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MEMORANDUM

To: Tara Buonpensiero, Principal Planner, Region of Peel
From: Stefan Krzeczunowicz and Jaclyn Hall, Hemson Consulting
Date: June 11, 2020
Re: Settlement Area Boundary Expansion Study: Technical Studies Update

This memorandum provides a status update on the Settlement Area Boundary Expansion Study (SABE) being undertaken as part of the Region of Peel’s Official Plan review (Peel 2041). Its main purpose is to summarize the preliminary findings of technical studies of a broad area in southern part of the Town of Caledon. This area—the Focus Study Area (FSA)—has been identified in an earlier phase of the SABE process and serves as the basis for determining new urban designated lands to 2041.¹

The FSA was identified using evaluation criteria based on the current Provincial and Regional land use planning policy framework, the findings of an Evaluation Criteria Workshop held in November 2019, and natural environment constraint screening data prepared by Wood Environment & Infrastructure Solutions (the “Wood Team”).²

The technical studies are integral to the SABE process and help inform policy development based on local conditions in the FSA. They ensure that decisions about a preferred SABE are rooted in Provincial planning policy and are evidenced-based.

The results of the technical studies continue to be shared with the Town of Caledon, the Region’s key partner in the SABE process, as well as the Cities of Brampton and Mississauga. Although now ready for release, the results should still be considered as draft for agency, stakeholder, and public review and comment.

¹ See Hemson Consulting, *Settlement Area Boundary Expansion Study Phase A: Focus Study Area*, February 2020.

² The Wood Team is currently preparing a Scoped Subwatershed Study which will provide more detailed input into decisions about the location and configuration the SABE area(s).

A significant portion of the FSA includes an area designated as a Provincially Significant Employment Zone (PSEZ). The technical studies have included the PSEZ in their analysis.

A. BACKGROUND

This section describes the current pattern of land use in the FSA and summarizes the policy context in which the SABE technical studies have been undertaken.

i. Provincial Policy Sets Planning Framework

The Peel 2041 process is being completed in accordance with the requirements of the statutory planning framework in Ontario. Matters of provincial interest identified in section 2 of the *Planning Act*, including policies set out in the Provincial Policy Statement 2020 (PPS), have been applied throughout the process. All planning decisions in Ontario must be consistent with the PPS and official plans are the most important vehicle for implementing its policies.

Of particular importance to Peel 2041 is the provincial plan to manage growth in the Greater Golden Horseshoe (the Growth Plan). The Growth Plan includes detailed policies for settlement area boundary expansions and official plan reviews and Council's decisions made in respect of these matters must conform to these policies. As such, the Growth Plan is a critical policy document in establishing the proposed SABE area in Peel.

The Growth Plan contains policies that are intended to be achieved by a time horizon, currently set at 2041 in the most recent iteration of the Plan. Schedule 3 of the Growth Plan provides population and employment forecasts for the Region that must be used for planning and managing growth to the time horizon. The Province recently initiated a review of the Schedule 3 forecasts.

ii. Current Pattern of Settlement in the FSA is Largely Rural and Agricultural

Under the Growth Plan, settlement areas comprise areas where development is already concentrated with a mix of land uses, as well as lands designated for future development in an official plan. A settlement area boundary expansion greater than 40 hectares may only occur through a municipal comprehensive review (i.e. official plan review).

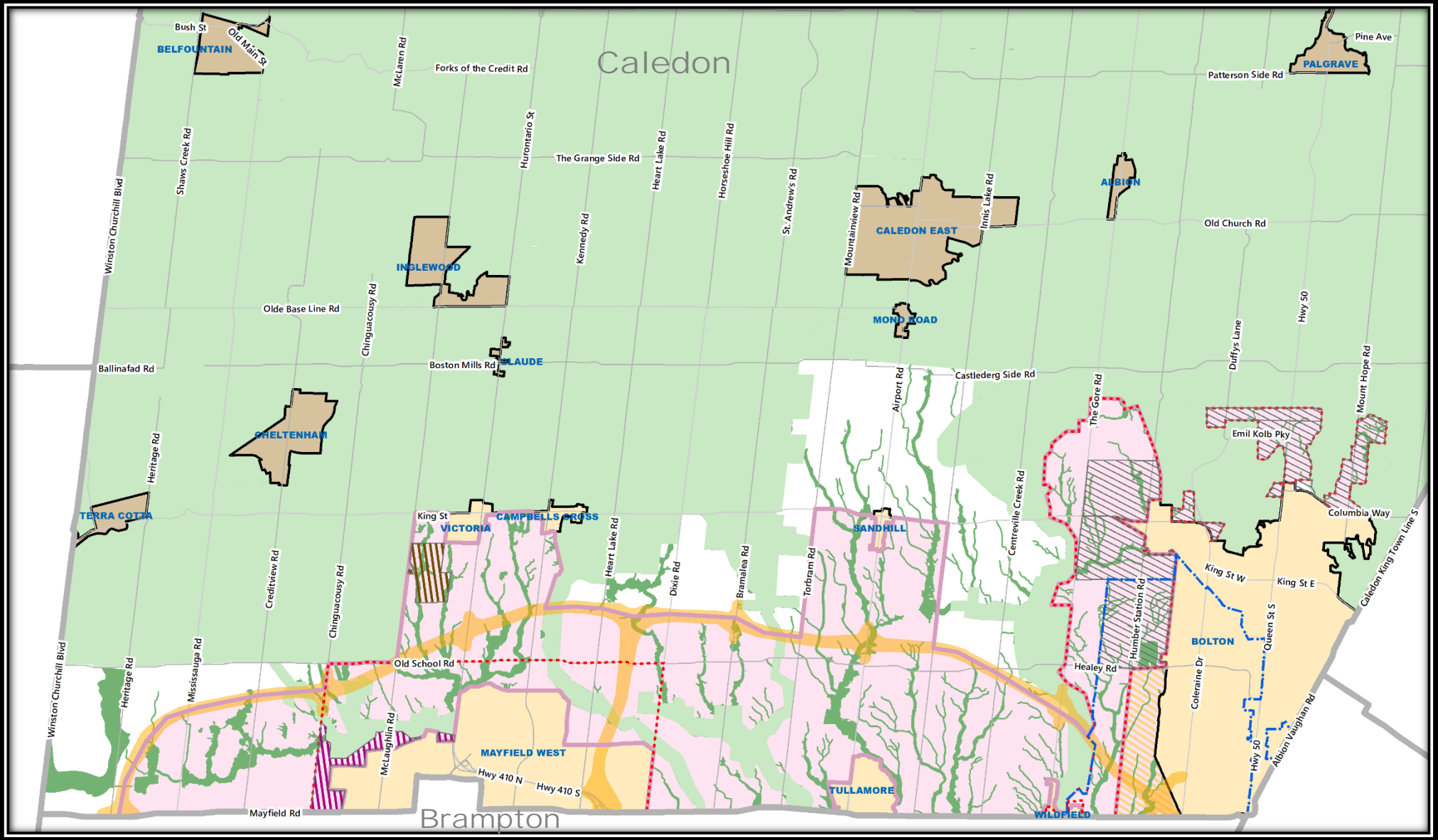
The FSA is currently designated as part of the Rural System under the land use structure set out in the Regional Official Plan. The Rural System consists of lands that fall outside the 2031 Regional Urban Boundary—the urban lands required to accommodate development to 2031—and is described as “a community of communities and should be viewed holistically

as a planning entity”. Within the FSA, the Rural System is a diverse landscape interwoven with settlement areas, agricultural areas, and areas that are to be protected as part of the natural environment.

The FSA contains two urban settlement areas: Bolton and Mayfield West. These areas are designated as Rural Service Centres in the Region’s Official Plan and, as such, are the primary foci for growth in the FSA. Growth in these areas is planned to occur on full municipal water and sewer services, in a phased manner, and subject to the financial capabilities of the Region. A recent amendment to the Regional Official Plan, which established an area for the expansion of Bolton to 2031 (ROPA 30), is currently under appeal at the Local Planning Appeal Tribunal.

There are also several smaller rural settlements in the FSA: Victoria, Campbell’s Cross, Sandhill, Wildfield, and Tullamore. Under the Town of Caledon Official Plan, Victoria, Sandhill, and Tullamore, are designated as Industrial/Commercial Centres: small, mixed-use settlements that provide, at a small scale, a supportive function to Bolton and Mayfield West for industrial and commercial development. Campbell’s Cross and Wildfield are designated as Hamlets: small residential communities with limited services.

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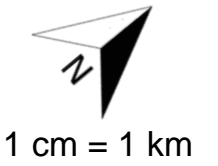
FOCUS STUDY AREA (FSA) (2041)

- FSA (Area identified for further study)
- Study Areas (ROP Policy 5.4.3.2.7)
- GTA West Corridor (Technically Preferred Route)
- Municipal Boundary
- Settlement Areas (Outside Greenbelt)
- Settlement Areas (Within Greenbelt)
- Greenbelt Area (Protected Countryside) (Niagara Escarpment) (Oak Ridges Moraine) (Growth Plan NHS)
- Natural Environment High Constraint (Wood Team Data)
- Bolton Residential Expansion Area (Adopted and Under Appeal)
- Bolton Residential Expansion Area (Other Areas Studied)
- Mayfield West (Phase 2 Stage 2 proposed by ROPA 34)
- Provincially Significant Employment Zone
- Brampton Caledon Airport

Approx. size, to scale, of SABE land requirement (~1,300 ha) to 2041

Disclaimer: This map has been developed for the Settlement Area Boundary Expansion (SABE) Study and represents an area to be studied for the purpose of identifying a SABE. For additional information, please refer to the *Settlement Area Boundary Expansion Study Phase A: Focus Study Area* report.

- Note:**
- (1) There may be opportunities to expand rural settlements outside the FSA as part of the SABE Study.
 - (2) Other natural environmental constraints not identified on this map, including features not captured through existing mapping and potential buffers, will be identified through further analysis and may further limit development.
 - (3) ROP Policy 5.4.3.2.7 as it relates to the area surrounding Bolton is under appeal.
 - (4) The ~1,300 ha SABE is based on a draft land needs assessment which is under review.



Outside the settlement areas, the FSA is comprised almost entirely of what the Growth Plan defines as prime agricultural area. This area contains agricultural lands, generally of high quality, with a wide range of types and intensity of farming activities.

Throughout the FSA a number of natural environmental features, notably valleylands, are subject to varying degrees of protection from development under the PPS, Growth Plan and Regional Official Plan.

Given the current pattern of settlement and land use within the FSA, a careful assessment of the effects of settlement area expansion on agricultural activities and the natural environment is an important element of the SABE technical studies.

iii. Main Purpose of Technical Studies

Policy 2.2.8.3 of the Growth Plan requires that the feasibility and most appropriate location for the proposed SABE be identified based on the comprehensive application of all the policies in the Plan. A number of the policies require completion of specific types of technical background work including master plans, assessments, various studies or other research, and preparation of associated documents. In short, a thorough study of the FSA is essential to achieving Growth Plan conformity when selecting an appropriate SABE area.

The specific Growth Plan policy requirements for each technical study are set out below in Section C. To the extent that study methodologies are prescribed, by the Growth Plan or otherwise, conformity with such methodologies is described in detail in each study.

The Growth Plan provides municipalities with a degree of flexibility when undertaking technical studies. For example, multiple study requirements can be satisfied through a single study, provided the study requirements of each component as provided for in the Growth Plan is appropriately addressed. Moreover, Growth Plan conformity can be achieved by drawing on or updating existing studies provided that these studies achieve or exceed the same Growth Plan policy objectives. The Region and Town have undertaken a number of relevant studies in recent years, for example: the Regional Long-Range Transportation Plan (2019); and the Town of Caledon's ongoing Official Plan review. The technical studies initiated under the SABE process have been coordinated with the results of these other studies.

iv. Technical Studies Scale, Structure, and Sequencing

The technical studies have been undertaken with a view to establishing a preferred SABE location and configuration. The analysis has therefore been done at a Regional scale. It is

anticipated that more detailed analysis will be required when making decisions about small-scale land use designations and zoning, individual development proposals, and local infrastructure needs for any new urban lands that are approved.

The technical studies address provincial interests, as well as PPS, Growth Plan, and other Provincial plan policies that have a direct bearing on the SABE Study: transportation, public health, public facilities, cultural heritage, archaeology, employment and commercial opportunities, agricultural impact, climate change, natural environment, fiscal impact, and mineral aggregate resource impact. They have been prepared by a range of technical experts under the overall coordination of Hemson and Regional staff.

Technical Study	Responsibility
Climate Change: Opportunities Energy and Emissions Reductions	Laura Taylor Designs & Hemson
Archeological Assessment	ASI
Cultural Heritage Assessment	ASI
Mineral Aggregate Resource Impact	Planscape
Health Assessment	SvN & Hemson
Fiscal Impact	Hemson
Public Facilities	Monteith Brown & Hemson
Agricultural Impact Assessment	Planscape
Employment & Commercial Opportunities	Cushman & Wakefield
Transportation	Paradigm
Water and Wastewater Assessment	Region of Peel
Environmental Screening and Scoped Subwatershed Study	Wood Team
Consultation Strategy	SvN

The Environmental Screening Report provided input to advise the conception of the FSA. All other technical studies have analyzed the FSA according to prescribed methodologies or, where not prescribed, methodologies informed by the professional judgement of its authors. Some studies have analyzed the FSA as a whole; others have divided the FSA into conceptual “sub-areas” for evaluation purposes. Where sub-areas have been used, they are delineated in maps in Section C below.

Although the structure of each study is tailored to its subject matter, each is generally organized/structured so that:

- The existing conditions of the FSA, including current land uses, are examined in detail;

- The forces influencing current and future land use in the FSA—whether they be associated with planning policy or real estate markets—are analyzed.
- The principles on which decisions about the location and configuration of the potential SABE area are set out.

The two-phased technical study being undertaken by the Wood team includes Phase 1: Environmental Screening and Phase 2: Scoped Subwatershed Study (SWS). The Phase 1: Environmental Screening assessment was undertaken on agricultural and rural lands in the Town of Caledon (referred to as the Initial Study Area) and identified natural environment and hazard constraints. The study used a hierarchical approach which assessed the potential for development as informed by Provincial and Regional plans and policies. The constraints identified in the Phase 1 report are categorized as high, moderate and low based on various known features and policy provisions on the landscape and each of these categories will be confirmed or refined in Phase 2: Scoped SWS. Data from the Phase 1 study has identified initial natural environment constraints to development which were considered when delineating the FSA and will be further considered as locations for the SABE are identified. A summary of the Phase 1 Report is provided as Appendix A to this memorandum. The more detailed Phase 2: Scoped SWS will involve an assessment of existing conditions and characterization, an impact assessment, and an implementation plan.

Studies of “hard” infrastructure requirements for the SABE—the transportation study and the water and wastewater assessment—will be undertaken in two phases.

- To date, a Phase 1 preliminary assessment of the most suitable location for settlement expansion has been made based on the results of existing conditions in the FSA, available servicing capacity, planned major expansion, knowledge of high-level infrastructure cost impacts, and the provincial policy context.
- In a subsequent Phase 2, more precise infrastructure needs and associated costs of a potential SABE area(s) will be identified through more detailed analysis.

The Fiscal Impact Technical Study will rely heavily on the results of the second phase of the infrastructure studies. As such, this study will be completed during a subsequent phase of the SABE process.

The Agricultural Impact Assessment (AIA) will also be undertaken in two phases. The first phase involves an initial assessment of the FSA to identify areas that will have the least impact from an agricultural systems perspective. The second phase involves a detailed AIA of select areas within the FSA, which will result in specific recommendations for the SABE

area(s). Other studies may require addendums to provide a more detailed review once the SABE is identified.

The Climate Change Technical Study primarily addresses energy management in the FSA. However, the study will be complemented by technical studies that address other aspects of climate change adaptation and mitigation strategies, including: sustainable transportation (Transportation); walkability and transit access (Health Assessment Technical Study); carbon sequestration (AIA); infrastructure redesign and costs (Fiscal Impact); and management of flooding and extreme weather events (Scoped Subwatershed Study).

v. Technical Studies Use Consistent Assumptions

The FSA is large enough to allow for a number of SABE configurations that would exclude the Greenbelt Area and other natural environment high constraint areas identified by the Wood Team while representing logical extensions of existing settlement areas. The FSA also acknowledges areas that have already been studied and/or approved for development (per Regional Official Plan Policy 5.4.3.2.7) as well as major planned infrastructure such as the GTA West Corridor.

The ultimate SABE area will be determined based on the final land needs assessment. That said, preliminary forecasts assume that the SABE will need to accommodate additional population of 51,500 and additional employment of 20,400 by 2041. The size of the FSA is approximately 8,000 ha, about six times larger than the total estimated land need required to accommodate these forecasts.

It is anticipated that the FSA is large enough to accommodate changes to the Growth Plan population and employment forecasts and/or time horizon arising from the Provincial review of Schedule 3 (see above). Any revisions to the technical studies arising from anticipated changes to Schedule 3 or the Growth Plan time horizon are expected to be achievable within the SABE study timeline.

B. SABE STUDY TIMELINE AND CONSULTATION

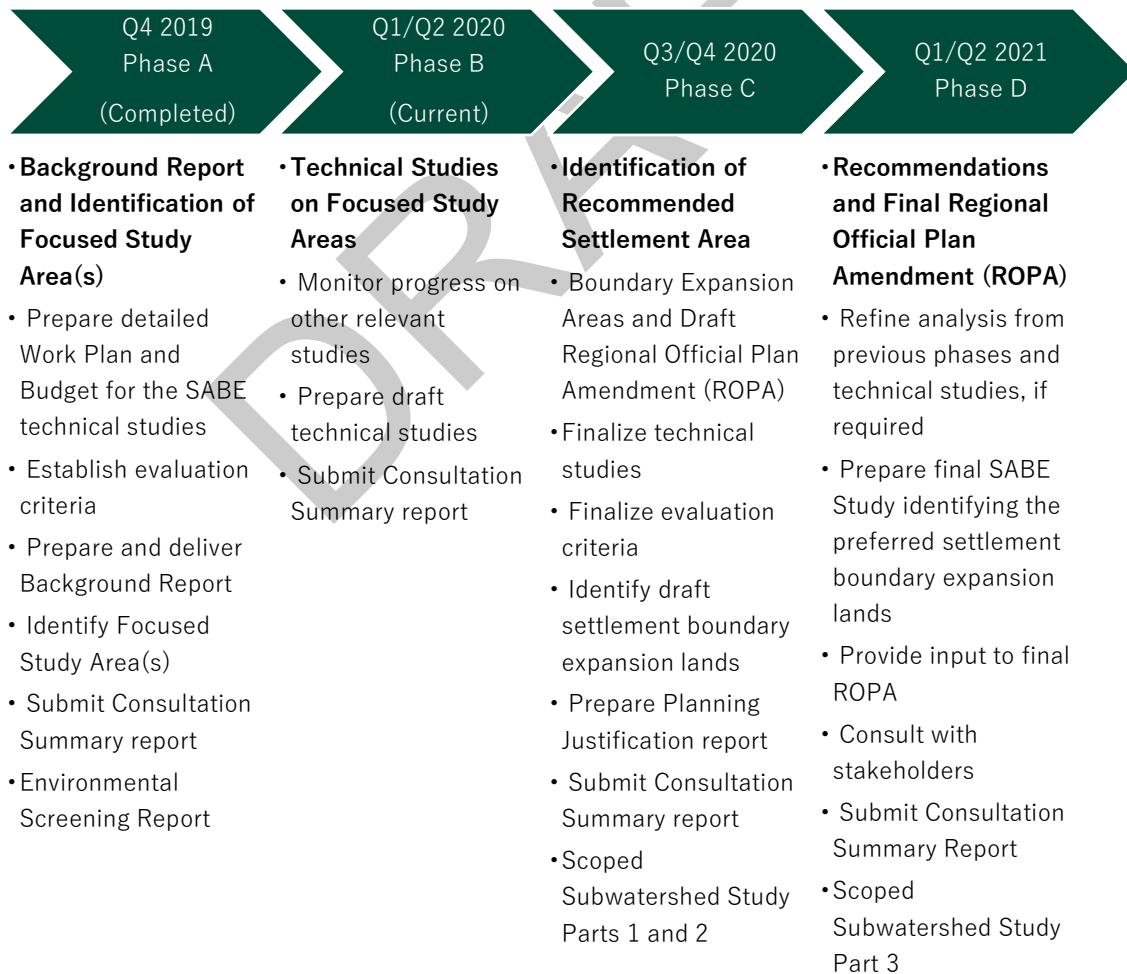
The SABE Study is being undertaken in four phases, which are summarized in the schematic below.

- Phase A provided background on the SABE process and identified the FSA, the area which serves as the basis for the technical studies.

- The draft technical studies form part of Phase B.
- In Phase C, a draft SABE Area will be identified within the FSA based on the technical studies results.
- Final SABE recommendations, as well as an associated Regional Official Plan Amendment, will be prepared in Phase D.

With the SABE technical studies having been made publically available for comment, Phase B is nearly complete. The technical studies will continue to be refined and finalized together with the draft SABE Regional Official Plan Amendment, which is the main deliverable of Phase C.

The two-phase Environmental Screening and Scoped Subwatershed Study will move into Phase 2: Scoped SWS. This second phase consists of three parts which will undertaken concurrently and to inform the SABE Phase C and Phase D.



At the conclusion of the process, the SABE technical studies will be submitted to the Province (the approval authority) along with the Peel 2041 Official Plan amendment.

C. TECHNICAL STUDY STATUS UPDATE AND PRELIMINARY FINDINGS

A brief overview of each technical study, including the main purpose, study approach, policy context, and preliminary principles and conclusions about the location and configuration of the potential SABE area(s) is provided in this section.

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Technical Study: Phase 1 – Agricultural Impact Assessment (AIA)

Purpose: Undertake a scoped analysis to assess the FSA to identify potential SABE areas that will minimize the impact on the Regional agricultural system as defined in the PPS, 2020. The results of this scoped analysis will be considered as part of a comprehensive analysis to identify recommended expansion areas based on a range of parameters. Once this further refinement is completed, a detailed Agricultural Impact Assessment (AIA), as required by Provincial and municipal policy, will be conducted to provide specific recommendations for the SABE that will minimize impact on the Regional agricultural system.

i. Study Approach

The methodology used to review the FSA was based on the following steps. To facilitate the analysis, the FSA was divided into eight sub-areas. Background data collection and review included:

- Land use survey
- Consultations with local farmers and farm organizations
- Field investigations
- Aerial photo interpretation
- Identification of properties subject to MDS formulae application
- Confirmation of criteria for refining potential locations for urban expansion
- Locational analysis based on identified criteria
- Identification of potential expansion areas

ii. Policy Context

As required in section 2.2.8 of the Growth Plan, the feasibility of a proposed SABE must be assessed from an agricultural perspective. The assessment is intended to minimize the impacts on the Agricultural System and also ensure compliance with minimum distance separation formulae associated with certain farm operations.

The following plans and policies were relied upon to inform the Phase 1 assessment.

Provincial	Region of Peel	Other
PPS, 2020	Region Official Plan, 2018	Minimum distance separation formulae guidelines
Growth Plan, 2019	Peel 2041 Discussions Papers related to agriculture and climate change	Policy papers to address planning on the urban-rural fringe

Provincial	Region of Peel	Other
Greenbelt Plan, 2017	Peel Food Charter, Peel Poverty Reduction Strategy, 2017	Planning principles that contribute to a healthy rural community and support a viable agricultural system
Agricultural Resources Provincial Guidelines, including Minimal Distance Separation Guidelines	Grown in Peel, Buy Local Guide, From our Farm to You, 2019	

iii. Preliminary Principles & Conclusions

The report includes Peel 2041 policy recommendations informed by the Region’s Agriculture and Rural Area Discussion Paper completed in November, 2019. The following summarizes the preliminary Peel 2041 policy recommendations related to the Agricultural System and Rural System (highlighted terms are defined in the Growth Plan).

Agricultural System Policies	Rural System Policies
Change language from Agricultural Resources to Agricultural System and incorporate Provincial definition	Make support and enhancement of the Agricultural System an objective
Make support and enhancement for the diversity, health and productivity of the Agricultural System a policy objective	identify the Agricultural System as consisting of Prime Agricultural Areas , (···) and rural lands designated in the area municipal official plans and the agri-food network as a component of the Rural System
Adopt policies to maintain a continuous and productive agricultural land base consisting of prime agricultural areas and rural lands	Commit to implementing the Agricultural System policies
Update the Region’s Prime Agricultural Area mapping to ensure that it is consistent with provincial policy and mapping	Clarify that agricultural uses and normal farm practices, agriculture-related uses and on-farm diversified uses are permitted uses in rural lands
Add policies specifying where an agricultural impact assessment (AIA) is required and add definition of AIA	
Modify existing policies to support the development and implementation of regional agri-food strategies, food system planning and other approaches to support and enhance the Agricultural System	
Incorporate policy requiring that integrated planning for growth management, including	

Agricultural System Policies	Rural System Policies
infrastructure planning, will consider opportunities to support and enhance the Agricultural System	

Each agricultural sub-area in the FSA was assessed based on policy related to the maintenance and management of the Regional agricultural resource and the GGH agricultural system as informed by the following principles: Provincial policy, Region structure, land use, soils, fragmentation, constraints, production profile, infrastructure, edge planning, character, and agricultural system.

The conclusions by each sub-area are summarized below. It is important to note that the sub-areas are for analysis purposes only and can be modified to suit the needs of the preferred SABE configuration.

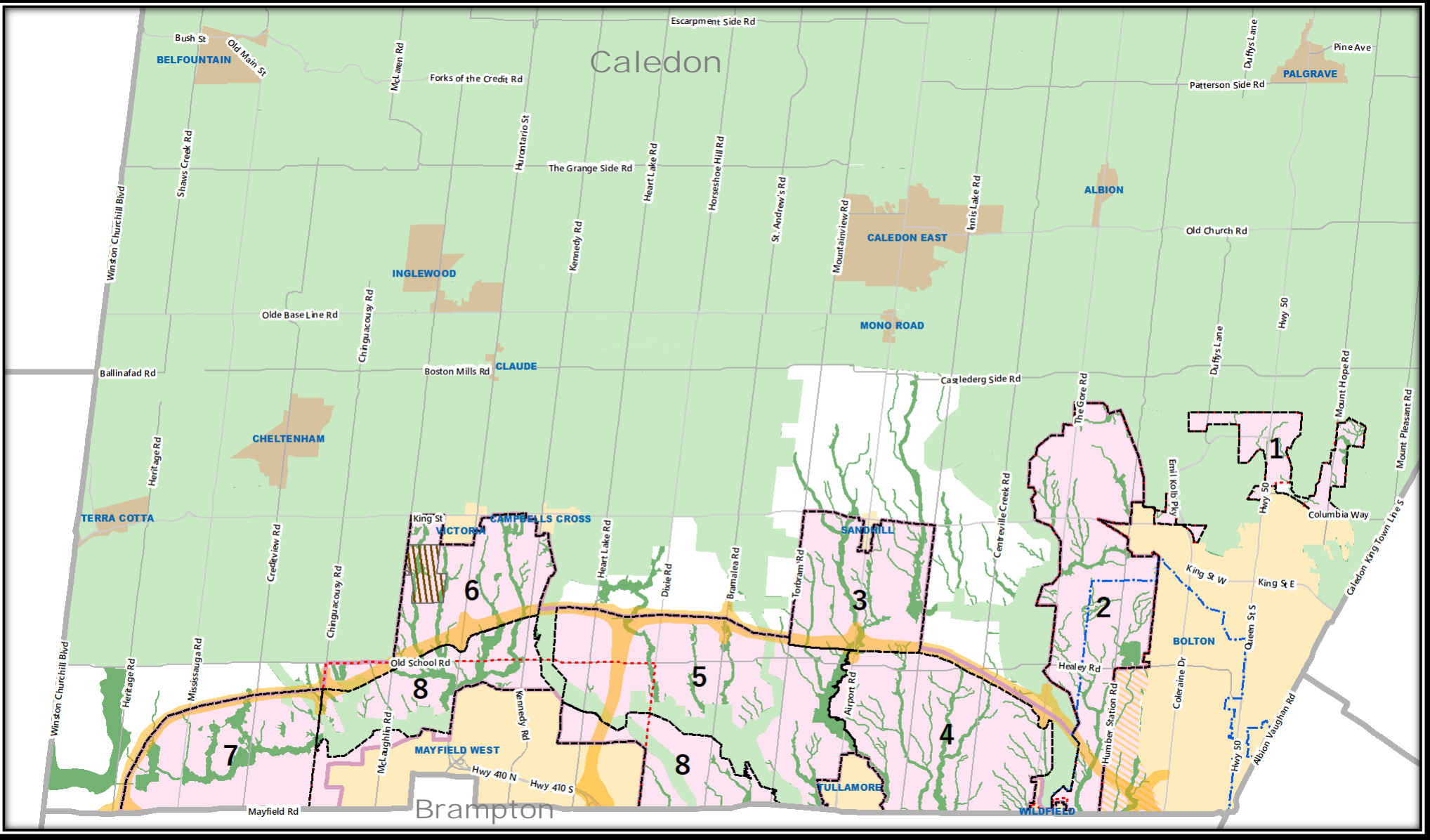
Area	Preliminary Conclusions
Area 1	<ul style="list-style-type: none"> ▪ Area forms part of a narrow band of land that links the Peel and York agricultural systems. ▪ The area is almost entirely bounded by Protected Countryside and is linked to the surrounding agriculture community, which can support normal farm practices and reflects the rural character of the areas. ▪ The property fabric is relatively intact, and the majority of the land is under production.
Area 2	<ul style="list-style-type: none"> ▪ The property fabric is fragmented in areas to the west of the current urban boundary along the east side of Humber Station Road, along Mayfield Road, and on the south side of King Street. ▪ Urban designation south of King Street makes it difficult to buffer or provide sufficient separation of to allow normal farm practises to occur. ▪ Livestock sector is declining in this area. However, there is active farming occurring in the westerly portion along The Gore Road. ▪ Retaining the northern portion of this area as part of the rural system would strengthen the system. ▪ Agriculture in the area south of King Street, particularly for the properties fronting on Humber Station Road, is impacted by conflicting uses and shows evidence of decline. The agricultural input services remaining in the FSA are located in this area and in Bolton.
Area 3	<ul style="list-style-type: none"> ▪ Isolated from existing urban development. ▪ There are active farming operations in this area.

Area	Preliminary Conclusions
	<ul style="list-style-type: none"> ▪ Depending on the future function of Airport Road which may be impacted by the proposed GTA West Corridor interchange, this area have the characteristics to sustain viable agriculture.
Area 4	<ul style="list-style-type: none"> ▪ The property fabric in the area between Centreville Road and Airport Road is highly fragmented as is the southern portion along Mayfield Road, the boundary between the Regional Urban and Rural Systems. ▪ The property fabric between Centreville Road and the Gore Road is less fragmented but there is a high incidence of non-farm ownership. ▪ There is an active livestock operation in that area that will be subject to MDS requirements. Land use along Mayfield Road is non-farm as are areas on the south side of Healy Road and along the west side of Airport Road. ▪ Although much of Area 4 is farmed, there is extensive non-farm property ownership, a pattern of fragmentation and a high incidence of potentially conflicting uses.
Area 5	<ul style="list-style-type: none"> ▪ This area contains a significant cluster of active farm operations including large livestock operations. With the exception of two golf courses, one on the west side of Torbram Road and one at the corner of Bramalea and Old School House Roads, the area is under extensive farm ownership and actively farmed. ▪ Much of the area has drainage infrastructure and permits have been issued recently for farm related improvements. ▪ The Brampton Fair grounds is located on a large parcel of agricultural land at the corner of Heart Lake Road and Old School House Road. The western side between Heart Lake and Dixie Roads, is bisected by the proposed 410 Extension .To the west and south, the Area is bounded by fingers of Greenbelt. To the east, the boundary with Area 4 is a proposed Natural Environment High Constraint area. These features could act as a natural buffer protecting the integrity of this well-established agricultural area.
Area 6	<ul style="list-style-type: none"> ▪ This is the only portion of the FSA bounded on three sides by the Greenbelt. ▪ It is potentially buffered from conflicting uses and removed from urban development. However, the area is fragmented with non-agricultural uses. ▪ The predominant land use is agricultural but there are non-farm residential uses scattered throughout the area and there is considerable non-farm ownership. ▪ Existing farm infrastructure is limited and only three properties at the south end (including two that straddle the boundary with Area 8 and may be

Area	Preliminary Conclusions
	impacted by the GTA West corridor) exhibit evidence of being able to house livestock.
Area 7	<ul style="list-style-type: none"> ▪ Fragmentation in this area is limited and the agricultural character is well established. ▪ Many farms have improvements and a number of properties meet the criteria for potential MDS analysis. ▪ The area to the south in Brampton, although designated for future urban growth, is still rural. ▪ There is a canola research facility on a large parcel of land at the corner of Mississauga and Mayfield Roads. The urban interface with Mayfield West is limited to the area along Chinguacousy Road where fragmentation is apparent and shifts in land use are occurring. There are no properties potentially subject to MDS requirements in that block. ▪ The lands to the north of the proposed GTA West Corridor which forms the boundary of the FSA and this area, is a well-established farming area.
Area 8	<ul style="list-style-type: none"> ▪ Area has extensive interface with the Mayfield West boundary and therefore meets many of the criteria for consideration as a location for boundary expansions. However, although there are a number of parcels identified as being in non-farm ownership, the existing land use, with the exception of a school, a parcel of vacant land and a handful of smaller uses, is agricultural. ▪ Numerous properties identified as being potentially subject to MDS and fragmentation is not as apparent as in other parts of the FSA. ▪ Two areas included in Area 8 are bounded by NHS features which would buffer agricultural uses to the north from further conflict should this be identified as an expansion area.

iv. FSA Map

The following map shows the boundary of each FSA sub-area for the scoped analysis for the Agricultural Impact Assessment.



FOCUS STUDY AREA (FSA) (2041)

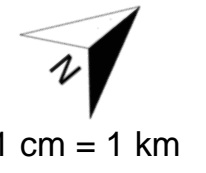
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Approx. size, to scale, of SABE land requirement (~1,300 ha) to 2041

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Note:

- (1) There may be opportunities to expand rural settlements outside the FSA as part of the SABE Study.
- (2) Other natural environmental constraints not identified on this map, including features not captured through existing mapping and potential buffers, will be identified through further analysis and may further limit development.
- (3) ROP Policy 5.4.3.2.7 as it relates to the area surrounding Bolton is under appeal.
- (4) The ~1,300 ha SABE is based on a draft land needs assessment which is under review.



1 cm = 1 km

Technical Study: *Transportation Initial Assessment*

Purpose: To identify transportation planning principles and network capacity requirements in proximity to the FSA including active transportation and transit infrastructure considerations. The analysis will review existing conditions, planned network expansion, potential growth projections and travel demand forecasts as well as implications and initiatives required to accommodate potential growth.

i. Study Approach

Transportation planning principles were established through a policy review and discussions with Regional staff. The transportation assessment involves two steps consistent with the “filtering” approach being used for the broader SABE Study. This process involves:

- **Step 1: Initial Assessment** – of transportation implications of accommodating forecasted growth based on FSA transportation sub-areas. Qualitative screening examines the relative advantages, disadvantages and development constraints of the alternative location(s) for additional residential and employment lands from a transportation perspective.
- **Step 2: Detailed Evaluation** - of the preliminary preferred SABE to help configure and refine the area. Using both qualitative and quantitative criteria, this step will also include sensitivity testing to help assess different configurations of the preliminary preferred area from a transportation perspective. Required infrastructure to support development of the SABE will be identified as well.

ii. Policy Context

Section 2.2.8 of the Growth Plan requires that there be sufficient capacity in existing and planning infrastructure, including transit and transportation corridors and facilities, to service new settlement areas. In particular, the policies of the Growth Plan require that transportation infrastructure related to the movement of people and goods are important investments to be considered as part of land use planning process.

The following plans and policies were relied upon to inform the assessment.

Provincial	Region of Peel	Area Municipalities
PPS, 2020	Let’s Move Peel – Long Range Transportation Plan, 2019	Caledon Transportation Master Plan, 2018

Provincial	Region of Peel	Area Municipalities
Growth Plan, 2019		Caledon Bolton Transportation Master Plan
Metrolinx 2041 Regional Transportation Plan		Caledon Transit Feasibility Study
		Brampton Transportation and Transit Master Plan
		Brampton Active Transportation Plan

iii. Preliminary Principles & Conclusions

The FSA was divided into eight sub-areas and assessed using principles from the Region’s Long Range Transportation Plan framework. These principles included: Transportation, Economic, Natural Environment and Cultural Heritage.³ Transportation included three sub-categories of sustainable modes of transportation, vehicle traffic, and road network connectivity. The goods flow movement is categorized as an economic transportation principle. The table below presents the preliminary assessment indicating the relative merit of the different expansion options for residential and employment development based on the qualitative assessment.

Area	Sustainable Modes ¹	Vehicle Traffic ¹	Road Network Connectivity ¹	Goods Flow Movement ²
1. North of Bolton	↓	↓	↓	↓
2. Northwest of Bolton	↑	↓	↑	↓
3. West of Bolton	↑	↓	↓	↑
4. Northeast of Tullamore	↓	↑	↓	↑
5. North of Tullamore	↓	↑	↓	↑
6. Northwest of Tullamore/Northeast of Mayfield West	↑	↑	↑	↑
7. North of Mayfield West	↑	↑	↓	↓
8. Northwest of Mayfield West	↑	↑	↑	↓

¹ Residential measures

² Non-residential measure

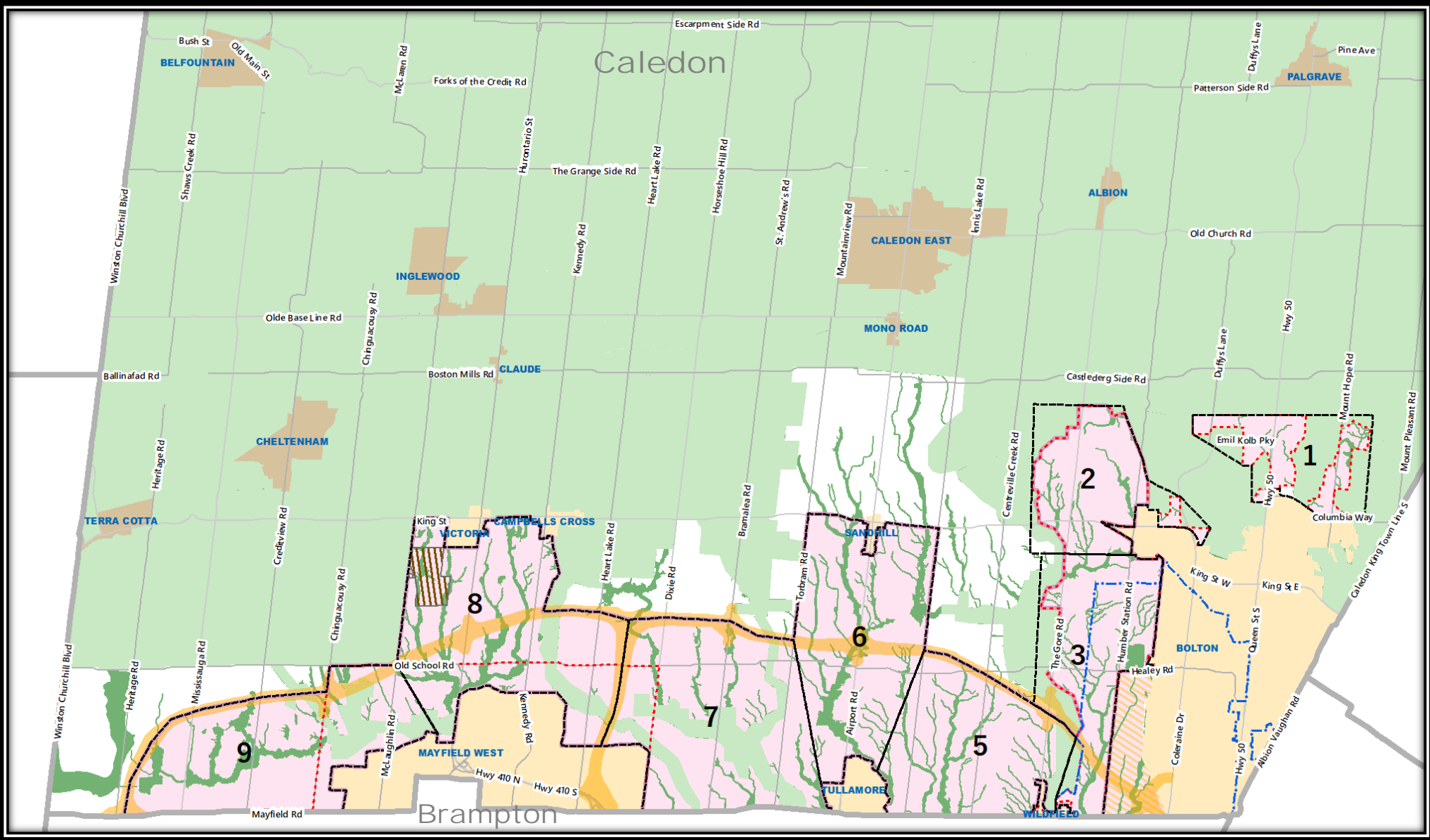
³ For the purposes of transportation planning, cultural heritage is defined as the encroachment to sensitive areas such as existing and historical settlement areas, hamlets, places of worship and cemetery locations.

From a cultural heritage perspective, there are minimal to no cultural heritage sites located within the FSA. The natural environment was assessed from the perspective of newly identified high constraint areas and the potential negative effects caused by construction initiatives, such as road expansion projects. Sub-areas 3, 4, 7 and 8 had moderate to considerable amounts of high constraint areas. In contrast, sub-areas 1, 2, 5 and 6 had minimal constraints.

iv. FSA Map

The following map shows the boundaries of the eight FSA sub-areas for *Transportation Initial Assessment*.

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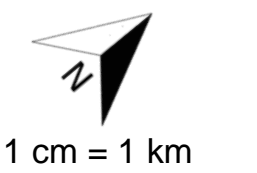
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- Provincially Significant Employment Zone
- Brampton Caledon Airport

Approx. size, to scale, of SABE land requirement (~1,300 ha) to 2041

Disclaimer: This map has been developed for the Settlement Area Boundary Expansion (SABE) Study and represents an area to be studied for the purpose of identifying a SABE. For additional information, please refer to the *Settlement Area Boundary Expansion Study Phase A: Focus Study Area* report.

- Note:**
- (1) There may be opportunities to expand rural settlements outside the FSA as part of the SABE Study.
 - (2) Other natural environmental constraints not identified on this map, including features not captured through existing mapping and potential buffers, will be identified through further analysis and may further limit development.
 - (3) ROP Policy 5.4.3.2.7 as it relates to the area surrounding Bolton is under appeal.
 - (4) The ~1,300 ha SABE is based on a draft land needs assessment which is under review.



Technical Study: Phase 1- Water & Wastewater Assessment

Purpose: To provide an overview of the water and wastewater servicing principles that will be used to inform the Water and Wastewater Assessment analysis as part of the work plan for the Region's SABE.

i. Study Approach

There are two phases to the Water and Wastewater technical study:

- **Phase 1: Initial Assessment (completed)** – establishment of infrastructure planning principles based on relevant master plans used to evaluate the FSA. Includes an assessment of available servicing capacity and high-level infrastructure cost impacts.
- **Phase 2: Detailed Assessment (underway)** – detailed infrastructure assessment associated with SABE.

ii. Policy Context

Section 4.2.1 of the Growth Plan requires that watershed planning will be undertaken and water resource systems identified. Watershed planning or equivalent will inform decisions on allocation of growth.

The analysis is embedded within the land use planning framework applicable to the Region's Peel 2041 process. Informed by the Water and Wastewater Master Plan and Region's long-term Water and Wastewater Servicing Strategy.

iii. Preliminary Principles & Conclusions

Servicing principles established based on a review of existing master plans and capital infrastructure policies include:

- Optimize the use of existing infrastructure where possible, with consideration to available and reserve capacity in the water and wastewater system
- Utilize infrastructure where future planned growth is located
- Consider the natural, built and cultural environment and heritage of the community
- Provide reliability, and security in the distribution of drinking water and collection of wastewater
- Provide drinking water at adequate pressure and flow to its customers
 - Pressure zones in the Region are delineated at approximately 30 m intervals
- Recognize that the service life of infrastructure may be greater than the current planning horizon
 - Oversizing may be considered for some infrastructure

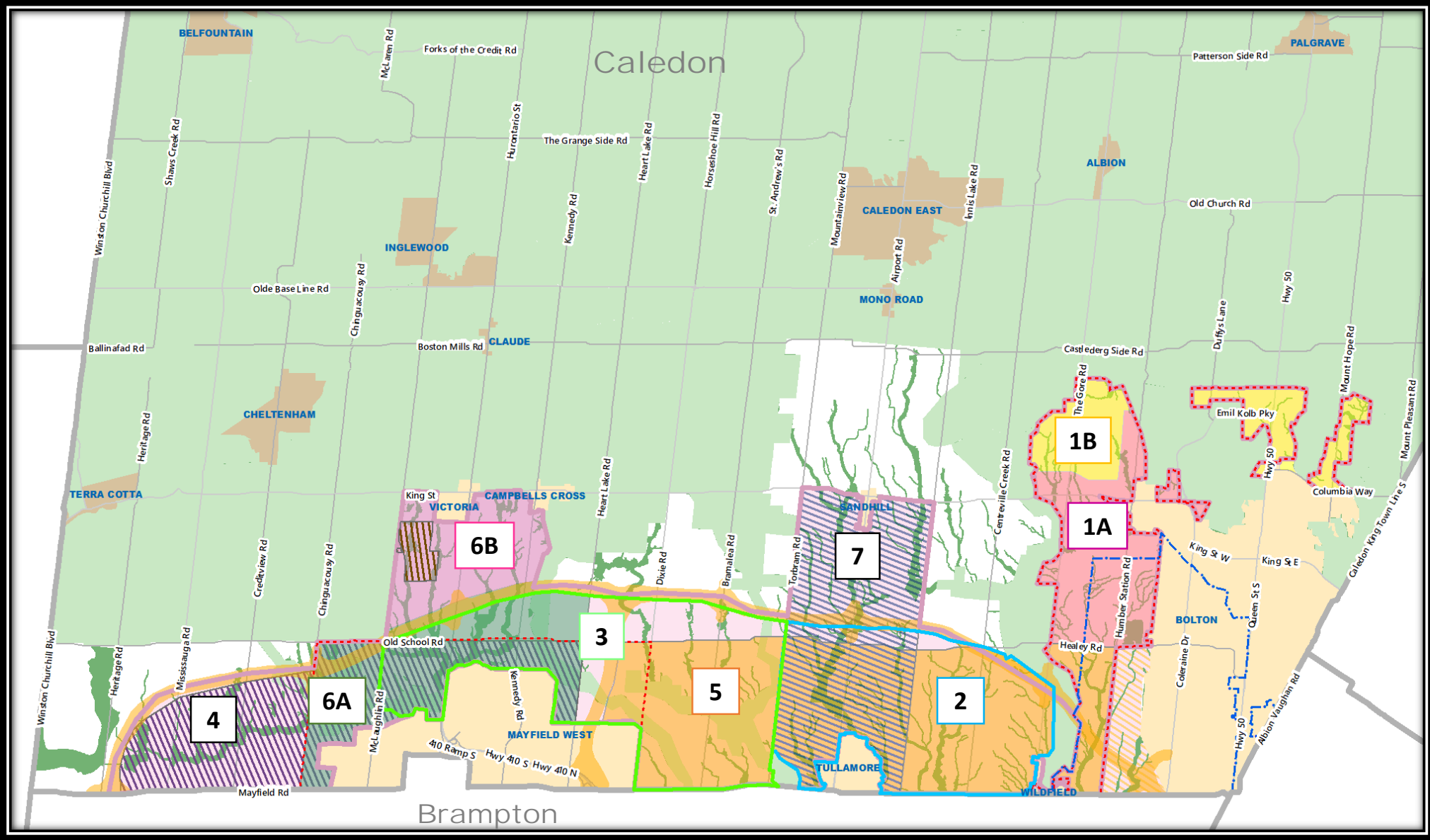
- Locate services and facilities on public property or on municipally owned easements
 - Where this is not feasible, property requirements will be considered

The water and wastewater servicing requirements for each area were assessed. The following summarizes the conclusions of each area.

Area	Summary
1A. Bolton Study Area	Better positioned for future servicing
1B. Bolton Study Area	Less preferred based on complexity and cost of servicing, especially in areas north of Columbia Way.
2. Tullamore – East Extension	Better positioned for future servicing
3. Mayfield West – East Extension	Less preferred based on servicing requirements
4. Alloa / Mayfield West – West Extension	Better positioned for future servicing
5. Wildfield	Better positioned for future servicing
6A. Mayfield West Extension to Victoria/Campbells Cross	Better positioned for future servicing (for lands south of the planned GTA West Corridor)
6B. Mayfield West Extension to Victoria/Campbells Cross	Less preferred based on servicing requirements
7. Tullamore Extension to Sandhill	Less preferred based on servicing requirements

iv. FSA Map

The following map shows the boundaries of the eight FSA sub-areas for the Phase 1- Water & Wastewater Assessment.



FOCUS STUDY AREA (FSA) (2041)

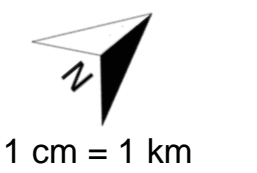
- FSA (Area identified for further study)
- Study Areas (ROP Policy 5.4.3.2.7)
- GTA West Corridor (Technically Preferred Route)
- Municipal Boundary
- Settlement Areas (Outside Greenbelt)
- Settlement Areas (Within Greenbelt)
- Greenbelt Area (Protected Countryside) (Niagara Escarpment) (Oak Ridges Moraine) (Growth Plan NHS)
- Natural Environment High Constraint (Wood Team Data)
- Bolton Residential Expansion Area (Adopted and Under Appeal)
- Provincially Significant Employment Zone
- Brampton Caledon Airport

Approx. size, to scale, of SABE land requirement (~1,300 ha) to 2041

Disclaimer: This map has been developed for the Settlement Area Boundary Expansion (SABE) Study and represents an area to be studied for the purpose of identifying a SABE. For additional information, please refer to the *Settlement Area Boundary Expansion Study Phase A: Focus Study Area* report.

Note:

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- (2) Other natural environmental constraints not identified on this map, including features not captured through existing mapping and potential buffers, will be identified through further analysis and may further limit development.
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- (4) The ~1,300 ha SABE is based on a draft land needs assessment which is under review.



1 cm = 1 km

Technical Study: *Commercial and Employment Opportunities*

Purpose: To provide real estate market insights to guide future land use planning in accommodating anticipated population and employment growth across the FSA to the 2041 horizon.

i. Study Approach

The study includes two distinct components:

- **Part 1: Employment Forecast Allocations by Type** – assessment of employment growth by type (e.g., employment land employment, rural employment, population-related employment, and major office employment); a review of land need by type; and assessment of six sub-areas within the FSA.
- **Part 2: Retail-Commercial Land Needs Analysis** – assessment of retail characteristics of five sub-areas within the FSA; inventory analysis of existing retail-commercial space; and retail space per capita demand assumptions and associated projection.

ii. Policy Context

The analysis is embedded within the land use planning framework applicable to the Region’s Peel 2041 process. The analysis will be used to inform policies related to employment related land use planning requirements described in section 2.2.5 of the Growth Plan. The report is predicated on employment sector trends within the Greater Toronto Area (GTA) and Region of Peel.

iii. Preliminary Principles & Conclusions

The FSA was divided into sub-areas based on locational characteristics in order to complete the Part 1 and 2 assessments. The significance of each area, including strengths and weaknesses, are summarized below.

Area	Part 1: Employment Forecast	Part 2: Retail-Commercial Needs
Area 1: Bolton’s Provincially Significant Employment Zone (PSEZ)	<ul style="list-style-type: none"> ▪ The entirety of the FSA, including the PSEZ, was assessed equally to determine the most appropriate location for employment. ▪ This area is preferred for employment due to the presence of existing and well-established employment uses as well as its location in relation to the GTA West Corridor. 	<ul style="list-style-type: none"> ▪ Bolton is home to a considerable retail-commercial inventory (nearly 1.7 million square feet) and will draw from large secondary trade area in Caledon. ▪ Scale of residential growth will dictate quantum of retail space demand.

Area	Part 1: Employment Forecast	Part 2: Retail-Commercial Needs
	<ul style="list-style-type: none"> ▪ Areas outside of Area 1 are not optimal due to separation of existing employment uses and comparably long distance from the GTA West Corridor. 	
<p>Area 2: Tullamore</p>	<ul style="list-style-type: none"> ▪ Established industrial uses in Tullamore suggests additional employment land demand could emerge in the near to medium term. ▪ Completion of the GTA West Corridor and interchange at Airport Road, might be a significant catalyst for future employment demand. 	<ul style="list-style-type: none"> ▪ Future development in this area should extend north from Mayfield Road, in recognition of planned, designated retail-commercial uses identified in the Countryside Villages and Vales of Castlemore North Secondary Plans. ▪ The area has an existing SmartCentres shopping centre (280,000 sf) located at Mayfield Road and Bramalea Road and planned 190,000 sf shopping centre on the northeast corner of Airport Road and Mayfield Road.
<p>Area 3: Sandhill</p>	<ul style="list-style-type: none"> ▪ Although desirable from a “blank slate” planning perspective, the location is distant from established employment areas, as well as the labour pool needed to fulfil jobs. ▪ Opportunity for long-term employment land once better suitable lands are absorbed. 	<ul style="list-style-type: none"> ▪ Not considered to be well located for retail-commercial uses. ▪ If retail is accommodated, sites should have frontage on Airport Road, in order to take advantage of commuter traffic, in addition to servicing the local population.
<p>Area 4: Mayfield West</p>	<ul style="list-style-type: none"> ▪ Strong potential for near and long-term employment uses due to existing connection with Highway 410 and eventual GTA West Corridor. 	<ul style="list-style-type: none"> ▪ Planned population in Mayfield West will generate demand for new retail-commercial uses and potentially draw from other settlement areas in Caledon as well as north Brampton. ▪ East-west portion of the GTA West Corridor that intersects with Highway 410 has excellent visibility and accessibility and is a good location for major retail-commercial development. ▪ A major 1.2 million sf retail-commercial space including an enclosed mall and movie theatres

Area	Part 1: Employment Forecast	Part 2: Retail-Commercial Needs
		(plus office, apartment, and hotel uses) is proposed in northwest Brampton and should be considered when siting future retail.
Area 5: Brampton Caledon Airport Area	<ul style="list-style-type: none"> Most peripheral location for employment in FSA and therefore is best suited for long-term employment. Brampton Caledon airport may attract related employment uses. 	<ul style="list-style-type: none"> N/A See Area 6
Area 6: Southwest Caledon <i>*Referred to as Area 5: Southwest Caledon retail- commercial needs</i>	<ul style="list-style-type: none"> Future employment opportunities will be assessed once planning of Mount Pleasant West and Huttonville North Secondary Plan Areas in northwest Brampton is complete. Therefore, unlikely to accommodate employment in the immediate-term. 	<ul style="list-style-type: none"> Limited retail-commercial opportunities due to absence of population growth to the north and west. If future population is allocated to this area, it is likely to necessitate small-scale shopping centre development.

The assessment of the FSA sub-areas were used to develop employment and retail-commercial needs principles to be considered in selecting the SABE. These include:

Part 1: Employment Allocations	Part 2: Retail-Commercial Needs
Good access to labour	Adjacency and/or proximity to existing Settlement Areas
Proximity to other established employment areas	Population growth within nearby Settlement Areas/rural lands which supports primary and/or secondary trade area potential
Complement planned employment uses nearby	Proximity to other established or planned retail-commercial nodes or developments
Direct and/or proximate access to a GTA West Corridor interchange	Access and visibility to a GTA West Corridor interchange
Proximity to transportation infrastructure such as 400-series highways, intermodal facilities, and Pearson International Airport	Opportunities to access public transit
Visibility to the GTA West Corridor and on arterial roads	Complement planned employment uses nearby in Caledon, and/or to the south in Brampton

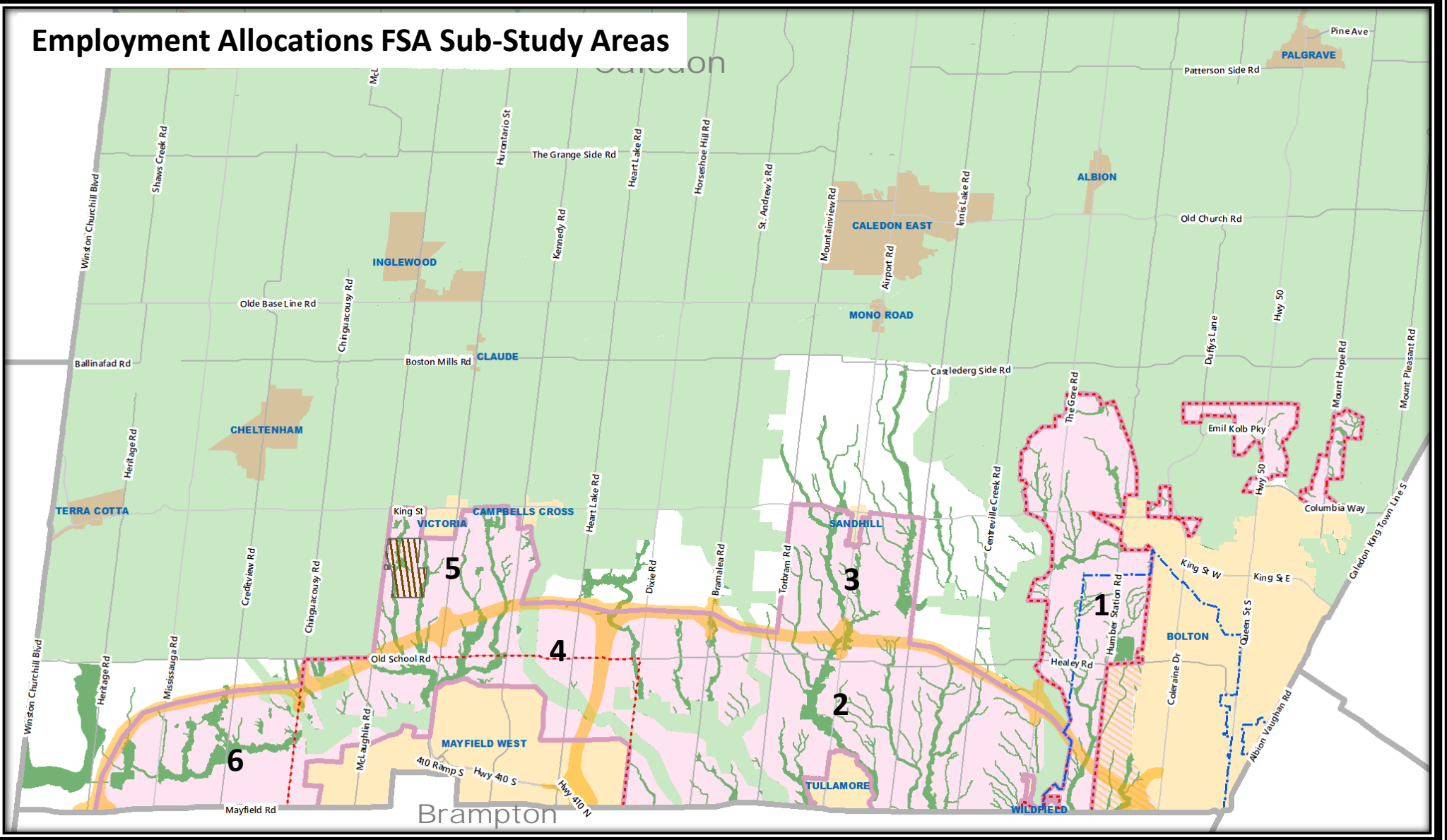
Part 1: Employment Allocations	Part 2: Retail-Commercial Needs
Opportunities to access public transit	Avoid physical features that could limit the scope of the trade area, such as Greenbelt lands, or environmental areas
Opportunities for significant contiguous blocks of land for employment uses	
Accommodate land-extensive users	
Existing land uses that can be leveraged for a spin-off economic effect	
Avoid physical features that could preclude or inhibit development	
Land use conflicts can be managed/avoided	

iv. FSA Maps

The following two maps show the boundaries of each sub-area for the Employment Allocation analysis and Retail-Commercial Needs assessment respectively.

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Employment Allocations FSA Sub-Study Areas



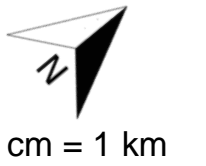
FOCUS STUDY AREA (FSA) (2041)

- FSA (Area identified for further study)
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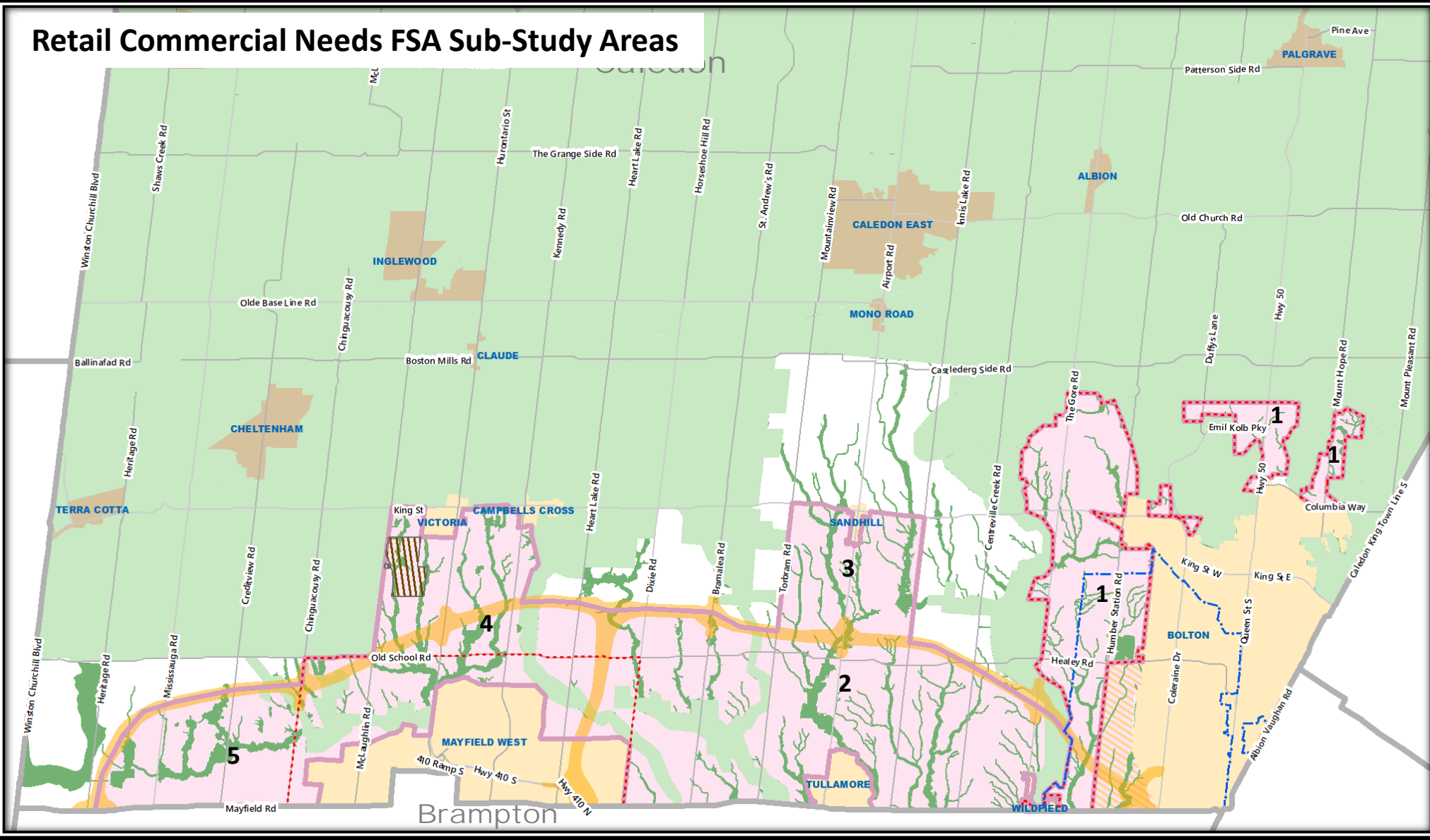
Approx. size, to scale, of SABE land requirement (~1,300 ha) to 2041

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Retail Commercial Needs FSA Sub-Study Areas



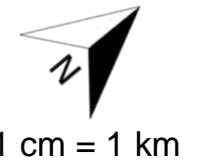
FOCUS STUDY AREA (FSA) (2041)

- FSA (Area identified for further study)
- Study Areas (ROP Policy 5.4.3.2.7)
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Approx. size, to scale, of SABE land requirement (~1,300 ha) to 2041

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 - (4) The ~1,300 ha SABE is based on a draft land needs assessment which is under review.



Technical Study: *Climate Change: Opportunities Energy and Emissions Reductions*

Purpose: To develop a planning policy framework that supports energy planning in the Region, including the SABE area. The main goal is to minimize new greenhouse gas (GHG) emissions in order to mitigate climate change over the long-term in both the SABE Area and the Region. Policy recommendations to achieve low-carbon emissions in the SAB, which may ultimately transition to net-zero are also identified.

i. Study Approach

The study was informed by a systemic review of land use planning policies, including Regional and local official plans as well as supportive master plans and strategies. Lessons learned from a case study review of low-carbon and net-zero emissions communities were used to develop general implementation policies for the SABE to be considered by the Town of Caledon when preparing a Secondary Plan for the new area. As well, the analysis identified principles to apply in determining the ultimate configuration of the SABE.

ii. Policy Context

Section 2 of the *Planning Act* states that the mitigation of GHG emissions and adaptation to a changing climate is a matter of Provincial interest, thus requiring municipalities to have regard to such matters when carrying out land use planning responsibilities. Of particular relevance to the analysis, section 4.2.10 of the Growth Plan requires municipal land use policies to facilitate GHG emission reductions and climate change mitigation. The Plan encourages municipalities to design communities and infrastructure to be resilient to the impacts of climate change.

The following provincial legislation, plans, and policies, as well as land use plans and master plans prepared by the Region and Town of Caledon, were referenced in the technical analysis.⁴

Provincial	Region of Peel	Town of Caledon	Other
<i>Planning Act, 1990</i>	Region of Peel Consolidated Official Plan, 2018	Town of Caledon Consolidated Official Plan, 2018	Community Emissions Reduction Planning: A Guide for Municipalities, 2018

⁴ In early December 2019, draft Peel 2041 policies for [Environmental, Agricultural and Rural Systems](#) were made publically available. The Region has initiated informal public consultation of these policies, which includes consultation with local municipalities. Policies brought forward as part of Peel 2041 will be informed by the Climate Change Technical Study.

Provincial	Region of Peel	Town of Caledon	Other
PPS, 2020	Climate Change Discussion Paper, 2018	Caledon Community Climate Action Plan, 2011	Mapping Opportunities for Renewable Energy: A Guidebook, 2019
Growth Plan, 2019	Peel Climate Change Master Plan 2020–2030	Residential Energy Use Mapping and Forecasting Study, 2016	GPC Protocol: Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories
Greenbelt Plan, 2019	2011/2012 Peel Community Climate Change Strategy	Corporate GHG Framework 2019–2024	
Green Energy Act, 2009 and Green Energy Repeal Act, 2019	Region of Peel Long Range Transportation Plan	Renewable Energy Potential Study (underway)	
Made-in-Ontario Environment Plan, 2018			

iii. Principles & Conclusions

The analysis identified SABE selection principles as well as a draft policy framework intended to be applied by the Town as part of a Secondary Plan. A summary of these principles is provided below.

In determining the location and configuration of the SABE, the following principles should be considered:

- **Contiguous expansion of existing settlement areas.**
- **Strong connections** with existing settlement areas.
- Proximity to existing or planned **transit and active transportation infrastructure.**
- **Avoidance of natural areas** that sequester carbon.
- **Ensure access or connection** with planned energy infrastructure.

The following summarizes the recommended options for the Town of Caledon in developing future energy and GHG emissions policies as part of subsequent stages of the planning process (e.g., Secondary Plan) including technical studies that may be required in advance of development.

Secondary Plan Policies

- Future-proof the policy framework to anticipate a net-zero community with the expectation that the transition will take place over the life of the plan.
- Set targets for future energy demand in the SABE to be met by renewable energy and set phased targets for emissions will take place over the life of the plan.
- Ensure a complete streets approach to road (re)design, construction, and maintenance that takes seriously the experience of transit-users, pedestrians and cyclists as daily users and commuters on those roads.
- Identify potential areas for district energy throughout the SABE.
- Add policies with respect to future-proofing by being prepared for shift to electric vehicles and ensuring the built environment is ready with vehicle charging.
- Include policies for community and building design to reduce the resource consumption, energy use, and carbon footprint of the built environment, including the use of zoning permissions.
- Recognize the role of the natural environment in air quality.
- Include energy and emissions in development review and require applications for development in the SABE to include an energy study.

Town-wide Official Plan Policies

Results of the analysis of energy and emissions reduction in the planning framework may apply to the Town of Caledon generally, beyond the secondary planning process.

- Develop a Green Standard for all new development.
- Establish a definition of a net-zero community.
- Investigate the use of development charges and other finance tools, for example through a Community Improvement Plan, to support policy goals.
- Provide direction through the development and regular update of a Community Energy and Emissions Reduction Plan,
- Continue and enhance partnerships with senior, regional and local governments, public agencies, community organizations, businesses and individuals for the efficient and effective coordination of energy and emissions reduction plans, policies and initiatives.
- Provide direction through the development and regular update of an Energy and Emissions Reduction Plan.

Technical Study: Stage 1 Archeological Assessment

Purpose: To determine the archeological potential of properties in the FSA. This entails a review of previously registered and reviewed archaeological sites and the original environmental setting of properties, along with historical settlement trends.

i. Study Approach

The assessment was prepared in accordance with the requirements of the *Ontario Heritage Act, 1990*. The historical context of the FSA was reviewed and registered archeological sites were examined along with previous archeological assessments. This led to the identification of sites with Indigenous, Euro-Canadian, and composite archeological potential within the FSA.

Once finalized, the report will be submitted to the Minister of Heritage, Sport, Tourism and Culture Industries for approval. If the Minister is satisfied that the archaeological field work and report recommendations ensure the conservation, preservation and protection of the cultural heritage, a letter of compliance will be issued. In accordance with statutory requirements, Indigenous Community representatives have been notified of the study and will be able to provide comment.

ii. Policy Context

Section 2 of the *Planning Act*, municipalities have regard to the conservation of features of archeological significance when carrying out land use planning responsibilities. Growth Plan policy 4.2.7 encourages municipalities to prepare archaeological management plans and consider them in decision-making.

The following plans and policies were relied upon to inform the assessment.

Provincial	Town of Caledon	Other
<i>Planning Act, 1990</i>	Draft Archaeological Potential Model	Previous archeological assessments completed within the FSA
<i>Ontario Heritage Act, 1990</i>		Archeological Assessment Standards and Guidelines for Consultant Archaeologists
<i>Funeral, Burial and Cremation Services Act, 2002</i>		

iii. Preliminary Principles & Conclusions

The study concluded that approximately 78%, or 6,503 ha, of the FSA exhibits potential for the presence of Indigenous and/or Euro-Canadian archaeological resources. If located in the SABE and slated for development, these areas will require more in-depth archeological assessments (Stage 2, 3 or 4). Some sites will require an assessment of potential burial sites associated with churches located within the FSA.⁵

The need to undertake additional archeological assessments does not preclude development; rather, it requires negative impacts to archeological resources be mitigated prior to development occurring. In rare cases mitigation measures may be so substantial that a developer will choose not to develop all or a portion the site. The archeological potential of sites in the FSA will be further reviewed as part of the Town of Caledon's Archaeological Management Plan, which is currently underway and will inform Town Official Plan policies.

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⁵ The Dixon's Union Cemetery, Mayfield United Church Cemetery, and Salem United Church Cemetery.

Technical Study: *Cultural Heritage Assessment*

Purpose: To describe the existing condition of the FSA by establishing an inventory of known and potential cultural heritage resources. Provide guidance on the implications for existing and potential cultural heritage resources in relation to the potential SABE location and scale.

i. Study Approach

The identification of cultural heritage resources within the FSA were informed by a desktop field review using historical mapping of early settlement patterns, Google Streetview, and Google satellite imagery.

ii. Policy Context

In accordance with section 2 of the *Planning Act*, municipalities must have regard to the conservation of cultural features when carrying out land use planning matters. Growth Plan policy 4.2.7 requires that cultural heritage resources be conserved and encourages municipalities to prepare cultural plans and consider them in decision-making.

The following plans and policies were relied upon to inform the assessment.

Provincial	Region of Peel	Town of Caledon
<i>Planning Act, 1990</i>	Region’s Official Plan, 2018	Caledon Official Plan, 2018
PPS, 2020		Heritage Register
<i>Ontario Heritage Act, 1990</i>		

iii. Preliminary Principles & Conclusions

The analysis identified 139 confirmed or potential cultural heritage resources located within the FSA, including:

- four properties designated under Part IV of the *Ontario Heritage Act*;
- 23 properties listed on the Town of Caledon’s Heritage Register;
- 111 properties identified as potential cultural heritage resources as part of the desktop review; and
- one cultural heritage landscape previously identified by the Town of Caledon.

The assessment concluded there is no preferred location for the SABE from a cultural heritage perspective as cultural heritage resources are distributed evenly throughout the FSA. The identified inventory of cultural heritage resources have good potential for conservation and integration with future land uses associated with the SABE. As such, the

cultural heritage value should be determined and appropriately protected during subsequent planning studies and development applications.

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Technical Study: *Mineral Aggregate Resource Impact*

Purpose: To map high potential mineral aggregate resource areas (HPMARA) in order to inform the process of identifying areas for accommodating projected growth. If preferred expansion areas overlap with, or are near, an identified or potential HPMARA, the second phase of the work will be to conduct a Mineral Resource Impact Study to address Provincial policy requirements regarding mineral aggregate resources.

i. Study Approach

Aggregate extraction is managed by the Ministry of Natural Resources and Forestry (MNRF) and regulated under the *Aggregate Resources Act* for lands designated under the Act, which includes Peel Region. There are four classifications used for mapping aggregate resources in Ontario: primary, secondary, tertiary, and bedrock. The Region of Peel defines HPMARA in its Official Plan as “primary and secondary sand and gravel resource areas and bedrock resources”. Tertiary deposits are not included as HPMARA’s. Those HPMARA’s not impacted by a primary constraint are mapped on Schedule C of the Region’s Official Plan.

The analysis also relied upon the Ontario Geological Survey (OGS) Aggregate Resources Inventory Papers (ARIP), which provide detailed analysis of the physiography of designated aggregate resource areas in Ontario, including the Region of Peel.

ii. Policy Context

In accordance with section 2.2.8 of the Growth Plan, settlement boundary expansions must apply policies related to sections 2 (Wise Use and Management of Resources) and 3 (Protecting Public Health and Safety) of the PPS, 2020.

The following plans and policies were relied upon to inform the assessment.

Provincial	Region of Peel	Town of Caledon	Other
PPS, 2020	Region’s Official Plan, 2018	Caledon Official Plan, 2018	Ontario Geologic Survey Aggregate Resources Inventory Papers
<i>Aggregate Resources Act</i>			

iii. Principles & Conclusions

The analysis concluded there are no HPMARA’s located in the FSA. This is confirmed by the OGS mapping of Peel, refined mapping in the Region’s Official Plan, and further refined mapping in the Town of Caledon’s Official Plan.

However, the analysis did identify the location of a HPMARA adjacent to the FSA in northwest Bolton, shown on the OGS mapping as a secondary resource area and on Schedule C of the Region's Official Plan. If HPMARA is extracted from this area, setbacks associated with protecting the area of influence around the resource could extend into the FSA and potentially the location of the future SABE. Typically, the area of influence established for pits is roughly 300 metres; for quarries it is 500 metres. However, these setbacks are to be treated as guidelines as the actual dimensions will be confirmed as part of the required application process associated with aggregate extraction.

Although OSG mapping is a good indication of aggregate resource areas, it is not definitive. It is recommended that discussions with MNRF and consultations with potential stakeholders be undertaken to confirm and refine mapping that identifies the full extent of potentially unconstrained, viable resource areas as the SABE process proceeds. Once the resources are confirmed, the area of influence surrounding the HPMARA should be avoided when identifying the location and configuration of the SABE.

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Technical Study: *Health Assessment*

Purpose: To help identify a recommended SABE by providing a quantitative and qualitative evaluation to determine the health benefits and effects of the potential built environment.

i. Study Approach

The study was informed by a detailed policy review of Regional and local municipal plans and policies as well as public health best practices. Policy research was used to establish healthy development themes of density, land use, service proximity, mobility and connectivity, natural environment and sustainability and food systems supported by unique health criteria. The FSA was assessed from quantitative (i.e. measure of health conditions) and qualitative (i.e. quality and future development potential) perspectives.

ii. Policy Context

The policies of the Growth Plan directs municipalities towards the achievement of compact built forms, transit-supportive densities and walkable street configurations which support health objectives. In particular, section 2.2.1 of the Plan supports improving overall quality of life, including improved human health for people of all ages, abilities, and incomes.

The following plans and policies were relied upon to inform the assessment.

Provincial	Region of Peel	Area Municipalities	Other
<ul style="list-style-type: none"> ▪ PPS, 2020 ▪ Growth Plan, 2019 	<ul style="list-style-type: none"> ▪ Region Official Plan, 1996 ▪ Region Official Plan Amendment 27, 2017 ▪ Peel Public Health 2020-2029 Strategic Priorities for the Future, 2019 ▪ Region of Peel Healthy Development Assessment 	<ul style="list-style-type: none"> ▪ Caledon Official Plan, 2018 ▪ Brampton Official Plan, 2015 ▪ Mississauga Official Plan, 2019 	<ul style="list-style-type: none"> ▪ Community Well-Being: A Framework for the Design Professions, 2018 ▪ Healthy Communities Practice Guide, 2012 ▪ Healthy Rural Communities Toolkit: A Guide for Rural Municipalities, 2015 ▪ Planning By Design: A Healthy Communities Handbook, 2009 ▪ Healthy Built Environment (HBE)

Provincial	Region of Peel	Area Municipalities	Other
			Linkages Toolkit, 2018

iii. Preliminary Principles & Conclusions

Under each theme, the report identified principles to be considered in selecting the location and configuration of the SABE. These principles are summarized below:

Health Theme	SABE Selection Principles
Density	<ul style="list-style-type: none"> Existing and planned densities that support compact built-form Areas within 800 metre of existing areas with density level equal or greater than 25 people and jobs per hectare
Land Use	<ul style="list-style-type: none"> Areas not within 300 metres of lands occupied by existing, planned and/or designated industrial uses or the Brampton Caledon Airport
Service Proximity	<ul style="list-style-type: none"> Areas within 800 metres of existing retail establishments (e.g., pharmacies, doctors offices, convenience stores, etc.), schools, library and recreation centres, parks and child care centres Proximity to planned community services and facilities and consideration for any barriers
Contiguous Expansion	<ul style="list-style-type: none"> Logical contiguous expansion of the existing built-up area Areas within 800 metres of existing and/or planned settlement areas and adopted and/or proposed future residential expansion areas
Mobility and Connectivity	<ul style="list-style-type: none"> Areas within 800 metres of transit and active transportation networks, including bus stops, bus routes, hiking trails, multi-use paths, signed bicycle routes and separated bicycle lanes, potential Major Transit Station Areas, and major points of entry
Natural Environment and Sustainability	<ul style="list-style-type: none"> Direct growth away from significant or high constraint natural heritage features and ensure linkages between these features is protected
Food Systems	<ul style="list-style-type: none"> Areas within 800 metres of existing grocery stores, farmers' markets, local food shops, community gardens, and community food services/programs. Ensure preservation and/or protection of existing productive agricultural lands Opportunities for access to fresh local food sources, connect to existing community gardens, urban agriculture projects, farmers' markets and grocery stores

Technical Study: *Public Facilities*

Purpose: To identify community facility infrastructure needs at a Regional scale related to future development including recreation, library, emergency services, and school-related needs. The report is intended to fulfill the Growth Plan requirement that there be sufficient capacity in planned public service facilities to accommodate anticipated growth when establishing future settlement areas.

i. Study Approach

Services to be reviewed as part of the public facilities assessment were identified based on discussions with Regional staff. The services examined included library and recreation services, emergency services (fire and paramedics), and public and Catholic schools. Police services was excluded from the analysis as Caledon is serviced through a contract with the Ontario Provincial Police (OPP).

The methodology to undertake the public facilities assessment involved:

- A review of Provincial legislation, relevant master plans and supporting documents;
- Creating a detailed inventory of existing public facilities within Caledon and the FSA;
- Establishing current and planned service level standards; and
- Identifying growth-related public facility needs.

ii. Policy Context

Section 2.2.8 of the Growth Plan requires that there be sufficient capacity in existing and planned public service facilities when establishing new settlement areas. Public facilities are defined as lands, buildings or structures for the provision of programs and services provided or subsidized by a government or other body, and includes recreation, police and fire protection, health and educational programs, and cultural services.

The following plans and policies were relied upon to inform the assessment.

Provincial	Region of Peel	Town of Caledon	Other
PPS, 2020	Evaluation and Recommendations for Capital Planning and Development of the Peel Regional Paramedic Service, 2006	Parks & Recreation Masterplan, 2004 and 2010 Parks & Recreation Visioning Plan, 2015	Caledon Public Library Strategic Plan, 2018 Library Service/Facility Review and Master Plan

Provincial	Region of Peel	Town of Caledon	Other
Growth Plan, 2019	Peel Regional Paramedic Services 10 Year Facility Capital Plan, 2008-2017 (updated in 2013)	Facility Needs Assessment Study, 2017	Peel Region School Board and Peel Catholic District School Board accommodation strategies (various)
		Fire Master Plan, 2018	

iii. Preliminary Principles & Conclusions

The report concluded that generally there is limited capacity in existing infrastructure to service the needs of future population and employment growth associated with the SABE. As such, the SABE will place increased demand on public service facilities in the future.

In selecting the location of the SABE, the following principles should be considered:

Service	SABE Selection Principles
Library and Recreation Services	<ul style="list-style-type: none"> ▪ Avoid overlapping of catchment areas associated with similar facilities ▪ Leverage existing and planned facilities in existing settlement areas
Emergency Services (Fire and Paramedics)	<ul style="list-style-type: none"> ▪ Ensure good access to the existing/planned road network ▪ If possible, ensure SABE is serviced by existing or planned emergency service facilities
School Boards	<ul style="list-style-type: none"> ▪ Consider how SABE will impact the capacity of existing schools and their ability to accommodate growth ▪ Ensure sufficient land to accommodate future elementary and secondary school sites ▪ Locate SABE near future planned elementary and secondary schools with available capacity

Technical Study: Fiscal Impact

Purpose: To analyze Regional costs associated with new infrastructure and anticipated revenues arising from new development associated with the SABE (e.g. assessment growth). Analysis will be used to identify the financial resource needs in order to support sound infrastructure planning objectives identified in the FSA and the eventual determination of the SABE.

i. Study Approach

The fiscal impact analysis has been initiated, but is not yet completed. The approach to the fiscal impact assessment will include an assessment of how the size and location of development influences capital costs and revenues, particularly as it relates to water and wastewater liner infrastructure and arterial roads, which are more sensitive to the location of development.

As supported by the transportation and water/wastewater assessment, consideration will be given to existing infrastructure and the available capacity of such infrastructure to meet future servicing needs arising from new development. The rationale being that available capacity should be used first to ensure efficient use of resources. Once a recommended SABE is selected, the fiscal impact analysis will be undertaken and used to determine whether the anticipated infrastructure needs and development is financially sustainable.

The analysis will also consider the initial round of capital infrastructure, operating costs and potential revenue sources related to future development in the preferred SABE. It is important to note that the analysis is high-level and represents an order of magnitude impact.

ii. Policy Context

Section 2.2.8 of the Growth Plan states that identified infrastructure and public service facilitates needed to service growth should be financially viable over the full life cycle of these assets.

The following plans and policies will be relied upon to inform the assessment.

Provincial	Region of Peel	Town of Caledon
PPS 2020		
<i>Development Charges Act, 1997</i>	Development Charges Background Study (underway)	2019 Development Charges Background Study
<i>Municipal Act, 2001</i>		

iii. Preliminary Principles & Conclusions

As the analysis is currently underway, no preliminary conclusions are presented. However, the following municipal finance principles will be applied to the analysis and considered in selection the preliminary SABE configuration.

- To the extent permitted under the legislative requirements of the *Development Charges Act*, growth should pay for growth, meaning that capital costs associated with new infrastructure should be included in the Region and Caledon’s development charge calculations.
- Growth should be located in areas with available servicing capacity in existing infrastructure to reduce capital infrastructure costs.
- Operating and maintenance costs associated with new infrastructure should be considered and appropriately accounted for in the Region and Caledon’s asset management plans.
- The location of residential and non-residential development should be considered in relation to assessment growth potential.

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D. NEXT STEPS

The immediate next steps required as part of the SABE Study process include:

- Circulate draft technical studies to Regional staff and finalize based on input received.
- Initiate broader consultation on technical studies (e.g. Town of Caledon and other stakeholders) and overall SABE Study process.
- Release technical studies to public by posting on Peel 2041 SABE website.

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Memo

To: Hemson Consulting / Region of Peel
From: Wood / North-South Environmental / Dougan & Associates
Date: May 27, 2020
File: TPB198127
Re: **Wood Summary for Hemson Technical Study Memo**

Technical Study: *Phase 1: Environmental Screening Report (Wood Team)*

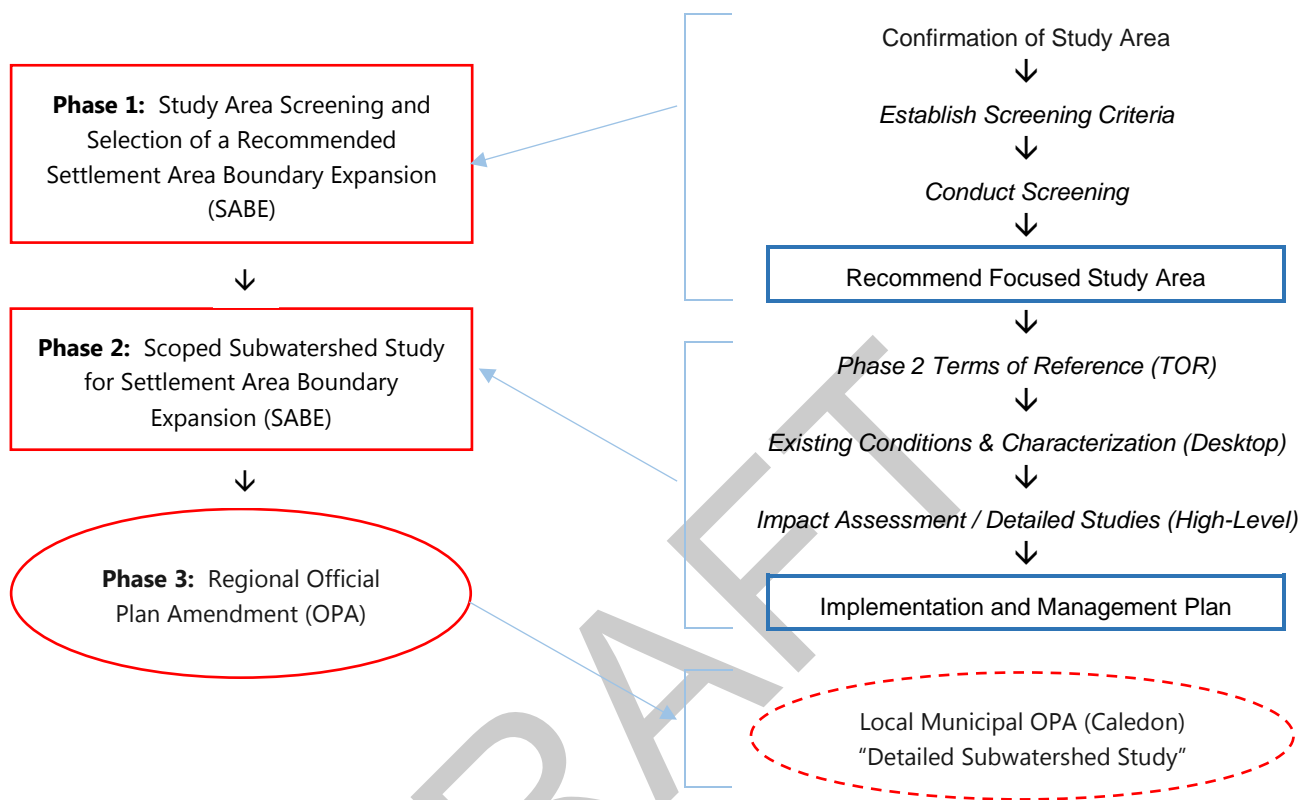
The Regional Municipality of Peel (Peel Region) has undertaken a study covering two phases: Phase 1: Environmental Screening (ES) and Phase 2: Scoped Subwatershed Study (Scoped SWS). These study phases will provide natural heritage and water resources input to support the Settlement Area Boundary Expansion (SABE) Study to determine where new settlement area growth should be proposed in Peel. The results of the ES and Scoped SWS, and SABE Study, will then be used to develop a Regional Official Plan Amendment (ROPA) for the settlement area boundary. The objective of the ES and Scoped SWS is to ensure that natural heritage features and water resources are protected, restored or improved. These studies will also set the basis for a future local municipal official plan amendment (LOPA), led by the Town of Caledon, supported by a detailed subwatershed study.

Below is an illustration of the two phases and related steps included as part of the ES, to assess, screen and select a recommended SABE location (based in south Caledon). The Scoped SWS, tailored to the needs of Peel Region's OPA and to provide technical recommendations for the ROPA, will set the ground work for the detailed local study of natural systems and water resources (future detailed Subwatershed Study).



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Process Flow Diagram



1. Phase 1: Environmental Screening (ES)

The Phase 1: ES has focused on identifying key environmental features and constraints within the overall study area, related to the terrestrial features, aquatic features, hydrogeologic and surface water systems. The environmental features and systems identified through this screening exercise have been integrated with the findings from of the overall planning study led by Hemson. This will identify constraints, needs, and opportunities; and to define a Focus Study Area (FSA) and subsequently a preliminary settlement area boundary expansion (SABE) for further evaluation and refinement in Phase 2 of this study process.

The Phase 1: ES provides information to ensure the FSA, identified for the SABE, has sufficient area and supports the natural heritage and water resource system requirements. This basis will accommodate the Region’s growth requirements and enable one or more settlement area expansions to be further evaluated and identified.

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The Study Area, initially considered in the Phase 1: ES stage, included all lands in Peel outside of settlement areas and outside the Greenbelt, acknowledging that the natural environment and water resources features and functions extend beyond the Study Area. Connections with natural heritage systems beyond the Study Area (e.g., into the Greenbelt) and in adjacent municipalities have been considered, as appropriate, to inform the screening process.

Natural environment features, functions and areas representing known or potential constraints to development have been identified to indicate areas where development may be constrained or precluded due to requirements for natural heritage and water resource system protection, restoration or enhancement. Constraint categories have been assigned based on policy requirements and use of 'best available' secondary source information (e.g., provincial plan and policy requirements, Regional and local official plan policy direction, mapped provincial, regional and conservation authority data).

It should be emphasized that the outcomes of the preliminary screening do not indicate that areas are 'unconstrained' or 'available for development'; rather, the intent of the preliminary screening has been to provide direction for an additional level of assessment to be completed through the upcoming Phase 2: Scoped SWS. The Preliminary constraint categories are high, medium and low; the ES provides details on how these categories have been set and used in the initial screening.

These constraints to-date have been categorized related to various known features and policy provisions on the landscape. For the purposes of this screening assessment, for a SABE at a regional scale, the level of accuracy and types of information available have been considered appropriate. High Constraint areas include mapped natural environment features and areas with existing designations or *significance* that afford them protection under current provincial or municipal plans / policies. High Constraint areas represent features and areas that prohibit development. Presence and limits of features has been prepared using available mapping; confirmation and / or refinement of limits will be required through future planning stages including the Phase 2: Scoped SWS. Medium constraints may be features and areas, where following further investigation, could become high constraint areas.

The Phase 1: ES report presents the findings and recommendations for determining the FSA based upon the environmental features and constraints within the system; this has involved a multi-disciplinary review and compilation of the area's known terrestrial and aquatic features, hydrogeologic systems, erosion and flood hazards. As the project is Regional, Regional level policies have been used as the driver for categorization (i.e. Provincial and Regional policies and legislation). Only those features, functions and areas for which geospatial data were available and suitable for use, have been categorized to provide a clear summary of the features included in the preliminary constraints assessment.

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May 27, 2020

1.1 Phase 2: Scoped Subwatershed Study (Scoped SWS)

The Phase 2: Scoped SWS will be undertaken as part of the next phase of the planning study to further refine the FSA and ultimately establish the SABE. The Scoped SWS will be largely based on desktop data and “scoped” windshield/roadside assessments, with no detailed field investigations. The Scoped SWS will provide direction for future detailed Subwatershed Studies, to be completed as part of subsequent Secondary Plans conducted at the local level.

Work completed for the Phase 2: Scoped SWS for Settlement Boundary expansion, as it relates to water resources and ecological systems will:

- (a) characterize the broader subwatershed areas associated with the urban expansion areas identified in Phase 1;
- (b) conduct an impact assessment based on land-use change and infrastructure scenarios; and,
- (c) prepare an implementation plan focused on the protection, enhancement, and implementation of the Water Resource System and Natural Heritage System (NHS) and associated environmental management strategies.

Key outcomes of the Phase 2 work, as related to water resources and ecological systems, will be to:

- support the identification of a preferred urban boundary expansion; and,
- ensure the approach and outcomes conform to Regional policy requirements for the proposed boundary expansion.

Furthermore, the regional level Scoped SWS will identify and recommend a scope for a detailed SWS within the Town of Caledon, and also identify other detailed studies and scope that may be required to complement the planning approvals process, including establishing a preliminary environmental management strategy for the preferred urban expansion area, and a long-term monitoring strategy.