;
- The southbound approaches at the Essex County Road 42 and Wallace Line Road, as well as the Essex County Road 42 and West Puce Road intersections; and
- The eastbound and westbound approaches at the Patillo Road and Proposed Site Access (Street F) intersection.

It is suggested that traffic control signals may be considered to mediate traffic along minor roads, including turning lanes where feasible.

The proposed recommendations of the study are summarized in **Section 4.7.2** of this report.

4.3 NATURAL ENVIRONMENT

4.3.1 ENVIRONMENTAL ISSUES SCOPING REPORT, (EISR), APRIL 2016 (BIOLOGIC INC.)

The Environmental Issues Scoping Report (EISR), April 2016 (Biologic Inc.) was prepared as the first step of the Environmental Impact Assessment (EIA) process, which provides an overview of existing conditions of the WWSPA and surrounding lands. The intent of the EISR is to establish the Terms of Reference for the next steps of the EIA process. The EISR presents a preliminary summary of potential concerns related to natural heritage and recommended future studies that are needed to adequately evaluate potential direct and indirect (adjacent) impacts of site development. These considerations, features and functions are identified in **Table 1**, and will need to be considered further during site design and prior to any site alteration or development.

The EISR also recommended the following additional studies be completed as part of the EIA:

- Ecological Land Classification (refine existing communities, assess Cultural communities and hedgerows)
- Breeding Bird Survey - two visits (includes Raptors)
- Breeding Amphibian Survey - 3 visits
- Reptile Surveys (Coverboards)
- 3-season Floral Inventory
- Fish Habitat Survey - summer
- Early Spring Turtle Basking Survey
- As the woodland features are to remain, snake habitat features and potential hibernaculum will be targeted to the hedgerow areas.

Policy Category	Environmental Consideration	Feature Location
Provincial Policy Statement	Significant Wetlands	Subject and Adjacent Lands
	Significant Woodlands	Subject Lands
	Significant Valleylands	Adjacent Lands- not an issue
	Significant Wildlife Habitat <ul style="list-style-type: none"> Seasonal Concentration Areas Specialized Habitat for Wildlife Habitat for Species of Conservation Concern 	Subject Lands
	Fish Habitat	Subject and Adjacent Lands
	Habitats of Endangered Species and Threatened Species	Subject Lands
	County of Essex Official Plan	Natural Environmental Areas (PSW's)
Significant Habitat of Endangered and Threatened Species		Subject Lands
Lands Designated or Adjacent to Natural Environmental Overlay Areas		Subject and Adjacent Lands
Restoration Opportunity Overlay Policies		Subject and Adjacent Lands
Town of Lakeshore Official Plan	Provincially Significant Wetlands	Subject and Adjacent Lands
	Significant Habitat of Endangered and Threatened Species	Subject Lands
	Fish Habitat	Subject and Adjacent Lands
	Other Natural Heritage Features and Functions	Subject and Adjacent Lands
Essex Region Conservation Authority	Regulation Limit	Subject and Adjacent Lands

Table 1: EISR: Environmental Considerations

The recommendations listed above were reviewed and considered in the preparation of the Wallace Woods Subwatershed Study, September 2020, (WSP and LGL Limited). The recommendations from both reports should be read in conjunction to ensure the intent of the studies are maintained.

The proposed recommendations of the report are summarized in **Section 4.7.3** of this report.

4.3.2 PHASE ONE ENVIRONMENTAL SITE ASSESSMENT (ESA), JULY 2016 (EXP SERVICES INC.)

Exp Services Inc. was engaged by Wallace Woods Consortium to conduct a Phase One Environmental Site Assessment (ESA) of the proposed Wallace Woods Development. A Phase One ESA is a systematic qualitative process to assess the environmental conditions of a site based on its historical and current uses. The Phase One ESA was conducted in accordance with the Phase One ESA standard as defined by *Ontario Regulation 153/04* (as amended), and in accordance with generally accepted professional practices.

The findings of the Phase One ESA identified potential contaminating activities (PCAs) in the northeastern portion of the WWSPA, identified in the ESA as Parcel 8 lands, which may have contributed to Areas of Potential Environment Concern (APECs). In addition, given its up-gradient location, the rail line located along the south portion of the WWSPA may have contributed to an APEC in the southern portion of the WWSPA, identified in the ESA as Parcel 8 lands. For details, see **Figure 12** below.

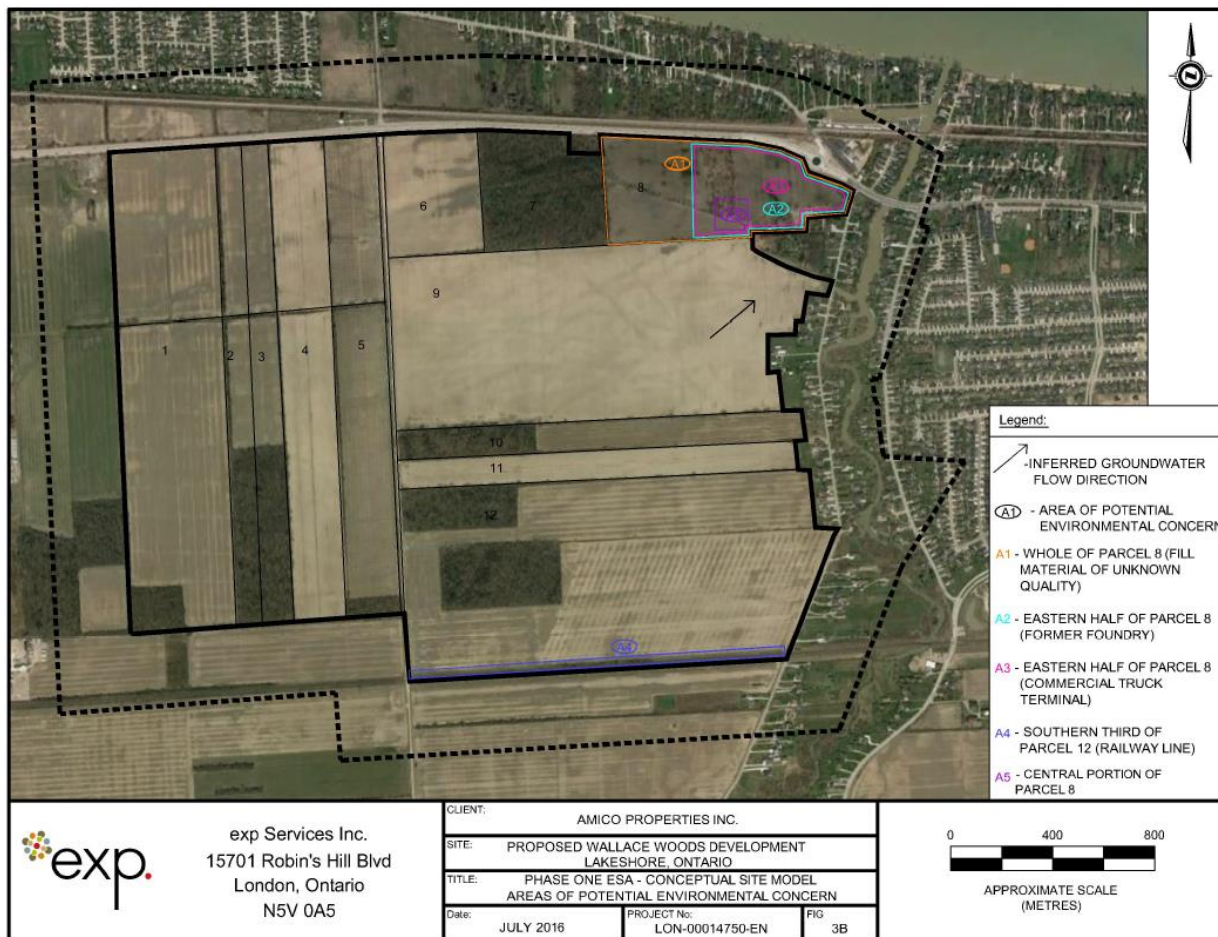


Figure 12: Phase One ESA - Conceptual Site Model Areas of Potential Environmental Concern

Amongst various policy recommendations, the Study recommends a Phase Two ESA to assess soil and groundwater in ESA Parcels 8 and 12 for potential contaminants of concern (COCs) associated with the identified PCAs. The proposed recommendations of the assessment are summarized in **Section 4.7.3** of this report.

4.3.3 WALLACE WOODS SUBWATERSHED STUDY, SEPTEMBER 2020, (WSP AND LGL LTD.)

WSP Canada Group Limited (WSP) and LGL Limited (LGL) were retained by the Municipality of Lakeshore, on behalf of the Wallace Woods Consortium (WWC), to undertake a Subwatershed Study for the Wallace Woods Secondary Plan Area. The preparation of a Subwatershed Study prior to or concurrent with the preparation of a Secondary Plan for the Wallace Woods study area is a requirement of the WWC and the Municipality of Lakeshore through consultation with the Essex Region Conservation Authority (ERCA).

The overall goal of the Subwatershed Study was to inform the preparation of the Wallace Woods Secondary Plan (WWSP), including the development of policy, guiding principles, and additional study requirements that may be required once more detailed development applications are submitted. Specifically, the Subwatershed Study included:

- a hydrogeological investigation;
- a water balance study;
- evaluation of natural heritage features;

- a regional storm assessment; and,
- a flood impact mitigation study.

Each of the components identify appropriate considerations for the development of study wide goals, objectives and targets for reflection in the Subwatershed study. The study assesses and analyzes the impact of the proposed development on the Subwatershed.

A Natural Heritage Study was also completed for the WWSPA (as part of the Subwatershed study) to include a review of relevant policies, a review of available background information for the study area and adjacent lands, and field inventories to characterize functions of natural features. The Study identified opportunities to enhance the proposed NHS identified, as shown in **Figure 13** below.

The proposed recommendations of the study are summarized in **Section 4.7.3** of this report.

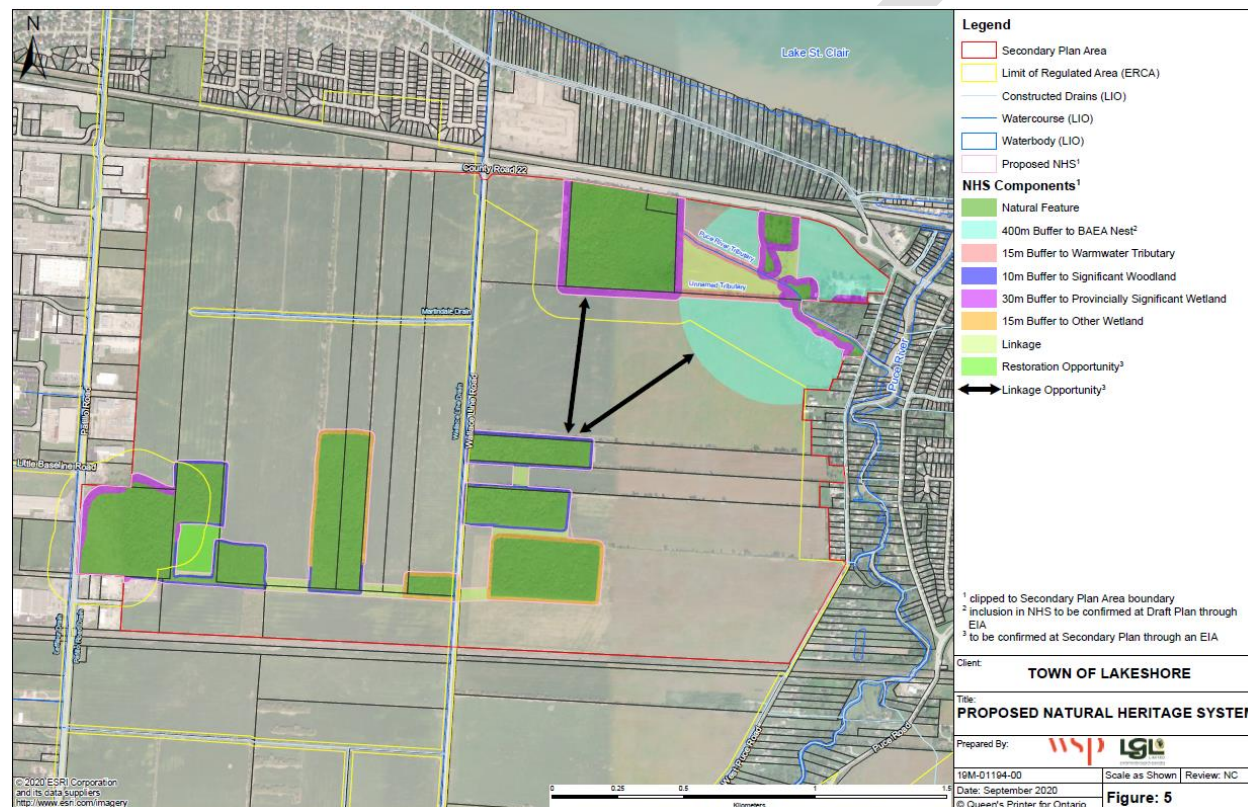


Figure 13: Proposed Natural Heritage System

4.4 NOISE AND VIBRATION

4.4.1 ENVIRONMENTAL NOISE FEASIBILITY AND RAILWAY VIBRATION STUDIES, JULY 2016 (VALCOUSTICS CANADA LTD.)

Valcoustics Canada Ltd. (VCL) was retained by Amico Properties Inc. (on behalf of the WWC) to prepare Environmental Noise Feasibility and Railway Vibration Studies to address potential noise and vibration impact from the existing environment onto the proposed development in the WWSPA. Potential noise impacts included, the significant road noise sources in the vicinity such as traffic on County Road 22, Wallace Line Road, Patillo Road, West Puce River Road and the internal roadways within the development; the significant rail traffic noise sources in the vicinity are rail traffic on the Canadian National Railways (CN) Chatham Subdivision and the Canadian Pacific Railways (CPR) Windsor Subdivision; and the

significant stationary noise sources with potential to impact the proposed development are the existing industrial uses to the immediate west of the site. The sound exposures on site were determined and evaluated using the applicable Ministry of the Environment and Climate Change (MOE) noise guideline limits to determine the need for noise mitigation.

The proposed recommendations of the studies are summarized in **Section 4.7.4** of this report.

4.5 ARCHAEOLOGY

4.5.1 STAGE 1 & 2 ARCHEOLOGICAL ASSESSMENT, JULY 2016 (THE ARCHAEOLOGISTS INC.)

The Archaeologists Inc. was contracted to conduct a Stage 1&2 Archaeological Assessment of the WWSPA.

A Stage 1 background study of the subject property was conducted to provide information about the property's geography, history, previous archaeological fieldwork and current land condition in order to evaluate and document in detail the property's archaeological potential and to recommend appropriate strategies for Stage 2 survey. A Stage 2 property assessment was conducted to document all archaeological resources on the property, to determine whether the property contained archaeological resources requiring further assessment, and to recommend next steps. The characteristics of the property dictated that the Stage 2 survey be conducted by a combination of pedestrian survey and test pit survey. The Stage 1 background study found that the subject property exhibits potential for the recovery of archaeological resources of cultural heritage value and concluded that the property requires a Stage 2 assessment.

The Stage 2 property assessment, resulted in the identification of one archaeological site, designated Site H1. Site H1 is identified as a mid nineteenth-century Euro-Canadian homestead site. Site H1 was considered to be of further cultural heritage value and it was recommended that the site be subject to a Stage 3 site-specific archaeological assessment.

4.5.2 STAGE 3 SITE-SPECIFIC ARCHAEOLOGICAL ASSESSMENT DRAFT REPORT, NOVEMBER 2016 (THE ARCHAEOLOGISTS INC.)

The Archaeologists Inc. was contracted to conduct Stage 3 Site-Specific Archaeological Assessment for Archaeological Site AbHq-12 (Site H1), Part of Lots 1, 2 and 3, Concession Between River Puce and River Peches, and Part of Lots 1, 2, 3, and 4, Concession River Aux Puce West Side, (Geographic Township of Maidstone, County of Essex), Municipality of Lakeshore.

Site AbHq-12 was discovered during a Stage 2 property assessment, which consisted of a systematic pedestrian survey and test pit survey by The Archaeologists Inc. (TAI 2016).

The Stage 3 assessment strategy for the site was consistent with that outlined in the 2011 Standards and Guidelines for Consultant Archaeologists. The Stage 3 assessment consisted of the excavation of one-metre square test units at 5 metre intervals, followed by an additional 20% of the initial grid unit total focusing on areas of interest within the site.

Given the lack of any notable activity areas, the low frequency and density of artifacts, and the lack of archival information suggesting that there was any type of long-term occupation of the site relating to the limited artifacts recovered, the site was determined not considered to be of high cultural heritage value and it was recommended that there are no further cultural heritage concerns for Site AbHq-12. Therefore, no implementation of conservation strategies for archaeological findings of cultural heritage value or interest is required.

The proposed recommendations of the studies are summarized in **Section 4.7.5** of this report.

4.6 LAND USE AND URBAN DESIGN

4.6.1 WALLACE WOODS CONCEPT PLAN REPORT, APRIL 2013 (SMITHGROUP JJR)

The Wallace Woods Concept Plan Report, April 2013 (Smithgroup JJR), outlines the manner in which Wallace Woods will ultimately be developed. The Concept Plan, which was updated by WSP in April 2021), envisions Wallace Woods as a walkable, open space community with a diverse mix of land uses sensitively sited to create a vibrant, livable and healthy community. An interconnected system of open spaces, preserved woodlots, and created wetlands knits the entire site together. This community incorporates a Primary Node, new employment centre opportunities, residential areas with potential for diverse housing choices, parks within walking distance of all residents, and a system of streets, trails, and greenlinks that promote walking.

The Concept Plan process is based on the objectives established by the Municipality of Lakeshore's Official Plan goals, which see Wallace Woods as a progressive and successful community, some of these objectives include:

- A Primary Node functioning as a primary node for development consistent with the Official Plan's community structure and Ontario's desire for denser more walkable communities.
- A Primary Node supporting the health of County Road 22 by increasing activity and utilization along the road and by drawing in tourists and shoppers.
- Commercial and employment areas building off and strengthening the existing employment areas on the west end of the project site and in the Primary Node, growing job generation in the area.
- Close proximity to the newly announced Windsor Regional Hospital site in the City of Windsor near the Airport.
- Wallace Woods' close proximity to highway 401 capitalizing on opportunities to connect to regional economic centres (Windsor, Detroit, London, Toronto), thereby strengthening the region.
- Supporting the sustainability of the Municipality of Lakeshore and the region through its design as a "complete neighbourhood," providing a full spectrum of land uses in a walkable and ecologically supportive manner.
- Supporting tourism to the area by creating new destinations and retail opportunities.

The revised Concept Plan includes a blend of residential and mixed use areas with a proposed density of approximately 18 units per hectare in the residential area and 60 units per hectare in the mixed use/higher density area. The balance of the area would represent an employment area, as well as a robust natural heritage system and associated greenlinks and trails.

Land Use	Land Area	Density	Persons
Residential	325 hectares	5,904 units (18 units / hectare)	11,495 - 19,666 (depending on unit mix)
Mixed-Use -Retail / Office/ Residential	50 hectares	3,000 units (60 units / hectare)	4,782
Employment	23 hectares	N/A	
Natural Heritage System	70 hectares	N/A	

Land Use	Land Area	Density	Persons
Greenlink/trails	6 hectares	N/A	

The proposed recommendations of the report are summarized in **Section 4.7.6** of this report.

4.7 SUMMARY OF RECOMMENDATIONS

4.7.1 SERVICING

The recommendations of the **Wallace Woods Secondary Planning Area Stormwater Management Report** are summarized below:

- The proposed minor storm sewer system will be designed to convey the 2-year storm event. Surface runoff along the proposed roads will be conveyed via a roadside curb and gutter system and captured by a series of street catch basins that are directed into the piped sewer system. The piped sewer systems will outlet to proposed SWM ponds at the different locations.
- A storm sewer network will convey the 2-year storm event to the SWM ponds without exceeding ground level (i.e. no surface storage). For major storm events, the surcharged storm sewers and overland flow along the roadways will convey flows to the SWM ponds.
- All new developments shall have their downspouts disconnected from the storm sewer systems unless it poses a health and safety concern. Semi-detached dwellings and multi-unit townhouses shall have a minimum of 2 storm sewer service connections and 2 rear yard catch basins. Wherever possible, storm runoff from roofs, including rear yard, will discharge to nearest protected areas/wetlands through a bio-swale. The proposed bio-swales will promote infiltration and provide water quality enhancement to majority of storm runoff (storm runoff from roof and rear yard considered clean).
- The roadway grades shall be designed to convey all major storm flows to SWM ponds to capture and direct overland flow. Overland flows from the entire study area will be routed to the stormwater facilities.
- A total of 9 (nine) SWM facilities (wet/hybrid ponds) will be required for runoff quantity, quality and erosion controls.
- Northeast corner (Catchment 2) of the site will require on-site controls in conjunction with suitable LID measures before discharging to Puce River. Oil and grit separators (OGS) will be installed to treat runoff from this piece of land as this area cannot be serviced by a SWM pond.
- Wallace Line Road will be re-aligned and this will result in realignment of Wallace line Drain from CP Rail to County Road 22.
- The east property limit is bounded by the Regulatory Floodplain of Puce River. The majority of the east portion of the Wallace Woods development currently drains overland to Puce River. The Wallace Woods development within Puce River catchment would require stormwater management measures to restrict the post development flows to pre-development level.
- Future developments within Wallace Line Drain catchment, upstream of County Road 22, will require stormwater management measures to restrict the 1:100-year flow to pre-development 5- year storm.
- The Wallace Woods development within Leffler Drain catchment would require stormwater management measures to restrict the post development 1: 100-year flow to 1:5-year predevelopment.
- The proposed development will not impact on sizing of existing culverts since the post development flows will restricted to pre-development level.

- An erosion and sediment control plan will be required to minimize the amount of exposed sediment leaving the site during the construction stage.

The recommendations listed above were reviewed and considered in the preparation of the Wallace Woods Subwatershed Study, September 2020, (WSP Canada and LGL Limited). The recommendations from both reports should be read in conjunction to determine and to ensure the intent of the studies are maintained.

The recommendations of the **Wallace Woods Secondary Planning Area Servicing Design Brief** are summarized below:

- Sanitary and storm sewers, watermains and stormwater management for the proposed development will be designed in accordance with the applicable design requirements of the Municipality of Lakeshore and the appropriate approval authorities (i.e. County of Essex, Essex Region Conservation Authority, and Ministry of the Environment, Conservation and Parks).
- Sanitary servicing for the WWSPA will be through the extension of the Oakwood Trunk Sanitary Sewer.
- Storm drainage for the site will be through the existing outlets to the Leffler Drain, Wallace Line Drain and Puce River. Stormwater management for quantity and quality control will be through nine stormwater management facilities (wet/hybrid ponds) that will also accept the major overland flows.
- Municipal water servicing for the site will be through the extension of a 600-millimetre diameter trunk watermain from County Road 22, extending east-west through the WWSPA with local watermains extending from the trunk watermain to service the proposed land uses.
- Electrical distribution, telecommunications and natural gas are available for the WWSPA.

4.7.2 TRANSPORTATION

The Wallace Woods Secondary Planning Area had undergone a Transportation Impact Study (TIS) to determine the impacts which the proposed development may have on the surrounding transportation network.

Based on the analysis presented in the TIS which had been prepared by IBI Group (Draft Report #1, September 20, 2021), the results and recommendation of the report's findings are summarized below.

The Wallace Woods Secondary Planning Area Transportation Study, revised in September 2021 (IBI Group), examined the transportation impact of the site on the surrounding road networks as well as proposed mitigation measures for both signalized and unsignalized intersections within the study area.

Once the proposed development is fully built-out, the total trips occurring at peak hours are 3,509 in the AM and 3,914 in the PM. Due to the larger size of the development, the impact of the site is significant.

From 2026 to 2041, the Future Background Conditions anticipate that signalized intersections will operate above the critical capacity thresholds. It is suggested that one of the following mitigation measures can be considered at the signalized intersections, where feasible:

- A possible right-of-way widening by providing additional through lanes to increase road capacity, especially on Essex County Road 22 and 42;
- The provision of a dedicated left-turn and/or right-turn lane to increase storage capacity for turning vehicles; and
- Overall traffic signal timing plans adjustments to accommodate traffic, especially during Weekday AM and PM Peak hours

These intersections include Essex County Road 22 and Patillo Road, Essex County Road 22 and East Puce Road (Essex County Road 25), Essex County Road 42 and Patillo Road, Essex County Road 42 and East Puce Road (Essex County Road 25). The mitigation measures should especially consider left and right turns at these intersections as they exceed the storage lane capacity of at least two cars in length.

Majority of minor roads are connected to unsignalized intersections where they will also experience significant delays due high volume of traffic on major roads. The minor road approaches include:

- The northbound and southbound approaches at the Essex County Road 22 and Wallace Line Road intersection;
- The northbound approach at the Essex County Road 22 and West Puce Road intersection;
- The eastbound and westbound approaches at the Patillo Road and Little Baseline Road intersection;
- The southbound approaches at the Essex County Road 42 and Wallace Line Road, as well as the Essex County Road 42 and West Puce Road intersections; and
- The eastbound and westbound approaches at the Patillo Road and Proposed Site Access (Street F) intersection.

It is suggested that traffic control signals may be considered to mediate traffic along minor roads, including turning lanes where feasible.

4.7.3 NATURAL ENVIRONMENT

The recommendations of the **Environmental Issues Scoping Report, (EISR)** are summarized below:

- The following additional studies are required for the completion of subsequent Environmental Impact Assessments (EIAs):
 - Ecological Land Classification (refine existing communities, assess Cultural communities and hedgerows)
 - Breeding Bird Survey - two visits (includes Raptors).
 - Breeding Amphibian Survey - 3 visits.
 - Reptile Surveys (Coverboards).
 - 3-season Floral Inventory.
 - Fish Habitat Survey – summer.
 - Early Spring Turtle Basking Survey.
 - As the woodland features are to remain, snake habitat features and potential hibernaculum will be targeted to the hedgerow areas.
- The following considerations are to be taken into account when completing subsequent EIAs:
 - Linkages between existing features are considered in the preliminary development proposal. Life science studies should be used to inform and refine the final location and details of these features.
 - Hedgerow vegetation is proposed to be impacted. The location of stormwater features should be considered to preserve sections of hedgerow that support rare species and their habitats, or have other notable natural heritage qualities.
 - Some Cultural vegetation communities are proposed for preservation. The natural heritage value of these communities should be considered against the potential long-term impacts of pursuing restoration in Restoration Opportunity Overlay areas to create larger areas of contiguous habitat.
 - Stormwater management infrastructure provides an undeveloped landscape feature that can support wildlife through provision of aquatic habitats and movement corridors. Location of stormwater management facilities should consider this unintended natural heritage benefit in concert with orderly civil planning and engineering requirements.
 - Development of the Subject Lands will result in an increase in human presence both adjacent to, and likely within (via recreation), existing natural heritage features. Opportunities to encourage natural heritage appreciation, as well as protection of natural heritage features will require consideration in the EIA.

- Road crossings to increase connectivity for wildlife should be considered. The results of life science inventories should be used to inform where crossings should be considered.
- The EISR’s recommendations were further refined through consultation with ERCA, and through the preparation of the Wallace Woods Subwatershed Study, September 2020 (WSP and LGL Ltd.). It was recommended that separate EIAs will be required to implement the Secondary Plan as more detailed development plans are submitted. This requirement for an EIA will be included as part of the Secondary Plan policies. This aligns with the Municipality’s Official Plan and ERCA’s current policy for where/when an EIA is required for development and will include site specific level of detail to address policies current to the time of development (e.g. species at risk).

The recommendations listed above were reviewed and considered in the preparation of the Wallace Woods Subwatershed Study, September 2020, (WSP and LGL Limited). The recommendations from both reports should be read in conjunction to ensure the intent of the studies are maintained.

The recommendations of the **Phase One Environmental Site Assessment (ESA)** are summarized below:

- The findings of the Phase One ESA identified potential contaminating activities (PCAs) in the northeastern portion of the WWSPA, shown on **Figure 13**, identified in the ESA as Parcel 8 lands, which may have contributed to Areas of Potential Environment Concern (APECs). In addition, given its up-gradient location, the rail line located along the south portion of the WWSPA may have contributed to an APEC in the southern portion of the WWSPA, identified as Parcel 12 lands.

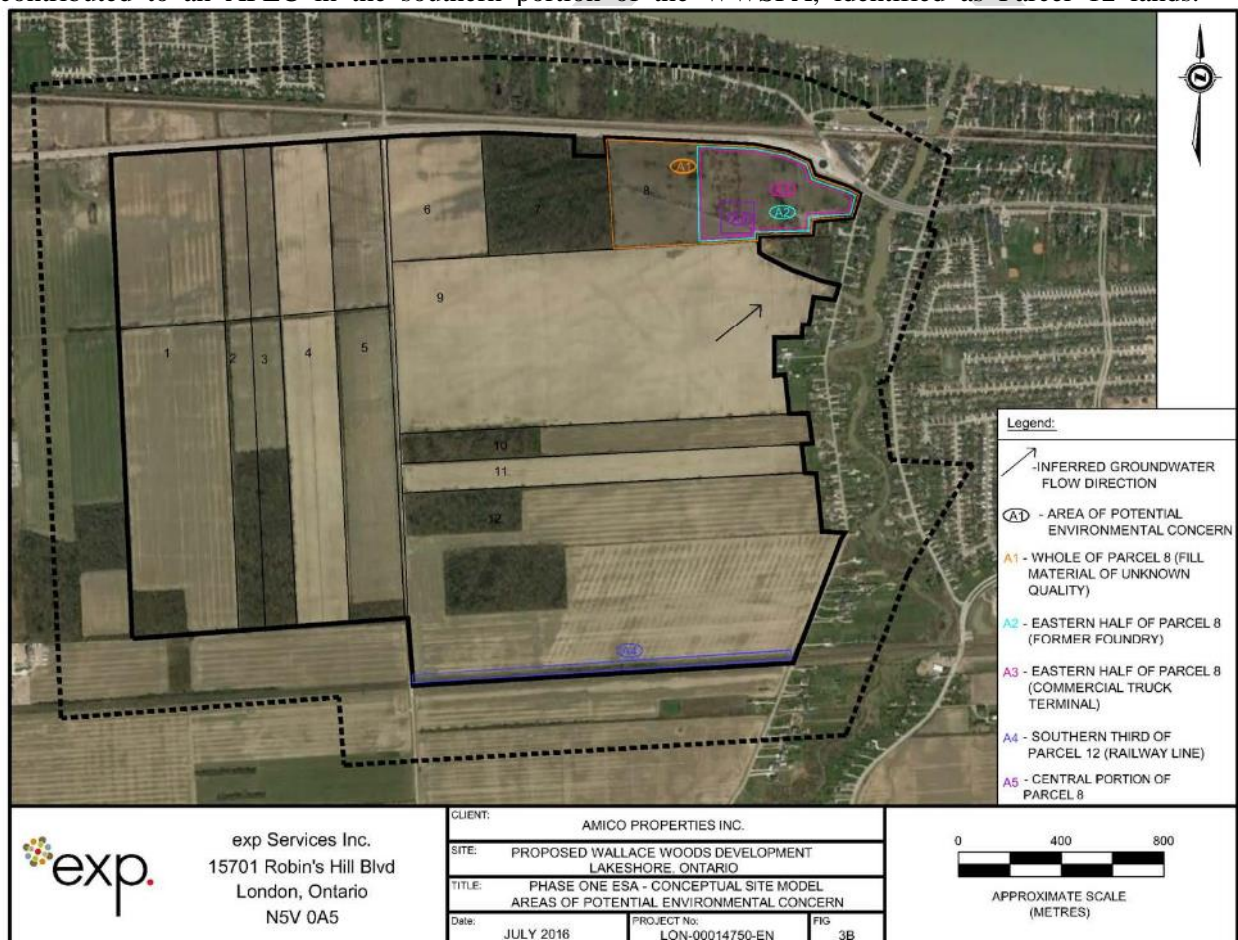


Figure 14 - Phase 1 ESA

- A Phase Two ESA is recommended to assess soil and groundwater within lands identified in the ESA, as ESA Parcels 8 and 12 for potential contaminants of concern (COCs) associated with the identified PCAs.

- Soil and groundwater in ESA Parcel 8 APECs should be sampled for metals, PAH, PHC and VOCs parameters that potentially may be associated with the fill materials of unknown quality, trucking operations, the former AST and possible former foundry operations.
- Soil and groundwater in the southern portion of ESA Parcel 12 should be sampled for metals and PAHs parameters that may be associated with railway ballast and or leached from railway ties and has migrated towards the WWSPA.
- The undertaking of a Phase Two ESA for ESA Parcel 8 would consist of the advancement of test holes instrumented as monitoring wells to sample soil and groundwater for potential COCs. Based on the extent of the APECs, the following Phase Two ESA investigative activities are recommended for ESA Parcel 8.
 - Advancement of test holes including some instrumented as monitoring wells across the whole of ESA Parcel 8 to assess the soil and groundwater of APECs A1 (fill materials of unknown quality) and A2 (possible former foundry operations) for COCs consisting of metals and inorganics and polycyclic aromatic hydrocarbon parameters (PAHs).
 - Advancement of test holes including some instrumented as monitoring wells across the eastern half of ESA Parcel 8 to assess the soil and groundwater of APEC A3 (current trucking operations) for potential COCs consisting of petroleum hydrocarbon parameters (PHC) and volatile organic compound (VOC) parameters.
 - Advancement of test holes including some instrumented as monitoring wells across the central portion of the half of ESA Parcel 8 to assess the soil and groundwater of APEC A7 (former AST) for potential COCs consisting of PHC and VOC parameters.
 - Assessment of the hydrogeologic conditions of the first water bearing beneath parcel are they relate to groundwater movement and contaminant fate and transport
- For the assessment of APEC A4 along the southern portion of ESA Parcel 12, test holes including some instrumented as monitoring wells to assess soil and groundwater for potential COCs associated with railway lines including metals and inorganics and PAH parameters.
- Given the age of the existing ESA Parcel 8 residence, a designated substance survey should be undertaken in advance of any renovation or demolition activities to assess for the potential presence of any designated substances and their management.
 - It is noted that ESA Parcel 8 is comprised of mixed residential and commercial industrial land use. If deem a mixed land use, a Record of Site condition (RSC) would be required to support the re-development of the industrial portion of this Parcel to a more sensitive land use.
 - It is noted also that if the last developed use of ESA Parcel 8 is considered industrial, an RSC would likely be required to support re-development of the whole of this Parcel to residential land use. This requirement would have to be determined in consultation with the MOECC.
 - Based on the current and historic agricultural use of the remaining Site parcels, RSC would not be required to support re-development of all or a portion of these properties for residential land use.

The conclusions and recommendations of the **Wallace Woods Subwatershed Study** are summarized below:

- The Study Area is located in Intake Protection Zone IPZ-3, with a vulnerability score of 6.3. There are no WHPA within the Study Area.
- Predominant surficial geology in the Study Area consists of low permeability deposits of clay and clayey silt till. Significant groundwater resources are not documented in the Study Area.
- Two natural heritage features (PSWs) named ‘the Patillo Road Marsh’ and ‘the Swanson Swamp’ are located within the southwest and north portions of the Study Area. These features will require protection as part of the NHS. At this time the limits shown use ortho imagery level of detail, a more refined delineation of the associated driplines and wetland limits will be required at further stages of the project.
- Three (3) MECP WWR were identified in the Study Area; none were listed as water supply wells. There is one active PTTW for pumping of surface water within a 2 km radius of the Site, used for the

former golf course irrigation. This indicates that groundwater is not used for water supply in the Study Area.

- The proposed mixed-use development at the WWSPA will consist predominantly of commercial and residential blocks, along with protected woodlands and stormwater management features. Proposed employment lands will be in the west portion of the Study Area.
- The water balance assessment for the proposed development shows that without mitigation measures, there will be a 55% decrease in infiltration deficit of 297,466 m³/year (a 56% decrease in infiltration over the pre-development conditions) and an additional 1,382,273 m³/year in runoff (169% increase). Review of the proposed development plans illustrates that there are opportunities to off-set the recharge deficit (or potentially enhance existing recharge) and simultaneously reduce and manage runoff by designing systems to collect and infiltrate runoff from roofs. Further hydrogeological characterization and testing of infiltration rates is required to obtain information to confirm that this approach is feasible and to develop workable designs.
- The flooding occurs within WWSPA west of Wallace Line Road, and shall spill to the east at the lower reach south of County Road 22 (CR22) and extending to Martindale Drain, with a flooding depth up to 0.20 m on Wallace Line Road. The Municipality is currently undertaking a Shoreline Management Plan, which will include lands within the WWSPA and influence the development of flood hazard policies.
- The flooding is due to limited conveyance capacity of existing culverts at CR22 and Canadian National Railway (CNR).
- The flooding issue of Wallace Line Drain within WWSPA are generally mitigated, with the proposed quantity control in SWM ponds and proposed realignment of the Wallace Line Drain.
- A Natural Heritage Study was also completed for the WWSPA to include a review of relevant policies, a review of available background information for the study area and adjacent lands, and field inventories to characterize functions of natural features.
- Related to Implementation, all of the recommendations, and subsequent next steps, shall be considered as part of the next stage of work, including the development of the Secondary Plan. These recommendations and next steps will not only inform the development of policy and guiding principles, but also be used to inform the terms of reference for further study once more detailed development applications are submitted to implement the Secondary Plan's direction, including a phasing strategy.
- Install monitoring wells and mini-piezometers at PSWs, to evaluate whether the PSW functions include discharge or recharge. This information will allow the project team to assess groundwater-surface interactions, and recommend where additional areas may warrant inclusion in the NHS.
- Install electronic transducers (leveloggers) at key wells, to characterize the groundwater regime at multiple depth intervals and to observe the seasonal fluctuations in groundwater levels in strata that are identified to contribute to groundwater flow. This work will focus on physically characterizing the primary aquifers and the constraints that may affect development, such as a seasonally shallow water table condition.
- Monitoring wells will ideally be positioned to provide coverage of the entire Site but also to provide information in areas where measures to mitigate recharge deficits are proposed.
- The results of the Subwatershed Study (including the limits of the proposed NHS) will be used to develop a concept plan for the WWSPA. The concept plan will include additional level of detail regarding a proposed trail system, park blocks, SWM infrastructure, road fabric and type of residential development. It is recognized that further analysis from the results of the recommended additional studies (monitoring wells, hydrogeology, additional stormwater management design) will be undertaken at that time, which may have implications on the overall NHS and provide more details regarding the land use composition. This will serve as an opportunity to identify additional area that may need to be incorporated into the NHS to achieve infiltration targets, protect flood prone areas, and achieve other identified objectives. Targets (as requested by ERCA) will be set as part of the Secondary

Plan in consultation with the municipality and other stakeholders (e.g. target for infiltration, target for natural cover, restoration targets (e.g. areas of meadow vs woodland)).

- EIAs will be required to implement the Secondary Plan as more detailed development plans are submitted, which may result in revisions to the NHS. At time of Draft Plan of Subdivision, EIAs will be completed for sites within 120m of the NHS to confirm limits are appropriate to mitigate potential effects of development (i.e. whether any additional setback is required). This timing will accommodate any changes in zoning/density targets that may arise and describe any restoration and monitoring requirements in more detail.
- This requirement for an EIA will be included as part of the Secondary Plan policies. This aligns with the OP and ERCA’s current policy for where/when an EIA is required for development and will include site specific level of detail to address policies current to the time of development (e.g. species at risk).
- The following are identified as opportunities to enhance the proposed NHS:
 - Explore opportunities to include existing hedgerows, and proposed trails, paths, parks, and other naturalized features to improve connectivity within the NHS.
 - Consider opportunities specifically for a north-south linkage to connect the Swanson Swamp natural areas in the northeast quadrant of the study area to the significant natural features to the south and west (e.g. consider placing lower impact land uses such as naturalized stormwater ponds to support connectivity of the NHS).
 - Consider inclusion of the restoration area in the southwest corner of the Study Area as part of the NHS to increase available interior habitat and mitigate edge effects.
 - Consider additional areas that warrant inclusion in the NHS in order to protect the groundwater/surface water interface, or for mitigation purposes such as for flood protection or attenuating effects of climate change.
 - Incorporate stormwater management LID measures (where possible) into the NHS.
- Once the limits of natural heritage features (including linkage) and proposed buffers to these features are confirmed (at the time of Draft Plan of Subdivision), site level water balance should be completed using this information to confirm whether it meets the targets set during the Secondary Plan process.
- An infiltration study is recommended to assess the infiltration capacity of the soils to be used in conjunction with the further characterization of groundwater conditions to develop appropriate designs for systems to enhance recharge and maintain pre-development infiltration rates.

4.7.4 NOISE AND VIBRATION

To meet the applicable transportation noise source guideline limits, the following mitigation measures were identified in the **Environmental Noise Feasibility and Railway Vibration Studies**:

- Mandatory air conditioning is anticipated for dwellings in close proximity to the rail lines.
- The provision for adding air conditioning is anticipated for dwellings in close proximity to the internal roadways. The setback distances where mandatory air conditioning and provision for adding air conditioning will be required are summarized in Table 3 of the Environmental Noise Feasibility and Railway Vibration Studies Report.
- Upgraded exterior wall and window construction is anticipated for dwellings in close proximity to the rail lines. Specific requirements will depend on lot layout and setback distances.
- Sound barriers are anticipated for dwellings in close proximity to the rail lines.
- To meet the applicable stationary noise source guideline limits:
 - Mitigation measures are anticipated due to noise from the industrial facilities located to the west of the subject site. A detailed assessment of these facilities is required to properly assess the potential impact to the proposed development.

- The measured ground-borne vibration velocity magnitudes due to railway trains on the two railways exceeded the Federation of Canadian Municipalities (FCM) and the Railway Association of Canada (RAC) vibration limit. Therefore, vibration mitigation measures are needed for this development.
- Vibration mitigation for the first row of houses adjacent to the CN Chatham Subdivision and the CPR Windsor Subdivision includes isolating the below-grade foundation from the surrounding soil and backfill, with a layer of rigid insulation.

4.7.5 ARCHAEOLOGY

A Stage I and II Archaeological Assessment, and a Stage III Archaeological Assessment, determined the WWSPA not considered to be of high cultural heritage value and recommended that there are no further cultural heritage concerns for this area. Therefore, no implementation of conservation strategies for archaeological findings of cultural heritage value or interest is required.

4.7.6 LAND USE AND URBAN DESIGN

The recommendations of the **Wallace Woods Concept Plan Report** are summarized below:

- Establish higher densities in proximity to the Primary Node and transition to lower densities as distance increases to over a 10-minute walk.
- Use the greenlinks to provide green transitions between neighbourhoods and land use types, as well as enhancing the ability of residents to move through the community without needing a vehicle.
- Create hierarchy of streets that promotes safe and efficient circulation while being pedestrian friendly with on-street parking and safe intersections.
- Discourage dead end cul-de-sac streets, except in low density residential areas where environmental systems should remain intact.
- Enhance connectivity and linkages throughout the WWSPA through the use of sidewalks, trails and pathways.
- Allow streets to front on the preserved woodlots and green corridors to the maximum extent possible for public access, attractiveness and to minimize vehicular intersections.
- Stormwater Management facilities shall need to consider and include, where feasible, Best Management Practices of stormwater management to reduce stormwater runoff volumes to as close to pre-development rates as possible.
- Maintain all significant woodlots and tie them together in a continuous open space network with paths for pedestrian and bicycle movement.
- The Secondary Plan will be implemented through an Official Plan Amendment.
- A phasing strategy for Wallace Woods will be required. This will include development across five phases to ensure this area is developed sequentially, logically, and in a way that provides a balanced mix of uses across all phases, while leveraging the assets of earlier phases to help propel subsequent phases through completion. Notwithstanding the concept plan strategy, Section 3.4.4 (S. 9.5 of the March 2021 Council adopted version) of the Official Plan contains policies that guide initial and subsequent phases of development for Wallace Woods.

5 SECONDARY PLAN CONCEPT

The Municipality of Lakeshore recognizes that the future development of Wallace Woods should be comprehensively planned through the development of a Concept Plan and implemented through a Secondary Plan. The Wallace Woods Concept Plan is rooted in the vision of Wallace Woods as a mixed-use development that will create a new core community within the Municipality of Lakeshore. Wallace Woods will provide a mix of residential, employment, community services, recreational, and open space land uses to create a sustainable, healthy, and livable community.

5.1 GOALS AND VISION

Wallace Woods is planned as a walkable, open space community with a diverse mix of land uses sensitively sited to create a vibrant, livable and healthy community. An interconnected system of open spaces, preserved woodlots, and wetlands knits the entire area together. This community incorporates a Primary Node, new employment centre opportunities, residential areas with potential for diverse housing choices, parks and schools within walking distance of all residents, and a system of streets, trails, and greenlinks that promote walking.

5.1.1 MUNICIPALITY OF LAKESHORE – OFFICIAL PLAN GOALS

The Municipality of Lakeshore Official Plan identifies a number of overall goals for the Municipality of Lakeshore’s future to guide new development over the planning horizon. These goals follow from and are consistent with the Essex County Official Plan and the PPS. The goals are to ensure that the Municipality of Lakeshore:

- Is economically progressive and successful (economy)
- Is on the move (transportation)
- Has character and sense of place (community)
- Is responsible, accountable, and influential (administration)
- Is well served and equipped (servicing and facilities)
- Is naturally inviting and environmentally aware (environment)
- Is a walkable community

The Secondary Plan for Wallace Woods is aligned with Lakeshore Official Plan Goals from the overall vision all the way down through the specific development patterns and design characteristics of the project. The WWSP also is also consistent with the PPS, 2020.

5.1.2 WALLACE WOODS VISION

Wallace Woods is a mixed-use development that will create a new core community within the Municipality of Lakeshore. Wallace Woods will provide a mix of residential, employment, recreational, public service and open space land uses to create a sustainable, healthy, and livable community.

The community will support the following land uses: civic (education, worship, recreation, health care), commercial (retail, office, restaurant, entertainment, etc.), residential, employment, and open space. Commercial uses will primarily be located in the Primary Node and on ground floor units.

Civic uses may include schools and other public facilities to be identified in the future; as well as recreational open space areas. These amenities are located on large sites generally within a 5-to-10-minute walk from the Primary Node. A significant focus of the Wallace Woods vision is to create a walkable community with linkages on sidewalks or paired trails parallel to the streets as well as to provide an

extensive and integrated greenway system through open space corridors; ensuring all residential areas have efficient access to public facilities.

Residential uses will take place in distinct neighbourhoods throughout the community and can incorporate a range of housing types and densities. Each type of residential use can be clustered creating distinct neighbourhood areas. More specifically, the Wallace Woods community will:

- 1) Provide planned, attractive, marketable and sustainable land uses that enable an efficient use of services and resources and supports a high quality of life.
- 2) Be a “complete neighbourhood,” providing a balanced mix of land uses to create a more convenient place to live with shorter commutes and less traffic congestion by providing important services on site – such as places of worship, learning, and health care.
- 3) Promote economic development through new job generators and commercial spaces, taking advantage of regional opportunities and connections.
- 4) Incorporate a range of housing types and densities to serve a diverse population and meet the needs of future residents and aging seniors.
- 5) Create a walkable, non-motorized friendly, and highly interconnected community, providing equal access to amenities for all residents.
- 6) Integrate and link recreation areas and open space throughout the development.
- 7) Protect existing natural resources and environmental quality through preservation, conservation, and restoration activities and a comprehensive stormwater management system.
- 8) Create a Primary Node that can service as a gathering place for a diversity of needs and a focus of activity.

5.1.3 WALLACE WOODS GOAL ALIGNMENT

In relation to the Municipality of Lakeshore’s Official Plan Goals, Wallace Woods promotes a progressive and successful economy, in line with Ontario’s Provincial Policy, in the following ways:

- The proposed Primary Node functions as a primary node for development consistent with the Official Plan’s community structure and Ontario’s desire for denser more walkable communities.
- The Primary Node supports the vitality of County Road 22 by increasing activity and utilization along the road and by drawing in tourists and shoppers.
- The proposed commercial and employment areas build off and strengthen the existing employment areas on the west end of the WWSPA and in the Primary Node, growing job generation in the area.
- Wallace Woods’ close proximity to highway 401 capitalizes on opportunities to connect to regional economic centres (Windsor, Detroit, London, Toronto), thereby strengthening the region.
- Wallace Woods supports the sustainability of the Municipality of Lakeshore and the region through its design as a “complete neighbourhood,” providing a full spectrum of land uses in a walkable and ecologically supportive manner.
- Supports tourism to the area by creating new destinations and retail opportunities.

Wallace Woods supports Lakeshore’s transportation goals and the Municipality of Lakeshore Transportation Master Plan (2008) as follows:

- Proposes a hierarchy of streets designed to serve automobile, bicycle, and pedestrian needs. The street layout establishes clear connections with the road network outside of the Wallace Woods site.
- Incorporates a network of off-street trails, side paths and pathway linkages throughout the project, providing strong pedestrian and non-motorized connections. WWSPA promotes non-motorized

linkages beyond the project area to the surrounding community, specifically the Town of Tecumseh and waterfront access points to Lake St. Clair.

Wallace Woods will help support and enhance Lakeshore’s character and sense of place:

- Enriches community identity through a diversity of building types, patterns, and architectural styles. The unifying theme is quality of style, as this has guided small town development over generations.
- Incorporates new public services/amenities that benefit the entire community.
- Protects and increases connections to the natural and cultural heritage of area.
- Promotes community interaction through a design that links different users together in a variety of ways.

The Wallace Woods Secondary Plan contributes to the responsible, accountable and influential administration of the Municipality of Lakeshore:

- Provides a clear guiding document for controlled and phased land development and conveys the design intent to the broader community, yet is responsive to unforeseen opportunities and market changes.

Wallace Woods provides new amenities and needs to the community consistent with the Water and Wastewater Master Plan:

- Reflects an efficient use of land through dense development patterns within a designated urban reserve zone.
- Provides a range of housing types and options to serve the residential needs of the community and region.
- Avoids linear/inefficient development patterns that create unjustified infrastructure expenses.
- Expands recreational opportunities for the entire community.
- Provides a new Primary Node with warranted retail and commercial space.
- Complements and is compatible with previously planned sewer and water system expansion.

Wallace Woods protects, conserves, and restores the health of the environment:

- Wetland areas are conserved and enhanced by land preservation and buffering practices to protect water quality. New wetland and stormwater features are proposed throughout the site to further protect water resources and make significant additions to biodiversity.
- Existing woodlots are preserved across the entire area, with forest edges improved to further support biodiversity.
- Development within flood prone areas is avoided, and development within hazard regulated areas is appropriately sensitive.
- Natural areas support groundwater recharge and protection through stormwater management.
- Stormwater is collected and treated on-site, rather than discharging into the Puce River.
- An open space system creates a series of interconnected natural spaces and recreation areas for the community, promoting healthy living for all generations.
- Green building and energy solutions will be sought out for proposed buildings.
- The WWSPA supports passive recreation and environmental education throughout many portions of the site.
- Protection, enhancement, and creation of open space and natural features across the Wallace Woods development are aligned with the PPS, 2020.

Wallace Woods will be a compact and highly walkable community:

- A Primary Node provides a central place for daily needs and services as well as special destination, retail, and entertainment. The Primary Node can incorporate a mix of uses with office space on upper floors.
- Higher density residential areas surround the Primary Node within a comfortable walking distance.
- Off-road trails, wide sidewalks, and on-street bicycle facilities link to and through all neighbourhoods and districts within the Wallace Woods Secondary Plan, providing safe and convenient walking or biking access throughout the development.
- The physical design promotes a walkable atmosphere consistent with the goals of the PPS, 2020.

5.2 URBAN STRUCTURE AND LAND USE COMPONENTS

The proposed land use plan for Wallace Woods calls for a diverse mixed-use community focused around a new Primary Node (identified as Town Centre in the Concept Plan Report). This Primary Node is intended to accommodate civic, retail, residential and office uses arranged in a highly walkable pattern. A landscaped street network with on-street parking and adequate off-street parking in the center of the blocks supports this new development.

Outside of the proposed Primary Node, land uses include a mix of residential neighbourhoods, an employment area with corporate/research (low intensity uses), and community facilities such as schools, places of worship, and active and passive recreation areas. Supporting and connecting these developed areas is an interconnected open space network that builds off preserved natural areas and incorporates new stormwater management ponds, and a system of open spaces, trees, ponds, parks, and greenlinks.

5.2.1 URBAN STRUCTURE AND LAND USE PLAN

The land use plan for the 474 hectares, Wallace Woods Secondary Plan Area (WWSPA) is shown in **Figure 15** below. Of the 474 hectares, approximately 398 hectares are proposed to be designated for development. The remaining area consists of the Natural Heritage System, including wetlands and woodlands.

Across the 398 hectares WWSPA, the average density is expected to be 18 units per hectare; however, within the Primary Node, it is proposed to be an average of 60 units per hectare.

Land Use	Land Area	Density	Persons
Residential	325 hectares	5,904 units (18 units / hectare)	11,495 - 19,666 (depending on unit mix)
Mixed-Use -Retail / Office/ Residential	50 hectares	3,000 units (60 units / hectare)	4,782
Employment	23 hectares	N/A	
Natural Heritage System	70 hectares	N/A	
Land Use	Land Area	Density	

To create a complete and liveable community with areas of distinct character, density will be distributed and balanced appropriately across the WWSPA. This will be achieved by directing the highest intensities and mix of uses to the Primary Node, and where appropriate, to lands along urban arterial roads. Other key public realm objectives include incorporating a mix of building types, and implementing appropriate transitions for adjacent lower-density areas.

The Urban Structure and Land Use Plan will take into account the following policy considerations:

- Design Neighbourhoods as an attractive, marketable, and sustainable entities within the community framework.
- Establish higher densities in proximity to the Primary Node and transition to lower densities as distances exceed a 10-minute walk.
- Ensure appropriate transitions between building forms and land uses, and ensure new land uses are compatible with existing employment areas along Patillo Road and existing low density residential along Puce River Road.
- Design streets to introduce generous streetscapes enhancements for all new and existing streets, including wider sidewalks, street furniture zones, improved visual aesthetics and public art at visually prominent locations to support local character and create a sense of place.
- Incorporate publicly and privately-owned accessible features into an interconnected network of open and inviting spaces that all users can enjoy.
- Demonstrate the highest levels of design excellence in building, site and landscape design, including a high level of sustainable design. A high standard of consideration and attention to the relationship between the public and private realms, as well as the relationship between the built and natural environment, is necessary to support the creation of an integrated and liveable environment. The Municipality may require a review for architectural control related to all development within the WWSPA.

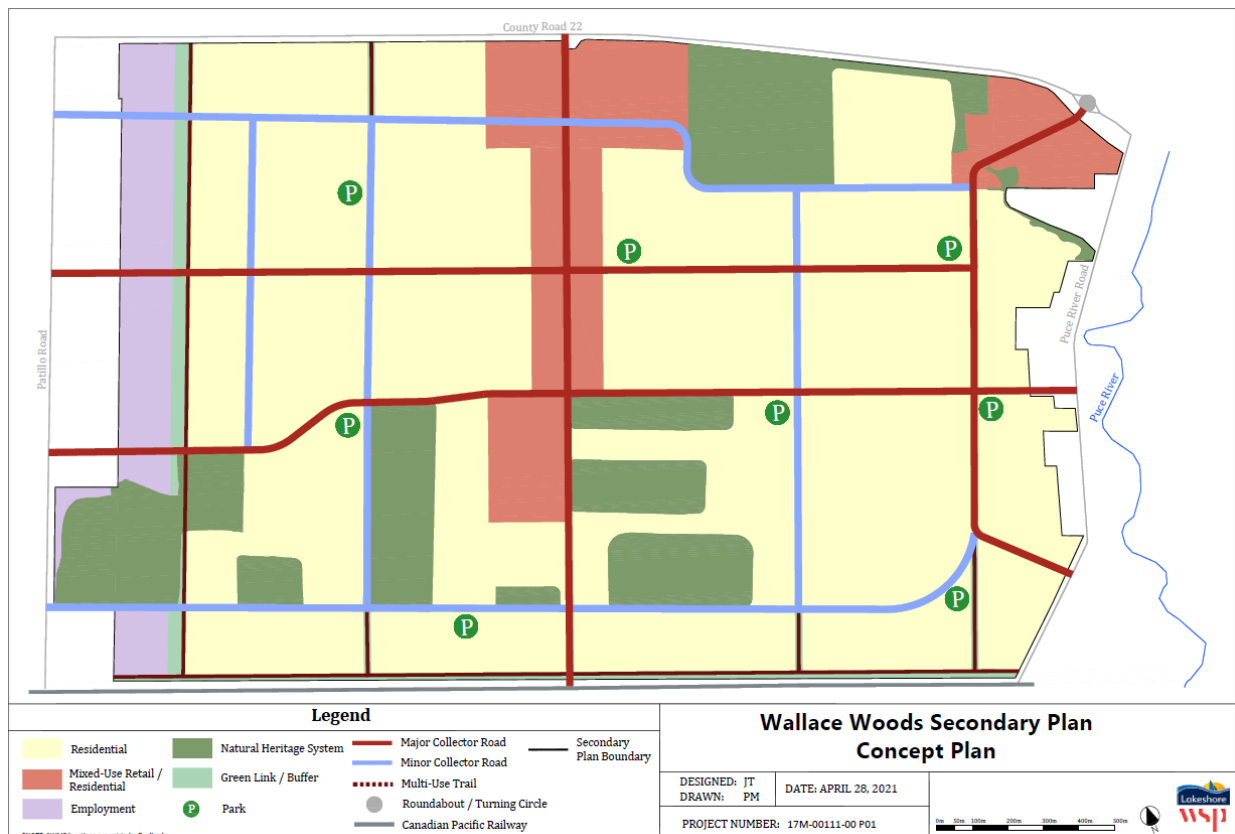


Figure 15: Wallace Woods Concept Plan – Future Land Use Plan.

5.2.2 PRIMARY NODE

The Wallace Woods Primary Node is one of two “Primary Nodes” identified within the Municipality of Lakeshore Official Plan. The Primary Node will accommodate a range of medium to higher density residential uses with a minimum density of 60 units per hectare; non-industrial community-related employment uses including: commercial retail, offices, and services; entertainment and cultural facilities; institutional; and municipal and public services including: schools, recreation centres, parks and open space uses within an innovative pedestrian-oriented main street environment. It is intended that the Primary Node will accommodate mid to high-rise residential buildings. Commercial uses may be integrated or adjacent to residential uses to ensure a continuous and active façade at grade along Wallace Line Road, which will serve as the focal point for the community. Development surrounding the Primary Node will be designed with architecture, landscape and public art of the highest quality to accentuate the node as the centre of activity for this community while allowing for appropriate transitioning to adjacent, lower-density residential uses.

5.2.2.1 COMMERCIAL USES WITHIN THE PRIMARY NODE

Commercial uses within the Primary Node will provide key retail and commercial space for Wallace Woods and the surrounding community and will be concentrated at the County Road 22 and the Wallace Line Road intersection. A mix of commercial and other office/employment uses will be readily accessible by driving, walking, and biking. These uses may be integrated on the ground floor of a residential building or a stand alone structure that support adjacent residential uses.

The design will locate buildings closer to the street edge to ensure a more active and engaging pedestrian environment along the street. Sidewalk zones should incorporate streetscape improvements, including trees, street furniture, landscaping, and other amenities to further enrich the pedestrian experience. Building facades can be articulated at regular intervals to create an engaging walking experience. See **Figure 16** below.



Figure 16: Images from Wallace Woods Concept Plan Report – Sample Primary Node

5.2.2.2 RESIDENTIAL USES WITHIN THE PRIMARY NODE

The Primary Node will provide for medium to high density housing forms and a broader mix of land uses and with opportunities for mixed use buildings, including residential buildings with commercial uses at grade and live-work units. Variety and variation in both building and urban design is encouraged to create a visually appealing streetscape and diverse experiences throughout the area. Buildings should also engage the street and serve as an architectural transition between areas of higher density to lower density residential areas beyond. A landscaped street network with on-street parking and adequate off-street parking in the center of the blocks is also proposed to support new development. See **Figure 17** below.



Figure 17: Image from Wallace Woods Concept Plan Report – Sample Primary Node

The Primary Node Area will be developed taking into account the following policy considerations:

- Provide for medium to higher density housing forms including stacked townhouses and apartment buildings and encourage a broader mix of land uses and mixed use buildings, including residential buildings with commercial uses at grade and live-work units where it is appropriate.
- Provide a range of housing types, including affordable and special needs housing.
- Encourage densities and development patterns that support public transit opportunities.
- Provide a mix of land uses, which may be horizontally or vertically integrated, to provide a variety of uses within a compact, walkable grid street pattern that enables a flow and appropriate transition between areas.
- Provide appropriate transitions with adjacent land uses to avoid land use conflicts.
- Ensure the creation of a linked network of pedestrian pathways and public open spaces.
- Demonstrate the highest levels of design excellence in building, site and landscape design, including a high level of sustainable design. A high standard of consideration and attention to the relationship between the public and private realms, as well as the relationship between the built and natural environment, is necessary to support the creation of an integrated and liveable environment.
- Achieve comfortable pedestrian and cycling conditions throughout the public realm. This may be achieved through exceptional urban design and built form to ensure that buildings are defined, framed, massed and articulated appropriately. Development will support this street and block network with appropriate scale, orientation, and design.
- Design the Primary Node considering Transit Oriented Development guidelines to incorporate potential future public transit along County Road 22, including a station area at the intersection of County Road 22 and Wallace Line Road.
- Consider adequate intersection elements, context-sensitive design, safety and geometric design at the intersection of County Road 22 and Wallace Line Road to ensure it is pedestrian friendly and to ensure safety for all users.
- Consider pedestrian connectivity between the Primary Node and lands north of County Road 22, including the potential need for a future pedestrian overpass.
- Allow for the intensification of the Primary Node overtime through smart and adequate growth.

5.2.3 RESIDENTIAL USES AND BUILT FORM CONSIDERATIONS

Lands identified for residential uses are intended to accommodate a variety of housing forms, anticipated to be developed to meet the varying demands and characteristics of the community. Residential uses will consist of low-to-medium density, including single-detached and semi-detached dwellings, street townhouse dwellings; as well as medium-to-high density residential uses such as, stacked townhouse dwellings, apartment buildings; to capture a range of persons with varying abilities.

5.2.3.1 SINGLE-DETACHED AND SEMI-DETACHED DWELLINGS

Single-detached and semi-detached residential dwellings are to be oriented towards the street with windows, porches, and entries readily visible from the street to reinforce the sense of community and walkability of the neighbourhoods. Additionally, a wide-lot configuration could allow construction of larger homes with the capacity for side entry garages, as shown in **Figure 18** below.



Figure 18: Image from Wallace Woods Concept Plan Report – Sample Single-Detached Dwellings

5.2.3.2 STREET TOWNHOUSE DWELLINGS

Townhouse dwellings are generally two to three stories in height and should have a prominent visual appearance from the street. Garages can either be accessed from the front yard, with the structure being recessed behind the main building, or accessed from the rear via a laneway. Architectural style can vary within and across neighbourhoods to provide a mixture of housing types and design styles to meet the needs prospective homeowners. See **Figure 19** below.



Figure 19: Image from Wallace Woods Concept Plan Report – Sample Townhouse Dwellings

5.2.3.3 STACKED TOWNHOUSES AND APARTMENT BUILDINGS

Stacked townhouses and apartment buildings provide for medium to higher density building forms. A variety of architectural styles and building patterns should be encouraged. Where appropriate, along higher-travelled streets or in the Primary Node, buildings may be sited closer to the street edge for a heightened on-street and urban presence. Buildings should only be set back a bit further from the street edge where there are environmental features that need to be conserved or a more desirable setback is needed to achieve a certain type of character (see **Figure 20**). Parking may be accommodated through garages integrated into the buildings, surface lots with carports in the rear or in unshielded surface lots that are not visible from the street.



Figure 20: Images from Wallace Woods Concept Plan Report – Sample Stacked Townhouses

5.2.3.4 SENIOR AND SPECIAL NEEDS HOUSING

The WWSPA is intending on accommodating a range of senior and special needs housing to serve existing and future community needs to be consistent with the County and Municipality’s affordable housing targets. Senior housing developments shall provide access to outdoor spaces and environments while also being universally accessible and barrier free. Opportunities to encourage resident interaction and health through incorporation of walking paths and outdoor spaces are important. Parking needs are generally minimal in a senior neighbourhood and can be accommodated with carports and surface lots. See **Figure 21** below.



Figure 21: Image from Wallace Woods Concept Plan Report – Sample Senior and Special Needs Housing

Residential Areas will be developed taking into account the following policy considerations:

- Ensure density, height and character of development is compatible with adjacent land uses.
- Provide adequate design, landscaping and buffering measures to ensure that the visual impact of the development on adjacent uses is minimized.
- Provide required parking on site, where feasible.
- Demonstrate that building and site materials are of high-quality, aesthetically pleasing, and durable to support the expression of design excellence.
- Development will ensure that noise and vibration levels do not exceed Provincial standards for sensitive land uses, including residential uses; and will incorporate recommended mitigation measures to ensure noise levels are at an acceptable level, as per Noise and Vibration Studies.

5.2.4 EMPLOYMENT AREA

The Employment Area consists of lands that are characterized by their high visual profile and accessibility and are generally comprised of employment and industrial, accessory commercial and related uses. The Employment Area is expected to accommodate a wide range of employment uses maximizing its location,

high visibility and good accessibility in relation to County Road 22. Development in the Employment Area will be comprised of low and mid-rise buildings that will support office and other commercial uses in a transit-supportive form and density. The Municipality will encourage the expansion of Patillo Road Industrial Park into the WWSPA, to increase the locational advantage of existing and proposed business and employment uses. See **Figure 22** below.



Figure 22: Images from Wallace Woods Concept Plan Report – Sample Corporate/Research Complex

The Employment Area will be developed taking into account the following policy considerations:

- Provide adequate design, landscaping and buffering measures to ensure that the visual impact of the development on adjacent uses is minimized.
- Site and design buildings to ensure a friendly pedestrian environment, incorporating outdoor gathering/meeting spaces, walkways, and appropriately scaled spaces.
- Locate loading facilities and service areas to avoid conflict between pedestrian circulation, service vehicles and movement along the public rights-of-way and visibility from roadways.
- Demonstrate that building and site materials are of high-quality, aesthetically pleasing, and durable to support the expression of design excellence.
- Site and orient buildings to create a strong relationship with Patillo Road and County Road 22, including the provision of primary facades, entrances and active uses at grade.

5.2.5 COMMUNITY SERVICES, PARKS, OPEN SPACES AND FACILITIES

The WWSPA represents a significant area to accommodate the Municipality’s growth for the long term. Given its size, the area remains flexible to accommodate a number of locations for future community services and facilities that may include schools, churches, libraries, and community centres.

Community Services and Facilities will be provided taking into account the following policy considerations:

- Provide adequate off-street parking and loading facilities.
- Ensure development is designed to be accessible to all persons within the community, including the elderly and those persons with physical disabilities.
- Provide appropriate landscaping and buffers to enhance the physical separation of uses, where applicable and appropriate.
- Ensure Community Services and facilities are:
 - Geographically well-distributed to provide broad access to new and existing residents and workers in the area.

- Supported by a well-designed public realm and located in highly visible and accessible locations with strong pedestrian, cycling and transit connections.
 - Delivered in a timely manner to support and be concurrent with growth.
 - Designed to provide flexible, multi-purpose space that can be used throughout the year to deliver diverse programming and adapt over time to meet varied needs.
 - Parks – the Parks and Recreation Master Plan identifies Wallace Woods as requiring a park classified as a “Community Park”. Community Parks are year-round parks that provide all-season access to the residents. All Community Parks include accessible components; have tree canopy (sense of place); seating choices (benches/boulders); Trash/recycling; tables (picnics or café); Play equipment; internal trails; restrooms; exercise equipment; pavilion; splash pad or outdoor waterplay; and parking.
 - Early development of parkland, open space, community trails is encouraged as set in the Municipality of Lakeshore Community Services Master Plan (2008). Typically, municipalities, including Lakeshore, do not advance the development of parks until certain population thresholds are identified and developed. However, the strategy of early development of parkland and trails during initial phases of subdivision development provides immediate opportunities for passive and active recreational activities. It can provide a more integrated approach to the development of new communities and neighbourhoods in terms of roads, services, utilities and parks, potentially reducing municipal tendering requirements.
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5.2.6 TRANSPORTATION SYSTEM

5.2.6.1 STREETS AND ROADS

The transportation system for Wallace Woods is designed to serve a range of users and modes of transportation. The street system is arranged to allow fluid movement through the development, avoiding dead-ends and cul-de sac patterns that restrict mobility and walkability in most spaces. Streets are planned as “complete streets,” meaning they balance and serve the needs of car and vehicle traffic, bicycle riders, and pedestrians. This includes ensuring that there is adequate traffic flow, safe bike lanes and appropriate non-motorized markings and signage, and accessible and shaded pedestrian walkways to ensure walkability.

To accommodate the trips generated by the Wallace Woods Little Baseline Road as extended into the WWSPA, Wallace Line Road is proposed to be reconfigured to accommodate increased usage. In addition, new roadways are proposed to provide access to the developments within Wallace Woods and to increase connectivity to the surrounding road network.

Three levels or hierarchy of roads are anticipated within the WWSPA. Two of these types, Major Collector Roads and Minor Collector Roads, are identified on **Figure 23** below.

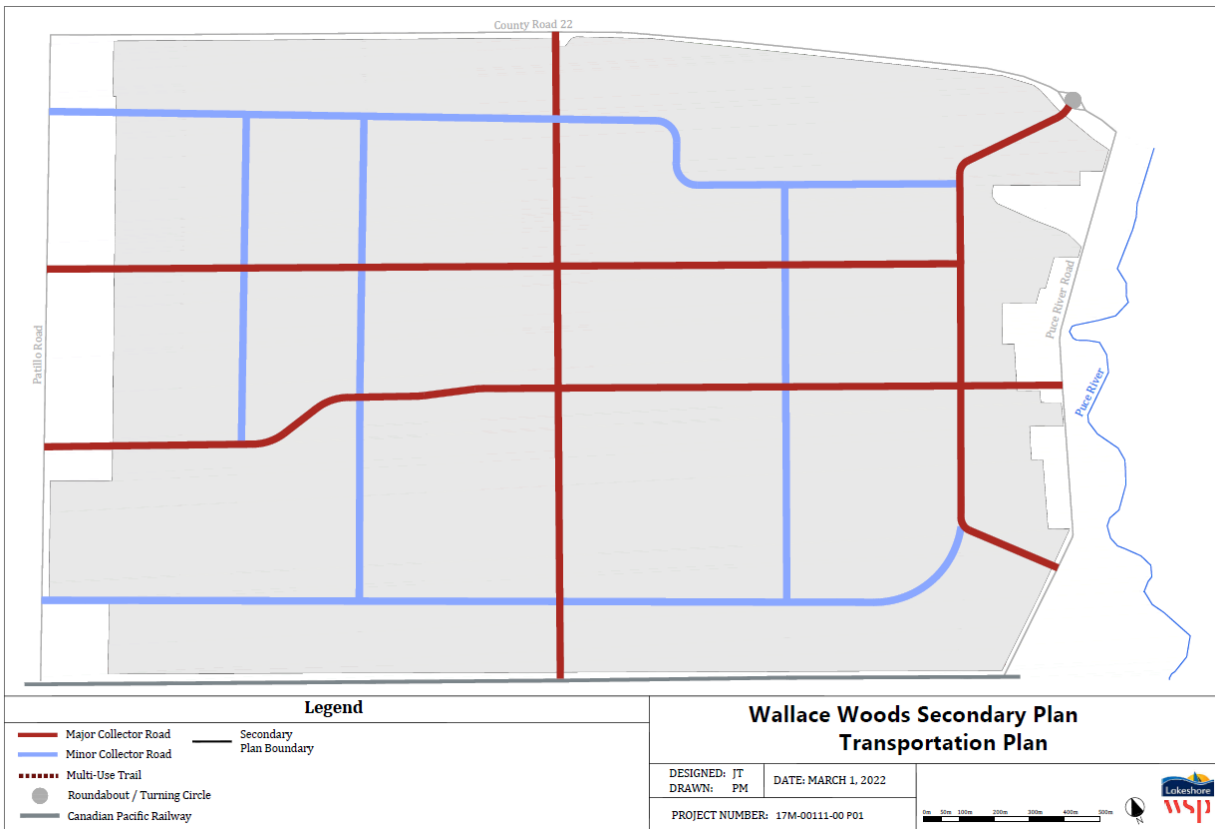


Figure 23: Wallace Woods Concept Plan – Proposed Street Hierarchy

5.2.6.2 MAJOR COLLECTOR ROADS

Major Collector Roads are designed to carry high volumes of traffic from Provincial Highways and other interregional roads to the collector road system. In addition, they provide the main access into and through the WWSPA, connecting to major traffic intersections. Major Collector Roads are typically 3-lane roads, including two or more travel lanes and a centre turn lane. Right-of-Way width for Major Collector Roads will be a minimum of 24 meters and maximum of 45 meters per the Municipality of Lakeshore’s Official Plan description. See **Figure 24** below.

On-street bike lanes are to be provided along with shade trees to create a comfortable cycling and walking atmosphere. Landscaped boulevards may be incorporated into the road cross-section. Bioswales and other stormwater management features (see details in follow section) are also encouraged along roadways due to their high visibility.



Figure 24: Image from Wallace Woods Concept Plan Report – Sample Urban Arterial Road

5.2.6.3 MINOR COLLECTOR ROADS

Minor Collector Roads provide for the dual function of carrying moderate volumes of local traffic to arterial roads, and distributing arterial traffic to local roads, while providing access to abutting properties. Minor Collector Roads are adjacent to residential/commercial land uses and provide connections to local, collector and arterial roads. Minor Collector Roads would typically include two travel lanes, potentially a centre turn lane in high traffic areas, as well as bike lanes and landscaping. Right-of-Ways for Minor Collector Roads shall be 20-24 meters, consistent with the Municipality of Lakeshore's Official Plan. On-street parking may be included on Secondary roads where appropriate. See **Figure 25** below.



Figure 25: Image from Wallace Woods Concept Plan Report – Sample Urban Residential Collector Road

5.2.6.4 URBAN RESIDENTIAL LOCAL ROADS

Urban Residential Local Roads provide access at a finer scale to individual homes or connect through neighbourhoods directly. Urban Residential Local Roads typically include two travel lanes with a road right-of-way width of 20 to 22 metres as per the Municipality of Lakeshore Official Plan. Traffic volumes are usually insufficient to require dedicated bike lanes, but in some higher traffic areas they may be desirable. On-street parking is typically provided in residential and business districts along local roads. Shade trees and landscape are part of the road as well. Urban Local Roads are not indicated on the road map, as they would be designed and developed as part of individual development projects within the Wallace Woods development zones. See **Figure 26** below.



Figure 26: Image from Wallace Woods Concept Plan Report – Sample Urban Residential Local Road

The planned street network will be established taking into account the following policy considerations:

- The Wallace Woods Secondary Planning Area Transportation Study is the foundation identifying the transportation infrastructure improvements required to service the growth provided for through this report.
- Development will be required to demonstrate that sufficient transportation capacity is available to service the proposed land uses and density.
- Development will be required to implement the required transportation infrastructure measures identified in the Wallace Woods Secondary Planning Area Transportation Study. Applications will be

reviewed for an acceptable strategy to implement these requirements. At a minimum, each development proposal will include:

- An assessment of existing conditions including development levels and transportation improvements or measures already in place.
- Determining the potential impact of the proposed development on the area transportation network.
- An inventory of the components of the pedestrian and cycling network that will be implemented with the development proposal.
- A plan for phasing the required transportation improvements as development proceeds.
- The exact location, alignment and design of each new street will be refined through subsequent Environmental Assessment study, and the review and approval of development applications or other implementation mechanisms identified at the discretion of the Municipality. The appropriateness of dedicated bikeways or separate cycling facilities should be considered as part of the alignment and design of new streets.
- Further study is required to determine the exact alignment and design associated with street widening, reconfiguration and/or modifications to existing roads, and location of future bus bay areas, as needed.
- The physical design and construction of roadways should support a walkable community, and should incorporate Complete Streets design concepts and principles, where possible.
- Utilization of traffic calming measures should be incorporated into the design for Wallace Woods, including bump-outs at road intersections, which slow traffic and provide safer crossings, as well as refuge islands for pedestrian crossings. Additionally, round-a-bouts and smaller traffic circles are proposed at the intersection of urban arterial roads and urban collector roads respectively, to further calm traffic and provide a safer walking environment.
- Building frontages and animated and enhanced landscaping, including sidewalks on both sides of the road is encouraged along Urban Arterial Roads to enhance pedestrian circulation and safety.

5.2.6.5 GREENLINKS AND TRAILS

A comprehensive network of trails, both off-road and parallel to roadways, is planned to connect all neighbourhoods of the WWSPA together. This trail system should connect residents in all residential areas to community amenities, the Primary Node, public and recreation facilities, and natural areas. The primary trail network should be sized to accommodate a wide range of users, including young and elderly people, runners, bikers, and walkers.

Two types of trails are anticipated for Wallace Woods. Off-street trails provide connections that do not follow the street right-of-way. These trails provide access into natural areas or open space, and provide additional levels of interconnectivity than those provided by the streets alone, enhancing walkability throughout the entire WWSPA. Off-street trails should typically be 2.5m wide at a minimum to accommodate walkers and bike riders. Centre striping may be warranted in higher traffic areas to maintain traffic organization and safety.

The second type of trails are Linear Greenlinks (sometimes called a side path or parallel trail). These trails exist within the road right-of-way and provide more walking or biking room than a typical sidewalk would provide. In addition, these trails incorporate a higher level of amenities and furnishings, typically including benches, trash receptacles, special lighting, wayfinding, and landscaping. See **Figure 27** below.



Figure 27: Images from Wallace Woods Concept Plan Report – Sample Trails

5.2.7 NATURAL HERITAGE SYSTEM

The area identified to date for inclusion in the NHS (excluding the Bald Eagle Nest SWH buffer and opportunities for restoration and additional linkage) totals approximately 70 ha of the 475 ha WWSPA, which represents 14.7% of the total study area. Included in the NHS are natural features, buffers to protect those features and their functions, and linkage to improve the overall ecological function of the NHS. Interior habitat is another measure often used in characterizing the integrity of an NHS.

The NHS proposed for the WWSPA represents an integral component in understanding the study area, its contribution to the natural heritage system, and the additional work that may be needed to understand the potential impacts from future development. As consultation with agencies and the municipality continues through the WWSP process, an integrated approach will be used to further refine the limits of the NHS to consider the incorporation of stormwater management solutions, trail systems, parks, other amenities, and recommendations from recently completed and additional studies. The result will be a concept plan for the WWSP that includes an NHS that meets the requirements of local and provincial planning policies. **Figure 28** below, indicates the proposed Natural Heritage System.

Furthermore, a trail system will be incorporated into the development of Wallace Woods, providing connections between each of the natural resource features; giving people access to open space as well as connections to commercial, cultural and recreational assets. The arterial and collector roadways outside of the Primary Node typically contain wider landscape and greenway running parallel to the road. These greenway areas provide natural links between the larger natural areas and open space, allowing wildlife to move safely through the WWSPA.

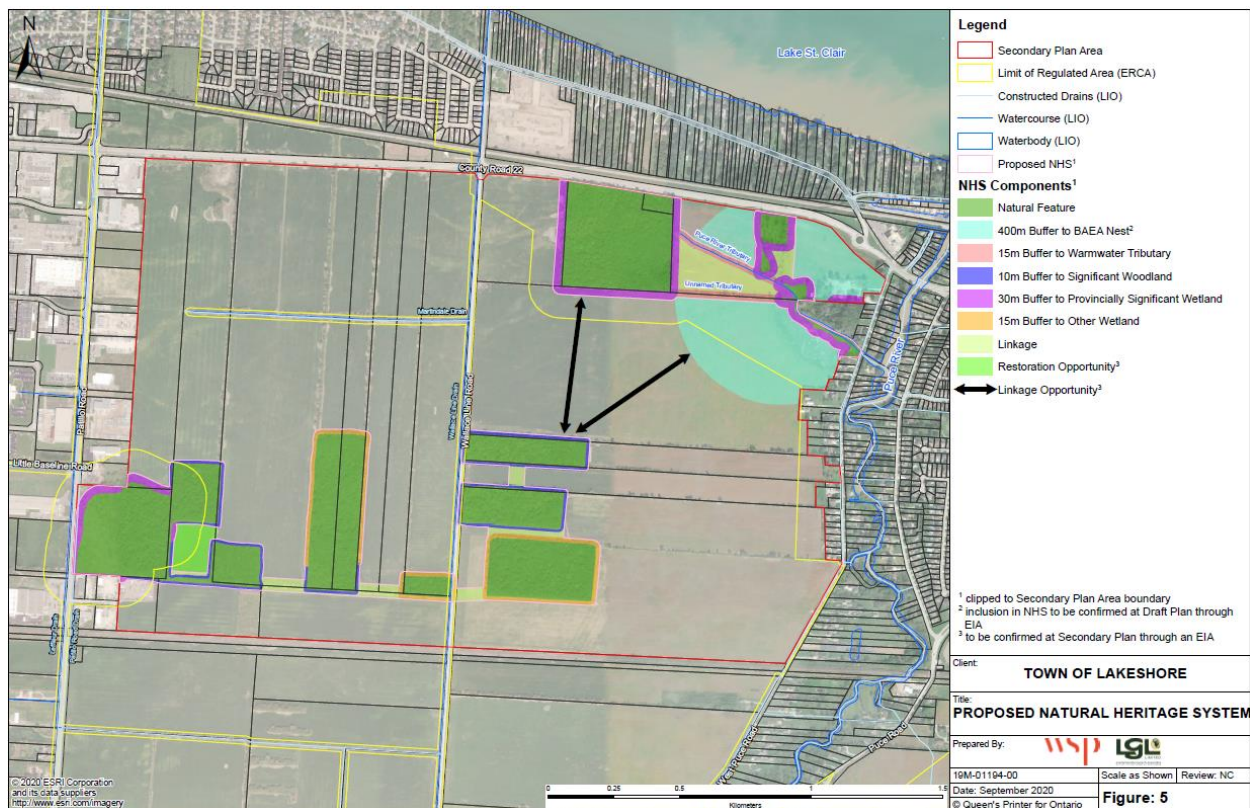


Figure 28: Proposed Natural Heritage System

The proposed Natural Heritage System will be established taking into account the following policy considerations:

- A Phase Two ESA is required to assess soil and groundwater in Parcels 8 and 12 for potential contaminants of concern (COCs) associated with the identified potential contaminating activities (PCAs).
- For Parcel 8, a designated substance survey should be undertaken in advance of any renovation or demolition activities to assess for the potential presence of any designated substances and their management.
 - It is noted that Parcel 8 is comprised of mixed residential and commercial industrial land use. If deemed a mixed land use, a Record of Site condition (RSC) would be required to support the re-development of the industrial portion of this Parcel to a more sensitive land use.
 - It is noted also that if the last developed use of Parcel 8 is considered industrial, an RSC would likely be required to support re-development of the whole of this Parcel to residential land use. This requirement would have to be determined in consultation with the MOECC.
- The results of the Natural Heritage Study completed for the WWSPA will be used to inform the terms of reference for further studies once more detailed development applications are submitted to implement the Secondary Plan's direction, including a phasing strategy.
- Two natural heritage features (PSWs) named 'the Patillo Road Marsh' and 'the Swanson Swamp' are located within the southwest and north portions of the Study Area. These features will require protection as part of the NHS. A more refined delineation of the associated driplines and wetland limits will be required at further stages of the project.
- The results of the Subwatershed Study (including the limits of the proposed NHS) will be used to refine the concept plan for the WWSPA. The concept plan will include additional level of detail regarding a proposed trail system, park blocks, SWM infrastructure, road fabric and type of residential development.

- Further analysis from the results of the recommended additional studies (monitoring wells, hydrogeology, additional stormwater management design) will be undertaken at that time, which may have implications on the overall NHS and provide more details regarding the land use composition. This will serve as an opportunity to identify additional area that may need to be incorporated into the NHS to achieve infiltration targets, protect flood prone areas, and achieve other identified objectives.
- Targets (as requested by ERCA) will be set as part of the Secondary Plan in consultation with the municipality and other stakeholders (e.g. target for infiltration, target for natural cover, restoration targets (e.g. areas of meadow vs woodland)).
- Separate Environmental Impact Assessments (EIAs) will be required to implement the Secondary Plan as more detailed development plans are submitted, which may result in revisions to the NHS. At time of Draft Plan of Subdivision, EIAs will be completed for sites within 120m of the NHS to confirm limits are appropriate to mitigate potential effects of development (i.e. whether any additional setback is required). This timing will accommodate any changes in zoning/density targets that may arise and describe any restoration and monitoring requirements in more detail.
- Additional opportunities to enhance the proposed NHS include:
 - Explore opportunities to include existing hedgerows, and proposed trails, paths, parks, and other naturalized features to improve connectivity within the NHS.
 - Consider opportunities specifically for a north-south linkage to connect the Swanson Swamp natural areas in the northeast quadrant of the study area to the significant natural features to the south and west (e.g. consider placing lower impact land uses such as naturalized stormwater ponds to support connectivity of the NHS).
 - Consider inclusion of the restoration area in the southwest corner of the Study Area as part of the NHS to increase available interior habitat and mitigate edge effects.
- Consider additional areas that warrant inclusion in the NHS in order to protect the groundwater/surface water interface, or for mitigation purposes such as for flood protection or attenuating effects of climate change.
- Incorporate stormwater management LID measures (where possible) into the NHS.

5.2.8 *SERVICING AND INFRASTRUCTURE*

The Wallace Woods community goes beyond conventional practices of stormwater management and strives to improve the quality of water that passes through the entire area. The community contains several mechanisms for water storage and treatment that reduce the quantity of water discharged from the site and also cleanses the water before it leaves the site. These mechanisms are commonly referred to as Best Management Practices (BMPs) of stormwater management. The goal is to reduce stormwater runoff volumes to as close to a pre-settlement rate as is effectively possible. By capturing and slowing stormwater and allowing it to infiltrate into the ground, ground water is recharged and the health of nearby streams and waterways (such as the Puce River) are improved.

The planned Servicing and Infrastructure network will be established taking into account the following policy considerations:

- A storm sewer network will convey the 2-year storm event to the SWM ponds without exceeding ground level (i.e. no surface storage). For major storm events, the surcharged storm sewers and overland flow along the roadways will convey flows to the SWM ponds.
- A total of 9 SWM facilities (wet/hybrid ponds) will be required for runoff quantity, quality and erosion controls.
- Municipal water servicing for the site will be through the extension of a 600-millimetre diameter trunk watermain from County Road 22, extending east-west through the WWSPA with local watermains extending from the trunk watermain to service the proposed land uses.

- Sanitary and storm sewers, watermains and stormwater management for the proposed development will be designed in accordance with the applicable design requirements of the Municipality of Lakeshore and the appropriate approval authorities (i.e. County of Essex, Essex Region Conservation Authority, and Ministry of the Environment, Conservation and Parks).
- Each development application will be required to include a detailed Functional Servicing Report and Stormwater Management Report to analyze, assess and identify servicing infrastructure needs to reflect most up-to-date conditions at the time of submission, having regard for future development levels anticipated by the Wallace Woods Secondary Plan when determining capacity.
- The overall hydrology and drainage pattern of the Wallace Woods development will be designed to support the health and ecological quality of nearby waterways, especially the Puce River to the east.
- Further hydrogeological characterization and testing of infiltration rates is required to explore whether there are opportunities to off-set the recharge deficit and simultaneously reduce and manage runoff by designing systems to collect and infiltrate runoff from roof; confirm feasible and develop workable designs.
- An infiltration study is recommended to assess the infiltration capacity of the soils to be used in conjunction with the further characterization of groundwater conditions to develop appropriate designs for systems to enhance recharge and maintain pre-development infiltration rates.
- Hydrologic and hydraulic analysis may need to be updated once more detailed development plans are submitted to implement the Secondary Plan, including the SWM concept and details of realignment of Wallace Line Drain are available.
- Landowners in the WWSPA are encouraged to enter into landowner agreements with each other, and potentially the Municipality, addressing their respective responsibilities regarding coordination, provision, financing, cost-sharing, front ending and/or phasing of infrastructure including streets, servicing and parks required to support development of the WWSPA.
- Once the limits of natural heritage features (including linkage) and proposed buffers to these features are confirmed (at the time of Draft Plan of Subdivision), site level water balance should be completed using this information to confirm whether it meets the targets set during the Secondary Plan process.
- Best Management Practices (BMPs) of stormwater management are recommended to be incorporated, including the following components:
 - Stormwater Wetlands.
 - Wet Meadows.
 - Bioswales.
 - Infiltration Planters.
 - Rain Gardens.
 - Water Collection (Rain Barrels/Cisterns).
 - Green Roofs.
 - Porous Pavement.
- An erosion and sediment control plan will be required to minimize the amount of exposed sediment leaving the site during the construction stages.

5.3 IMPLEMENTATION AND PHASING

The concept phasing strategy for the WWSPA includes development across five phases. The concept phasing approach is designed to build the WWSPA sequentially, logically, and in a way, that provides a balanced mix of uses across all phases, while leveraging the assets of earlier phases to help propel subsequent phases through completion. In each phase, streets, trails, and utility extensions are created to support the associated development occurring in that phase.

The Lakeshore Official Plan places a significant focus on ensuring the orderly, efficient and timely progression of residential development in accordance with anticipated growth projections. In terms of implementation and phasing, each Phase should have the following components:

- An Outline Plan, which provides a detailed description of land use mix, layout, and overall look and feel once fully developed. Outline Plans will be required prior to moving to the next phase of development, and will include detailed assignment of land use, open space network, natural and cultural heritage networks, natural hazards and public realm and park design. Outline Plans will be approved by Council through resolution. Additionally, at the Municipality’s discretion, an Outline Plan may include up to three phases, which will be discussed as Outline Plans are brought forward.
- The entire area of the Primary Node will require its own Outline Plan. This will help demonstrate that the built form of the proposed development meets all applicable policies set out by the Secondary Plan and the Official Plan, and to explain the Primary Node’s relationship with the existing and potential future development in adjacent areas.
- When sites subject to a development application are required to deliver street network improvements, public realm improvements, community services and facilities or public parks as required by the WWSPA, Outline Plans will also indicate the phasing of development as it relates to these requirements. It is intended that public realm elements, to the extent feasible, are implemented first.
- Development applications will need to demonstrate that there is adequate community services and facilities, and transportation and servicing infrastructure to support the proposed level of intensification in the context of existing and proposed development for each Phase and the broader WWSPA.
- Development is to be sequenced to ensure appropriate transportation and servicing infrastructure, community services and facilities, and parks are available to service development.
- Sites that are too small to accommodate appropriate development to implement the WWSPA’s vision are encouraged to consolidate with adjacent lands.

The Phasing Plan shown in **Figure 29**, identifies the following five phases:

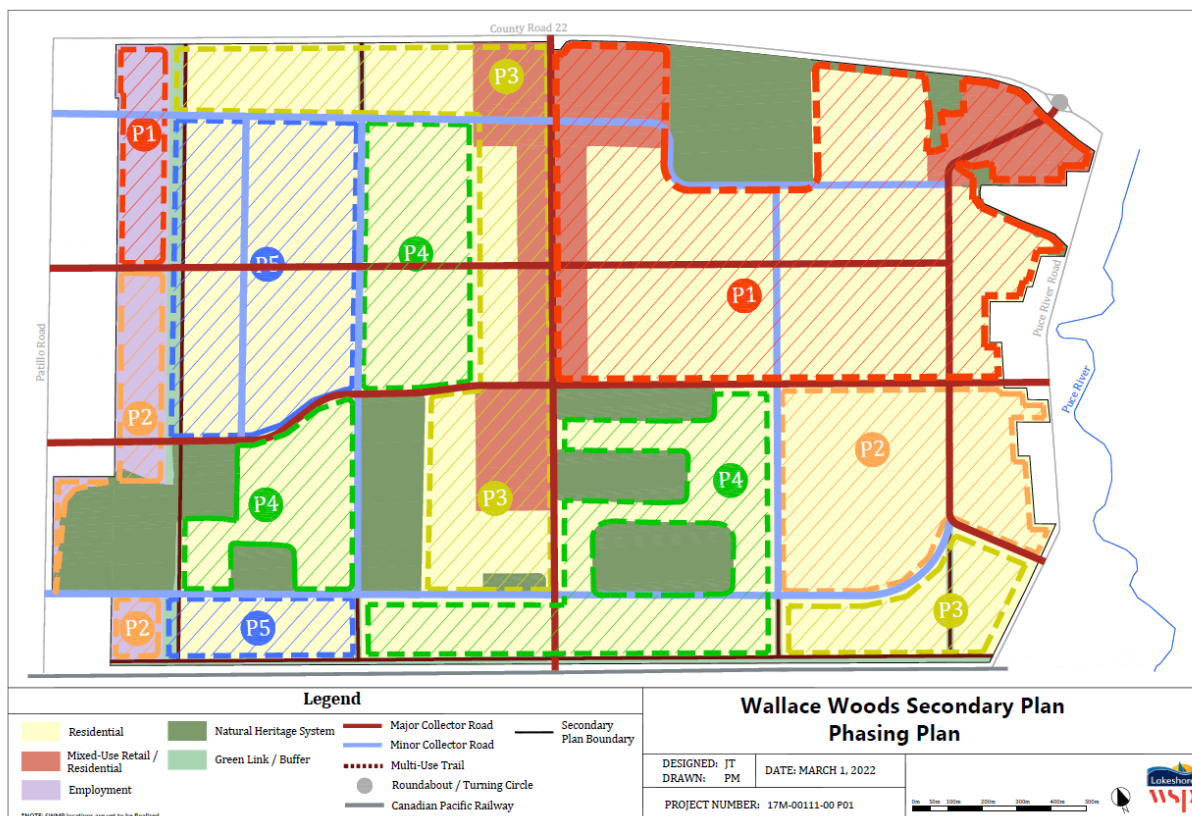


Figure 29: Wallace Woods Concept Plan – Proposed Phasing Plan

Notwithstanding the concept plan strategy, Section 3.4.4 (S. 9.5 of the March 2021 Council adopted version) of the Official Plan requires that, subsequent to an initial phase of development, of approximately 100 hectares of land for residential development, further lands will only be designated for residential and related urban land uses provided that a minimum of 75% of the lands within the preceding development phase within the Wallace Woods Special Planning Area have been registered for development in approved plans of subdivision. A key requirement regarding the designation of additional lands for residential development will be contingent upon the rationalization of the Urban Areas throughout the Municipality.

PHASE I - 111 hectares of developable area

- While the Official Plan policy denotes a required area of approximately 100 hectares, the benefit of proposing 111 hectares allows for a more thoughtful and clean layout, connected road network, and appropriate development of a portion of the Primary Node.
- Includes the Employment Area in the northwest corner of Wallace Woods. This development is intended to attract and retain higher profile corporate or research-oriented businesses. A high standard of architecture quality is important for establishing a strong image and visual identity for Wallace Woods.
- A portion of the Primary Node is also to be developed as part of this phase and includes development of potential mixed-use buildings with ground floor retail and upper floor office and residential; however, the market and associated appropriateness will guide how mixed-use buildings are proposed. The gateway area to the east that connects to the roundabout is also proposed to be developed as part of Phase 1 to ensure proper access and traffic flow is maintained.
- Two residential districts in the northeast and central east portion of the WWSPA are anticipated for Phase I.

PHASE II – 56 hectares of developable area

- Includes development of the balance of the Employment Area north and south of Silver Creek Industrial Road expanding on the portion build during Phase I. This will provide additional jobs and economic activity for the community.
- Additional residential development occurs in the northeast quadrant, east of the preserved woodlots and expands the residential areas from Phase 1 further to the south.

PHASE III – 80 hectares of developable area

- Additional residential areas to the west of the Primary Node with close access to the Primary Node and the Employment Area.
- The Phase I and Phase II residential development in the eastern portion of the WWSPA is expanded and built out into the southwest corner of the property.

PHASE IV – 95 hectares of developable area

- Residential development in the south-central portion of the WWSPA surrounding the preserved woodlots east of Wallace Line Road.
- Two additional residential areas are developed west of Wallace Line around along the middle portion of the WWSPA.

PHASE V – 62 hectares of developable area

- Remaining areas of the WWSPA are developed, including residential in the southwest portion of the site and residential and new civic uses in the central portion of the site east of the Employment Area.

In general, the development of public facilities, including parks, will be coordinated across phases as appropriate to meet the needs anticipated as part of future development.

6 CONCLUSION

The Municipality's Official Plan establishes a community structure to direct growth and development within the Municipality. Wallace Woods is located within the Settlement Area of Maidstone and the lands are intended for urban development over the planning horizon. The Official Plan designates the majority of the Wallace Woods Special Planning Area, as Urban Reserve Area.

Special Planning Studies or Secondary Plans may be prepared for Special Planning Areas, such as Wallace Woods, to comprehensively address the arrangement of the land use patterns for new development areas. They are intended to rationalize development within the existing Settlement Areas, promote redevelopment or intensification within an area, or for any other reason identified by the Municipality. The following policies are specific to the preparation of a Secondary Plan for the Wallace Woods Special Planning Area:

- a) A Planning Rationale Report will be prepared to address the requirements of Section 8.3.1. In addition, the study will address land use compatibility issues between the existing and proposed land uses and appropriate land use transitions within the Planning Area.
- b) The establishment of land uses and land use policies for the Secondary Plan will be consistent with the land budget identified in the Policy Directions and Growth Structure Report, prepared in support of the Official Plan.
- c) The Secondary Plan will establish an appropriate residential phasing plan and policies to ensure the orderly, efficient and timely progression of residential development, in accordance with the anticipated growth projections as identified in the Official Plan. The phasing policies will not preclude the orderly development of employment and mixed use buildings, which may include residential uses above grade, commercial, retail, office and employment uses.
- d) A Transportation Study will be undertaken to make recommendations on required improvements to the road network, including the provision of additional transportation capacity between County Road 22 and County Road 42.
- e) An Urban Design Study will be undertaken for the Wallace Woods New Primary Node to support the creation of an innovative, mixed use, and pedestrian-oriented main street environment.
- f) The Secondary Plan will support the creation of a linked natural heritage system which will reinforce the protection, restoration and enhancement of identified Natural Heritage Features, the overall diversity and interconnectivity of Natural Heritage Features, and promote the integration of stormwater management ponds and community uses, including parks and open spaces, recreational uses, trails and schools and municipal facilities.

In order to satisfy these requirements, and in addition to this Secondary Plan Report (also to be considered the Planning Rationale Report), the Wallace Woods Consortium has prepared the following background and technical reports:

- Wallace Woods Concept Plan Report, April 2013 (Smithgroup JJR)
- Wallace Woods Secondary Planning Area Stormwater Management Report, July 2014 (IBI Group)
- Wallace Woods Secondary Planning Area Servicing Design Brief, Draft, November 2014 (Amico Engineering Inc.)
- Wallace Woods Secondary Planning Area Transportation Study, July 2014 and updated in September 2021 (IBI Group)
- Environmental Issues Scoping Report, (EISR), April 2016 (BioLogic Inc.)
- Phase One Environmental Site Assessment (ESA), July 2016 (Exp Services Inc.)
- Wallace Woods Subwatershed Study, September 2020, (WSP Canada and LGL Limited)
- Environmental Noise Feasibility and Railway Vibration Studies, July 2016 (Valcoustics Canada Ltd.)
- Stage 1 &-2 Archeological Assessment, July 2016 (The Archaeologists Inc.)

- Stage 3 Site-Specific Archaeological Assessment Draft Report, November 2016 (The Archaeologists Inc.)

The results of the various studies and reports undertaken as part of the preparation of this Report found that:

- The Secondary Plan for Wallace Woods is aligned with Lakeshore Official Plan goals from the overall vision all the way down through the specific development patterns and design characteristics of the project.
- The Municipality is progressing to obtain the capacity for both water and sewer services to service the WWSPA. Development shall not proceed until capacity is confirmed.
- The existing transportation network can support the proposed land uses. However, development will be required to implement the required transportation infrastructure measures identified in the Wallace Woods Secondary Planning Area Transportation Study as well as any additional requirements identified by the County and/or the Municipality through the development approvals process.
- Development in the WWSPA will not compromise any cultural heritage resources since a Stage 3 Archaeological Assessment determined the absence of any such resources in the area.
- The Natural Heritage Study determined that separate Environmental Impact Assessments (EIAs) will be required to implement the Secondary Plan as more detailed development plans are submitted, which may result in revisions to the NHS.
- The Subwatershed Study identified additional studies (monitoring wells, hydrogeology, additional stormwater management design) that will need to be undertaken as more detailed development plans are submitted. The recommendations of those studies will have implications on the overall NHS and provide more details regarding the land use composition. These will serve as opportunities to identify additional area that may need to be incorporated into the NHS to achieve infiltration targets, protect flood prone areas, and achieve other identified objectives.
- A Phase Two ESA will also be required to assess soil and groundwater in Parcels 8 and 12 for potential contaminants of concern (COCs) associated with the identified potential contaminating activities (PCAs).
 - For Parcel 8, it is highly likely that a Record of Site condition (RSC) would be required to support the re-development of the industrial portion of this Parcel to a more sensitive land use, but this will be determined as more detailed development plans are submitted.
- Development will ensure that noise and vibration levels do not exceed Provincial standards for sensitive land uses, including residential uses; and will incorporate recommended mitigation measures to ensure noise levels are at an acceptable level, as per Noise and Vibration Studies
- The concept phasing approach is designed to build the WWSPA sequentially, logically, and in a way, that provides a balanced mix of uses across all phases, while leveraging the assets of earlier phases to help propel subsequent phases through completion. In each phase, streets, trails, and utility extensions are created to support the associated development occurring in that phase

The land use plan for the 475 hectares WWSPA identifies the future land uses for the Secondary Plan. Of the 475 hectares site, approximately 398 hectares fall into a land use that would permit development. The remaining area consists of protected and preserved woodlands, public rights-of-ways or other non-designated land areas. The Concept Plan Report includes a proposed future land use plan with an average density of 18 units per hectare for the WWSPA. However, the Primary Node will accommodate a range of medium to higher density residential uses with an average minimum density of 60 units per hectare to serve as the focal point of the community.

The concept phasing strategy for Wallace Woods includes development across five phases. Section 3.4.4 (S. 9.5 of the March 2021 Council adopted version) of the Official Plan clarifies that, subsequent to Phase 1 of the development (approximately 100 hectares of land for residential development), further lands will only be designated for residential and related urban land uses provided that minimum of 75% of the undeveloped lands designated Residential within the Maidstone and Belle River Urban Areas have been registered for development in approved plans of subdivision. In addition, the Official Plan specifies that a

minimum of 75% of the lands within the preceding development phase within the Wallace Woods Special Planning Area should be registered for development in approved plans of subdivision. This approach is designed to build the WWSPA sequentially, logically, and in a way, that provides a balanced mix of uses across all phases, while leveraging the assets of earlier phases to help propel subsequent phases through completion.

The objectives and key directions of the Secondary Plan are summarized as follows:

- Wallace Woods is designed to be a mixed-use development that will create a new core community within the Municipality of Lakeshore.
- The predominant use of land will be a full range of low, medium, and higher density residential uses; light-industrial community-related employment uses including: commercial retail, offices, and services; entertainment and cultural facilities; institutional; and municipal and public services including: schools, recreation centres, parks and open space uses within an innovative pedestrian-oriented main street environment.
- Civic uses may include schools and other public facilities to be identified in the future; as well as recreational open space areas. These amenities are located on large sites generally within a 5-to-10-minute walk from the Primary Node.
- The development will ensure land use compatibility with adjacent uses through the use of appropriate buffers and land use transitions.
- Through this development, the Municipality will explore opportunities to secure public lands for passive recreation and open spaces.
- Residential uses will be proposed and oriented in distinct neighbourhoods throughout the community and can incorporate a range of housing types and densities. Each type of residential use can be clustered creating distinct neighbourhood areas. More specifically, the Wallace Woods community will:
 - Provide planned, attractive, marketable and sustainable land uses that enable an efficient use of services and resources and supports a high quality of life.
 - Be a “complete neighbourhood,” providing a balanced mix of land uses to create a more convenient place to live with shorter commutes and less traffic congestion by providing important services on site – such as places of worship, learning, and health care.
 - Promote economic development through new job generators and commercial spaces, taking advantage of regional opportunities and connections.
 - Incorporate a range of housing types and densities to serve a diverse population and meet the needs of future residents and aging seniors.
 - Create a walkable, non-motorized friendly, and highly interconnected community, providing equal access to amenities for all residents.
 - Integrate and link recreation areas and open space throughout the development.
 - Protect and enhance existing natural resources and environmental quality through preservation, conservation, and restoration activities and a comprehensive stormwater management system.
 - Create a Primary Node that can service as a gathering place for a diversity of needs and a focus of activity.

By completing this Secondary Plan Report (or Planning Rationale Report) and associated background studies, the Official Plan’s requirements for the preparation of a Secondary Plan have been met. To implement the Secondary Plan, an amendment to the Municipality’s Official Plan, which requires public consultation and consideration by Council, will be required. If approved, the amendment will be implemented by the preparation of the various Outlines Plans and potential additional, more detailed studies including, but not limited to, natural heritage, transportation, servicing, and stormwater management.

APPENDIX A – BACKGROUND REPORTS

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