

PLANNING, PUBLIC WORKS AND TRANSPORTATION COMMITTEE AGENDA

Meeting #: PPT-2019-0013
Date: Tuesday, October 29, 2019, 3:00 p.m.
Location: Halton Hills Town Hall, Council Chambers
1 Halton Hills Drive
Members: Mayor R. Bonnette, (Ex-Officio), Councillor C. Somerville, Chair,
Councillor J. Fogal, Councillor M. Albano, Councillor B. Lewis,
Councillor M. Johnson, Councillor B. Inglis

Pages

1. CALL TO ORDER
2. DISCLOSURE OF PECUNIARY INTEREST
3. COMMITTEE DELEGATIONS/PRESENTATIONS
 - a. Jim Dowell of WSP and Lukasz Grobel of the Ministry of Transportation
Presentation to Committee regarding the GTA West. **(PowerPoint)**
(Refer to Item No. 4.h of this agenda, Report No. PLS-2019-0074)
 - b. Melissa Ricci, Senior Policy Planner
Presentation to Committee regarding Premier Gateway Phase 2B
Secondary Plan Terms of Reference. **(PowerPoint)**
(Refer to Item No. 4.a of this agenda, Report No. PLS-2019-0044)
 - c. Slavica Josipovic, Manager of Building Services and Chief Building
Official
Presentation to Committee regarding Amendments to the Two-Unit
House Registration By-law. **(PowerPoint)**
(Refer to Item No. 4.c of this agenda, Report No. TPW-2019-0033)

4. REPORTS & MEMORANDUMS FROM OFFICIALS

Vet Reports to be considered by the Planning, Public Works and Transportation Committee.

Reports will be automatically held when there is a presentation or delegation on the matter.

- | | | |
|----|---|-----|
| a. | <u>REPORT NO. PLS-2019-0044 (AUTOMATIC HOLD)</u>
PLANNING AND SUSTAINABILITY REPORT NO. PLS-2019-0044 dated October 14, 2019 regarding Terms of Reference – Premier Gateway Phase 2B Employment Area Integrated Planning Project. | 4 |
| b. | <u>REPORT NO. PLS-2019-0053</u>
PLANNING AND SUSTAINABILITY REPORT NO. PLS-2019-0053 dated October 18, 2019 regarding Proposed Provincially Significant Employment Zones. | 67 |
| c. | <u>REPORT NO. TPW-2019-0033 (AUTOMATIC HOLD)</u>
TRANSPORTATION AND PUBLIC WORKS REPORT NO. TPW-2019-0033 dated October 8, 2019 regarding Amendments to Two-Unit House Registration By-law. | 74 |
| d. | <u>REPORT NO. PLS-2019-0069</u>
PLANNING AND SUSTAINABILITY REPORT NO. PLS-2019-0069 dated October 15, 2019 regarding North West Brampton Shale Resources Policy Review - Region of Peel Official Plan Amendment 32. | 80 |
| e. | <u>REPORT NO. TPW 2019-0031</u>
TRANSPORTATION AND PUBLIC WORKS REPORT NO. TPW 2019-0031 dated October 7, 2019 regarding Affordable Housing – Establishment of an Affordable Housing Working Group. | 90 |
| f. | <u>MEMORANDUM NO. PLS-2019-0009</u>
PLANNING AND SUSTAINABILITY MEMORANDUM NO. PLS-2019-0009 dated October 8, 2019 regarding D12SUB17.001 – 340 Main Street North – Subdivision Registration. | 101 |
| g. | <u>MEMORANDUM NO. TPW-2019-0021</u>
TRANSPORTATION AND PUBLIC WORKS MEMORANDUM NO. TPW-2019-0021 dated October 16, 2019 regarding Transportation Update. | 104 |
| h. | <u>REPORT NO. PLS-2019-0074 (AUTOMATIC HOLD)</u>
PLANNING AND SUSTAINABILITY REPORT NO. PLS-2019-0074 dated October 19, 2019 regarding GTA West Corridor EA Update.

(To be delivered under separate cover) | |

5. CLOSED SESSION

Committee to Convene into Closed Session if necessary.

6. RECONVENE INTO OPEN SESSION

Motion to approve items pertaining to Closed Session.

7. ADJOURNMENT

REPORT

REPORT TO: Chair and Members of the Planning, Public Works and Transportation Committee

REPORT FROM: Melissa Ricci, Senior Planner- Policy

DATE: October 14, 2019

REPORT NO.: PLS-2019-0044

RE: Terms of Reference – Premier Gateway Phase 2B Employment Area Integrated Planning Project

RECOMMENDATION:

THAT Report PLS-2019-0044 dated October 14, 2019, with respect to the Terms of Reference for the Premier Gateway Phase 2B Employment Area Integrated Planning Project be received;

AND FURTHER THAT the Terms of Reference for the Premier Gateway Phase 2B Employment Area Integrated Planning Project, attached as Schedule A, be endorsed;

AND FURTHER THAT the Region of Halton be requested to reconfirm its commitment to service the Premier Gateway Phase 2B lands as stated in report CS-33-11/PW-53-11/LPS58-11 re: “2011 Water and Wastewater Servicing to Employment Lands in Halton”;

AND FURTHER THAT a copy of this report be forwarded to the Ministry of Municipal Affairs and Housing, The Ministry of Transportation, the Region of Halton, Credit Valley Conservation and Conservation Halton for information.

BACKGROUND:

In June of 2018, the Town completed the Premier Gateway Phase 1B Integrated Planning Project with the adoption of OPA 30, 31A and 31B. All aforementioned OPAs are currently before the Region of Halton for approval.

With the completion of Phase 1B, staff has commenced preparation of the Terms of Reference for undertaking the Premier Gateway Phase 2B Integrated Planning Project for lands located on the north side of Steeles Avenue, between Eighth Line and Winston Churchill Boulevard. The purpose of this report is to seek Council’s endorsement of the

Terms of Reference as well as lay out some of the next steps in order to initiate the Secondary Plan exercise.

The Terms of Reference set out direction for completing a detailed development framework for the Premier Gateway Phase 2B area by describing the project goals and objectives and identifying deliverables, key stakeholders and participants, roles and responsibilities, required resources, and a general work program for the project.

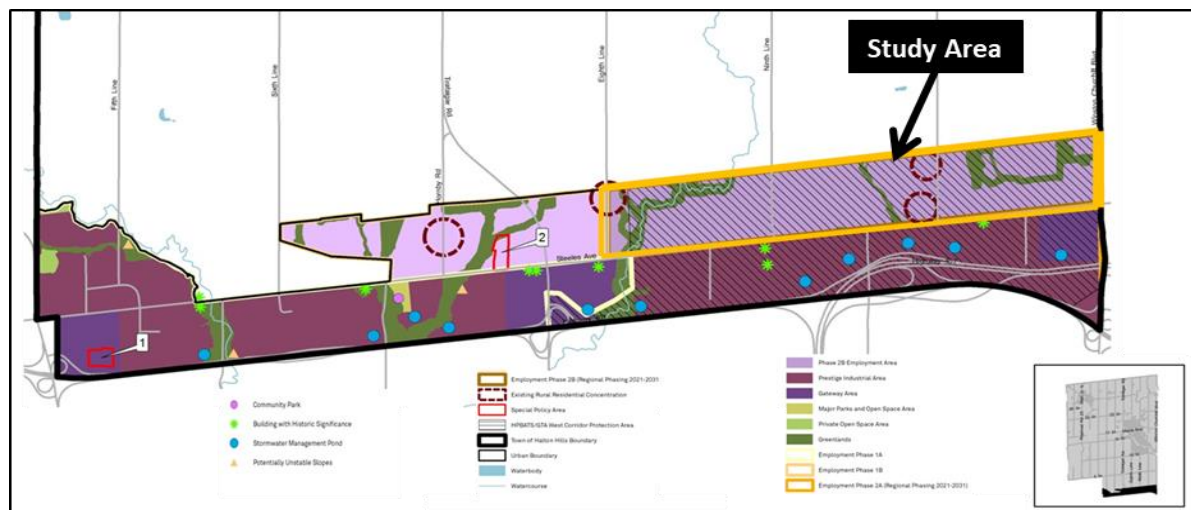
COMMENTS:

Premier Gateway Phase 2B

The Premier Gateway Phase 2B Employment Area (the Study Area) has an area of approximately 257 hectares and is located north of Steeles Avenue, between Eighth Line and Winston Churchill Boulevard. The majority of the lands (the hatched area in Figure 1) are currently held under corridor protection to accommodate the GTA West Corridor, a provincial highway corridor extending from Highway 400 in the Regional Municipality of York to the vicinity of the Highway 401/407 ETR interchange in the Regional Municipality of Halton. The Premier Gateway Phase 2B Employment Area is strategically located along the Hwy 401 and 407 ETR and to the east of the Phase 1B Employment Area. In May 2019, through the changes to A Place to Grow: Growth Plan for the Greater Golden Horseshoe (formerly the Growth Plan, 2017) the Province identified the Premier Gateway Phase 2B Lands as a Provincially Significant Employment Zone (PSEZ).

The Study Area includes two watersheds, the Sixteen Mile Creek Watershed and the Credit Valley Conservation Watershed under the jurisdiction of Conservation Halton and Credit Valley Conservation respectively. As part of the Secondary Plan process, a scoped Subwatershed Study will be required to provide recommendations and a strategic framework for the protection, conservation and sustainable management of natural resources within and adjacent to the study area. The Subwatershed Study will guide appropriate land use policies within the Secondary Plan. The Study will apply a systems-based approach to confirm the extent of the Regional Natural Heritage System (NHS), and recommend potential refinements and measures to protect and enhance key natural heritage features. It is important to highlight that the Scoped SWS Study in no way replaces the need for further detailed studies as part of future Subwatershed Impact Studies/Functional Servicing Studies, or the need to obtain any other permits and/or approvals as may be necessary prior to developing the land (e.g., Conservation Authority permits, Planning Act approvals, building permits, etc.).

Figure 1 – Study Area



Project Phases and Proposed Timeframes

The Premier Gateway Phase 2B Employment Area Integrated Planning Project is proposed to be completed in a 36 month period and carried out in five phases:

Phase 1: Project Initiation

Deliverables include:

- Project Charter
 - Includes the completion and agreement on the contents of a Project Charter between the Town, Region, Conservation Halton and Credit Valley Conservation setting out agreed upon roles and responsibilities of each stakeholder.
- Detailed Work Program
 - Involves start-up meetings with the Project Consultant Team to review and finalize a detailed work program for the project, based upon the proposed work program contained in the chosen consultants' proposal. The detailed work program including proposed timeframes will also be reviewed with the Technical Advisory Committee (TAC) for the project.

Phase 2A: Existing Conditions

- Entails a review of relevant background material to provide a sound basis for decision-making. The successful Project Consultant will prepare a Background Paper which will provide pertinent information on various

Provincial, Regional, local and conservation authority plans and policies and their implications on the Study Area.

- The Project Consultant, with the support of appropriate Town staff will present the Background Paper to the Technical Advisory and Steering Committees. A Public Open House to actively engage residents and stakeholders in the Secondary Plan development will be organized during this phase and a Public Consultation Paper will be prepared summarizing input from the public.

Phase 2B: Subwatershed and Natural Heritage System Planning

- Involves the completion of a Scoped Subwatershed Study as per the Scoped Subwatershed Study Terms of Reference (Schedule B). The Study will require detailed work to establish the limits of development, confirm the extent of the Regional Natural Heritage System, and provide preliminary stormwater management recommendations. The recommendations of the study will be used to develop appropriate land use policies within the Secondary Plan.

It is intended that the Scoped Subwatershed Study be completed in conjunction with the approval of the Secondary Plan.

The Scoped Subwatershed Study (SWS) process consists of the following three phases:

- Phase 1 — Background Review and Characterization
 - Characterization and assessment of the existing and potential subwatershed resources (physical, natural, social and economic) using standard methodologies and natural heritage components
 - A determination of existing land uses and subwatershed resources
 - Identification of existing and future constraints and opportunities including a refined natural heritage system as appropriate
- Phase 2 — Analysis and Management Strategy
 - Setting of preliminary targets to be met
 - Evaluations of the potential impacts of future land use scenarios
 - A recommended management strategy to mitigate impacts
 - Select and present preferred subwatershed management Strategy
- Phase 3 — Implementation and Monitoring
 - Develop Implementation Plans
 - Recommendations for establishing an appropriate monitoring and evaluation program to verify that predicted performance is achieved and to allow for adaptive management response
 - Identify opportunities for enhancement
 - Detailed guidelines for development design and construction

- Recommendations for future site specific subwatershed impact studies, including Stormwater Management Studies, which will describe in detail the specific measures to implement the management objectives and meet the targets and further opportunities defined in this study

The Subwatershed Study will be the subject of a Detailed Work Plan to be developed based upon a Terms of Reference forming an attachment to the Secondary Plan Terms of Reference (See Attachment B). To inform the public and obtain their input, the Project Consultant and staff will hold a minimum of three Public Open Houses during the course of the SWS Study.

Phase 3: Detailed Planning Study

- Requires the completion of a series of studies which will support the development of Secondary Plan policies and land use designations. The deliverables for this phase include each of the following completed studies (for a description of each study see the Secondary Plan Terms of Reference attached to this Report as Schedule A):
 - Transportation/Traffic Study
 - Heritage Impact Assessment
 - Functional Servicing Plan
 - Urban Design Study
 - Agricultural Impact Assessment
 - Supportive Commercial Needs Assessment
 - Fiscal Impact Analysis
 - Land Use Compatibility Analysis
 - Phasing Plan

Phase 4A: Recommended Land Use Option

- Building on the Background Paper and findings and recommendations of the various studies completed under Phase 3 of the project, a Recommended Land Use Option Report will be prepared presenting and discussing the merits of a recommended land use option. The Project Consultant, with the support of appropriate Town Staff will present the recommended land use option to the public for comment at a second open house/workshop.

Phase 5A: Secondary Plan, Official Plan & Zoning By-law Amendments

- Includes the preparation of a Secondary Plan and Official Plan and Zoning By-law Amendments for the area based on the preferred land use plan. The Project Consultant, with the support of appropriate Town Staff, will present these documents to the public for review and comment at the third public open house/workshop. All comments received will be summarized and analyzed through the preparation of a Public Consultation Paper.

Phase 5B: Final Secondary Plan, Official Plan & Zoning By-law Amendments

- The Secondary Plan, Official Plan and By-law Amendments will be revised as appropriate, based on the public input received on the documents, and finalized. The revised Secondary Plan and implementing amendments will be presented to the public for comment at a statutory public meeting under the Planning Act. Following the public meeting, the Project Consultant with the support of appropriate Town Staff will summarize and address public comments on these documents in a final recommendation report to Council regarding the adoption/approval of the Secondary Plan and related amendments.

Consultation

A Consultation Plan will be prepared at the start of the Project to identify key stakeholders and assess effective communication techniques for engaging the public through all project phases. A project webpage will be created and updated regularly to ensure that the latest information is readily available. The Project Team will work closely with the Town's Communications Department to prepare the appropriate notices and leverage the different social media and engagement platforms such as Let's Talk Halton Hills to promote community participation and engagement opportunities.

The GTA West Corridor

In June 2014, the Region of Halton adopted Regional Official Plan Amendment No. 43 (ROPA 43) to, among other matters, implement a corridor protection area and policies to protect for the Halton Peel Boundary Area Transportation Study (HPBATS)/Greater Toronto Area (GTA) West Corridor Study Area. The corridor protection area restricts development within the overlay through the Towns of Halton Hills and Milton to allow for the completion of the GTA West Corridor Environmental Assessment (EA) study being undertaken by the Ministry of Transportation (MTO). ROPA 43 was appealed to the Ontario Municipal Board by the South Georgetown Landowners Group and Maple Lodge Farm. To date, the ROPA 43 Corridor Protection policies have not proceeded to a full hearing.

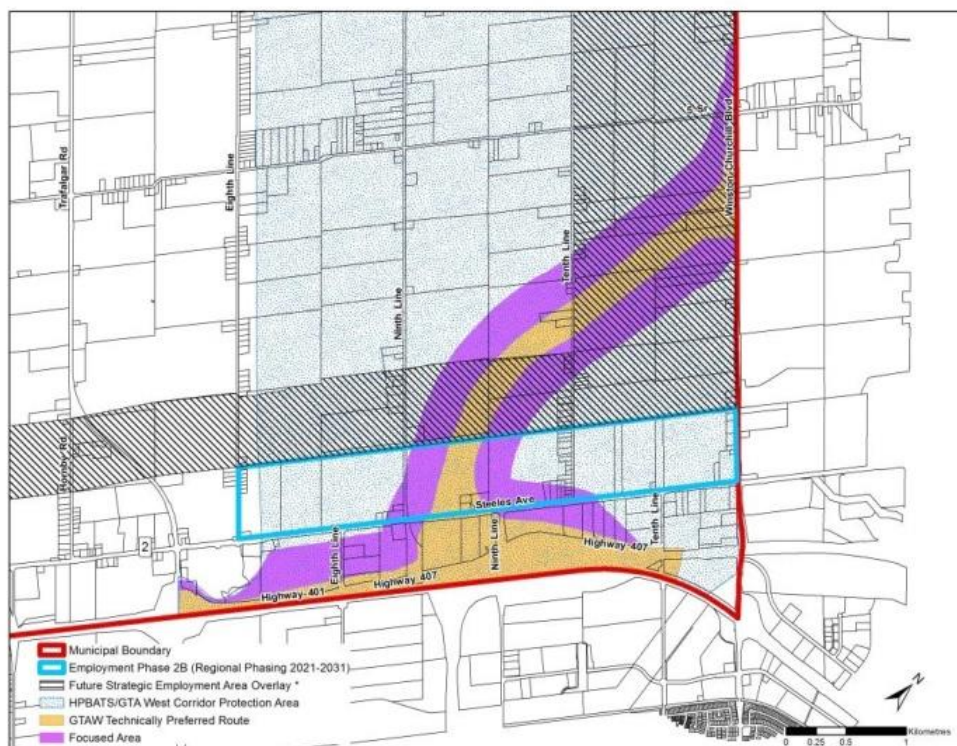
Following the adoption of ROPA 43, in July 2014, Council for the Town of Halton Hills approved Official Plan Amendment No. 21 (OPA 21) to implement the required Regional corridor protection policies. OPA 21 is currently being held in abeyance by the Region of Halton at Council's request.

In 2017, the previous Provincial government announced the suspension of the GTA West Study and the re-evaluation of the project to consider additional transportation options for the corridor such as utilities, transit or other transportation alternatives and released a refined corridor which partially affects the Premier Gateway Phase 2B Lands.

In June 2019, the current Provincial government announced that it would resume the GTA West Environmental Assessment. On September 26, the Technically Preferred

Route (TPR) was presented at a Public Information Centre in the Town of Halton Hills (see Figure 2 below). The MTO stated that they have reduced interest in areas outside the Focused Analysis Area (FAA), which indicates that those lands can be removed from corridor protection; however, the FAA will not be confirmed until the spring of 2020.

The Premier Gateway Phase 2B lands are currently frozen for development until the GTA West EA process has progressed to a point that provides clarity on what lands are/are not required for the transportation corridor. Based on the draft TPR and FAA, we anticipate that a portion of the lands within the Study Area (approximately 19.42 ha) will be permanently precluded from development in order to accommodate the multi-model corridor. The confirmed FAA area (approximately 47.79 ha) will likely need to be excluded from the Secondary Plan exercise since the MTO has indicated that properties within the FAA could be directly impacted by the GTA West Transportation Corridor, ancillary uses or if refinements are made to the TPR; therefore the secondary plan will need to take into consideration the location of the confirmed FAA and plan for appropriate uses along the area.



Although there continues to be uncertainty associated with the GTA West Corridor Protection requirements, the latest information provided by the GTA West team indicates that the Province has reduced interest in properties located outside the FAA and will provide clarity on what lands are not required for the GTA West Transportation corridor by next spring. Given the foregoing, it is recommended that the Terms of Reference be released in order to initiate the Premier Gateway Phase 2B Employment Area Integrated Planning Project early next year.

Servicing

Report LPS115-19/PW-48-19 – “Greater Toronto Area West Transportation Corridor Route Planning and Environmental Assessment Study Public Information Centre #2 - Technically Preferred Route” was presented by Regional staff at the October 16th Regional Council meeting to seek Council’s endorsement of their comments on the technically preferred route for the GTA West. The Report summarizes a number of potential transportation and planning issues. In particular, Regional staff emphasized that once the details are released regarding the configuration of the GTA West Corridor near Steeles Avenue, the Region would need to undertake an assessment on the feasibility of servicing designated employment lands east of the proposed interchange at Highway 401/401 in Halton Hills. It is also stated that the alignment of the technically preferred route could negatively impact Halton Region’s ability to provide water and wastewater services to these lands.

According to the MTO, it is anticipated that the preliminary details on the configuration of the GTA West Corridor will not be released until at least the preliminary design is complete in the fall/winter 2021¹. Considering the delay that waiting for this process to be completed to assess the feasibility of servicing the Premier Gateway Phase 2B lands located east of the proposed GTA West Corridor (approximately 101.5 ha) will cause, it is critical that the Region reconfirms its commitment to service the Premier Gateway Phase 2B lands, as indicated in Report CS-33-11/PW-53-11/LPS58-11 re: “2011 Water and Wastewater Servicing to Employment Lands in Halton”².

¹ It is anticipated that work to complete the detail design, which will provide the details for the corridor configuration, won’t take place until after EA approval is issued for the project (approximately 2022) by the MOECP, funding is allocated and the contract is awarded to begin construction.

² Report CS-33-11/PW-53-11/LPS58-11 re: “2011 Water and Wastewater Servicing to Employment Lands in Halton” approved the funds to construct the trunk water and wastewater works required to service the employment lands in the Halton Hills 401 Corridor from Trafalgar Road (Regional Road 3) to Winston Churchill Boulevard.

As Committee will note in report PLS-2019-0053 (also before Committee on October 29, 2019), on the Proposed Provincially Significant Employment Zones, Halton Hills' economic prosperity is heavily dependent on the timely and efficient development of the Premier Gateway employment area. Facilitating continued investment and job growth in the Gateway, by efficiently completing the required land use planning studies, will make a considerable contribution to Halton Hills' economy and by extension support economic growth across the GTA and beyond.

RELATIONSHIP TO STRATEGIC PLAN:

The Strategic Plan sets out a broad vision for the community contained in nine strategic directions. The proposed Premier Gateway Secondary Plan relates to the following Strategic Directions:

A. Foster a Healthy Community:

- To maintain and enhance a healthy community that provides a clean environment and a range of economic and social opportunities to ensure a superior quality of life in our community.

C. Foster a Prosperous Economy:

- To maintain and enhance the economic vitality of the Town through the provision of a wide range of opportunities for economic development.

G. Achieve Sustainable Growth:

- To ensure that growth is managed so as to ensure a balanced, sustainable, well-planned community that meets the needs of its residents and businesses.

FINANCIAL IMPACT:

An upset limit of \$1.2 m has been allocated for the project in the Town's Capital Budget.

CONSULTATION:

In preparing the Terms of Reference, Planning staff has consulted internally with members from the Planning, Sustainability and Transportation and Public Works Departments, as well as the Senior Management Team. In addition, staff consulted with the Region of Halton, Conservation Halton and Credit Valley Conservation during the preparation of the Scoped Subwatershed Study Terms of Reference.

Staff will continue to update Council as to the progress of the Project.

PUBLIC ENGAGEMENT:

Ongoing consultation will be conducted with other government agencies, interested residents and businesses via Steering Committee Meetings, Open Houses and online engagement. The Secondary Plan will follow the Mayor's Public Engagement Charter, which is built on three pillars: transparency, notification, and participation.

SUSTAINABILITY IMPLICATIONS:

The Town is committed to implementing our Community Sustainability Strategy, Imagine Halton Hills. Doing so will lead to a higher quality of life.

The recommendation outlined in this report advances the Strategy's implementation.

This report supports the Economic Prosperity, Environmental, Social Well-Being, and Cultural pillars of Sustainability and in summary, the alignment of this report with the Community Sustainability Strategy is: Excellent.

COMMUNICATIONS:

Through the release of the Terms of References staff will continue to consult with Halton Region, Credit Valley Conservation and Conservation Halton to ensure that a coordinated approach is in place to undertake the Secondary Plan exercise.

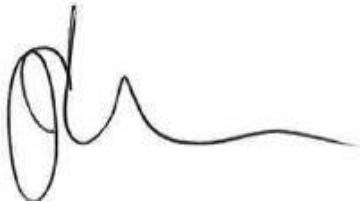
CONCLUSION:

Completing the Premier Gateway Phase 2B Secondary Plan is vital to ensure that there is sufficient employment land available within the Town to 2031. To that end, staff has prepared the Terms of Reference for the Premier Gateway Phase 2B Employment Area Integrated Planning Project including a Scoped Subwatershed Study. It is recommended that the Terms of Reference be endorsed in anticipation that the Province will confirm corridor protection requirements in the spring of 2020. By supporting this initiative, the Town will be demonstrating leadership in creating opportunities to generate employment within the Town, the Region of Halton and the Greater Toronto Area.

Reviewed and Approved by,



Bronwyn Parker, Manager of Planning Policy



John Linhardt, Commissioner of Planning and Sustainability



Brent Marshall, Chief Administrative Officer

Table of Contents

4.0 Project Terms of Reference	2
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4.0 Project Terms of Reference

4.1 Project Summary



The Town of Halton Hills is seeking the services of a consulting team to undertake the Phase 2B Employment Area Integrated Planning Project (also referred to as a Secondary Plan). These Terms of Reference set out direction for the undertaking of a detailed development framework for the Premier Gateway Phase 2B area describing the project goals and objectives and identifying key stakeholders and participants, roles and responsibilities, required resources, deliverables and a general work program for the project. The Premier Gateway Phase 2B has an area of approximately 257 hectares and is located north of Steeles Avenue, between Eighth Line and Winston Churchill Boulevard.

The successful team will possess the required technical skills to complete complex studies such as a scoped subwatershed study and demonstrate excellent project management skills, community consultation and facilitation expertise and sufficient resources to meet the project timelines.

4.2 Background

Through the completion of the Sustainable Halton Process (the Region of Halton's growth management exercise) and the approval of Regional Official Plan Amendment 38 (ROPA 38), an additional 340 gross hectares (840 acres) of employment lands were designated for development in the Town of Halton Hills (on the north side of Steeles Avenue further extending the Premier Gateway Employment Area) to accommodate employment land needs for the 2021 to 2031 planning horizon. In addition, these lands were added to the Urban Area in the Regional Plan and identified to be serviced with municipal water and sewer.

The Town's implementing Official Plan Amendment for Sustainable Halton and ROPA 38, Official Plan Amendment 10, included the additional 340 gross hectares of land to the Town's Urban Area and designated the land for employment uses as Employment Area. OPA 10 set out a framework to guide Secondary Planning exercises for the lands to

determine specific land use designations and policies. The Premier Gateway Phase 2B Secondary Plan is an exercise to establish local development policies for a portion of the employment lands previously identified through OPA 10.

GTA West/HPBATS Corridor Protection

In June 2014, the Region of Halton adopted Regional Official Plan Amendment No. 43 (ROPA 43) to, among other matters, implement a corridor protection area and policies to protect for the Halton Peel Boundary Area Transportation Study (HPBATS)/Greater Toronto Area (GTA) West Corridor Study Area. The corridor protection area restricts development within the overlay through the Towns of Halton Hills and Milton to allow for the completion of the GTA West Corridor Environmental Assessment (EA) study being undertaken by the Ministry of Transportation (MTO). ROPA 43 was appealed to the Ontario Municipal Board by the South Georgetown Landowners Group and Maple Lodge Farm. To date, the ROPA 43 Corridor Protection policies have not proceeded to a full hearing.

Following the adoption of ROPA 43, in July 2014, Council for the Town of Halton Hills approved Official Plan Amendment No. 21 (OPA 21) to implement the required Regional corridor protection policies. OPA 21 is currently being held in abeyance by the Region of Halton at Council's request.

In 2017, the previous Provincial government announced the suspension of the GTA West Study and the re-evaluation of the project to consider additional transportation options for the corridor such as utilities, transit or other transportation alternatives and released a refined corridor which partially affects the Premier Gateway Phase 2B Lands.

In June 2019, the current Provincial government announced that it would resume the GTA West Environmental Assessment. On September 26, the Technically Preferred Route (TPR) was presented at a Public Information Centre in the Town of Halton



Hills (see Figure 2 below). The MTO stated that they have reduced interest in areas outside the Focused Analysis Area (FAA), which indicates that those lands can be removed from corridor protection; however, the FAA will not be confirmed until the spring of 2020.

In addition, the Ministry of Energy, Northern Development and Mines (ENDM) and the Independent Electricity System Operator (IESO) are undertaking a separate study for a transmission corridor. It is understood that this corridor would be in addition to the 170 metre wide multi-modal corridor; however, the Study Area for the transmission corridor continues to follow the draft TPR and be for the most part located inside the proposed Focused Analysis Area (FAA) for the GTA West Corridor.

The Premier Gateway Phase 2B lands are currently frozen for development until the GTA West EA process has progressed to a point that provides clarity on what lands are/are not required for the transportation corridor. Based on the draft TPR and FAA, we anticipate that a portion of the lands within the Study Area (approximately 19.42 ha) will be permanently precluded from development in order to accommodate the multi-model corridor. The confirmed FAA area (approximately 47.79 ha) will likely need to be excluded from the Secondary Plan exercise since the MTO has indicated that properties within the FAA could be directly impacted by the GTA West Transportation Corridor, ancillary uses or if refinements are made to the TPR; therefore, the secondary plan will need to take into consideration the location of the confirmed FAA and plan for appropriate uses along the area.

Premier Gateway Employment Lands Re-phasing

As a result of the introduction of corridor protection (through ROPA 43 and OPA 21), and the re-phasing of employment lands by the Region of Halton (through ROPA 43) the Town took steps to re-phase the employment lands in the Premier Gateway Employment Area. This re-phasing was accomplished through modifications to OPA 10,

which were ultimately approved by the Local Planning Appeal Tribunal on May 01, 2019 (see Appendix A- Schedule 8 of the Town's Official Plan showing the re-phased lands).

An exercise to re-phase 2021-2031 employment lands outside of the GTA West Route Planning Study Area, west of Eighth Line, to the pre-2021 planning horizon, thereby permitting the initiation of a secondary planning exercise for this area to facilitate timely development of these lands as a replacement for those subject to corridor protection was completed through the Premier Gateway Phase 1B Secondary Plan (currently before the Region of Halton for consideration and approval.)

The Premier Gateway Phase 2B area is the second phase of employment lands to the 2031 planning horizon, for which a separate secondary planning exercise and infrastructure planning process is now required.

4.4 Study Area

The Phase 2B Employment Area designation applies to an expansion to the Premier Gateway Employment Area north of Steeles Avenue, between Eighth Line and the City of Brampton boundary (see Appendix A). The Study Area is located within the Sixteen Mile Creek Watershed and the Credit River Watershed, which are under the jurisdiction of Conservation Halton and Credit Valley Conservation respectively.

4.4 Time Frames

The project is expected to take 36 months to complete following its awarding to the successful consultant team.

4.5 Detailed Work Plan

These Terms of Reference will serve as a framework to guide the preparation of a more detailed work plan by the selected Project Consultant. This detailed Work Plan will be reviewed and approved by the Project Team, in



consultation with the Technical Advisory Committee, which includes staff from the Town of Halton Hills, Region of Halton, Conservation Halton, and Credit Valley Conservation.

A chart summarizing the deliverables for the project is attached as Appendix C.

The final deliverables for the project will include:

- A Secondary Plan in accordance with the requirements of the Halton Hills Official Plan.
- An implementing Town Official Plan Amendment.
- A Zoning By-law amendment which zones the lands in accordance with the Secondary Plan.
- A Scoped Subwatershed Study for the Secondary Plan Area.
- Urban Design Guidelines for the Secondary Plan Area.

All electronic documents and reports prepared for and submitted to the Town shall be compliant with the Accessibility for Ontarians with Disabilities Act, 2005 as may be amended.

4.5.1 Scoped Subwatershed Study Integration

A major component of the project is to undertake a Scoped Subwatershed (SWS) Study for the Study Area. The overall goal of the Scoped SWS Study is to provide recommendations and a strategic framework for the protection, conservation and sustainable management of natural resources within and adjacent to the Study Area.

The objectives of the SWS Study include ensuring the protection of natural heritage features and hydrological functions. The Study will require detail technical assessments to determine the limits of development, confirm the extent of the Regional Natural Heritage System, and make preliminary stormwater management recommendations.

The project will integrate the Secondary Planning and Scoped SWS planning processes in order to

ensure that the Scoped SWS provides technical support to the Secondary Plan land use planning process. It is intended that the Scoped SWS Study will be approved in conjunction with the approval of the Secondary Plan.

The Terms of Reference for the Scoped Subwatershed Study are attached as Appendix B.

4.5.1 Project Phases

Phase 1: Project Initiation

The following steps will initiate the Secondary Plan Process:

- **Project Charter**
 - This initial task will include the completion and agreement on the contents of a Project Charter between the Town, Region and Conservation Halton setting out agreed upon roles and responsibilities of each stakeholder.
- **Detailed Work Program**
 - This task will involve start-up meetings with the Project Consultant Team to review and finalize a detailed work program for the project, based upon the proposed work program contained in the chosen consultants' proposal. The detailed work program including review timeframes will also be reviewed with the Technical Advisory Committee for the project.
- **Project Kick-off**
 - Notice will be given to the public of the commencement of the project and will include creating a project website and placing a newspaper notice in the local news papers

Deliverables:

- Project Kick-off Meeting
- Project Charter
- Detailed Work Plan
- Newspaper Notice



- Project Website
- Approximately three coordination meetings with the Project Manager in person or via conference call are anticipated for this phase

- Public Consultation Paper
- Presentation to Council
- Approximately three coordination meetings with the Project Manager in person or via conference call are anticipated for this phase

Phase 2A: Existing Conditions

This Phase entails a review of relevant background material to provide a sound basis for developing the proposed land use alternatives.

- **Background Research**
 - the successful Project Consultant will prepare a Background Paper which provides pertinent information on various Provincial, Regional, local and conservation authority plans and policies and their implications on the Study Area (for a list of pertinent background information see Appendix D)
 - The Project Consultant, with the support of appropriate Town staff will present the Background Paper to the Technical Advisory and Steering Committees. Any revisions that are necessary to the Paper flowing from the Committee consultation will then be undertaken prior to proceeding to a Public Open House. The Public Open House presents the first opportunity to actively engage residents and stakeholders in the Secondary Plan development. All public comments are to be summarized and analyzed through the preparation of a Public Consultation Paper. Input from the public will be considered prior to the Background Paper being finalized.

Deliverables:

- Background Paper (three (3) revisions)
- Presentations to the Technical Advisory and Steering Committees
- Public Open House

Phase 2B: Subwatershed and Natural Heritage System Planning

This phase involves the completion of a Scoped Subwatershed Study. The Subwatershed Study will guide appropriate land use policies within the Secondary Plan. The Study will apply a systems-based approach to confirm the extent of the Regional Natural Heritage System (NHS) and measures to protect and enhance natural heritage features within the Regional NHS. The recommendations of the study will be used to develop appropriate land use policies within the Secondary Plan.

This study will be conducted in accordance with Section C7 of the Halton Hills Official Plan, and must provide sufficient detail to support the completion of Secondary Plan servicing studies. It is intended that the Scoped Subwatershed Study be completed in conjunction with the approval of the Secondary Plan.

The Scoped SWS process consists of three phases:

- Phase 1 – Background Review and Characterization
- Phase 2 – Analysis and Management Strategy
- Phase 3 – Implementation and Monitoring



The Subwatershed Study will be the subject of a Detailed Work Plan to be developed based upon a specific Terms of Reference (See Appendix B). The Detailed Work Plan for the Scoped SWS Study will be developed by the chosen Project Consultant, in consultation with the Subwatershed Technical Advisory Committee (TAC). The TAC will be comprised of staff from the Town of Halton Hills, Region of Halton, and Conservation Halton.

The Terms of Reference for the Study have been purposely scoped shifting the implementation and monitoring details to the later more detailed Subwatershed Impact Study phase. According to the Halton Hills Official Plan, Subwatershed Impact Studies are to be completed at the development application stage when more site specific details are available as part of a development proposal. The Scoped Subwatershed Study will identify the specific work that will need to be included and completed as part of the more detailed Subwatershed Impact Study phase at the time of development.

Deliverable(s), (which shall be reviewed and approved by Council):

- Scoped Subwatershed Study

Phase 3: Detailed Planning Study

This phase of the Study involves the completion of a series of studies which will support the development of Secondary Plan policies and land use designations. The deliverables for this phase include each of the following completed studies:

- Transportation/Traffic Study
 - This study will review future planned road improvements and will consider and make recommendations of any additional improvements necessary to facilitate development of the area. Factors to consider include: the need for a conceptual design of a local internal road system,

incorporation of active transportation (sidewalks, bike lanes, trails), streetscaping and incorporating “Complete Street” design principles, traffic impacts of development, entrance and intersection locations, intersection and turn lane improvements, road network changes such as introducing cul de sacs, and or by-passes to address rural residential concentrations, particularly on Tenth Line. The Region of Halton will also be consulted through the undertaking of this report as the road authority for Steeles Ave, Ninth Line and Winston Churchill Blvd.

- Heritage Impact Assessment
 - Building on the heritage inventory work completed by Heritage Halton Hills and the Town’s Heritage Register this study will review and inventory heritage resources in the area, and will develop a strategy to conserve those resources where appropriate in accordance with Section F5 of the Official Plan.
- Functional Servicing Plan
 - This study will review the servicing needs and develop a servicing plan for the area. Consultation will take place with the Region of Halton regarding water and wastewater servicing, and consideration will be given to the Sustainable Halton and Wastewater Master Servicing Plan, and Section F8.2 of the Town of Halton Hills Official Plan. Recommendations regarding stormwater management infrastructure are to correspond with the findings and recommendations of the Scoped Subwatershed Study. Low impact



development techniques should be incorporated where appropriate.

- Urban Design Study
 - This study will build on the existing 401 Corridor Urban Design Guidelines that were approved in 2002 and the Premier Gateway Phase 1 Urban Design Guidelines, and will develop new urban Design guidelines for the Study Area. The new Guidelines will apply to all new development in the Study Area and will be developed in accordance with Section F2 and F3 of the Official Plan. Sustainable development practices and concepts such as LEED and low impact development (LID) techniques will be promoted and incorporated into the Guidelines where appropriate.
- Agricultural Impact Assessment
 - This Study will examine the impact of future development of the area on the agricultural operations and resources in the surrounding area, (including Minimum Distance Setback requirements) and the development of measures to mitigate those impacts. Reference shall be made to the Region of Halton's Agricultural Impact Assessment Guidelines and Livestock Facility Guidelines.
- Supportive Commercial Needs Assessment
 - This study will determine the need for commercial floor space in the new development area to support the employment uses and how much land should be designated/zoned for these commercial uses.
- Fiscal Impact Analysis
 - Building upon the Town's Long Range Financial Plan, the Fiscal Impact Analysis will determine the overall financial contribution and cost

implications of the development of the lands for Employment uses, as the basis for the calculation of development charges.

- Land Use Compatibility Analysis
 - This study will review the potential impacts of employment uses on existing residential clusters in the Study Area in accordance with Section C14 of the Official Plan, the Region of Halton Official Plan, and Ministry of Environment Guidelines. Consideration will be given to noise, dust, light, odour, air quality and vibration impacts of new employment uses on the existing residential uses. The study will make recommendations to minimize and mitigate conflict by introducing greater setbacks, berming, landscaping etc. Reference shall be made to the Region of Halton's Land Use Compatibility Guidelines and Air Quality Impact Assessment Guidelines.
- Phasing Plan
 - This Plan will examine the best approach for a cohesive development phasing strategy which supports policy objectives for the area and maximizes Region and local servicing and infrastructure capacity and investment

Deliverables:

- Transportation/Traffic Study*
- Heritage Impact Assessment*
- Functional Servicing Plan*
- Urban Design Study*
- Agricultural Impact Assessment*
- Supportive Commercial Needs Assessment*
- Fiscal Impact Analysis*
- Land Use Compatibility Analysis
- Phasing Plan*

* Approximately three revisions will be required to capture comments from the project team, the Technical Advisory Committee and the Steering Committee members.



- Approximately three coordination meetings with the Project Manager in person or via conference call are anticipated for this phase

Phase 4A: Recommended Land Use Option

Building on the Background Paper and findings and recommendations of the various studies completed under Phase 3 of the project, a Recommended Land Use Option Report shall be prepared presenting and discussing the merits of a recommended land use option.

Initial recommendations from the Scoped Subwatershed Study including environmental constraint/limits of development mapping will also be considered and incorporated into the recommended land use option.

The recommended land use option will be presented to the Technical Advisory Committee and the Steering Committee for their review. Appropriate revisions to the Recommended Land Use Option Report resulting from input of the Committees will be made prior to the document being presented to the public.

The Project Consultant, with the support of appropriate Town Staff will present the recommended land use option to the public for comment at a second open house/workshop. Various design/technical scenarios such as potential road alignments will also be presented to the public for comment. All comments received are to be summarized and analyzed through the preparation of a Public Consultation Paper.

Deliverables:

- Recommended Land Use Option Report*
- Presentations to the Technical Advisory and Steering Committees
- Public Open House & Workshop
- Public Consultation Paper*

Phase 4B: Preferred Land Use Plan

Building on the work undertaken in Phase 4A of the project, the purpose of Phase 4B is to finalize a land

use plan based on public input received and to present the plan to the Technical Advisory and Steering Committees. Subject to any refinements following consultation with the Committees, a preferred land use plan (as part of a Preferred land Use Plan Report) will be forwarded to Council for approval. Recommendations of the Scoped Subwatershed Study will also be incorporated into the preferred land use plan.

Deliverables:

- Preferred Land Use Plan Report*
- Presentations to the Technical and Steering Committees
- Presentation to Council

Phase 5A: Draft Secondary Plan, Official Plan & Zoning By-law Amendments

Phase 5A involves the preparation of a draft Secondary Plan and draft Official Plan and Zoning By-law amendments for the area based on the preferred land use plan. The draft documents will be presented to the Technical Advisory and Steering Committees for input. Any revisions that are necessary based on the input of the Committees will be made to the documents before they are presented to Council. Council will be asked to authorize the release of the documents for public review and comment. The Project Consultant, with the support of appropriate Town Staff, will present the draft documents to the public at the third public open house and workshop. All comments received are to be summarized and analyzed through the preparation of a Public Consultation Paper.

Deliverables:

- Draft Secondary Plan, Draft Official Plan and Zoning By-law Amendments*
- Draft Urban Design Guidelines*
- Presentations to the Technical and Steering Committees
- Presentation to Council
- Public Open House/Workshop



- Public Consultation Paper*

Phase 5B: Final Secondary Plan, Official Plan & Zoning By-law Amendments

In this final Phase of the project, the draft Secondary Plan, and draft Official Plan and Zoning By-law amendments will be revised as appropriate based on the public input received on the draft documents. The revised Secondary Plan and implementing amendments will be presented to the public for comment at a statutory public meeting under the *Planning Act*. Following the public meeting, the Project Consultant with the support of appropriate Town Staff will summarize and address public comments on the draft documents in a final recommendation report to Council regarding the adoption/approval of the Secondary Plan and related amendments.

Deliverables:

- Statutory Public Meeting Presentation
- Final Secondary Plan & Amendments
- Council Presentation

4.5.3 Responsibilities of the Town

The Policy Division of the Town of Halton Hills Planning and Development Department will be responsible for leading and managing the completion of the Secondary Plan project. Under the direction of the Manager of Planning Policy, the Sr. Planner – Policy will coordinate and supervise the completion of the project. Responsibilities of the Sr. Planner-Policy will include:

- Coordinate a Technical Advisory Committee
- Coordinate a Steering Committee
- Ensure financial resources are well managed
- Ensure compliance with the Terms of Reference
- Ensure participation of all stakeholders

* Approximately three revisions will be required to capture comments from the project team and the TAC and Steering Committee members.

- Chair Technical Advisory and Steering Committee meetings
- Coordinate communications
- Coordinate public consultation program
- Update web information
- Prepare status reports to Council
- Coordinate with other studies as appropriate

4.6 Consultation and Community Engagement

Consultation with keystoneholder/agencies and public engagement are critical components for the development of the Secondary Plan.

Town Staff will organize a Technical Advisory Committee and a Steering Committee. Town staff and the selected consultant will ensure that material developed for public consultation is clear. The role of the Technical Advisory Committee is as follows:

- Provide comments during the study process
- Assist with issue identification and resolution
- Members to liaise with their respective organizations to ensure study awareness and to provide one-window coordination on behalf of their organization.
- Provide data input
- Meet on a regular basis to monitor the progress of the study

The Project Technical Advisory Committee shall include the following members:

- Town of Halton Hills staff representing the following Departments and Sections:
 - Planning and Development – Manager of Planning Policy, Sr. Planner – Policy and Planner – Development Review
 - Infrastructure Services – Transportation & Development Engineering
 - Finance
 - Recreation and Parks



- Economic Development
- Staff from other departments as needed
- Region of Halton representative – Planner (Planner to coordinate with Transportation, Water/Waste Water Staff to attend as required)
- Conservation Halton representative – Planner
- Credit Valley Conservation- Planner
- Halton Hills Hydro representative
- Ministry of Transportation representative

The role of the Steering Committee is as follows:

- Meet on a regular basis to monitor the progress of the study
- Provide comments during the study process
- Assist with issue identification and resolution
- Members to liaise with their respective organizations or community of interest, both to ensure broad community awareness of the project and to obtain broader community input.
- Awareness of the project and to obtain broader community input.

The Project Steering committee shall include the following members:

- Mayor (ex-officio)
- Regional Councillor – Ward 2
- Local Councillors – Ward 2
- Town Sustainability Advisory Committee representative (1 alternate)
- Heritage Halton Hills representative (1 alternate)
- Region of Halton representative – Planning Staff
- Area Residents (3 representatives)
- Area Landowner(s) – Development Interests (3 representatives)

Public comments will be considered throughout the

planning process. Opportunities for public consultation and community engagement have been incorporated throughout the various Study phases. The Public Consultation strategy for the Secondary Plan process must conform to the Town's Public Engagement Charter.

The public consultation and engagement strategy will include newspaper advertisements, newsletters, a project website, email notification, public open houses/workshops, and a project Steering Committee that includes land owners and members of the public. Additional social media public engagement methods such as blogs, twitter, Facebook, Let's Talk Halton Hills, etc. will be considered for use and employed when/where appropriate.

Proposed public engagement activities have been included in the chart summarizing deliverables for the Study attached as Appendix C.

4.4 Budget

An upset limit of \$1.2 million is approved and allocated for the Study in the Town's Capital Budget.



Terms of Reference for the Halton Hills Premier Gateway Phase 2B Scoped Subwatershed Study

Table of Contents

1.0	Introduction and Purpose	4
1.1	Study Area.....	4
1.2	Goals and Objectives.....	5
1.2.1	Natural Hazards	6
1.2.2	Water Resources	6
1.2.3	Natural Heritage	7
1.2.4	Stormwater Management	7
2.0	Detailed Work Plan and Deliverables	8
2.1	Project Phases and Deliverables	8
2.2	Report Distribution.....	11
2.3	Future Studies and Analysis	11
3.0	Study Organization.....	13
3.1	General	13
3.1.1	Environmental Assessment Act.....	13
3.1.2	Canadian Environmental Assessment Act (CEAA).....	13
3.1.3	Other Legislation	13
3.5	Public Participation	14
3.6	Subwatershed Technical Advisory Committee (SWTAC).....	14
3.7	Digital Information.....	15
4.0	Detailed Background Review and Analysis.....	16
4.1	Hydrology	16
4.1.1	Background Review and Field Work.....	17
4.1.2	Characterization Analysis	17
4.1.3	Interim Analysis/Impact Assessment	18
4.1.4	Monitoring	19
4.2	Hazard Land Identification	19
4.2.1	Background Review and Field Work.....	20

4.2.2 Flood Hazards.....	20
4.2.3 Interim Analysis/Impact Assessment.....	21
4.2.4 Erosion Hazards.....	22
4.2.5 Analysis	22
4.5 Geomorphologic Assessment.....	23
4.5.1 Background Review and Field Work.....	23
4.5.2 Analysis	23
4.6 Hydrogeology	25
4.6.1 Background Review	25
4.6.2 Characterization and Constraints	26
4.6.3 Monitoring	27
4.7 Water Quality.....	27
4.7.1 Background Review and Field Work.....	27
4.7.2 Characterization and Target Setting	28
4.7.3 Impact Analysis and Monitoring.....	28
4.8 Fish and Aquatic Habitats	28
4.8.1 Characterization and Background	28
4.8.2 Background Review and Field Work.....	29
4.8.3 Benthic Invertebrates Field Monitoring Methodology	29
4.8.4 Fish Community	30
4.8.5 Riparian Habitat	31
4.9 Terrestrial Ecology- Natural Heritage System and Features	31
4.9.1. Characterization and Background	31
4.9.2 Background Review and Field Work.....	32
4.9.3 Analysis	33
5.0 Additional Background Review	34
5.1 Municipal and Land Use Planning.....	34
5.2 Subwatershed Synopsis	35

Appendix A – Studies and References

Appendix B – Terrestrial Field Methodologies

Appendix C– Technical Engineering Recommendations

1.0 Introduction and Purpose

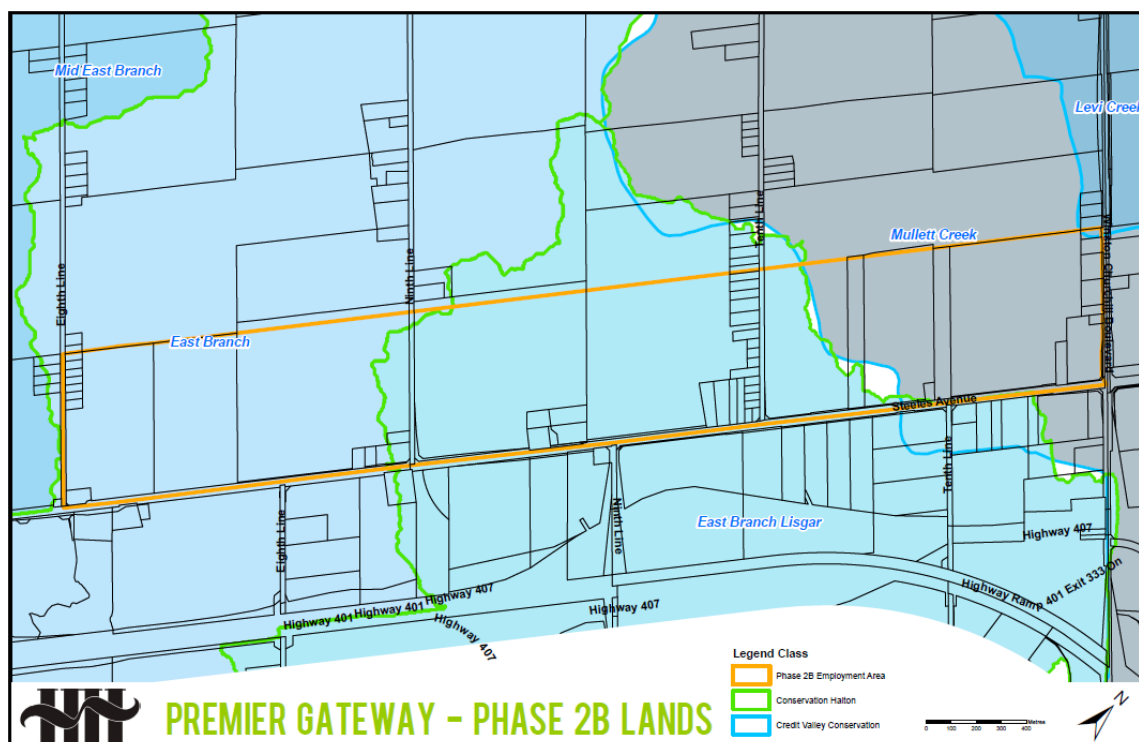
The following Terms of Reference have been prepared to direct the research and holistic evaluation of the subwatersheds located in the boundaries of the Premier Gateway Phase 2B Secondary Plan. The purpose of the Scoped Subwatershed Study is to evaluate specific portions of Subwatershed 6 (East Branch and East Branch Lisgar Subwatersheds) within the Sixteen Mile Creek Watershed and Subwatershed 4 (the Mullet Creek Subwatershed) within the Credit River Watershed to support the completion of the Secondary Plan and associated servicing studies. The Subwatershed Study will guide appropriate land use policies within the Secondary Plan. The Study will apply a systems-based approach to confirm the extent of the Regional Natural Heritage System (NHS) and measures to protect and enhance natural heritage features within the Regional NHS. The Primary goals of the Scoped Subwatershed Study (SWS) include:

- To inventory, characterize and assess natural hazard, natural heritage and water resource features and functions within the Study Area (i.e. constraints to development).
- To provide recommendations for the protection, conservation and management of natural hazard, natural heritage and water resource features within the Study Area.
- To provide sufficient detail to support the designation of NHS, through refinement of the Regional NHS, as well as identify areas for future development. To provide recommendations for a management strategy, implementation and monitoring plan to be implemented through the Secondary Plan(s) and future site/area specific studies.

1.1 Study Area

The Phase 2B Employment Area designation applies to an expansion to the Premier Gateway Employment Area north of Steeles Avenue, between Eighth Line and the City of Brampton boundary (marked in yellow on the map below). The focus of this Study will be the Primary Study Area, however scoped data collection, analysis and assessments will be conducted within Subwatershed 6, located in Halton Conservation Sixteen Mile Creek Watershed and Subwatershed 4 (the eastern section of Mullet Creek) within the Credit Valley Watershed.

Figure 1- Study Area



1.2 Background

The Halton Hills Premier Gateway Phase 2B Employment Lands were incorporated to the Urban Boundary through Official Plan Amendment No. 10 to accommodate the Town's employment needs to the year 2031. As part of the Premier Gateway Phase 2B Secondary Plan process, a scoped Subwatershed will need to be completed to define and establish the constraints and opportunities within the Study Area and provide recommendations for a framework for the protection, conservation and sustainable management of natural resources within and adjacent to the Primary Study Area.

There are a number of tributaries that drain through the lands, resulting in the need to consider upstream drainage areas and land use, the provision of protecting these tributaries through the Study Area, as well as mitigation of downstream impacts. There are also headwater tributaries within the Study Area that will need to be evaluated and classified with regard to the appropriate management approach, in accordance with current principles and guidelines. The background reports for the Premier Gateway Phase 1 Subwatershed Study provide watershed level guidance that is to be used in this Study.

1.2 Goals and Objectives

This Study will:

- Be conducted in accordance with Section C7 of the Halton Hills Official Plan, and all relevant policies, procedures and regulations of agencies with jurisdiction.

- Provide sufficient detail to support the completion of Secondary Plan servicing studies.
- Examine and refine the landscape scale analysis undertaken by Sustainable Halton to develop a Regional Natural Heritage System, in keeping with section 116 of ROPA 38 and guided by the implementation framework described in Sustainable Halton Report 3.02: Natural Heritage System Definition and implementation.
- Develop mapping for the protection, conservation and management of a Natural Heritage System, which is to include regulated natural hazards, wetlands and associated allowances.
- Recommend a management strategy, implementation and monitoring plan, including future studies, analysis and implementation requirements during development phases.

The Analysis and Management Strategy development is part of Phase 2 of the five phases identified for the Premier Gateway Secondary Plan project. The specific goals and objectives of the Study are identified in the subsections below.

1.2.1 Natural Hazards

Goal: To identify Natural Hazards and recommend a management strategy which prevents, eliminates or minimizes the risks to life and property caused by flooding and erosion hazards.

Objectives:

- a) To ensure new development does not increase the frequency or intensity of flooding, the rate of natural stream erosion or slope instability.
- b) To establish development standards and land use controls that ensure future development is located outside of and appropriately set back from flooding and erosion hazards.
- c) To ensure new development, including infrastructure, incorporates appropriate mitigation measures in order to avoid adverse impacts to natural features and areas.
- d) To consider climate change adaptation measures as part of the development of flooding and erosion management strategies.

1.2.2 Water Resources

Goal: To protect, improve or restore surface and groundwater resources within, adjacent to and downstream of the Primary Study Area, including the associated ecological and hydrologic functions.

Objectives:

- a) To ensure fluvial processes and stream morphology are maintained or improved, recognizing important habitat attributes (pools, riffles, etc.), dynamic channel form and diversity contribute to maintaining a sustainable natural heritage system.

- b) To prevent pollution and contamination of surface and groundwater resources due to development activities.
- c) To encourage the maintenance or enhancement of aquatic habitat and terrestrial habitat, where feasible.
- d) To ensure natural hydrogeologic functions are protected and that stream baseflow, groundwater discharge and recharge are maintained or enhanced, where appropriate;
- e) To maintain linkages and related functions among groundwater features, surface water features, hydrologic and hydrogeologic functions, and natural heritage features and areas.
- f) To consider climate change adaptation measures as part of the development of water management strategies.
- g) To ensure that the riparian rights of downstream landowners is respected.

1.2.3 Natural Heritage

Goal: To protect, restore or enhance the biodiversity, connectivity, hydrologic functions and ecological functions of the natural heritage features and areas within, and where appropriate adjacent to, the Primary Study Area.

Objectives:

- a) To ensure a systems-based approach is taken to Study and refine the Natural Heritage System.
- b) To ensure that natural heritage features and areas, associated with a refined Natural Heritage System, including their ecological and hydrologic functions, are enhanced and protected from potential adverse impacts from development.
- c) To ensure that corridors, linkages, enhancement areas and buffers are maintained, restored or, where possible, improved through the refinement of the Natural Heritage System.
- d) To establish innovative development standards and land use controls that will ensure future development does not negatively impact the Natural Heritage System.
- e) To consider climate change mitigation and adaptation measures as part of the development of natural heritage management strategies.
- f) To consider opportunities for maintaining and enhancing the aesthetic and recreational value of the Natural Heritage System as part of the development of management strategies and where permitted through Provincial, Regional, Local and Conservation Authority policies.

1.2.4 Stormwater Management

Goal: To mitigate negative impacts related to the quality and quantity of stormwater within, adjacent to, and downstream of the Study Area.

Objectives:

- a) To maintain/enhance baseflow to the receiving regulated watercourses.
- b) To ensure that post to pre-development peak flow control (as a minimum) achieves flood control objectives for all events (2 year to 100 year) and including the Regional Storm event, where appropriate.
- c) To ensure that stormwater runoff controls (i.e., storage) address the maintenance of existing flow-duration exceedance characteristics and other erosion indicators in the receiving regulated watercourses.
- d) To ensure that the treatment of runoff mitigates surface water quality impacts in accordance with Ministry of the Environment, Conservation and Parks (MECP) guidelines, to an enhanced standard.
- e) To mitigate thermal impacts from stormwater runoff to the extent possible.
- f) To consider Low Impact Development (LID), and Best Management Practices (BMPs) to treat stormwater at its source.
- g) To consider climate change adaptation measures as part of the development of stormwater management strategies.
- h) To ensure that the overall sub-basin water balance meets the established targets.

2.0 Detailed Work Plan and Deliverables

These Terms of Reference will serve as a framework to guide the preparation of a Detailed Work Plan by the chosen Project Consultant for the Study. This Detailed Work Plan will be reviewed and approved by the Town, in consultation with the Technical Advisory Committee, comprised of staff from the Town of Halton Hills, Region of Halton, Conservation Halton (CH) and Credit Valley Conservation (CVC).

2.1 Project Phases and Deliverables

The Scoped SWS will be completed in three phases. A description of each phase and specific deliverables are highlighted below:

Phase 1 – Background Review and Characterization

- Develop a characterization and assessment of the existing and potential subwatershed resources (physical, natural, social and economic) using standard methodologies and natural heritage components
- Determine existing land uses and subwatershed resources
- Identify existing and future constraints and opportunities including a refined natural heritage system as appropriate

Deliverables:

- Kick-off Meeting

- TAC meeting #1 to present the work plan
- Presentation of the background review, including a walking tour of the Primary Study Area, and proposed field investigation work plan
- Site inspection during the appropriate season(s) with Town of Halton Hills, Region of Halton, Conservation Halton, Credit Valley Conservation, Ministry of Natural Resources, and Fisheries and Oceans Canada to identify natural features (including habitat characterization) to be used in the development of the Natural Heritage System, and to gain a clearer understanding of local conditions incorporated into the hydrologic, hydrogeological, hydraulic and geomorphic analysis (a minimum of three site visits are anticipated)
- Phase 1 Subwatershed Characterization Report
 - This report will contain but not be limited to the following and will include all supporting data, and analysis (including discussion of methodology, detailed calculations, paper and digital copies of the modeling input and output files, discussion of assumptions made, and a sensitivity analysis related to the assumptions):
 - Hydrogeological assessment including water balance analysis for the present land use scenario
 - Identify the need to conduct any feature specific water balance. If such features are identified, deliverables in subsequent phases are to include respective actions such as “feature specific water balance analysis under proposed land use scenario” in Phase 2; and, “detailed pre- to post development feature specific water balance mitigation measures” in Phase 3
 - Watershed hydrology (existing)
 - Hydraulic assessment report and floodplain mapping (existing)
 - Existing land use and cultural heritage features
 - Erosion assessment (including fluvial geomorphology and geotechnical reports to identify erosion thresholds and watercourse meander belts, and slope stability analysis)
 - Natural heritage features and functions identification and evaluation within and adjacent to Primary Study Area (including internal and external linkages)
 - Classify regional natural heritage system components identified in the Study Area and potential refinements under consideration
 - stream classification, fish community inventory and fish habitat assessment
 - Water quality evaluation (including water chemistry and benthic)
 - Summary of applicable Federal, Provincial, Regional, Municipal and CA policies and legislation
 - Identification of hazard lands
 - Delineation of constraint lands
 - Identification of drainage density targets
- TAC Meeting #2 to present the Characterization Report
- Open House #1
- Open House #1 Summary Report
- Council Presentation of the Characterization Report
- Additional informal working meetings as required to resolve specific technical issues that may arise

Phase 2 – Analysis and Management Strategy:

- Set of preliminary targets to be met
- Prepare evaluations of the potential impacts of future land use scenarios
- Develop a recommended management strategy to mitigate impacts
- Identify a preferred subwatershed management Strategy

Deliverables:

- Phase 2 Interim Report- Watershed Targets and Opportunities Report detailing the following:
 - Anticipated location and forms of development and key transportation and servicing/utility corridors; maximum impervious coverage associated with each development form; and, any specific access/safety requirements associated with various transportation corridors (i.e. flood free access or safe access egress per MNR, minimum depth of cover at watercourse crossings for utilities, etc.)
 - Watershed hydrology (proposed)
 - Water balance analysis for the proposed land use scenario
 - Headwater drainage feature evaluation and classification
 - Hydraulic assessment report and floodplain mapping (proposed)
 - Potential impacts of future development (Water Quality and Quantity –flooding, erosion, and hydrogeology; Natural Heritage System- changes to extent and/or function of natural features and functions)
 - Preliminary recommendations for preferred management measures and future studies
 - Refinement of hazard and constraint lands
 - Digital copies of model input/output
- TAC Meeting #3 to present preferred subwatershed management Strategy
- Open House #2 to present preferred subwatershed management Strategy
- Open House #2 Summary Report
- Council Presentation of the preferred subwatershed management Strategy.
- Additional informal working meetings as required to resolve specific technical issues that may arise.

Phase 3 – Implementation and Monitoring:

- Develop Implementation Plans and detailed guidelines for development design and construction
- Prepare recommendations for establishing an appropriate monitoring and evaluation program to verify that predicted performance is achieved and to allow for adaptive management response
- Identify opportunities for enhancement
- Develop recommendations for future site specific subwatershed impact studies, including Stormwater Management Studies, which will describe in detail the specific measures which will be undertaken to implement the management objectives and meet the targets and further opportunities defined in this Study

Deliverables:

- Final Subwatershed Plan comprised of the following:
 - A General Report

- A Technical Report which documents the Study findings and analysis in detail including pre- to post development water balance mitigation measures
- Technical Appendix Reports
- One digital copy of all GIS mapping collected or developed during the Study with either a master index or metadata
- All documents and supporting data collection, analysis and models digital format
- Two licensed copies of the Hydrologic and Hydraulic models including all input/output data
- Digital species lists and ELC data sheets
- Monitoring Program
- TAC Meeting #4 to present the Final Subwatershed Report
- Open House #3 to present the Final Subwatershed Report
- Open House Summary Report
- Council Presentation of the Final Subwatershed Report
- Additional informal working meetings as required to resolve specific technical issues that may arise.

2. 2 Report Distribution

One hard paper copy of each Characterization, Interim and Final report will be prepared for each member of the SWTAC. Digital copies will be distributed to all members as well. Copies of the Final Report will be distributed as follows:

- Fifteen copies each of the General Report and Technical Report and a digital copy.
- A copy of ESRI/GIS shape files must be provided with each Report.

2.3 Future Studies and Analysis

It shall be understood that the purpose of this scoped SWS is to identify constraints and preliminary design criteria that would be sufficient to develop a secondary plan and in no way replaces the need for further detailed Study as part of future Subwatershed Impact Studies/Functional Servicing Studies, or the need to obtain any other permits/and or approvals as may be necessary (e.g., Conservation authority permits, planning act approvals, building permits etc.). It is expected that the boundaries, Terms of References and other requirements for future studies will be established through the scoped SWS, and that those requirements and approval processes will be coordinated with and incorporated into the Secondary Plan Policies that will guide future Planning Act applications in this area. The Study Consultant shall therefore clearly identify what additional work may be required as part of a Subwatershed Impact Study/Functional Servicing Studies including, but not be limited to, the following:

- Detailed Design of Stormwater Management Facilities (Quality and Quantity)
- Detailed Water Quality Analysis and Implementation
- Additional Aquatic and Terrestrial Studies and Constraints not identified in this Study
- Additional Hydrogeology Studies
- Monitoring Requirements and Performance Measurements
- Detailed Implementation Plan and Phasing
- Traffic Impact Studies

- Area Servicing Plans

The scope of future Subwatershed Impact Studies/Functional Servicing Studies will be subject to consultation and approval by the SWTAC.

3.0 Study Organization

3.1 General

The Study will be consistent with the goals, objectives and targets of the Watershed Plans and Regional Official Plan Amendment No. 38 and the Halton Hills Official Plan as amended by Official Plan Amendment No. 10. Recognizing that previous watershed studies have been completed in the area, updated goals, objectives and targets should be established through this Study.

The Region, Town, Conservation Halton and Credit Valley Conservation have policies in place specifically related to watershed and subwatershed planning. The Study will conform to:

- Sections 116.1 and 145(9) and all other relevant sections of the Halton Region Official Plan 2009 (ROPA 38).
- Section C7 - Watershed Planning, and all other relevant sections, of the Halton Hills Official Plan.
- Policies and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy Document, Conservation Halton, April 27, 2006, as amended August 11, 2011, November 26, 2015, February 25, 2016.
- CVC Watershed Regulations and Policies April 9, 2010, Resolution No. 48/10.

In addition, applicable Provincial and Federal legislation shall be integrated into the Study.

3.1.1 Environmental Assessment Act

The fundamental EA principles shall be incorporated into the subwatershed planning process. The information developed through this planning process should satisfy Phases 1 and 2 of the Municipal Engineers Association (MEA) Class EA requirements.

3.1.2 Canadian Environmental Assessment Act (CEAA)

Any future final design plans will require approval by the various regulating agencies and as such any design criteria recommended in this Study shall be consistent with the requirements of CEAA.

3.1.3 Other Legislation

Other legislation that may be relevant to this includes, but is not limited to, the Planning Act, Endangered Species Act, Species at Risk Act, Conservation Authorities Act, Fisheries Act, Migratory Birds Convention Act, Clean Water Act, Ontario Water Resources Act, Lakes and Rivers Improvement Act, Water Opportunities Act, the Greenbelt Act, Ontario Fish and Wildlife Conservation Act, and A Place to Grow Act.

3.5 Public Participation

Through the Secondary Plan Process, a Public Engagement and Consultation Strategy will be developed to ensure that the public is engaged through all stages of the process. The Public Engagement and Consultation Strategy will include newspaper advertisements, newsletters, a project website, email notification, and workshops if required.

In order to maintain transparency and obtain public input through the scoped SWS, the Project Consultant will hold a minimum of three Public Open Houses/Workshops during the course of the Study. The Project Consultant will also prepare a notice of commencement to inform the public of the Study and its objectives.

3.6 Subwatershed Technical Advisory Committee (SWTAC)

The SWTAC will be chaired by the Town and have the following representation:

- Town of Halton Hills– Four representatives including a Senior Policy Planner, the Manager of Planning Policy, the Manager of Transportation, and the Program Manager-Water Resources.
- Conservation Halton – Four representatives including a planner, an engineer, an ecologist and a hydrogeologist.
- Credit Valley Conservation – Three representatives including a planner, an engineer and an ecologist
- Region – Project Lead and Environmental Planner.
- Representatives from the Ministry of Natural Resources (MNR) and/or Ministry of Environment, Conservation and Parks (MECP) and Department of Fisheries and Oceans, as required.

The purpose of the SWTAC will be to provide technical review and input into the Study. The SWTAC will consult directly with the Town, Region of Halton, Conservation Halton, Credit Valley Conservation, MNR and other appropriate agencies for their formal approval of all required components of the Study. The Committee will meet at the project initiation phase to discuss the project timeline and proposed work plan and after each phase /report is completed in order to address any question and concerns before proceeding to the next Phase. The role of the Technical Advisory Committee is as follows:

- Review technical document and provide comments during all phases of the Study
- Assist with issue identification and resolution
- Members to liaise with their respective organizations to ensure Study awareness and to provide one-window coordination on behalf of their organization
- Provide data input

- Meet on a regular basis to monitor the progress of the Study

3.7 Digital Information

- All digital information, data, sketches, drawings and reports generated by the Project Consultant for the purpose of this Study shall become the property of the Town of Halton Hills, Region of Halton, Conservation Halton and Credit Valley Conservation as applicable.
- For modeling related data products, digital copies of the model input and output, as well as licensed copies of any proprietary modeling software are to be provided to the Town, Region, Conservation Halton and Credit Valley Conservation.
- Digital copies of the written reports are to be provided in both MS Word 2010 and PDF format.
- All mapping products produced for the Study shall be geo-referenced to real world coordinates and have a standard UTM NAD 83, Zone 17 projection, with a Canadian Geodetic Vertical Datum of 2013 (CGVD2013). Consultation with CH staff is recommended regarding use of a consistent vertical datum for the purpose of floodplain mapping.
- All models and mapping will be generated from LiDAR data. The Successful Proponent will be provided raw LiDAR data associated with the first and last return, and associated contours.
- Map “layers” produced by the Project Consultant will be topologically correct (i.e. adjacent polygon features will be without gaps/overlaps and share vertices/nodes where appropriate). Additionally, the Project Consultant should ensure attribute names are not truncated when converting data between file formats.
- New features captured by the Project Consultant using GPS or heads-up digitizing from air photography will have a capture accuracy rating for the feature included as an attribute (e.g., +/- 30 cm accuracy).
- A mapping layer index will be provided listing the layer name and providing a description/abstract of the layer’s content. Alternatively, if a mapping layer index is not provided, FGDC compliant metadata shall be created for each layer produced by the Project Consultant.
- Digital data will be delivered in one of the following formats: a) ESRI geodatabasev9.3 feature classes or ESRI shape file format. If the Project Consultant utilizes ESRI ArcGIS to produce maps, the matching .mxd will be provided that corresponds to the map figure.
- If software limitations prevent the Project Consultant from meeting these requirements, alternate formats may be considered (e.g., DGN) with the written agreement of the Town. Town GIS staff should be consulted if additional technical details are required to these requirements.

- Species information is to be provided to Conservation Halton and Credit Valley Conservation in digital spreadsheet format and significant species must be geo-referenced. Ecological Land Classification data sheets are to be provided to Conservation Halton in PDF format.

4.0 Detailed Background Review and Analysis

4.1 Hydrology

A detailed hydrologic model shall be developed and calibrated for the sub-watershed for existing, and future development scenarios. The model should be a continuous, deterministic, hydrologic model, approved by the SWTAC, with strong physical representation of surface runoff, base flows, and surface groundwater interaction. The modeling should recognize the impacts of agricultural improvements such as tile drains, ditching, etc., as well as other changes to the landform which would impact infiltration, and evaporation (i.e., hummocky terrain).

Flows for the Sixteen Mile Creek and its tributaries were developed as part of a 1986 Flood Damage Reduction Study. Reports and HYMO modeling from this Study is available; however, the modeling platform must be updated to allow for continuous simulation, and the catchments reviewed and refined to reflect landscape level changes, updated detailed topographic information, and the scale of this Study. Physical feature mapping of the watersheds and subwatersheds, including subwatershed boundaries, upstream catchment areas, watercourses, drainage swales, wetland features, untrained depressions, and other drainage improvements(i.e., tile drains), shall be developed based on existing mapping and verified in the field. The review should include an analysis of other sources of hydrology data that are available at the time of Study. Sub basins should be determined to establish nodes at points of interest. The intent of the modeling is to provide the details required for subdivision planning. The model should be updated to reflect the new information obtained through the subwatershed Study, and be representative of the more detailed scope of the subwatershed Study. The model should then be calibrated to provide comparable flows at the sub basin outlet to those determined in the previous watershed studies for both specific design storms and low flows. The model input parameters should be compared to the previous watershed studies and modified to represent the more detailed subwatershed model. The model should then be validated based on local data collected (i.e. measured stream flow and precipitation data, as well as detailed geomorphologic information and local knowledge of past flooding frequencies).

Peak flows for Mullet Creek are available from the Peak Flow Study conducted in 2012 based on GAWSER model. In addition, Credit Valley Conservation staff has undertaken a hydrology update Study for the Mullet Creek using Visual Otthymo model. The discretization map based on LiDAR data will be available for this subwatershed Study. Moreover, a stream flow gauge is located at Century Avenue (i.e. d/s of Highway 401). The collected stream flow data will be available for the calibration and validation of the hydrology model.

A hydrologic analysis will be conducted for the existing and future development conditions to determine pre and post-development flows and investigate the impact of post development conditions on: flows, volumes, flood levels, stream erosion, and base flows. Consideration must be given to how modification of existing drainage systems (including drainage

improvements such as tile drains) will impact post development flows. This Study shall identify preliminary stormwater management requirements that ensure downstream peak flows are not increased, natural floodplain storage is not lost, downstream channel erosion is not increased and stormwater runoff is appropriately treated to meet water quantity and quality targets. Flood flows need to be maintained so that hydrological functions including the scouring of pools and the deposition of substrate as/on riffles are not lost. These functions need to be maintained so that the watercourses are able to maintain this function in perpetuity during the post development scenario. The recommendations will need to be defined in sufficient detail to support completion of the subsequent secondary planning level studies. Recommendations for future additional detailed analysis, which is to be carried out in the development application phase studies, shall also be included.

4.1.1 Background Review and Field Work

Background information on the Study Area will be collected from all available sources and by field inspection, including but not restricted to the following:

- Previous subwatershed studies and stormwater management studies
- Aerial photos
- Topographic and photo base maps, and refined mapping products
- Flow records, high water marks, precipitation
- Water use
- Stream flow monitoring
- Existing fish community data holdings with DFO, MNR, Conservation Halton and Credit Valley Conservation
- Existing aquatic invertebrate, water chemistry, channel morphology and water temperature holdings at Conservation Halton and Credit Valley Conservation
- Existing MECP permits to take water within and upstream of Study Area

4.1.2 Characterization Analysis

Tasks to be carried out by the Project Consultant are:

- a) Based on background information and field investigation, provide recommendations for an appropriate number of stream flow and precipitation gauges needed for future analysis and performance review of water quality and quantity management strategies.
 - Identify costs for installing and monitoring one (1) strategically placed gauge as part of this project and as early as possible upon commencement of the project, to be used to validate the model. The location is to be reviewed and approved by the SWTAC. The recommended method of flow measurements will include: continuous flow gauging and recording, local rainfall recording, staff gauges with local high flow observers, collection of high water, and debris line data following high flow events.
- b) Complete Seasonal in-stream measurement of spot base flow, particularly in conjunction with water quality sampling and fish and benthic sampling.
- c) Undertake the hydrology Study with appropriate Engineering Standards. Hydrologic modeling on the Sixteen Mile Creek is to extend to the point where potential development lands constitute less than 10% of the drainage area of the system (i.e. to the 401 corridor) and on the Mullett Creek to minimum Winston Churchill Road, and if required, further extended to HWY 407.

- d) Ensure the model accounts for the following processes: soil infiltration and moisture, channel storage and seasonal effects (snow accumulation and melt).
- e) Analyze pre to post development water balance, identify, impacts and propose mitigation measures.
- f) Document and justify hydrologic modelling parameters for each existing land use and each subcatchment. Determine return frequency flows based on the existing predevelopment conditions. Develop Return period flow estimates using continuous simulation and frequency analysis for a minimum of 30 years of data. Evaluate Municipal design storms along with several historical events including the Regional Event and any other design storms provided by the SWTAC (i.e. Regional IDF's if available, August 4, 2014 Burlington Storm, July 8, 2013 Mississauga Storm, etc.). Summarize output for both the continuous and event model runs.
- g) Calibrate the existing condition watershed model relative to previously calibrated models (i.e. 1986 FDRP Study).
- h) Validate the calibrated existing condition watershed model with available flow records and high water marks and stream flow/rainfall data collected during the Study. The refined existing conditions model will then form the basis of the post-development conditions model.
- i) Use the results of the predevelopment modeling to set targets for outflow control rates -and return period flow rates at key locations as well as weighted flow rates for development areas.

4.1.3 Interim Analysis/Impact Assessment

Results of the hydrologic analysis for developed conditions will be used for the hazard land mapping and to determine a preliminary stormwater management strategy that will mitigate potential adverse development impacts. The fluvial geomorphologic and erosion assessments, in conjunction with the validated hydrologic analysis will ultimately be used to determine the precise amount of control required for all storm events.

The Project Consultant will establish a post development hydrologic model to assess the impact of development on stream peak flows and base flows and demonstrate that the proposed stormwater management strategy mitigates against both increases in the magnitude and duration of cumulative erosion threshold exceedance through evaluation, cumulative excess shear, cumulative effective stream power, and flow duration.

The Consultant's scope includes:

- a) Update the validated existing conditions model in accordance with planned future land use (based on maximum imperviousness associated with the proposed development form). The selected hydrologic modelling parameters for each proposed land use and each sub-catchment should be documented and justified within the Interim Report.
- b) Determine quantity control criteria based on event frequency for the 1:2 year through to Regional Storm distribution.
- c) Utilize established erosion thresholds in conjunction with the continuous post development hydrologic model to determine a stormwater management strategy that will mitigate against both the duration and magnitude of cumulative exceedance relative to cumulative excess stream power and cumulative excess shear. Outflow control rates specific to erosion protection are to be set at key locations, and weighted

flow rates are to be provided for development areas. At this level of Study, a zero tolerance for erosion threshold exceedance is required, unless otherwise accepted by the SWTAC.

- d) Develop a preliminary stormwater management strategy for the subwatershed, based on the erosion assessment (described in subsequent sections) and the hydrological assessment. The strategy should present unitary flow and storage rates per impervious hectare, and clearly identify the model sensitivity to changes in the ratio of impervious coverer identify the requirement to revisit unitary storage and discharge rates as part of subsequent studies should impervious coverage change.
- e) Provide the conceptual design for the stormwater management pond blocks and include calculations and drawings showing SWM pond block location including sediment drying areas, maintenance access provisions and demonstrating consideration of grading limitations.
- f) Determine return frequency flows based on future land use for both uncontrolled conditions and for controlled conditions with the anticipated stormwater management controls in-place. Return period flow estimates will be made using both event and continuous simulation analysis (with a minimum of 30 years of data applied for continuous simulation). The preliminary sizing of the stormwater management facilities may be completed using event based modeling, however output and results for both the continuous and event simulation must be presented to demonstrate that peak flow control and erosion mitigation has been achieved on both a continuous and event basis. Additionally, the SWTAC may provide other design storms to be evaluated (August 4, 2014 Burlington Storm, July 8 2013 Mississauga Storm) as part of the climate change sensitivity analysis.
- g) Identify opportunities to utilize Low Impact Development methods (LIDs) and assess/quantify their feasibility based on site specific testing of soil conditions in accordance with Appendix C – Site Evaluation and Soil Testing Protocol for Stormwater Infiltration in Low Impact Development Stormwater Management Planning and Design Guide by CVC and TRCA, 2010. Stormwater runoff should be treated via a multi-barrier approach, incorporating onsite, conveyance, and end-of-pipe controls and LIDs to acceptable standards as determined in the MOECC's Stormwater Management Planning and Design Manual (2003) or more recent standard.
- h) Undertake a low flow analysis for any watercourse diversions or drainage basin boundary modifications.
- i) Determine whether post to pre-quantity control should be required for the Regional storm.
- j) Propose a recommendation with respect to the incorporation of adaptation needs related to climate change within the stormwater management strategy.

4.1.4 Monitoring

The Final Report shall provide a recommendation for a future monitoring plan, including both during and post construction monitoring to demonstrate the functionality of the Stormwater Management system and sediment and erosion control system. The monitoring program is to specify quantifiable measurable targets for SWM and monitoring parameters that may be used as triggers for adaptive management.

4.2 Hazard Land Identification

The scoped SWS should identify the extent of the hazard lands within the Primary Study Area in accordance with MNR and Conservation Authority Guidelines. Hazard lands of key concern for this area include flood hazards, and areas subject to stream erosion and slope instability. Identification of natural hazards must be completed to the satisfaction of Conservation Halton, Credit Valley Conservation and SWTAC.

To determine the hazard limit associated with valleys (confined or unconfined), both the flooding and erosion hazards are to be considered. The hazard limit is set by the greater of the flood or erosion hazard, plus the applicable development setback based on the appropriate policy and regulatory requirements. It should be noted that additional buffers and/or corridor widths may be needed in consideration of other factors introduced by the Study assessment including, but not limited to, the protection of ecological and hydrologic functions such as critical function zones and impacts to adjacent lands. All hazard delineation and management recommendations of regulated features must be to the satisfaction of the Region of Halton and the Conservation Authorities. Note that the extent of the regulated area may change based on the headwater drainage feature assessment and feature characterization.

4.2.1 Background Review and Field Work

Background information on the Primary Study Area will be collected from all available sources and by field inspection, including but not restricted to the following:

- Review of the historical aerial photographs with attention being paid to land use changes, channel changes, and migration rates.
- Undertake research on what level of Low impact development treatment is feasible within the watershed.
- Reach delineation based on scientifically defensible methodology (see CVC's Fluvial Geomorphic Guideline -Fact Sheet IV).
- Preliminary determination of reach sensitivity and overall classification.
- Rapid assessment to evaluate stability of reaches based on acceptable protocols.
- Field survey of watercourse cross section and hydraulic structures.
- Geotechnical investigation to determine long term stable slope inclination may be required for confined valleys.

4.2.2 Flood Hazards

The Project Consultant will be required to review available hydraulic models and update modeling as required to reflect:

- The more detailed scale of this analysis
- Survey data
- Ensure the accuracy of the existing conditions floodplain

In addition, the Project consultant will develop flood lines for all watercourses not currently included in the existing flood plain mapping within the detailed Primary Study Area and a sufficient up and downstream distance to clearly characterize all hydraulic interactions. The floodplain calculations shall be based on the Technical Guide – River & Stream Systems: Flooding Hazard Limit, Ministry of Natural Resources & Watershed Science Centre, 2002. The U.S. Army Corps of Engineers HEC RAS model acceptable for the hydraulic analysis. Field survey of existing channel cross section and profile, floodplain characteristics, and crossing structures will be required. For floodplain areas, available topographic information (raw LiDAR

data)) may be utilized, provided a good correlation between the topographic mapping and detailed site survey is demonstrated.

For tributaries which have very small drainage areas, i.e., (<) 50 ha, it may be possible to scope the floodplain analysis. Consultation with the SWTAC to determine whether scoping is acceptable and whether alternate hydraulic capacity calculations may be applied.

The Characterization Report is to contain:

- References for all sources of topographic information (including a summary of any correlation analysis completed).
- References for all hydrologic information incorporated into the Study;
- A summary of the evaluation, justification for selected hydraulic parameters, and summary tables of the findings.
- A digital copy of all hydraulic modelling (including input and output files, as well as documentation on each of the model runs).
- Full size signed and sealed copies of floodplain mapping for the regulatory storm on topographic base mapping, overlain with the hydraulic cross section locations (labelled with cross section ID and the associated Regional and 1:100 year water levels).

4.2.3 Interim Analysis/Impact Assessment

Update floodplain modelling and mapping based on future hydrology and ultimate valley and channel conditions (i.e., consider future vegetation conditions in selected Manning roughness). The update is to be completed for the entire detailed Primary Study Area and a technically appropriate up and downstream distance, and will define the regulated floodplain hazard. This analysis should be completed in accordance with the standards set out in the MNR Technical Guidelines based on the flows resulting from the ultimate development scenario. The hydraulic model shall demonstrate water levels, storage, and velocities for all design storms including the regulatory storm. The U.S. Army Corps of Engineers HEC RAS model is acceptable for the hydraulic analysis.

The final model should be flexible enough to evaluate modifications to the existing floodplain including realignment or changes to the corridor width and profile.

The Interim and Final Reports are to contain:

- References for all sources of topographic information (including a summary of any correlation analysis completed).
- References for all hydrologic information incorporated into the Study.
- A summary of the evaluation justification for selected hydraulic parameters, and summary tables of the findings.
- A digital copy of all hydraulic modelling (including input and output files, as well as documentation on each of the model runs).
- Full size signed and sealed copies of floodplain mapping for the regulatory storm on topographic base mapping, overlain with the hydraulic cross section locations (labelled with cross section ID, and the associated Regional and 1:100 year water levels) and the proposed development plan.

4.2.4 Erosion Hazards

The erosion hazard limit associated with a watercourse is based on the valley characteristics – confined or unconfined. The stream characterization work (described below), in conjunction with a site walk with Conservation Halton and Credit Valley Conservation staff and other members of the SWTAC, will be used to determine the watercourse status. The Erosion Hazard Limit should be determined based on CVC's Geomorphic Guidelines for confined and unconfined watercourses. In the absence of site-specific Geotechnical Study, the recommended "Toe Erosion Component" should be based on CVC's Geotechnical Guidelines and the "Technical Guide – River & Stream Systems: Erosion Hazard Limit" (2002), which is 8m for cohesive soils (i.e., silty clays, clayey silts); and 15m for cohesionless soils (i.e., silt, sand).

During the site walk all confined systems will be identified, and the physical top of bank will be staked in the field by Conservation Authority staff. Geotechnical analysis is required to confirm the location of the long term stable top of slope, which forms the basis of the erosion hazard limit in a confined system. The intent of this Study is to establish a reasonably accurate identification of the erosion hazard limit, which may be further refined through future studies. Therefore, if geotechnical studies are undertaken at this time, conservative estimations of geotechnical parameters (i.e., a stable slope inclination of 3:1 and a toe erosion component of 8 m) must be used. The meander belt and long term stable slope limits are to be determined in accordance with the MNR's Technical Guidelines. Additional direction may be obtained through the CVC's Fluvial Geomorphic Guidelines (Fact Sheet I to V).

4.2.5 Analysis

- a) Identify, by field inspection of all channels in the Study Area, sites where stream bank erosion and slope instability is present and/or should be considered as part of the erosion hazard.
- b) Determine the historic toe erosion rates and anticipated future toe erosion rates (if localized increases to on-site erosion are deemed unavoidable and acceptable to the Town and Conservation Halton).
- c) Meander belt and slope stability assessments shall be completed in accordance with MNR Technical Guidelines.
 - o Where site-specific slope stability assessments cannot be completed, an appropriate preliminary hazard delineation should be agreed upon to the satisfaction of the Conservation Authorities.
- d) Incorporate all water quality treatment requirements in the preliminary stormwater management plan.
- e) Determine minimum stream corridor based on the erosion hazard using meander belt width and/or slope stability setback and other safety factors, as appropriate. The corridor sizing will build upon the procedures followed by CH in their generic regulation mapping. The intent is to provide a conservative representative corridor width, with the recognition that it would be refined at the subwatershed Impact Study (SIS) and Functional Servicing Study (FSS) stage.

The erosion hazard assessment must be completed by a qualified licensed professional engineer or professional geoscientist. Climate change should be taken into account when planning creek block widths.

At a minimum the corresponding report must include supporting field data, analysis, discussion on the methodology applied, and supporting calculations regarding determination of the erosion hazard, and a signed and sealed, full size, and scaled hard copy of a drawing showing:

- Detailed topographic information (0.5m contours preferred)
- The current watercourse centreline
- Reach break locations
- The Creek's central tendency (meander belt axis).
- Available historic watercourse centrelines
- The calculated meander belt (preliminary meander belt)
- The analyzed 1:100 year erosion setback (100 year migration rate)
- The regulated 15m allowance

A second copy of the above information overlain on the most current orthophoto should also be provided.

4.5 Geomorphologic Assessment

Based on the morphological attributes of each channel reach, determine the physical and biological health of the watercourses. The Geomorphic analysis will support the erosion assessment and determine threshold flows at appropriate sensitive erosion sites throughout the subwatershed Study Area.

4.5.1 Background Review and Field Work

Background information on the Primary Study Area will be collected from all available sources and by field inspection, including but not restricted to the following:

- Determination of drainage network areas divided into subcatchment areas, preliminary calculations of drainage densities and frequencies, stream orders, etc.
- Determination of the Erosion Threshold based on CVC's Geomorphic Guidelines.
- Update of the historical analysis of reaches with attention being paid to land use changes, channel changes and migration rates derived from aerial photographs.
- Reach delineation based on scientifically defensible methodology (see CVC's Fluvial Geomorphic Guideline -Fact Sheet IV).
- Preliminary determination of reach sensitivity and overall classification.
- Rapid geomorphic assessment to evaluate stability of reaches based on acceptable rapid assessment protocols.
- Define erosion thresholds based on scientifically defensible models.
- Detailed survey of watercourses to include channel profile and representative cross sections.

4.5.2 Analysis

A geomorphic analysis will be conducted to determine the character and behaviour of the subwatershed. A geomorphic assessment must be completed by a qualified fluvial geomorphologist. The steps involved in the analysis include:

- a) Identify by field inspection, sites where stream bank erosion and slope instability is present and/or should be considered in the impact assessment report, as well as all locations where structures may be at risk.
- b) Complete rapid field assessments while walking the entire subwatershed drainage network, and documenting areas sensitive to erosion, and any significant field conditions, i.e. bank erosion, slumping, woody debris jams, scour pools, depositional areas, age of point bar vegetation, etc. Photographs of significant features will be required.
- c) Describe the form and stability of the system through analysis of historical aerial photographs and standard classification methods as directed by the SWTAC (e.g. Index of Stability (Downs 1995), Rapid Geomorphic Assessment (Ontario Ministry of Environment, Conservation and Parks (MECP), 2003) Rapid Stream Assessment Technique (Galli, 1996), or other suitable methods in consultation with the SWTAC).
- d) Analyze downstream trends in channel morphology and factors affecting stream stability, including any historic changes in flow regime.
- e) Evaluate drainage network (density) on a sub-catchment basis, including an evaluation of channel functions, such as the supply, movement and storage of sediment.
- f) Document the location and nature of sediment sources.
- g) Ensure data is collected that enables proper determination of opportunities and constraints, including stream corridor delineation following protocols used in generic regulation mapping and Provincial Policy Statement protocols.
- h) Complete a sensitivity analysis of the headwater channel systems.
- i) Ensure linkages (e.g., relating channel form/stability measures to biological integrity measures) between fisheries, stream morphology and other disciplines are maintained.
- j) Carry out measurements of channel and bank characteristics and bank full flow conditions using standard protocols and known field indicators of the bank full stage (include bank full channel widths and depths).
 - Analyze surficial channel bed materials using a modified pebble count method; where surficial materials are too fine for a pebble count, bulk samples should be collected and analyzed using standard sieve and hydrometer techniques.
 - Characterize Sub-pavement materials using bulk samples and standard sieve and hydrometer techniques.
 - Complete an evaluation of the bank vegetation, rooting depths, materials, percentage of cover and in situ shear stress for both banks at each detailed site.
 - Conduct a level survey encompassing the detailed site to provide an idea of the local energy gradient present in the reach.
 - Complete the installation of a monitoring site with permanent monument pins which can be revisited and re-measured for historical changes in the cross sectional area of the channel.
- k) Utilize detailed cross-section surveys using level surveys and monumented pins for measurement of cross-section change. The detail of the survey should be fine enough to track changes (erosion, aggradation). This method is preferred over the erosion pin method due to the limitations of erosion pins and the potential disturbance caused by the installation of the pins.
- l) Define erosion thresholds based on scientifically defensible models. A range of models should be applied to assess model sensitivity and gain a better understanding of the range of erosive conditions. Modeled results should be compared to actual field observations.

- m) Identify flow constraints, which may avoid or reduce future bank and bed erosion problems.
- n) Identify the sensitive reaches for detailed assessment. CVC will provide a spreadsheet tool to determine the reach sensitivity. CVC staff geomorphologist will provide recommendations on appropriate creek crossing location and sizes, and scour depths at the location of infrastructure crossings, where applied.
- o) Complete hydraulic and geomorphic analyses and empirical relations from collected field data. This would include, but is not limited to bank full discharge, tractive force, permissible velocity, stream power, sediment transport, and hydraulic geometry relations.
- p) Assess cumulative headwater functions by assessing sediment budgets, linkage with local hydrology and connection to larger scale, including input from supporting disciplines (e.g., TSS data from water quality; flows from hydrology; spot flow data from hydrogeology; habitat input from fisheries and terrestrial ecology).
- q) Determine drainage density targets. Compare against regional values and provide targets on a sub-catchment basis.
- r) Determine future watershed management strategies in a holistic way, including but not limited to consideration of aquatic and terrestrial linkages, hydrologic and hydrogeological inputs, sediment transport, and headwater function.
- s) Estimate erosive velocities and identify, using the hydraulic Study results, sites that may be subject to erosion under existing and post-development conditions and undertake a flow duration or other threshold exceedance analysis based on existing and ultimate conditions.
- t) Determine minimum stream corridor using meander belt width and other safety factors. The meander belt width delineation will build upon the procedures followed by CH and CVC in their generic regulation mapping. Meander belt widths should be determined at a landscape level. These widths are to be evaluated and refined as appropriate at the detailed design stage) Identify opportunities for enhancement.

It is recommended that consultation with CVC and CH staff occurs before initiating field work to scope work for eligible creeks. The report shall include recommendations relating to watercourse system attributes to provide guidance for open space blocks. Climate change should be taken into account when completing the erosion threshold analysis and planning creek block widths.

4.6 Hydrogeology

4.6.1 Background Review

Background information on the regional context and Primary Study Area will be collected from all available sources and through field investigation to establish a conceptual model of the subwatershed, including but not restricted to the following:

- Regional ground water studies (technical reports, pumping tests, geophysical surveys, etc.)
- Halton Region's Aquifer Management Plan
- Soils reports and geotechnical investigations.
- Surficial soils, overburden geology and bedrock geology of the area and their hydraulic properties, including infilled bedrock valleys

- Existing well records, groundwater level and quality datasets (e.g.: MECP Water Well Record Information Database and Provincial Groundwater Monitoring Network, geotechnical borehole data, etc.)
- Groundwater taking and use (e.g.: MECP Permit to Take Water Database, Water Taking Reporting System Database, etc.)
- Local climate data, Environment Canada climate data
- Hydrology reports and Water Survey of Canada data.
- Reports of studies completed as part of the source water protection program
- Aerial photographs, their use, and potential for inclusion in a monitoring program
- Identify data gaps and recommend future work for completion of subwatershed impact studies
- Reports of contamination and complaint files (MECP)

4.6.2 Characterization and Constraints

The Study characterization report with respect to hydrogeology shall be sufficient to help understand geological and hydrogeological conditions in the area, to determine the key characteristics of the bedrock and overburden systems and their functions in terms of controlling groundwater movement, availability, and quality in the area within the regional hydrogeological setting¹. An integral component is to assess the interaction between the groundwater and surface water systems and to determine the overall role or function of this interaction in an ecosystem context. The scoped SWS will include an assessment of the site location in relation to the vulnerable areas delineated through Source Water Protection studies for the Halton Region Source Protection Area and Credit Valley Source Protection Area.

The characterization and constraints report should include, but not be limited to the following:

- a) Maps of local physiography, topography and overburden and bedrock geology.
- b) Maps of private water wells, monitoring wells, borehole locations, groundwater elevations and inferred direction of all local aquifers based on appropriate existing information and supplemented with recent data if necessary, levels, flows and quality in all aquifers within the area based on existing information.
- c) Present construction details of available groundwater monitors
- d) Estimate zone of influence of the proposed development on groundwater and identify all groundwater receptors within and adjacent to the zone.
- e) Identification of existing recharge-discharge zones to help understand and maintain/enhance base flow and in stream water temperature.
- f) Identification of groundwater recharge areas.
- g) Identification of suitable sites for urban stormwater infiltration to avoid contamination of the water table and/or deeper aquifers.
- h) An analysis of groundwater contribution to maintaining the existing natural areas (wetlands, environmentally sensitive areas, etc.).
- i) A review of CVC source water protection Study documents and vulnerable areas assessment (a part of the SWS Study Area within Credit Valley Source Protection Area is designated as

¹ It is envisioned that sufficient information exists to complete the tasks associated with the Hydrogeology component of this scoped study. The study consultant shall therefore provide confirmation of this and if necessary, identify any additional specific field work or analysis required in their proposed work plan. Such additional work will be reviewed by the Subwatershed Technical Advisory Committee.

an High Vulnerable Area). Describe where groundwater discharge areas may be supporting specific life process of aquatic species (e.g., fish spawning).

4.6.3 Monitoring

The scoped SWS will include recommendation of a groundwater level and quality monitoring program for the pre, during and post construction phases to evaluate the effectiveness of measures implemented, and allow for adaptive management. It will also identify future monitoring requirements for completion of subwatershed impact studies. The consultant will propose the required water balance assessment/analysis to be completed for the existing (pre) and post-development conditions pertaining to development phases, and mitigation (low impact development - LID) measures, to ensure that hydrological condition in the existing condition be matched (as best as possible) in the post-development phase. The water balance reviews and LID proposals will follow methodology, guidelines and criteria approved by MECP and the relevant Conservation Authorities.

4.7 Water Quality

4.7.1 Background Review and Field Work

This component is intended to provide a characterization of the existing surface water quality, including temperature, within the Primary Study Area that would form the basis for identifying constraints and facilities requirements for the secondary planning area.

Background information and reports will be utilized in the characterization of existing water quality conditions in the Primary Study Area. All relevant documents and data will be collected and reviewed to determine their applicability in undertaking a preliminary assessment of existing water quality conditions in the subwatershed.

Data sets to be reviewed include:

- Water chemistry and temperature data from CH's Long-term Environmental Monitoring Program, as available
- Water chemistry data from Provincial Water Quality Monitoring Network (PWQMN)
- Water chemistry and temperature data from CH's Long-term Environmental Monitoring Program, as available, and other available local studies

The sampling program will include three sample periods from spring through fall, and will focused on the following parameters of concern:

- Flow regime
- Water temperature
- E. Coli
- Nitrogen (nitrates, nitrites, TKN)
- Total phosphorus (Total phosphorus, soluble reactive phosphorus)
- Chlorides
- Metals (Copper, zinc, cadmium, lead)
- Suspended solids (TSS, turbidity)

- pH
- Dissolved Oxygen

The Project Consultant shall identify monitoring data gaps, which would help in recommending sampling locations and frequency of additional monitoring to establish pre-development conditions.

4.7.2 Characterization and Target Setting

The water quality analysis tasks associated with this Study include:

- a) Identify pollution sources, loading and source control measures, both short term and long term from different land uses in the Primary Study Area; Review any thermal mitigation techniques that may be required to mitigate impacts from land use changes.
- b) Review best practices to mitigate water quality impacts.
- c) Prepare a summary of water quality statistics and identification of information or monitoring gaps to inform sampling locations and additional monitoring requirements.

4.7.3 Impact Analysis and Monitoring

The Project Consultant shall provide recommendations for a water quality monitoring program to monitor progress and adaptive management measures.

4.8 Fish and Aquatic Habitats

4.8.1 Characterization and Background

The Project Consultant will review available background information and determine the need for additional field studies. Initial assessment work could include existing habitat assessment, spawning survey, benthic inventory and fisheries inventory, identification of stream base flow sources and investigation of opportunities for base flow and habitat enhancement, and identification of current sources of degradation. The Project Consultant would work closely with Conservation Halton, Credit Valley conservation, Fisheries and Oceans Canada and the Ministry of Natural Resources when carrying out this assessment work.

The Project Consultant will set targets to ensure maintenance or enhancement, where possible, of quality and quantity of stream base flow and temperatures and recommend practices and techniques to achieve or exceed targets. In addition, the Consultant will apply recommended practices and techniques and investigate the impact of proposed urban development scenarios.

The composition of the benthic invertebrate community is an ecological reflection of the physical and chemical conditions of the watercourse. Various benthic taxa have well documented responses to water quality conditions; as such, they are commonly used as early warning indicators for environmental change and are an essential component of integrated watershed monitoring. The purpose of the sampling program is to characterize conditions under current land use, and thus establish base line data against which future land use scenarios can be assessed. This baseline data will also provide the foundation from which future monitoring programs can be developed.

A desktop review of all available current and historical fish community records is to be compiled for the area. Fish habitat conditions will be interpreted using biological (fish and benthic invertebrates), geomorphologic, hydrological, hydrogeological and water quality data from other components in this Study. An inventory of barriers to fish migration and existing on line ponds is to be completed. Reconnaissance of all watercourse stretches within the Primary Study Area should include visual surveys for the presence of spawning and refuge areas and important migratory routes.

Headwater drainage features should be classified with respect to their status as permanent, seasonal or ephemeral watercourses. Headwater streams are to be classified/characterized in accordance with the “Evaluation, Classification and Management of Headwater Drainage Features: Interim Guidelines” (TRCA, 2014). All parameters related to aquatic habitat (e.g. stream morphology, riparian habitat, groundwater data, benthic invertebrates, fish community, water quality and quantity) should be collected at the same sampling locations. Once the data is compiled, data can be compared with each other more easily due to the geographic scope of the sampling locations.

Streams should be characterized as green (low constraint streams), blue (medium constraint streams) and red streams (high constraint streams). These characterizations should be combined with other Study parameters (e.g. geomorphology, hydrology) to form an appropriate constraint ranking for each stream and/or stream reach

4.8.2 Background Review and Field Work

Background information on the Primary Study Area, and upstream and downstream of the Primary Study Area, will be collected from all available sources (which could include MNRF records as well as CVC Integrated Watershed Monitoring Program (IWMP) and CH Long-term Ecological Monitoring Program (LEMP) records, where available). Background information on the Primary Study Area will also be collected by field inspection. The same sampling locations are to be used in collecting the following data parameters:

- Revised Stream morphology
- Water quantity and quality (TSS, SRP, chlorides and water temperature etc.)
- Water temperature
- Benthic invertebrates
- Fish community

Sampling locations should be chosen where water flow is anticipated to occur in the months of April, May and June, provided that it is anticipated that the Ontario Ministry of Natural Resources will issue fish collection permits for sampling during these months. In addition to spring sampling (for migrant species), fish sampling should include summer sampling for resident species. In cases where April/May sampling for migrants is not possible, a fall sampling (during September/November) should be planned, as per the CH Guidelines for Ecological Studies. It is preferable that the locations be situated at sites that have healthy vegetated stream banks if possible, which are not located near existing road crossings. It is preferable that sites be chosen that exhibit both flat and steeper stream reach slopes.

4.8.3 Benthic Invertebrates Field Monitoring Methodology

Collection of aquatic invertebrate community samples at an appropriate number of locations using the Ontario Benthic Biomonitoring Network Protocol (MECP). Identification of the invertebrates in the sample should be undertaken to the species level and the data is to be analyzed using the following indices:

- % EPT
- Shannon Weaver Index
- Taxa Richness
- Hisenhoff Index
- % Oligochaeta
- % Chironomidae
- % Isopoda
- % Gastropoda
- % Dipteran
- % Insect

The following table is to be used to determine the relative health of the sites:

- Water Quality Index Unimpaired Possibly Impaired
- EPT >10 5-10 <5
- Taxa Richness >13 <13
- % Oligochaeta <10 10-30 >30
- % Chironomidae <10 10-40 >40
- % Isopoda <1 1-5 >5
- % Gastropoda 1-10 0 or >10
- % Diptera 20-45 15-20 or 45-50 <15 or >50
- % Insect 50-80 40-50 or 80-90 <40 or >90
- HFI <6 6-7 >7
- SDI >4 3-4 <3

Aquatic invertebrate samples should be collected for at least two years prior to development. Each sampling event should occur in the spring months, typically in April or May, when water flow is robust with cool or cold air and water temperatures.

4.8.4 Fish Community

- Fish community information should be collected in accordance with Sections 1 and 3 of the Ontario Stream Assessment Protocol Manual. Fish community samples should be collected in May or June when there is likely to be a greater abundance of flow, which will make fish sampling more feasible.
- Fish community abundance should be analyzed to provide a comprehensive explanation about the health of the fish community. Efforts should be made to analyze the fish community data with specific references and comparisons drawn to other data sets (e.g. benthic invertebrates, stream morphology, riparian vegetation, hydrogeological data and surface water quantity and quality) collected at the same locations.
- Sampling for fish species presence should be quantitative. It is expected that the Ontario Stream Assessment Protocols would be followed precisely rather than used as a general guideline.

4.8.5 Riparian Habitat

Riparian Habitat along watercourses should be assessed for a distance of 30 metres from each side of the bank full channel width of the creek. In addition, riparian habitat should be identified as vegetated or not vegetated. In areas where this riparian corridor is observed to be vegetated, the vegetation communities are to be assessed using the ELC protocol to the Vegetation Type level.

Upon consultation with Conservation Halton, Credit Valley Conservation, Fisheries and Oceans Canada and the Ministry of Natural Resources, the Project Consultant will appropriately characterize all watercourse and drainage features using integrated background data collected in the field from the following disciplines:

- a) Water quantity and quality, stream morphology, benthic invertebrate communities, fish community and riparian vegetation assessment.
- b) Identify existing habitat features which are critical for maintenance of the existing fishery.
- c) Identify existing habitat features which may be presently limiting fish production (e.g. Elevated temperatures, sedimentation).
- d) Using the information obtained, suggest opportunities to enhance fish production as development proceeds. (e.g. infiltration of stormwater, removal of on-stream ponds or structures, placement of spawning gravel over upwelling areas)
- e) Examine fisheries problems and opportunities created under a variety of subwatershed development scenarios.
- f) Through interaction with other disciplines, develop a preferred approach which documents habitat maintenance and enhancements.

4.9 Terrestrial Ecology- Natural Heritage System and Features

4.9.1. Characterization and Background

- Undertake a comprehensive, four season field investigation of the Primary Study Area and adjacent lands within 120 m to identify and evaluate all natural heritage features and areas, including but not limited to wetlands, forests, successional habitats, grasslands, wildlife travel corridors/ecological linkages, habitat of species at risk, woodlands, valleylands, wildlife habitat, as well as Environmentally Sensitive Areas (ESA's) or other features/areas that may be located within or adjacent to the Primary Study Area. The investigation component should identify both the form and functions (ecological and hydrologic) of the existing natural heritage features/areas as well as the ecological interactions between and among them.
- Provide sufficient detail to allow for local boundary adjustments through the assessment and implementation phases in keeping with the Regional Natural Heritage System framework established through ROPA 38. Reference should be made to Section 115.3 of the Regional Plan when reviewing, classifying and describing the components of the regional Natural heritage System.
- Review current evaluation methodologies and confirm approach with SWTAC for use in the Study as necessary. In particular, any unevaluated wetlands will need to be evaluated using the 3rd edition of OWES.

- Set detailed technical objectives and targets for appropriate preservation, protection and enhancement of natural features and their functions, which will need to be met by the proposed urban development, including any buffer/setback recommendations and associated restoration. Specify the best management practices that should be considered to meet these targets. The natural areas should be maintained, restored or, where possible, improved by the proposed management practices.

4.9.2 Background Review and Field Work

Background information on the Primary Study Area and adjacent lands will be collected from all available sources and by field surveys, including but not restricted to the following:

- Compilation of natural heritage information from existing sources (e.g. NHIC, Aurora District MNR, and CH and CVC species databases, provincial atlas projects, Halton Natural Areas Inventory) and master species lists to combine results from background reports with field assessments. Of particular note is the Region of Halton's *Natural Heritage System Definition and Implementation Report*.
 - Natural Heritage background sources should include Ontario Nature Reptile and Amphibian Atlas, Atlas of the Mammals of Ontario, Ontario Butterfly Atlas, eBird/Bird Studies Canada databases and any other relevant sources.
- Acquire any necessary permits for sampling (e.g. ESA permit, Wildlife Scientific Collector's Permit) well in advance of planned field season.
- Conduct wetland evaluation and assessments according to the OWES and review/utilization of any available evaluations completed by the Ministry of Natural Resources and Conservation Halton. Mapping of wetland features will require delineation/staking of wetland boundary, to be conducted with Conservation Halton and/or CVC.
- Assess significant wildlife habitat (See Methodology – Appendix B).
- Assess significant woodlands (See Methodology – Appendix B).
- Assess species at risk (See Methodology – Appendix B).
- Conduct fish and fish habitat inventories assessment (see above section).
- Identify potential pollution point sources to the stream, i.e. storm outfalls, old dump sites.
- Identify enhancement opportunities for all environmental components.
- Carry out multi-season inventory of flora and fauna to address any information gaps noted during the background review of previous studies and inventories and update background information as necessary. Undertake targeted surveys for birds, amphibians, reptiles, plants, odonates, butterflies, bats and mammals.
- Conduct ELC of all natural features and semi-natural features to Vegetation Type.
- Identify existing ANSI's and ESA's.
- Review of current Study evaluation methodologies and based on consultation with stakeholders, provide recommendations for any necessary revisions to the previous evaluation methodology for use in the Study and additional information needs.
- Include a table with the date, stop and start time, weather conditions, personnel and purpose of all fieldwork conducted. Background information from the broader Study Area should also be consulted to provide an appropriate landscape context.

4.9.3 Analysis

The Project Consultant will:

- a) Review previous studies on the natural heritage systems and areas. The Halton Natural Areas Inventory (2006) and information from CH and CVC should be used to determine species' local status within respective watersheds.
- b) Identify and map all natural and semi-natural vegetation communities, wildlife corridors, wildlife habitat areas, significant wildlife habitat, significant woodlands, significant valleylands, provincially and regionally/locally significant wetlands and Areas of Natural and Scientific Interest (ANSI's) and Environmentally Sensitive Areas (ESA's) that may be located within, or adjacent to the Primary Study Area.
- c) Define functional relationships between wildlife and natural areas, with particular attention to movement and seasonal habitat requirements. Identify Critical Function Zones around wetlands, from which appropriate setback distances/buffer treatments would be established.
- d) Where necessary to ensure appropriate level of knowledge/documentation complete inventory of the vegetative and wildlife resources of each area, confirm previous findings.
- e) In conjunction with the Hydrology and Hydrogeology section, determine the water needs of these natural systems and appropriate buffers.
- f) Identify the circumstances, which promote the observed resources and their associated functions. Set targets and recommend practices to ensure their maintenance or enhancement, where possible.
- g) Identify potential refinements to the regional Natural Heritage System boundary including additions, deletions and/or boundary adjustments in accordance Section 116.1 of the Regional Official Plan. The identified modifications to the regional Natural heritage System should consider Sustainable Halton Report 3.02, Natural Heritage System Definition and Implementation.
- h) Develop a natural heritage system constraints map that incorporates the natural heritage features and areas identified through the Study process, including restoration and enhancement areas, required to protect or improve the ecological and hydrologic functions of the system for the long term.
- i) Identify opportunities to link isolated natural areas to the Regional Natural Heritage System, where appropriate.
- j) Identify future monitoring requirements to be conducted as part of and following the completion of the Subwatershed Impact Studies.
- k) If for any reason Ontario Wetland Evaluation System (OWES) assessments is not completed as part of the SWS, a process to confirm status of wetlands in later stages should be established. All wetlands should be treated as Provincially Significant until OWES assessments are complete.

5.0 Additional Background Review

5.1 Municipal and Land Use Planning

The following municipal and land use planning background material should be included as part of the review:

- Existing and future land use
- Official Plans and Zoning By-laws
- Population projections, population densities
- Planning and development studies
- Existing and future transportation corridors
- A Growth Plan: Growth Plan for the Greater Golden Horseshoe (2019)
- Provincial Policy Statement (in effect)
- Greenbelt Plan
- The Region of Halton Buffer Refinement Framework
- Conservation Halton *Policies and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy Document, Conservation Halton, April 27, 2006, as amended August 11, 2011, November 26, 2015, February 25, 2016.*
- CVC Watershed Regulations and Policies April 9, 2010, Resolution No. 48/10

The background review will include all relative reports and information sources. The Project Consultant will:

- a) Lay out a frame work for the organization, management and presentation of resource data
- b) Identify all wetlands, ponds, drainage paths, and defined watercourses using aerial photos and field inspections
- c) During the field inspections, observe and comment on existing land uses, vegetative cover, quantity of flow, wildlife and fish habitat and pollution sources
- d) Identify data deficiencies and requirements for field monitoring of specific parameters or characteristics to augment the data base
- e) Specify standards for collection of additional data. Additional field data shall be collected where necessary and added to the existing databases such that the level of detail will support the decision making process of the subwatershed Study
- f) Consider post development monitoring requirements when sighting locations of additional stations. Additional data requirements identified by field survey
- g) Prepare a base map of the Primary Study Area which can be used throughout the Study to overlay subwatershed attributes and plan components
- h) After carrying out the review, prepare a background report which will:
 - Summarize the findings of the review
 - Formulate an issue and problem statement
 - Prepare a detailed work plan for the Study. The background report should be prepared in such a way that it can be used as introductory chapters in the final Study report (see Schedule A).
- i) Work closely with the SWTAC chairman and members of other on-going studies

5.2 Subwatershed Synopsis

- The Project Consultant will summarize the targets, constraints and opportunities identified in Study including:
 - Natural/semi-natural cover targets and constraints
 - Stormwater flow and volume constraints for flood and erosion control
 - Constraints on urban development to meet flows and volume targets.
 - Susceptibility of groundwater to contamination from urban stormwater infiltration
 - Potential recharge and discharge zones to maintain/enhance base flow and water temperature in the stream
 - Existing sources of pollution and corresponding remedial action- water quality targets based on desired fish community objectives and feasible methods for managing water quality
 - Constraints on urban development to maintain/enhance water quality
 - Circumstances which promote or affect the feasibility of target fish species
 - Constraints on urban development to enhance fish habitat
 - Natural heritage system and associated restoration opportunities(including, but not limited to, wetlands, environmentally sensitive areas (ESA's), stream corridors, Conservation Authority regulated areas, ANSIs)
 - Natural heritage system and stream corridor management boundary for the streams and other natural heritage features within the subwatersheds, with consideration for adjacent features. The stream corridor should be determined so as to include natural, cultural and historic features where protection and preservation is important to meet the goals and objectives of the Study. Features to be included are floodplains, wetlands, woodlands, erosion prone areas, significant wildlife areas, ecologically important areas and any recommended buffers

Appendix A – Studies and References

- SIS, SWS and EA studies completed in the area.
- A Guide to Road Ecology in Ontario. 2010. Prepared by the Ontario Road Ecology Group, Toronto Zoo.
- Assessing the Degradation Effects of Local Residents on Urban Forests in Ontario, Canada. 2010. McWilliams, W., P. Eagles, M. Seasons and R. Brown.
- Arboriculture & Urban Forestry 2010. 36(6): 253-260.
- Birds of Hamilton and surrounding areas: including all or parts of Brant, Halton, Haldimand, Niagara, Norfolk, Peel, Waterloo and Wellington. 2006. Prepared by Robert Curry and the Hamilton Naturalists' Club.
- Effectiveness of Boundary Structures in Limiting Residential Encroachment into Urban Forests, McWilliam et al., 2011.
- Halton Natural Areas Inventory. 2006. Prepared by Halton/North Peel Naturalists' Club, Conservation Halton, South Peel Naturalists' Club, Halton Region and Hamilton Naturalists' Club.
- Study Report: thermal impacts of urbanization including preventative and mitigation techniques, CVC, 2011.
- The Herpetofaunal Atlas for the Halton Region. 1999. Prepared by Lori Macadamand published by The Halton/North Peel Naturalist Club.
- The Impacts of Urbanization on the Hydrology of Wetlands: a literature review, TRCA, 2011.
- The Reptiles and Amphibians of the Hamilton Area: An Historical Summary and the Results of the Hamilton Herpetofaunal Atlas. 1994. Prepared by William G. Lamond and published by the Hamilton Naturalists' Club.
- Assessment Report for the Halton Region Source Protection Area, Version 2.1, dated January 26, 2012. Prepared by Halton-Hamilton Source Protection staff.
- Sixteen Mile Creek Watershed Plan, prepared in support of the Halton Urban Structure Plan, February 1996.
- Sixteen Mile Creek Watershed Plan, Technical Report # 2, Evaluation of Potential Development Impacts, prepared in support of the Sixteen Mile Creek Watershed Plan and the Halton Urban Structure Plan, February 1995.
- Sixteen Mile Creek Watershed Plan, Technical Report # 3, Regional Hydrogeology, prepared in support of the Sixteen Mile Creek Watershed Plan and the Halton Urban Structure Plan, February 1995.
- Sixteen Mile Creek Watershed Plan, Technical Report # 4, Natural Environment, prepared in support of the Sixteen Mile Creek Watershed Plan and the Halton Urban Structure Plan, February 1995.
- Gateway West Subwatershed Study Update (Update in Progress), Kidd Consulting
- Study Report: Thermal Impacts of Urbanization including Preventative and Mitigation Techniques, January 2011, Credit Valley Conservation.
- Fluvial Geomorphic Guidelines fact Sheet I to V, Credit Valley Conservation Stability, Erosion, and Development Setback Components Definition & Determination, July 2011, Credit Valley Conservation.
- Stormwater Management Criteria-Draft April 2012, Credit Valley Conservation Halton Region's Aquifer Management Plan.
- Low Impact Development Stormwater Management Planning and Design Guide by CVC and TRCA, 2010.

- Proposed Source Protection Plan for the Halton Region and the Hamilton Region Source Protection Areas, Halton-Hamilton Source Protection Committee, March 2014.
- Proposed Source Protection Plan for the Credit Valley, Toronto and Region, and Central Lake Ontario (CTC) Source Protection Areas.
- Requirements for completion of hydrogeological studies to facilitate Conservation Halton's reviews, November 2014 available at: <https://www.conservationhalton.ca/policies-and-guidelines>.
- Landscape Design Guide for Low Impact Development, CVC, Version 1.0 June 2010.
- Evaluation, Classification and Management of Headwater Drainage Features Guideline. Toronto and Region Conservation Authority and Credit Valley Conservation, TRCA Approval July 2013 (Finalized January 2014).
- Best Practices Guide to Natural Heritage System Planning, Ontario Nature, 2014.
- Phase 3, Sustainable Halton Report 3.02: natural Heritage Definition and Implementation, North-South Environmental, April 2009.
- Relevant CVC Source Water Protection Document.
- Information collected for Halton Region for Halton Zone 4 Feedermain Project along Trafalgar Road (re: Hornby bedrock valley aquifer).
- Study for Halton Region: *Construction of a Proposed Watermain and Sanitary Sewer – Steeles Avenue from Trafalgar Road to Winston Churchill Boulevard*, prepared by AMEC, dated October 2011.
- CH's Road Ecology Best Management Practices – Quick Reference Guide (Sept. 2018).
- Ontario Nature – Reptile and Amphibian Atlas.
- Credit River Fisheries Management Plan, A Cooperative Management Planning Initiative for the Credit River Fishery Ministry of Natural Resources and Credit Valley Conservation, 2002.
- Information collected for Halton Region for Halton Zone 4 Feedermain Project along Trafalgar Road (re: Hornby bedrock valley aquifer).
- Study for Halton Region: *Construction of a Proposed Watermain and Sanitary Sewer – Steeles Avenue from Trafalgar Road to Winston Churchill Boulevard*, prepared by AMEC, dated October 2011.
- Conservation Halton Road Ecology Best Management Practices – Quick Reference Guide (Sept. 2018) and Ontario Nature – Reptile and Amphibian Atlas.

Appendix B – Terrestrial Field Methodologies

ELC fieldwork will include three season botanical surveys and will result in the identification of vegetation community types, faunal and floral species, as well as existing levels of disturbance. ELC data cards will be required, which encompass vegetation, wildlife, soils, and human disturbance information. In Summary, the ELC and botanical work will collect/document the following:

- Thorough inventory of flora species composition and abundance within vegetation community.
- Vegetation community structure, densities, and age.
- Assessment and evidence of natural and cultural disturbance, and document cultural features (i.e. trails or structures).
- Identification and relative abundance (abundant, occasional, rare – see ELC manual) of disease and invasive species.
- Note any other natural features. May include but not limited to vegetation community inclusions, old growth, watercourses, swales, seeps, specialized wildlife habitat, Rare Vegetation Communities, including the provincial S-rank of the community, where applicable, and kettle wetlands.
- Identify, map the location, and describe the abundance of locally rare or uncommon species, their location and distribution based upon the *Halton Natural Areas Inventory (2006)*;
- Provide an assessment of the current health of the vegetation considering factors using the Floristic Quality Assessment System (Oldham, Bakowsky and Sutherland, 1995).
- Calculate Floristic Quality Assessment, Coefficient of Conservatism, and Wetness.
- Index for vegetation communities.
- Confirm lands with potential old growth or trees (≈100 years or greater).
- Identify the representativeness and rarity of the natural features and functions, by ELC vegetation type, within the context of the Primary Study Area, Municipality, Conservation Halton and Credit River Watersheds, and the Province of Ontario. *Note: Ranking by Rarity in the Province of Ontario as prepared by W. Bakowsky of the Ontario Natural Heritage Information Centre (NHIC)* Wildlife surveys will utilize the following standard protocols. Where survey methodologies for certain taxa are lacking, consultation and approval by the TAC will be required.
 - Winter Wildlife Surveys following the Significant Wildlife Habitat Technical Guide(OMNR 2000) as well as the RISC (Resources Inventory Standards Committee)species inventory methods manual.
 - Owl and Raptor Surveys during migration and nesting season (Winter 2013).
 - Breeding bird surveys in accordance with the Ontario Breeding Bird Atlas protocol(OBBA, 2001), Forest Bird Monitoring Program, (CWS, 2002) or the Marsh Monitoring Program (BSC, 2003).
 - Breeding Amphibian Surveys (April, May, June) in accordance with Bird Studies
 - Canada Marsh Monitoring Program.
 - Targeted wildlife surveys for reptiles (snakes and turtles), odonates (damselflies and dragonflies), butterflies, mammals and salamanders; incidental

observations of moths and other insects. Survey protocols for these taxa are to be approved by the SWTAC.

- Specialized, migration, seasonal concentration areas or other SWH habitat types, as appropriate for ELC communities, and other habitat features (e.g. Waterfowl Staging Areas).
- Through the wildlife surveys, the following data will be assembled:
 - Identification of any rare or uncommon species, their location and distribution based on the *Halton Natural Areas Inventory* as well as Priority Land bird Species as identified by Ontario Land bird Conservation Plan: Lower Great Lakes/St. Lawrence Plain (North American Bird Conservation Region 13), Priorities, Objectives and Recommended Actions (OPIF, 2005).
 - Review data against the Significant Wildlife Habitat Technical Guide and associated supporting documents to determine which vegetation communities meet designation criteria for significant wildlife habitat.

Appendix C – Technical Engineering Recommendations

- When modeling the Regional Event, should a theoretical rainfall distribution for the initial 73 mm of rainfall over the initial 36 hours be modelled, it must be demonstrated that the selected theoretical rainfall distribution generates peak flows and volumes consistent with the peak flows and volumes modeled on the basis of running only the final 12 hours of the Hurricane Hazel Rainfall Distribution with saturated/nearly saturated ground conditions (and IA set to 0) at the start of the final 12 hours.
- The Regulatory Storm is defined as the greater of the 1:100 year or Regional (Hurricane Hazel) storm.
- Post to pre quantity control may also be required for the Regional storm. If regional controls are not incorporated into the SWM design, the Subwatershed Study must carry out an investigation of the potential increase to flood risk to determine what level of control will be required. Such an analysis is to include the increase in risk to life as well as the potential for flood risk to private, Municipal, Regional, Provincial and Federal property under Regional Storm conditions. If the Study finds that no increase in risk occurs to downstream landowners or public uses, and the Town, Conservation Halton and Credit Valley Conservation accept that finding, the Town in conjunction with Conservation Halton and Credit Valley Conservation will conclude, subject to consideration of any other relevant factor within their respective mandates that control at the Regional Storm level is not required.
- Evaluation of risk associated with not establishing Regional storm control may include, but is not limited to:
 - All existing development within the Primary Study Area for the watershed under consideration.
 - The potential increase in flood risk associated with flood elevations or velocities that may adversely affect all landowners (including individuals, municipal agencies, provincial agencies (MTO, MECP, etc.) and federal agencies), all land uses including road crossings, private access roads, parks, storm sewer outlets, etc., for the watercourse to the 401. The evaluation may also consider potential for the implementation of mitigation measures to address any increase in risk as an alternative to the requirements to control Regional Storm flows. It is understood that not all increases in flood velocity or flood elevation will necessarily lead to an increase in risk.

In addition to these initial scenarios, the Project Consultant must be prepared as part of the testing of alternative plans, to test the sensitivity of flows and volumes to variations in land use density and best management practices, and document how the design has given consideration to future functionality in the face of climactic change.

- Diversions should be minimized; however, should the proponent propose a watercourse diversion or modification of drainage basin boundaries, a low flow analysis and geomorphic assessment must be completed, in addition to the analysis outlined in other sections of this document. The purpose of the low flow analysis and geomorphic

assessment is to determine the impacts of water takings and land use changes on base flows and stream functions, and recommend strategies to avoid or mitigate these impacts. The hydrologic model will be used to model low flow conditions. A low flow frequency analysis for key nodes in the subwatershed will be completed for the existing and future development scenarios. An impact assessment of existing water taking permits, unlicensed or potential water takings based on land uses, and the potential for future water taking permits and land use changes will be included in this analysis. The impacts on ecologic flow needs to support aquatic health must also be considered, with specific reference to the MECP's March 2000 "Water Allocation and Water Taking Management Strategy for Sixteen Mile Creek (reference P. 43 for recommendations associated with Subwatersheds 4, 5, and 6). The analysis will also consider how the modified flow regimes in the receiving and losing systems will impact fluvial geomorphic processes.

- Recommendations for future monitoring work are to consider:
 - monitoring specifics related to construction as per the approved plans, the stability of the stormwater management system as installed, and the functionality of the system relative to the design targets associated with water quality, peak flow control and protection against unnatural rates of downstream erosion
 - timeframe and duration of monitoring
 - qualifications required to complete monitoring works
 - appropriate adaptive management requirements should a trigger be reached
 - on-going validation and re-calibration if required of the refined watershed hydrologic model
- Conservation Halton and Credit Valley Conservation may support floodplain modifications based on the outcome of this Study, recognizing it should result in an ecological gain to the natural heritage system and not impact with the functions of the watercourse. The Subwatershed Study will need to provide conceptual level details for any re-alignment to ensure proposed conditions floodplain mapping will be based on a constructible corridor width and profile.
- Where modifications to natural features are recommended, the Study will incorporate sufficient analysis to ensure that any loss of riparian flood storage or changes which result in potential negative impacts (i.e. increased flooding depth, frequency, duration, velocity or erosion) are avoided/fully mitigated over the full range of anticipated flow conditions. Preservation of riverine floodplain stage-storage-discharge must be demonstrated over a full range of return period flood levels and on an appropriate incremental basis in accordance with the directions of Conservation Halton. Note: Artificially restricting the channel corridor to throttle flows and elevate water levels to balance flood storage will not be permitted where restrictions are required within the meander belt.
- CH staff will need to bring forward a report to CH's Board of Directors regarding the Final SWS to recommend that the proposed management strategies and NHS refinements for features regulated under Ontario Regulation 162/06 (e.g., wetlands, watercourses) be endorsed. Without this endorsement, CH staff will not be able to issue permits for works in regulated areas that do not conform to CH's Board endorsed policies.

REPORT

REPORT TO: Chair and Members of the Planning, Public Works and Transportation Committee

REPORT FROM: Bronwyn Parker – Manager of Planning Policy

DATE: October 18, 2019

REPORT NO.: PLS-2019-0053

RE: Proposed Provincially Significant Employment Zones

RECOMMENDATION:

THAT Report PLS-2019-0053 regarding proposed Provincially Significant Employment Zones be received;

AND FURTHER THAT the staff recommendation to expand Provincially Significant Employment Zone number 18 into the Town of Halton Hills' existing Future Strategic Employment Areas be endorsed;

AND FURTHER THAT the Town Clerk forward a copy of Report PLS-2019-0053 to the Honourable Caroline Mulroney Minister of Transportation and the Honourable Steve Clark Minister of Municipal Affairs and Housing, Halton Area MPPs, Region of Halton, the City of Burlington, the Town of Milton and the Town of Oakville for their information.

BACKGROUND:

The concept of Provincially Significant Employment Zones (PSEZs) is new to the Province of Ontario. First identified by the Minister of Municipal Affairs and Housing in January 2019, these 29 provincial employment areas were selected and a new policy framework considered for protecting employment areas that are believed to be critical to the region's economy.

COMMENTS:

Throughout 2019, a number of changes have been proposed to various provincial policies and legislation, including significant changes to the land use planning system in Ontario.

On January 15, 2019 the Minister issued a preliminary map of 29 proposed provincially significant employment zones along with other proposals related to Amendment No. 1 to the 2017 Growth Plan. The proposal was open for comment over a 45 day window, which closed as of February 28, 2019. The Ministry held regional roundtables and meetings with stakeholders during the consultation period, to which Halton Hills Planning and Economic Development staff were in attendance.

While no zones were removed or added to the originally proposed 29 PSEZs, they have been revised from the original map released in January, 2019. The Ministry has clarified that the revisions were based merely on addressing factual errors in the mapping and were focused on municipal feedback received. The changes consisted of technical adjustments to parcel boundaries where provincial and municipal mapping were not aligned.

Through staff report PLS-2019-0016, comments were provided regarding the original PSEZs recommending that all of Halton Hills' Premier Gateway Employment Area lands (both north and south of Steeles Avenue) be included within the PSEZs. These modifications were accepted by the Province and all of the currently designated Premier Gateway Employment Area lands within the Town have been incorporated into the revised mapping.

The Ministry has stated that they will continue to review requests for updates to the mapping based on requests for reconsideration of lands within and outside of existing provincial significant employment zones, as well as requests to add new zones.

In a letter dated May 15, 2019, Minister Clark provided additional clarification regarding Provincially Significant Employment Zones, identifying that municipal requests for reconsideration regarding identification of lands within the PSEZs may be submitted along with supporting planning information and a Council endorsed letter identifying the rationale for the proposed change(s) to the PSEZ mapping. While a deadline date for providing such reconsideration requests was not identified, Town staff are recommending modifications to the mapping through this staff report.

It should be noted that through the various roundtable meetings attended by staff, there has been discussion regarding a "Phase 3" component of the process. Provincial staff have explained that this "Phase 3" work will involve discussions regarding the potential land uses which will be taking place in the near future. This will allow more time for refinements to be made and more strategic discussions as to the precise implementation, purpose, etc. of the PSEZs.

Future Strategic Employment Areas

The Regional Official Plan (ROPA 38) identifies what are called Future Strategic Employment Areas (FSEAs). These areas include lands that have been considered for having long term potential for employment land development; however they are not a designated land use; rather they represent a constraint to development as per the policies of ROPA 38.

The proposed Provincially Significant Employment Zones include a substantial amount of the lands identified as Future Strategic Employment Area within the Town of Milton. The FSEA lands within the Town of Halton Hills however were not included within the proposed PSEZs.

As is discussed in reports PLS-2019-0044 and PLS-2019-0074 (also before Committee on October 29, 2019), the Town's Future Strategic Employment Area lands are impacted by the recently refined GTA West Corridor Focussed Analysis Area (FAA) and Technically Preferred Route (TPR). Appendix 1 to this report shows the Town's Future Strategic Employment Area lands as well as the extent of the area impacted by the refined GTA West Corridor.

Comments provided by the Town regarding the originally proposed Provincially Significant Employment Zones were incorporated into report PLS-2019-0016. The report requested that as a result of the extent of Future Strategic Employment Area lands that were included within PSEZs along the 407ETR corridor in Milton, that FSEAs should either be excluded from PSEZs altogether or alternatively, that the Town's FSEAs along Highway 401, the 407ETR and proposed GTA West Corridor be included within the Provincially Significant Employment Zones.

In an effort to ensure the Town of Halton Hills' employment areas are considered part of a regional economic development strategy and help drive job growth and prosperity across the region, staff are recommending that PSEZ number 18 be expanded in keeping with the proposed limits found on Appendix 2 to this report.

The Town's Premier Gateway employment area enjoys a strategic location in the GTA. Expanding the area represents good planning given the convenient access to Highways 401 and 407ETR, proximity to major shipping hubs, and easy access to the GTA and US markets.

Halton Hills' economic prosperity is heavily dependent on the timely and efficient development of this employment area. Approximately 90% of future employment growth projected for Halton Hills is anticipated to occur in the Premier Gateway. Continued investment and job growth in the Gateway will make a considerable contribution to Halton Hills' economy and by extension support economic growth across the GTA and beyond.

The Premier Gateway is already home to millions of square feet of industrial and commercial development, occupied by numerous companies, including Kraft-Heinz, Hayward Gordon, Bradford-White, Gino's Pizza, Toronto Premium Outlets and many others. Vacancy rates are very low. Demand for space is significantly outpacing supply.

As outlined in the recent background report for the Employment Lands Needs Study, Halton Hills' long-term economic prosperity requires additional employment lands. Including the Town's Future Strategic Employment Lands in the Provincially Significant Employment Zone (PSEZ) will help ensure that these lands are recognized, used and protected for employment uses over the long-term.

It is anticipated that a PSEZ designation will assist with the alignment of future provincial infrastructure and marketing investments which will direct employment uses into these zones. Because of their prime location in the GTA, having PSEZ in Halton Hills will generate sustained benefits for the GTA and broader provincial economy. Excluding Halton Hills from PSEZ designation would be significant economic opportunity lost.

RELATIONSHIP TO STRATEGIC PLAN:

The Strategic Plan sets out a broad vision for the community contained in nine strategic directions. Expansion of the Provincially Significant Employment Zones into the Town of Halton Hills relates to the following Strategic Directions:

A. Foster a Healthy Community:

- To maintain and enhance a healthy community that provides a clean environment and a range of economic and social opportunities to ensure a superior quality of life in our community.

C. Foster a Prosperous Economy:

- To maintain and enhance the economic vitality of the Town through the provision of a wide range of opportunities for economic development.

G. Achieve Sustainable Growth:

- To ensure that growth is managed so as to ensure a balanced, sustainable, well-planned community that meets the needs of its residents and businesses.

FINANCIAL IMPACT:

There is no financial impact associated with this report.

CONSULTATION:

Staff from Economic Development, Transportation and Public Works, Development Review and the CAO's Office have been consulted in the preparation of this report.

PUBLIC ENGAGEMENT:

The concept of Provincially Significant Employment Zones has been proposed by the Ministry of Municipal Affairs and Housing. The Ministry held regional roundtables and meetings with stakeholders during the consultation period, to which Halton Hills Planning and Economic Development staff were in attendance.

SUSTAINABILITY IMPLICATIONS:

The Town is committed to implementing our Community Sustainability Strategy, Imagine Halton Hills. Doing so will lead to a higher quality of life.

The recommendation outlined in this report advances the Strategy's implementation.

This report supports the Economic Prosperity and Social Well-Being pillars of Sustainability and in summary, the alignment of this report with the Community Sustainability Strategy is: Good.

COMMUNICATIONS:

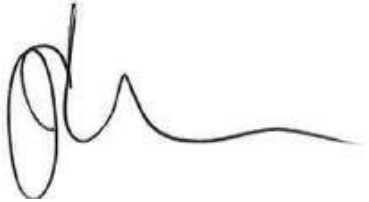
It is recommended that a copy of this report will be forwarded to the Minister of Transportation and the Minister of Municipal Affairs and Housing, Halton Area MPPs, Region of Halton, the City of Burlington, the Town of Milton and the Town of Oakville for their information.

CONCLUSION:

The Town's Premier Gateway employment area enjoys a strategic location in the Greater Toronto Area. Expanding the area represents good planning given the convenient access to Highways 401 and 407ETR, proximity to major shopping hubs, and easy access to the GTA and US markets.

In an effort to ensure the Town of Halton Hills' employment areas are considered part of a regional economic development strategy and help drive job growth and prosperity across the region, it is recommended that Provincially Significant Employment Zone number 18 be expanded in keeping with the proposed limits found on Appendix 2 to this report.

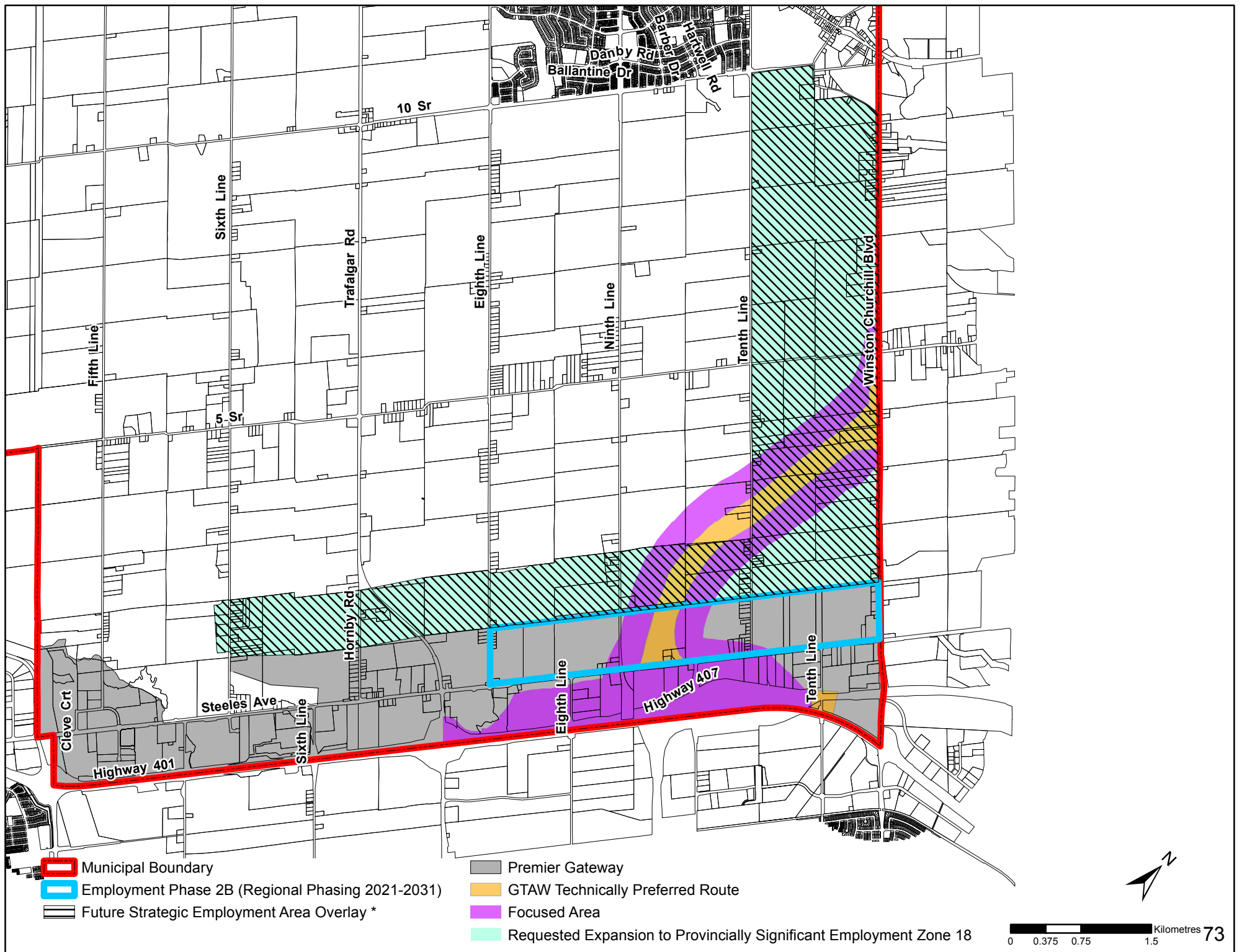
Reviewed and Approved by,

A handwritten signature in black ink, appearing to be 'John Linhardt', with a stylized, flowing script.

John Linhardt, Commissioner of Planning and Sustainability

A handwritten signature in black ink, appearing to be 'Brent Marshall', with a stylized, flowing script.

Brent Marshall, Chief Administrative Officer



REPORT

REPORT TO: Chair and Members of the Planning, Public Works and Transportation Committee

REPORT FROM: Slavica Josipovic, Chief Building Official

DATE: October 8, 2019

REPORT NO.: TPW-2019-0033

RE: Amendments to Two-Unit House Registration By-law

RECOMMENDATION:

THAT Report No. TPW-2019-0033, dated October 8, 2019, regarding Amendments to Two-Unit House Registration By-law No. 2016-005, be received;

AND FURTHER THAT the proposed amendments to the Two-Unit House Registration By-law No. 2016-0005, attached as Appendix B to the Report No. TPW-2019-0033, be adopted

BACKGROUND:

The Town of Halton Hills first “By-law to provide for the Registration of Two-Unit Houses and Appointing a Registrar to Register Two-Unit Houses in a Public Registry No. 96-174 (Two-Unit House Registration By-law)” was passed by Council on November 11, 1996.

In February 2016, the By-law No. 96-174 was repealed and replaced by the Two-Unit House Registration By-law No. 2016-0005 as the Acts, Regulations and By-laws enabling the enforcement of the original registration By-law had been changed.

The Two-Unit House Registration By-law establishes specific technical standards which must be met to register a two-unit house, establishes requirements for inspections to determine compliance, determines roles of designated inspectors, sets fees for registration and provides for the creation of a Public Registry.

COMMENTS:

The current Two-Unit House Registration By-law reflects the zoning requirements contained in the Town of Halton Hills Zoning By-law No. 2010-0050 that were in force at the time of the enactment of the By-law No. 2016-0005: accessory apartments were to be permitted only within single detached dwellings in the residential zones LDR1, RCO and UR, providing that they meet additional requirements respecting the maximum size of a unit, additional parking and lot frontage.

On September 9, 2019 the Town Council approved the By-law No. 2019-0049 which amended the Comprehensive Zoning By-law respecting the accessory dwelling units. Accessory dwelling units are now permitted within single-detached, **semi-detached and row house (townhouse) dwelling units** or in a non-residential building, in **all Residential and Non-Urban Zones** in which a single detached, semi-detached or townhouse dwellings are permitted, and in **Urban Residential and Urban Commercial Zones** only within a single detached, **semi-detached or townhouse dwellings**. An accessory unit is now permitted to occupy **no more than 40% or 110.00 m² of floor area, whichever is lesser, OR entire basement area**".

In 2017, the Province amended the Building Code to include a two-unit dwelling under the definition of "house" and also to add a number of new provisions to provide relaxations to the fire protection and egress requirements for constructing a second dwelling unit within the existing single-unit houses.

This new Code definition of a house allows the construction of a "purpose-built" two-unit house providing that the applicable provisions of the Zoning By-law are complied with.

The following changes to the current Two-Unit House Registration By-law are being proposed in order to accommodate the above referenced amendments to the Zoning By-law and the Building Code:

- Definitions of "Accessory dwelling unit" and "Two-Unit House" are being changed to include semi-detached and row house (townhouse) types;
- Definition of "Dwelling Unit" is being changed to allow for the additional exiting options provided by the latest Building Code amendments;
- Subsection 6.(2) is being amended to specify the inspection requirements where a building permit has been issued prior to the construction of a two-unit house or an accessory unit.

Attachment A containing proposed By-law to Amend the Two-Unit House Registration By-law No. 2016-005 is attached to this report.

The authority to amend the Two-Unit House Registration By-law is contained in Sections 8 and 11 of the Municipal Act, 2001, as amended.

RELATIONSHIP TO STRATEGIC PLAN:

This report supports Section A, Objective A.1 of the Town Strategic Plan – Foster a healthy Community. By updating the Town policy on registration of two-unit houses, the Town is promoting an adequate supply of housing and range of housing choices. The report also relates to Section I, Objective I.3 of the Town Strategic Plan – Provide Responsive, Effective Municipal Government. By updating and streamlining the registration procedures this report supports the Town goal to foster excellence in the provision of customer service.

FINANCIAL IMPACT:

There is no financial impact associated with this report.

CONSULTATION:

Town Clerk as well as the Enforcement, Fire and Zoning staff were consulted in preparation of this report.

PUBLIC ENGAGEMENT:

There was no public engagement related to the preparation of this report.

SUSTAINABILITY IMPLICATIONS:

The Town is committed to implementing our Community Sustainability Strategy, Imagine Halton Hills. Doing so will lead to a higher quality of life.

This report supports the Economic Prosperity pillar of Sustainability and in summary the alignment of this report with the Community Sustainability Strategy is Good. The report supports the Social Wellbeing theme of “Housing”. By updating policies and streamlining procedures for the registration of two-unit houses, the Town enables the maintenance of the Registry of safe affordable housing and ensures that they uphold safety and property standards found in the Ontario Building Code, Ontario Fire Code and the Property Standards By-law.

COMMUNICATIONS:

The current Registration of Two-Unit House Guide will be updated to reflect the new amendments to the registration By-law No. 2016-0005. The Building Division procedures and AMANDA registration folder will be updated accordingly.

CONCLUSION:

In September 2019 the Town of Halton Hills amended the Comprehensive Zoning By-law No. 2010-0050 respecting the accessory dwelling units. The proposed amendments to the current Two-Unit House Registration By-law No. 2016-0005 listed in Attachment A to this report are being introduced to accommodate the above referenced amendment to the Zoning By-law and also improve the efficiency of the existing By-law.

Reviewed and Approved by,

A handwritten signature in black ink, appearing to read "C. Mills". The signature is stylized with a large, sweeping initial "C" and a series of loops for the surname.

Chris Mills, Commissioner of Transportation and Public Works

A handwritten signature in black ink, appearing to read "Brent Marshall". The signature is written in a cursive style with a large, prominent "B" and "M".

Brent Marshall, Chief Administrative Officer



BY-LAW NO. 2019-

A By-law to Amend the Two-Unit Registration By-law
No. 2016-0005

WHEREAS Section 11 of the Municipal Act, 2001, S.O. 2001, C.25, as amended authorizes municipalities to enact this By-law;

AND WHEREAS Council has recommended that the Two-Unit Registration By-law No. 2016-0005 be amended as hereinafter set out;

AND WHEREAS said recommendation conforms to amendments to the Zoning By-law 2010-0050 introduced by the By-law No. 2019-0049, dated September 09, 2019;

AND WHEREAS on November 11, 2019 Council for the Town of Halton Hills adopted Report No. TPW-2019-0033 dated October 09, 2019 in which certain recommendations were made relating to amending Two-Unit House Registration By-law No. 2016-0005;

NOW, THEREFORE, BE IT RESOLVED THAT THE COUNCIL OF THE CORPORATION OF THE TOWN OF HALTON HILLS ENACTS AS FOLLOWS:

1. That PART 1, DEFINITIONS, of Two-Unit House Registration By-law No. 2016-05 is hereby amended as follows:

“Accessory Dwelling Unit” means a second dwelling unit that is created within a single detached house, semi-detached house or row house (townhouse);

“Dwelling Unit” means a suite that:

- i. is used or intended to be used by one or more persons living together,
- ii. is operated as one housekeeping unit in which an occupant has exclusive possession of any part of that unit
- iii. contains cooking, eating, living, sleeping and sanitary facilities that are used only by the occupants of the unit;

“Two-Unit House” means a detached house, semi-detached house, or row House (townhouse) containing two dwelling units, one of which is an accessory dwelling unit.

1. That Subsection 6.(2) of Two-Unit House Registration By-law No. 2016-0005 is hereby amended as follows:

Notwithstanding Subsection 6.(1) of this By-law:

- i. pre-registration inspections for the purpose of compliance with the Ontario Building Code shall not be required where a building permit has been issued for the construction of a new accessory unit or a new two-unit house providing that the registration is approved no later than three months after the time when all inspections associated with that building permit have been conducted and passed;

- ii. pre-registration inspections for the purpose of compliance with the Fire Code shall not be required unless an accessory dwelling unit has been constructed prior to July 14, 1994;
- iii. pre-registrations inspection for the purpose of compliance with the Property Standards By-law shall not be required where a building permit has been issued for the construction of a new two-unit house providing that the registration is approved no later than three months after the time when all inspections associated with that building permit have been conducted and passed.

BY-LAW read and passed by the Council for the Town of Halton Hills this day of
, 2019.

MAYOR – RICK BONNETTE

CLERK – SUZANNE JONES

REPORT

REPORT TO: Chair and Members of the Planning, Public Works and Transportation Committee

REPORT FROM: Ruth Conard, Planner – Development Review

DATE: October 15, 2019

REPORT NO.: PLS-2019-0069

RE: North West Brampton Shale Resources Policy Review - Region of Peel Official Plan Amendment 32

RECOMMENDATION:

THAT Report PLS-2019-0069, dated October 15, 2019, regarding “North West Brampton Shale Resources Policy Review - Region of Peel Official Plan Amendment 32”, be received for information.

PURPOSE OF THE REPORT:

To provide an overview of the Region of Peel’s North West Brampton Shale Resources Policy Review (Regional Official Plan Amendment 32) which is seeking to remove existing shale resource protection policies affecting portions of north-west Brampton. In the past, shale resources in north-west Brampton have been linked to the availability of shale resources in the Town of Halton Hills.

On July 11, 2019, the Region of Peel adopted ROPA 32, which was subsequently appealed to the Local Planning Appeal Tribunal (LPAT) by the Minister of Municipal Affairs and Housing.

BACKGROUND:

In 2006 the Ontario Municipal Board (OMB) approved an expansion to the City of Brampton’s urban area to include the lands referred to as the “North West Brampton Urban Development Area”, which abuts the Town of Halton Hills; see **Schedule 1 – North West Brampton Urban Development Area**.

The incorporation of north-west Brampton into the urban area was secured through Region of Peel Official Plan Amendment 15 (ROPA 15) and City of Brampton Official Plan Amendment 93-245. One of the contentious issues throughout the review of these amendments was shale extraction.

Shale resources are known to exist in north-west Brampton. The areas with these known shale deposits have historically been subject to resource protection policies under Peel and Brampton's Official Plans. However, in the early 2000s the City of Brampton had a study completed which concluded that shale resource extraction was not likely feasible on a significant portion of the lands in north-west Brampton due to:

- economically extractable overburden depth (the deeper shale is located the less viable shale is for extraction – the Provincial standard is 8 metres or less of overburden);
- existing land use and environmental constraints; and
- fragmentation of resource areas.

Based on the results of the study, Brampton concluded that “there does not appear to be any basis for the long-term protection strategy covering the shale resource in north-west Brampton” and opted to remove the shale resource reference from the drafts of ROPA 15 and OPA 93-245.

As Council may recall, one of the arguments advanced by Brampton in support of the removal of the shale resource protection policies was that sufficient shale deposits existed elsewhere in Southern Ontario that could satisfy demand. Halton Hills was one of the specific municipalities identified as having shale deposits available for extraction. To that end, Brampton took an active interest in the protection of the shale deposits in Halton Hills located to the south and south-west of Georgetown through comments on our Official Plan and the appeal of Halton's ROPA 25.

Following Regional adoption, ROPA 15 was appealed to the OMB by the Ministry of Municipal Affairs and Housing (MMAH) and landowners in north-west Brampton with aggregate interests (e.g. Brampton Brick, North West Brampton Landowners, and the Sierra Club of Canada), partially over their concerns regarding the loss of long-term shale protection.

Following settlement discussions amongst all parties an agreement was reached that resulted in the shale protection policies remaining in place for a period of 10 years. On the basis of the agreement, the OMB approved amended versions of ROPA 15 and OPA 93-245, which incorporated north-west Brampton into the urban area.

ROPA 32:

The 10 year shale protection period secured through ROPA 15 expired in December 2016. In anticipation of this, Peel Council directed staff in June 2016 to initiate a review of the shale resource protection policies in north-west Brampton.

Peel retained Meridian Planning to determine if shale protection should be removed or continue in whole or in part. Meridian concluded that the lands in north-west Brampton are suitable for urban development and that full urbanization of the North West Brampton Urban Development Area serves a greater long-term public interest than protecting the lands for shale extraction. Additional conclusions were:

- the feasibility of extracting shale resources is remote and would require land assembly and acquisition costs that would be uneconomical for a shale quarry; and
- no quarry applications were submitted within the urban area and no sites were acquired for the purposes of a quarry during the 10-year shale protection period.

Based on Meridian's conclusions, Peel staff prepared a draft Official Plan Amendment (ROPA 32), which proposed to remove the shale protection policies applicable to north-west Brampton.

Prior to consideration by Regional Council, multiple agencies were circulated by Peel for comments regarding ROPA 32, including the Town and MMAH. The Minister for MMAH responded by requesting further *conversations with municipal staff and key stakeholders, to develop options for protecting a portion of the shale resources in North West Brampton. This approach would provide for the long-term supply of shale resources, while releasing the vast majority of lands in North West Brampton for urban development*; see **Schedule 2 – Comments from the Minister of Municipal Affairs and Housing**.

Notwithstanding the comments received from the Minister, the Region of Peel chose to adopt ROPA 32, as drafted, with the shale protection policies removed. The Minister subsequently appealed the Decision to the Local Planning Appeal Tribunal (LPAT) on the basis that ROPA 32 is not consistent and does not conform with the aggregate resource policies within the Provincial Policy Statement, 2014 and Growth Plan for the Greater Golden Horseshoe, 2019; see **Schedule 3 – Notice of Appeal**.

COMMENTS:

To date, no other information has been provided to the Town regarding ROPA 32 and the appeal by MMAH. Planning staff will continue to monitor the amendment and report back to Council with further detailed information, once available.

For Council's benefit, the lands owned by Brampton Brick and subject to their Aggregate Resources Act (ARA) License application were located within a portion of north-west Brampton affected by the shale protection policies secured under ROPA 15 and proposed to be removed under ROPA 32. However, Brampton Brick withdrew their application before the OMB hearing regarding their quarry proposal could be concluded.

RELATIONSHIP TO STRATEGIC PLAN:

This report relates, in part, to the following Strategic Action Plan priority adopted by Council for this term:

3. Planning for Growth:

- F. Actively participate in the Regional Official Plan review on the basis of a moderate scale and pace of growth to 2041 for Halton Hills.

FINANCIAL IMPACT:

There is no financial impact associated with this particular report.

INTERNAL CONSULTATION:

Planning staff has consulted with the appropriate Town Departments in the preparation of this report.

PUBLIC ENGAGEMENT:

No public notification or engagement is required for this report.

SUSTAINABILITY IMPLICATIONS:

The Town is committed to implementing our Community Sustainability Strategy, Imagine Halton Hills. Doing so will lead to a higher quality of life.

The report's recommendation is not applicable to the Strategy's implementation.

COMMUNICATIONS:

There is no communications impact pertaining to this report.

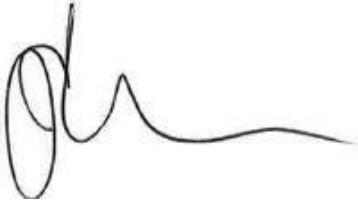
CONCLUSION:

This report has provided an overview of the North West Brampton Shale Resources Policy Review - Region of Peel Official Plan Amendment 32 (ROPA 32), for Council's information.

Reviewed and Approved by,

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Jeff Markowiak, Manager of Development Review

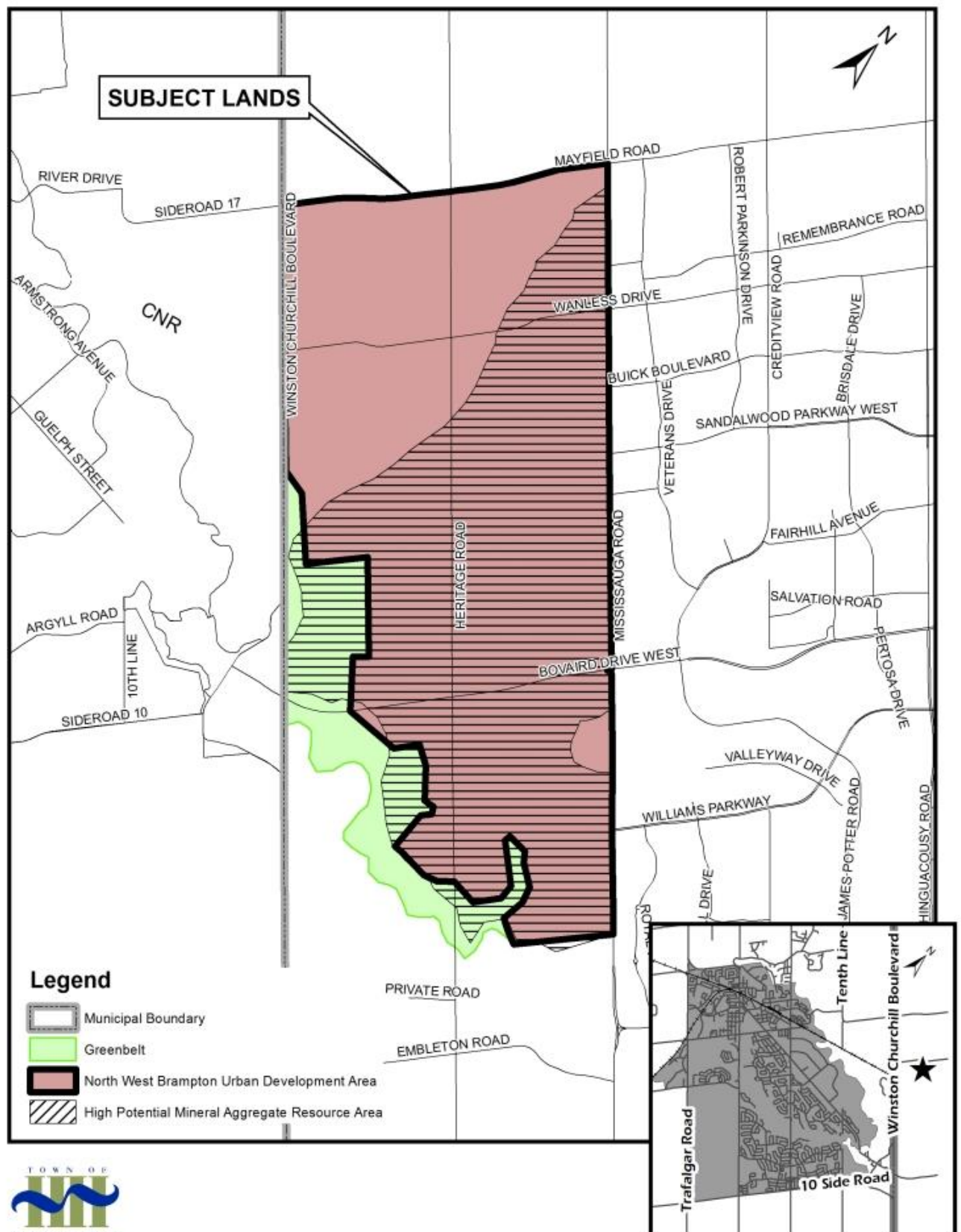
A handwritten signature in black ink, appearing to read "John Linhardt".

John Linhardt, Commissioner of Planning and Sustainability

A handwritten signature in black ink, appearing to read "Brent Marshall".

Brent Marshall, Chief Administrative Officer

Schedule 1 – North West Brampton Urban Development Area



Schedule 2 – Comments from the Minister of Municipal Affairs and Housing

18.1-1

RECEIVED

June 28, 2019

REGION OF PEEL

OFFICE OF THE REGIONAL CLERK

Ministry of
Municipal Affairs
and Housing

Office of the Minister

777 Bay Street, 17th Floor
Toronto ON M5G 2E5
Tel.: 416 585-7000
Fax: 416 585-6470

Ministère des
Affaires municipales
et du Logement

Bureau du ministre

777, rue Bay, 17^e étage
Toronto ON M5G 2E5
Tél. : 416 585-7000
Télééc. : 416 585-6470



JUN 28 2019

19-3578

Nando Iannicca
Regional Chair and Chief Executive Officer
Region of Peel
10 Peel Centre Drive, Suite A
Brampton ON L6T 4B9
chair@peelregion.ca

Dear Chair Iannicca:

Nando

I am writing to you regarding a draft Regional Official Plan Amendment that was circulated to staff of the Ministry of Municipal Affairs and Housing, seeking to remove the shale protection policies and mapping from the North West Brampton urban area.

Our government shares your interest in realizing strong communities and addressing housing issues across the Province; however, in accordance with provincial policy direction, there is equally a need to protect mineral aggregate resources such as shale for current and future generations. I understand from the Ministry of Natural Resources and Forestry that North West Brampton contains a significant deposit of easily accessible shale resources. These resources are part of the Queenston Formation, which is the last primary source of raw material for brick-making in Ontario.

Provincial policies and legislation direct the wise use of local available mineral aggregate resources to generate employment (including indirect economic activity) and to provide for cheaper and more energy efficient transportation of raw materials, which is intended to keep building and construction costs lower in comparison to transporting these materials over longer distances.

With this in mind, the Ministry of Natural Resources and Forestry has advised that shale extraction is rather unique and does not require as much land as other aggregates to provide for a long-term supply. As such, I have directed my Ministry staff to coordinate with partner ministries, and engage in conversations with municipal staff and key stakeholders, to develop options for protecting a portion of the shale resources in North West Brampton. This approach would provide for a long-term supply of shale resources, while releasing the vast majority of lands in North West Brampton for urban development.

REFERRAL TO _____
RECOMMENDED _____
DIRECTION REQUIRED _____
RECEIPT RECOMMENDED ☒ _____
.../2

18.1-2

-2-

I look forward to finding a mutually beneficial solution to this matter. Please accept my best wishes.

Sincerely,



Steve Clark
Minister

c: The Honourable John Yakabuski
 Minister of Natural Resources and Forestry
 The Honourable Caroline Mulroney
 Minister of Transportation
 The Honourable Greg Rickford
 Minister of Energy, Northern Development and Mines
 His Worship Patrick Brown
 Mayor, City of Brampton

Schedule 3 – Notice of Appeal

**Ministry of the
Attorney General**

Legal Services Branch
Ministry of
Municipal Affairs and Housing

16th Floor, 777 Bay Street
Toronto, Ontario M5G 2E5

Tel: (416) 585-6514
Fax: (416) 585-4003
Writer's Direct Line: (416) 585-6543

**Ministère du
Procureur général**

Direction des services juridiques
Ministère des Affaires
municipales et du Logement

16^e étage, 777, rue Bay
Toronto, Ontario M5G 2E5

Tél: (416) 585-6514
Télé: (416) 585-4003
Ligne directe du rédacteur: (416) 585 -
6543



August 1, 2019

sent by Email - regional.clerk@peelregion.ca

Kathryn Lockyer
Regional Clerk
Regional Municipality of Peel
10 Peel Centre Drive
Brampton, ON L6T 4B9

Dear Ms Lockyer:

**Re: Notice of Appeal of July 11, 2019 Decision of the Region of Peel
To Adopt Official Plan Amendment No. 32**

Pursuant to subsection 17(36) of the *Planning Act*, the Minister of Municipal Affairs and Housing hereby appeals the July 11, 2019 decision (the "Decision") of the Region of Peel to adopt Regional Official Plan Amendment No. 32 (ROPA 32).

In accordance with subsection 17(37) of the *Planning Act*, the basis for this appeal is that the Decision is not consistent with the Provincial Policy Statement, 2014 (the PPS), and fails to conform and conflicts with The Growth Plan for the Greater Golden Horseshoe, 2019 (the Growth Plan).

The Decision to adopt ROPA 32 is not consistent with the PPS in that:

1. ROPA 32 removes the shale protection policies and mapping from the urban area of North West Brampton which is inconsistent with policies 2.5.1 and 2.5.2.1 of the PPS;
2. ROPA 32 permits development and activities in known deposits of shale resources and on adjacent lands in a manner which is inconsistent with and does not meet the criteria in policy 2.5.2.5 of the PPS;
3. The "High Potential Mineral Aggregate Resource Area To Be Deleted" as identified on Schedule A to ROPA 32 within the Greenbelt Plan area is inconsistent with policy 2.5.1 of the PPS; and

Page 1 of 2

4. ROPA 32 does not include policies and mapping that protect the Greater Toronto Area West Environmental Assessment Study Area or the Transmission Corridor Identification Study Area, which is inconsistent with policies 1.6.8.1 and 1.6.8.3 of the PPS.

The Decision to approve ROPA 32 does not conform with and conflicts with the Growth Plan in that:

5. ROPA 32 does not conserve mineral aggregate resources, including the utilization or extraction of on-site resources, prior to development occurring, which does not conform with policy 4.2.8.1 of the Growth Plan; and
6. ROPA 32 does not include policies or mapping that protect for the Greater Toronto Area West Environmental Assessment Study Area, or the Transmission Corridor Identification Study Area, which does not conform with policy 3.2.5.1 of the Growth Plan.

Attached is a Credit Memo in the amount of \$300.00, which confirms payment from the Ministry of Municipal Affairs and Housing to the Local Planning Appeal Tribunal. This represents the appeal fee as charged under the *Local Planning Appeal Tribunal Act, 2017*.

Should you have any questions regarding this matter, please contact: Darryl Lyons, Manager, Community Planning and Development (West) at (416) 585-6048 or Erika Ivanic, Senior Planner, in this Ministry's Municipal Services Office for Central Ontario in Toronto, at (416) 585-6421.

Yours truly,



Irvin M. Shachter
Senior Counsel

Encl: *Credit Memo*

- C: Steve Jacques, Chief Planner, Peel Region
Mark Head, Manager, Regional Planning and Growth Management, Peel Region
Darryl Lyons, Manager, Municipal Services Office - Central Ontario, MMAH
Hoden Egeh, Senior Planner, Appeals and Information Coordination, MMAH

REPORT

REPORT TO: Chair and Members of Planning, Public Works and Transportation Committee

REPORT FROM: Steve Burke, MCIP, RPP, Manager of Special Projects and Research

DATE: October 7, 2019

REPORT NO.: TPW-2019-0031

RE: Affordable Housing – Establishment of an Affordable Housing Working Group

RECOMMENDATION:

THAT Report TPW-2019-0031 dated October 7, 2019, regarding the establishment of an Affordable Housing Working Group in Halton Hills, be received;

AND FURTHER THAT Council endorse the draft Terms of Reference for an Affordable Housing Working Group attached as Schedule One to this report;

AND FURTHER THAT Council direct staff to finalize the membership of the Working Group, and arrange a kick-off meeting for January/February 2020;

AND FURTHER THAT Council direct staff to provide periodic status reports to Planning, Public Works and Transportation Committee and Council on the ongoing work of the Affordable Housing Working Group.

BACKGROUND:

Council has identified a significant concern with housing affordability in Halton Hills, towards which effort should be made during the current 2018-2022 term of Council.

Affordable housing can mean different things to different people, so it is important to provide the appropriate context for discussion of the issue. **Figure 1** is the Housing Continuum used by the Region of Halton. It illustrates the spectrum of housing need from homelessness to obtaining housing in the private market; with special needs housing (i.e. emergency shelters, supportive housing); assisted/non-profit housing (i.e. government funding) intended to remain affordable over the long term; affordable housing (i.e. meets an affordability level when built, but is not maintained over the long

term), and market housing (i.e. accommodates demand, but not specifically intended to address affordability). It is also important to recognize the various demographic groups with often different housing needs (i.e. seniors, youth, and lower income families).

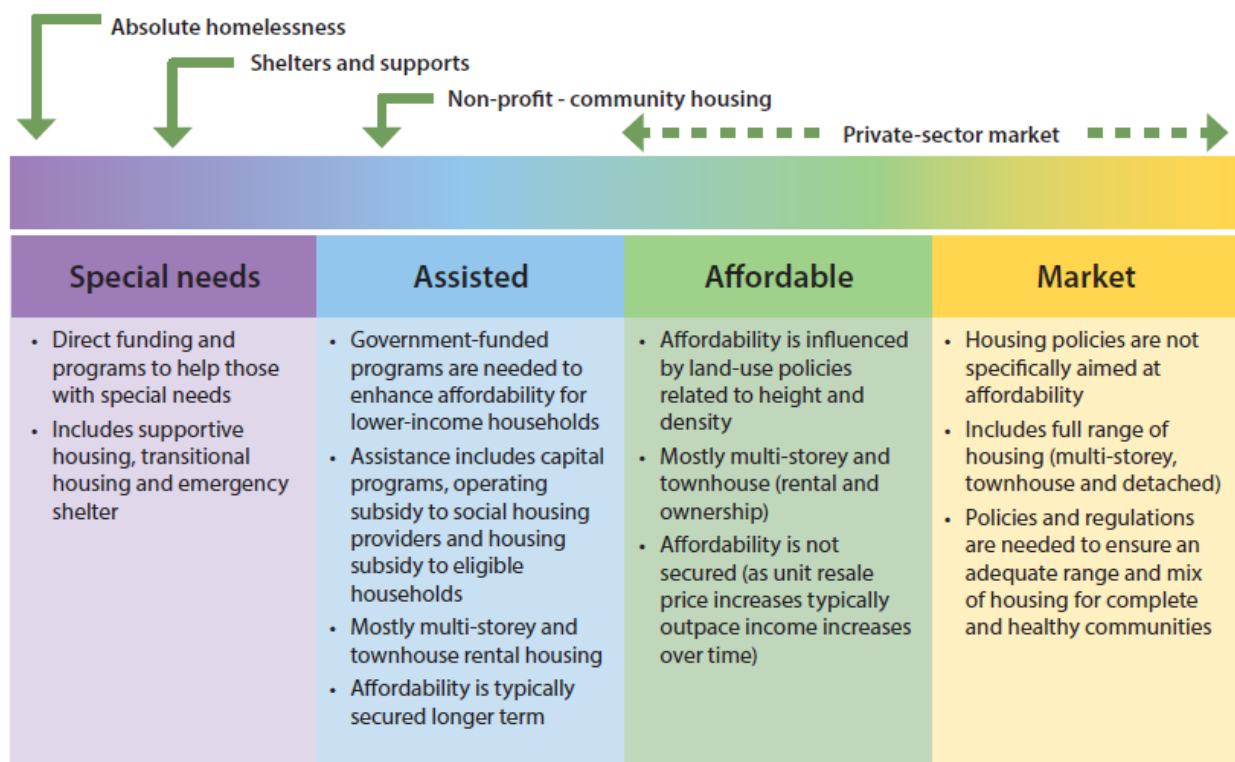
The Region of Halton definition of **affordable housing** is:

- Housing which has a market price or rent that is affordable to low and moderate income households, spending 30% of their gross household income on housing, without government assistance.

The Region of Halton definition of **assisted housing** (now referred to as ‘**community housing**’) is:

- Affordable, mostly rental, housing, with a portion of the housing cost subsidized through a government program (capital and/or operating).

Figure 1: Housing Continuum



Source: Region of Halton

Through Report TPW-2019-0016 dated May 2, 2019, Council adopted the following recommendations:

- THAT Council direct staff to **take the short-term actions outlined in this report** in order to address the issue of housing affordability in Halton Hills, beginning with the **creation of an Affordable Housing Working Group**;

- AND FURTHER THAT the valuable work of the Halton Hills Housing Task Force contained in the report entitled “Housing in Halton Hills: Opportunities for Attainable Housing” (attached as Schedule Two to this report), be acknowledged, and opportunities sought to build a partnership with the Task Force;
- AND FURTHER THAT the Affordable Housing Working Group review “More Homes, More Choice: Ontario’s Housing Supply Action Plan” released by the Province on May 2, 2019 as part of its mandate;
- **AND FURTHER THAT Council direct staff to report back on the status of the implementation of the actions outlined in this report and the proposed Terms of Reference and composition of the Affordable Housing Working Group, at the appropriate time.**

Report TPW-2019-0016 contained an overview of the playing field of affordable housing in Halton Hills, and the key players – Government of Canada; Ontario Government; Region of Halton; Town of Halton Hills; Halton Hills Housing Task Force, and non-profit and for-profit housing providers, and outlined the current efforts of each to address affordable housing.

Report TPW-2019-0016 also outlined a “Road Map (i.e. list) of Short-term Actions” that staff was directed to take with respect to affordable housing:

1. Continue to review and assess **Town-owned properties** for opportunities to provide affordable housing, and seek partners to develop those potential ‘quick win’ opportunities.
2. Establish a Town-led **Affordable Housing Working Group**. This Working Group would have participation from the Region, and non-profit and for-profit developers/builders, such as Habitat for Humanity and interested developers in the Vision Georgetown lands.
3. Develop a **Terms of Reference** for the Working Group that sets out the mandate of the Group, the composition of the Group (i.e. different stakeholders), and the relationship to existing initiatives.
4. As one of the first actions of the Working Group, complete a **Best Practices Review** and **Municipal Scan**, to inventory various innovative approaches to addressing housing affordability, and prioritize those approaches that are practical, and potentially most effective, in a Halton Hills context.
5. Incorporate consideration of financial incentives and municipal leadership actions focused on affordable and accessible housing into the upcoming **Community Improvement Plan Review**.
6. Build a partnership with the **Halton Hills Housing Task Force** (a community group comprised of members from local churches, non-profit organizations and social service agencies), and determine ways to collaborate to address housing affordability in Halton Hills.

7. Review and streamline the Town's **2-Unit Program** approval and administration process, from application to inspection to fees to communication and outreach.

This report contains a brief status update on the activities of the public sector players in affordable housing in Halton Hills, and on relevant items on the above list of short-term actions, as they relate to the preparation of a proposed Terms of Reference for the Affordable Housing Working Group.

COMMENTS:

Federal/Provincial Government:

As noted in Report TPW-2019-0016, the federal and provincial governments recently finalized new housing strategies, including multi-year financial investments. In April 2019, the province released the new Community Housing Renewal Strategy, including the Ontario Priorities Housing Initiative (OHPI) funding, of almost \$8 million, which is administered by the Region of Halton. This funding is significantly lower than previous funding under the federal/provincial cost-shared Investment in Affordable Housing-Extension (IAH-E) program.

Region of Halton:

The Region recently completed a mandated Five-Year Review of its Comprehensive Housing Strategy (2014-2024), and has completed the 2018 State of Housing Report, which will be the subject of a future information report to Halton Hills Council, highlighting the information related to Halton Hills. The Strategy provides direction for the Region to potentially partner with the Town and other stakeholders in addressing housing affordability in Halton Hills.

On May 30, 2019, the Region issued a Request for Applications to access over \$3.75 million in funding for private/non-profit sector purpose-built rental housing projects, which include some government assisted rental housing units. This funding needed to be fully committed by December 31, 2019. Private sector proponents are required to partner with a non-profit housing provider, or a municipality.

Five applications and four expressions of interest were received by the July 4, 2019 deadline, including some for projects in Halton Hills. The decision was made to fund 28 units (which must be at or below 80% of CMHC Average Market Rents for a minimum of 25 years), of a 70-unit purpose-built rental project in the Town of Oakville. The Region noted that some of the other projects were likely eligible for funding but could not meet the constrained provincial timelines. The Region intends to debrief with unsuccessful applicants in advance of the next proposal call in January 2020.

Municipal Scan/Best Practices Review:

One of the first tasks of the Affordable Housing Working Group will be to complete a municipal scan and best practices review to identify the various approaches that other municipalities in Ontario, and potentially beyond, are pursuing to encourage the construction of affordable housing in their communities.

The tools that municipalities can currently use to secure the construction of affordable housing units generally fall into 3 categories: 1) height and density bonusing under Section 37 of the Planning Act; 2) a new inclusionary zoning tool introduced under the Planning Act which would require developers to provide a proportion of units in new developments as affordable housing for a minimum period of time; and 3) financial incentives. Under Bill 108, height and density bonusing provisions will be eliminated and replaced by a community benefits by-law, and the inclusionary zoning tool has been limited to protected major transit station areas as identified in official plans.

To date, staff has researched the efforts of several Ontario municipalities, to identify approaches that may or may not be appropriate for use in Halton Hills. For example, the Town of Newmarket recently employed deferral of development charges, planning and building fees, and servicing allocation to ensure the construction of two purpose-built rental buildings with the guarantee of rental tenure for 20 years, and affordable rents for a portion of the units. These incentives are being provided together with incentives by the Region of York through a Community Improvement Plan focused on stimulating the construction of purpose-built rental housing. The City of Mississauga is working towards the development of a Community Improvement Plan for Affordable Rental Housing applicable to the entire city. In 2018, the City of Kitchener has approved a Development Application Fees and Building Permit Fees for Affordable Rental Housing Policy, and is initiating the preparation of an Affordable Housing Strategy guided by an Advisory Committee, looking at a range of financial incentives and the potential use of inclusionary zoning.

What the Town is doing:

As previously noted in Report TPW-2019-0016, the Town of Halton Hills has already completed, or is undertaking a number of initiatives, which in whole or in part, are intended to address the lack of affordable housing in Halton Hills, including:

- Amended the Comprehensive Zoning By-law to permit accessory apartments in semi-detached and townhouse dwelling units in the urban areas of Acton and Georgetown, and in single-detached dwellings in the agricultural/rural area and Hamlets of Norval and Glen Williams;
- Partnered with Habitat for Humanity to redevelop the Exchange Hotel property in Georgetown for affordable housing units, waiving development application and building permit fees for the development;
- Developed Secondary Plans for **Vision Georgetown** and **Destination Downtown** (Georgetown) containing policies including a 30 percent affordability target for new housing units;
- Deferred collection of development charges, waived planning approval fees, reduced Site Plan Securities and acceptance of environmental lands as required parkland dedication, for seniors and/or affordable housing developments, such as St. Andrews Seniors Residence and Bennett Health Centre Phase 1;

- Undertaking an **Intensification Opportunities Study Update** to identify capacity for additional residential development within the existing communities of Acton and Georgetown to the year 2041;
- Amending the **Two-Unit House Registration By-law** to be consistent with the updated Comprehensive Zoning By-law and Building Code (Report TPW-2019-0033 on the same Planning, Public Works and Transportation Committee Agenda);
- Administering the **Two-unit (i.e. accessory apartment) program** to facilitate the legal creation of more of these units;
- Facilitating partnership discussions between funders/other levels of government and private/non-profit developers, including seeking to partner with the Region to obtain Provincial OHPI funding in January 2020; and,
- Examining the feasibility of using the Town **Community Improvement Plan** in key intensification/growth areas to assist in the provision of affordable housing.

Community Improvement Plan Update:

Since 2010, the Town has had in place a Community Improvement Plan (CIP), which supports economic development by providing financial incentives (i.e. grants, loans and development charges/fee reductions) to stimulate private sector investment in revitalization and redevelopment of the Acton and Georgetown downtown areas, the GO Station area, brownfields, and other identified redevelopment areas. To date, the CIP program has been primarily focused on, and has been very successful at, fostering revitalization of commercial businesses in the Acton and Georgetown downtowns through the building and façade improvement grant and other related CIP programs.

The 2020 Capital Budget contains a request for \$45,000 to complete a 10-year review and update to the Town's CIP, including considering the incorporation of financial incentives related to affordable and accessible housing into the CIP.

Terms of Reference – Affordable Housing Working Group:

Attached as Schedule One to this report is a proposed Terms of Reference for a Halton Hills Affordable Housing Working Group, in response to the direction provided by Council through Report TPW-2019-0016.

The Working Group mandate would be to advise Town staff and Council in conducting research and engaging the public, in order to develop a list of practical, affordable and effective immediate, medium-term and longer term actions to address the issue of housing affordability in Halton Hills.

The Working Group would be comprised of the key players in affordable housing in Halton Hills, including the Region of Halton, Halton Hills Housing Task Force, for-profit and non-profit builders, community agencies and residents from the senior, youth and family demographics, as well as business owners, and Council members and staff.

The proposed timeline for the work of the Working Group would be to develop the list of practical, affordable and effective immediate, medium-term and longer term actions by the end of 2020.

RELATIONSHIP TO STRATEGIC PLAN:

This report relates to **Strategic Direction A: Foster a Healthy Community**, with a **Goal** to maintain and enhance a healthy community that provides a range of economic and social opportunities to ensure a superior quality of life; and in particular:

Strategic Objective A.1: To promote an adequate supply of housing and range of housing choices to meet the needs of present and future residents, including affordable, accessible and seniors housing.

FINANCIAL IMPACT:

There is no direct financial impact related to the recommendations of this report. A project has been added to the 2020 Capital Budget submission for the consideration of Budget Committee, requesting \$25,000 to retain a consultant to assist with the delivery of the work plan defined in the Terms of Reference of the Affordable Housing Working Group.

CONSULTATION:

Town staff consulted with Region of Halton Housing and Planning staff during the development of this report, and is in the process of confirming the participation of Region staff in the Affordable Housing Working Group.

PUBLIC ENGAGEMENT:

No public engagement was undertaken in preparing this report. The public will be engaged in the Town efforts to address housing affordability in Halton Hills as determined by Council in consultation with the Affordable Housing Working Group.

SUSTAINABILITY IMPLICATIONS:

The Town is committed to implementing our Community Sustainability Strategy, Imagine Halton Hills. Doing so will lead to a higher quality of life.

The recommendation outlined in this report advances the Strategy's implementation.

This report supports the **Social Well-being** and **Economic Prosperity** pillars of Sustainability, and in particular the themes of Housing and seniors under the Social Well-being pillar. This includes the goals of: facilitating housing that is affordable and accessible to individuals and families in order to meet housing needs at all stages of life abilities; reducing the percentage of households spending 30% or more of household income on rent; increasing the supply of quality affordable housing; and, ensuring a greater variety of housing are available, including rental, co-operative projects and smaller less expensive homes for downsizing. In summary the alignment of this report with the Community Sustainability Strategy is good.

COMMUNICATIONS:

This report will be forwarded to the Region of Halton, the Community Support Network Affordable Housing Task Force, and Habitat for Humanity, and other interested stakeholders. The outcomes of the work of the Affordable Housing Working Group will be broadly communicated to the residents and businesses of Halton Hills through all appropriate communication platforms (i.e. 'Let's Talk Halton Hills', Ward Meetings, etc.).

CONCLUSION:

This report has provided a status update on the efforts of the Town with respect to affordable housing.

It is recommended that Council endorse the draft Terms of Reference for an Affordable Housing Working Group attached as Schedule One to this report, and that staff be directed to finalize the membership of the Working Group, and arrange a kick-off meeting for January/February 2020;

It is also recommended that staff be directed to provide periodic status reports to Planning, Public Works and Transportation Committee and Council on the ongoing work of the Affordable Housing Working Group.

Reviewed and Approved by,

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Chris Mills, Commissioner of Transportation and Public Works

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Brent Marshall, Chief Administrative Officer

Terms of Reference

Project/Initiative	Halton Hills Affordable Housing Working Group
Mission/Mandate	To effectively collaborate in the research and development of practical, affordable, evidence-based, coordinated and effective actions to address the affordable housing needs of current and future residents of Halton Hills, which can be recommended to Halton Hills Council.
Objectives	<ol style="list-style-type: none"> 1. To identify and build partnerships with key players in housing in the Town of Halton Hills (i.e. Region of Halton, community groups (i.e. Halton Hills Housing Task Force), for-profit housing providers (i.e. Vision Georgetown developers), non-profit housing providers (i.e. Habitat for Humanity). 2. To identify the different housing needs of current and future residents of Halton Hills, through applied research, data analysis, and public engagement (i.e. purpose-built rental, seniors housing). 3. To assist the Town in identifying the barriers to the creation of affordable housing in Halton Hills, and in making recommendations on how those barriers can be overcome. 4. To develop a practical, affordable, coordinated list of recommended actions for addressing the identified housing needs which are targeted at specific resident groups (i.e. seniors, youth, & families). 5. To prioritize the list of recommended actions into immediate, mid-term and long-term actions.
Scope of Work	<ol style="list-style-type: none"> 1. To assist the Town in developing a clear understanding of the current state of housing needs in Halton Hills. 2. To guide the development and delivery of a strategy to engage the public in identifying housing needs and potential actions targeted to those needs. 3. To examine the available tools and incentives to stimulate investment in housing, enabling for-profit, non-profit providers and community groups to address the identified housing needs (i.e. increase the supply of housing). 4. To identify the specific tools which are appropriate to address the specific housing needs in Halton Hills. 5. To guide the development of a practical, affordable list of recommended priority actions to address housing needs in Halton Hills.

Expected Deliverables	<ol style="list-style-type: none"> 1. Best Practices Review/Environmental Scan (Town-led with consultant expertise as required). 2. Public Engagement Strategy 3. Directions Report 4. List of Recommended Priority Actions
Related Initiatives	<ol style="list-style-type: none"> 1. 2020 Budget request for consulting assistance 2. Community Improvement Plan Update (i.e. incorporation of affordable and accessible housing into the CIP). 3. Intensification Opportunities Study Update. 4. Town Surplus Land initiatives. 5. Town 2-Unit (i.e. accessory apartment) Program 6. Region Comprehensive Housing Strategy implementation. 7. Vision Georgetown/Destination Downtown – Secondary Plan approvals and implementation through development approvals 8. Community Safety and Wellbeing Plan (Region) & Action Tables.
Composition	<ul style="list-style-type: none"> • 2-3 Members of Council (Regional and Local); • Mayor (ex-officio); • 1-2 members of the Halton Hills Housing Task Force; • Region of Halton Housing representative; • For-profit housing provider(s) (i.e. Vision Georgetown developer); • Non-profit housing provider(s) (i.e. Habitat for Humanity); • Social service agency; • 2-3 residents, representing different demographics (i.e. seniors, youth, etc.) • 1-2 business owners.
Staff Support	<ul style="list-style-type: none"> • Commissioner of Transportation and Public Works (Project Sponsor/Senior Management Team Lead) • Manager of Special Projects & Research, Office of the CAO (Project Manager); • Commissioner of Planning and Development • Planning & Development Staff (Policy, Development Review) • Strategic Planning/Economic Development Staff (as required) • Communication Staff (as required) • Finance/Accounting Staff (as required)
Communications	<ul style="list-style-type: none"> • To be as per approved Community Engagement Strategy

Timeline	<ul style="list-style-type: none"> • Kick-off Meeting – January/February 2020; • Best Practices Review/Municipal Scan – November 2019 to March 2020; • Public Engagement Strategy – 1st Quarter 2020; • Directions Report, including potential financial implications – 2nd or 3rd Quarter 2020; • List of Recommended Priority Actions – 4th Quarter 2020.
Meeting Schedule	<ul style="list-style-type: none"> • Bi-monthly or at the call of the Chair
Approval Date:	

MEMORANDUM

TO: Chair and Members of the Planning, Public Works and Transportation Committee

FROM: Tony Boutassis, Senior Planner – Development Review

DATE: October 8, 2019

MEMORANDUM NO.: MEM-PLS-2019-0009

RE: D12SUB17.001 – 340 Main Street North – Subdivision Registration

PURPOSE OF THE MEMORANDUM:

The purpose of this memo is to advise Council that the Industrial Subdivision located at 340 Main Street North in Acton (File No. D12SUB17.001) has now been registered.

BACKGROUND AND COMMENTS:

On March 5, 2019, Council approved a Draft Plan of Subdivision to create 3 industrial development blocks, a public road, stormwater management block and wetland block at 340 Main Street North in Acton.

On September 26, 2019, the Plan of Subdivision was registered as Plan 20M-1216 and the Inhibiting Order was lifted shortly thereafter; see **SCHEDULE 1 – REGISTERED PLAN 20M-1216**.

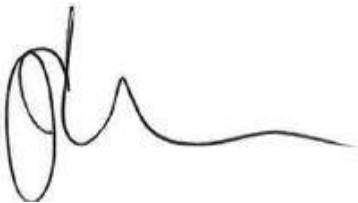
CONCLUSION:

This memo is being provided to the Council for information purposes only.

Reviewed and approved by,

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Jeff Markowiak, Manager of Development Review

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John Linhardt, Commissioner of Planning and Sustainability

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Brent Marshall, Chief Administrative Officer

103



MEMORANDUM

TO: Chair and Members of the Planning, Public Works and Transportation Committee

FROM: Matt Roj, Traffic Coordinator

DATE: October 16, 2019

MEMORANDUM NO.: MEM-TPW-2019-0021

RE: Transportation Update

PURPOSE OF THE MEMORANDUM:

The purpose of this memorandum is to provide an updated list of Traffic and Transportation related matters.

BACKGROUND:

The memorandum deals with Traffic and Transportation related matters dealt with by staff.

COMMENTS:

The attached list provides details and a status update of the traffic and transportation issues since the June 25, 2019 Committee meeting. This includes the following:

Ward 1

- Mill Street East (Hwy 7)/Young Street, Road Safety – On June 25, 2019, Councillor Albano identified concerns raised by a resident with regard to vehicles travelling in the wrong direction on the one-way (westbound) section of Mill Street East. On June 26, 2019, staff reviewed the existing signage to ensure compliance with the existing standards. Additional turn prohibition signs will be installed on Young Street (Hwy 7) on approaches to Mill Street East in November 2019. (Item #1)

- Doctor Moore Court, Speeding Concerns – On June 29, 2019, Mayor Bonnette identified concerns raised by a resident with regard to speeding issues on Doctor Moore Court. Staff deployed a radar message board to Doctor Moore Court in the week of July 15, 2019. (Item #2)
- Maria Street and Poplar Avenue/Crescent Street, Intersection Safety – On July 8, 2019, Councillor Somerville identified concerns raised by a resident concerning intersection safety. On July 26, 2019, staff reviewed the intersection's sightlines and pre-marked a new Yield line and yellow centreline. Staff will change the existing Yield Sign Control to a Stop Sign Control on both Poplar Avenue and Crescent Street approaches, following the Uniform Traffic Control By-law regular schedule update. This intersection will be included in the 2020 Traffic Engineering Work Plan for review. (Item #3)
- Kingham Road and Duby Road, Street Light Issue – On September 30, 2019, Mayor Bonnette identified a concern raised by a resident with regard to the streetlighting along Kingham Road and Duby Road. On October 9, 2019, staff reviewed the existing street lights on both roads. On Duby Road, staff identified frequent street light obstructions by matured trees planted within the boulevards. As part of the 2020 Traffic Engineering Work Plan, staff will be installing additional street lights and underground conduits on Kingham Road near Greenore Crescent intersections. As part of this project, staff will also install additional street light poles on Duby Road and undertake tree trimming, as required. (Item # 4)

Ward 2

- Third Line, Speeding Issue – On July 12, 2019, Councillor Somerville identified concerns raised by a resident concerning the speeding issues on Third Line between 15 Side Road and 10 Side Road. Staff deployed a radar message board on July 10, 2019 on Third Line, based on another resident's concern. Third Line was temporarily impacted by traffic, avoiding a construction zone located on Regional Road 25, south of 15 Side Road. (Item #5)
- Limehouse, Speeding Issues – On July 13, 2019, Councillor Lewis identified concerns raised by a resident concerning the speeding issues within the Hamlet and the request for "SLOW" style pavement markings. As part of the 2020 Traffic Engineering Work Plan, "SLOW" style pavement markings will be implemented on 22 Side Road and Fifth Line. (Item #6)

- 12 Prince Street, Driveway Safety – On July 17, 2019, Councillor Brown identified a concern raised by a resident with regard to a “Hidden Driveway” warning sign on the west approach to the private driveway at 12 Prince Street. On July 24, 2019, staff met with the resident and reviewed her driveway’s sightlines. The “Hidden Driveway” warning sign to be installed before the end of the year. (Item # 7)

Ward 3

- River Drive, Road Safety – On July 15, 2019, Mayor Bonnette identified concerns raised by residents with regard to road safety on River Drive. On July 16, 2019, staff provided an update with regard to the road safety initiatives undertaken on River Drive between Mountainview Road North and Tenth Line. (Item #8)
- Meadowglen Boulevard, Speeding Issues – On July 15, 2019, Councillor Johnson identified concerns raised by a resident with regard to speeding on Meadowglen Boulevard. On July 15, 2019, staff advised the resident about the Roadwatch and Traffic Complaint programs provided by the Halton Regional Police Service. Staff deployed a radar message board in the week of August 5, 2019. (Item #9)
- Ontario Street, Speeding and Truck Issues – On September 18, 2019, Councillor Farrow-Reed identified concerns raised by a resident with regard to speeding and truck traffic volume on Ontario Street. Staff undertook speed studies in 2018 and 2019 on three different sections of Ontario Street. No speeding issues or higher truck traffic volume were identified during the studies. Staff deployed a radar message board in the week of September 9, 2019, acting on another resident’s concern. (Item #10)

Ward 4

- Niagara Trail, Speeding Issues – On June 17, 2019, Councillor Inglis identified a concern raised by a resident with regard to speeding on Niagara Trail near Jubilee Woodlot Park. In the week of July 2, 2019, staff deployed a radar message board to Niagara Trail between Monarch Drive and Hartwell Road. To improve road safety, staff installed new “Playground Ahead” warning signs. The area located east of Barber Drive (East) and north of 10 Side Road will be reviewed, as part of the 2020 Traffic Engineering Work Plan. (Item #11)

- Danby Road, Speeding Issues – On June 25, 2019, Councillor Fogal identified concerns raised by residents with regard to speeding on Danby Road between Silver Pond Drive and Eighth Line. Staff acting on previous speeding concerns deployed speed measuring devices to Danby Road between Hidden Lake Trail and the bridge. The speed survey completed between June 14 and June 21 did not identify a speeding issue. To improve road safety on Danby Road between Orchid Avenue and Silver Pond Drive, staff installed two (2) “SLOW” style pavement markings on September 17, 2019. (Item #12)
- Delrex Boulevard, Speeding Issues – On July 13, 2019, Councillor Fogal identified concerns raised by a resident concerning speeding issue on Delrex Boulevard between Weber Drive (East) and Guelph Street (Hwy 7). In the week of August 26, 2019, staff deployed a radar message board on Delrex Boulevard near Gairey Drive. This section of Delrex Boulevard will be added to the 2020 Traffic Engineering Work Plan for an operational review. (Item #13)
- McFarlane Drive/Upper Canada Court, Intersection Safety – On September 10, 2019, Councillor Lawlor identified concerns raised by a resident concerning the low compliance levels with the Stop Sign Control located at the McFarlane Drive/Upper Canada Court intersection. On September 11, 2019, staff informed Mayor Bonnette and Ward 4 Councillors about the proposed intersection safety improvements that included a larger stop sign, painted stop bar and deployment of a radar message board. The safety improvements will be completed this year. Staff sent a speed enforcement request to the Halton Regional Police Service and deployed the radar message board in the weeks of October 7, 2019 and October 14, 2019. Post studies to ensure compliance will be completed and added to the 2020 Traffic Engineering Work Plan. (Item #14)

CONCLUSION:

A summary of all the traffic and transportation matters and associated actions have been identified in Attachment 1.

Reviewed and approved by,

A handwritten signature in cursive script, appearing to read "Maureen Van Ravens".

Maureen Van Ravens, Manager of Transportation

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Chris Mills, Commissioner of Transportation and Public Works

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Brent Marshall, Chief Administrative Officer

Item #	Date Received	Ward	Category	Traffic/ Transportation Concern	Actions Taken	Recommendation	Date Completed
1	25/6/2019	1	Road Safety	Councillor Albano identified concerns raised by a resident with regard to vehicles travelling in the wrong direction on the one-way (westbound) section of Mill Street East.	On June 26, 2019, staff reviewed the existing signage to ensure compliance with the existing standards.	Additional turn prohibition signs will be installed on Young Street (Hwy 7) on approaches to Mill Street East. The work will be completed in November 2019.	Ongoing
2	29/6/2019	1	Speeding	Mayor Bonnette identified concerns raised by a resident with regard to speeding issues on Doctor Moore Court.	Staff deployed a radar message board to Doctor Moore Court in the week of July 15, 2019.	No further action is recommended.	22/7/2019
3	08/07/19	1	Intersection Safety	Councillor Somerville identified concerns raised by a resident concerning intersection safety.	On July 26, 2019, staff reviewed the intersection's sightlines and pre-marked a new Yield line and yellow centre line.	Staff will change the existing Yield Sign Control to a Stop Sign Control on both Poplar Avenue and Crescent Street approaches, following the Uniform Traffic Control By-law 84-1 regular schedule update. This intersection will be included in the 2020 Traffic Engineering Work Plan for review.	Ongoing
4	09/30/19	1	Street Light	Mayor Bonnette identified a concern raised by a resident with regard to the streetlighting along Kingham Road and Duby Road.	On October 9, 2019, staff reviewed the existing street lights on both roads. On Duby Road, staff identified frequent street light obstructions by matured trees planted within the boulevards.	As part of the 2020 Traffic Engineering Work Plan, staff will be installing additional street lights and underground conduits on Kingham Road near Greenore Crescent intersections. As part of this project, staff will also install additional street lights on Duby Road and undertake tree trimming, as required.	Ongoing
5	07/12/19	2	Speeding	Councillor Somerville identified concerns raised by a resident concerning the speeding issues on Third Line between 15 Side Road and 10 Side Road.	On July 10, 2019, staff deployed a radar message board on Third Line, based on another resident's concern.	Third Line was temporarily impacted by traffic avoiding a construction zone located on Regional Road 25, south of 15 Side Road.	07/19/19
6	06/13/19	2	Speeding	Councillor Lewis identified concerns raised by a resident concerning the speeding issues within the Hamlet of Limehouse and the request for "SLOW" style pavement markings.	Staff have reviewed the traffic information collected in the Hamlet.	As part of the 2020 Traffic Engineering Work Plan, "Slow" style pavement markings will be implemented on 22 Side Road and Fifth Line.	Ongoing

Item #	Date Received	Ward	Category	Traffic/ Transportation Concern	Actions Taken	Recommendation	Date Completed
7	07/17/19	2	Driveway Safety	Councillor Brown identified a concern raised by a resident with regard to a "Hidden Driveway" warning sign on the west approach to 12 Prince Street driveway.	On July 24, 2019, staff met with the resident and reviewed her driveway's sightlines. The "Hidden Driveway" warning sign to be installed before the end of the year.	No further action is required.	07/24/19
8	07/15/19	3	Road Safety	Mayor Bonnette identified concerns raised by residents with regard to road safety on River Drive.	On July 16, 2019, staff provided an update with regard to the road initiatives undertaken on River Drive between Mountainview Road North and Tenth Line.	No further action is required.	07/16/19
9	07/15/19	3	Speeding	Councillor Johnson identified concerns raised by a resident with regard to speeding on Meadowglen Boulevard.	On July 15, 2019, staff advised the resident about the Roadwatch and Traffic Complaint programs provided by the Halton Regional Police Service. Staff deployed a radar message board in the week of August 5, 2019.	No further action is required.	08/05/19
10	09/18/19	3	Speeding and Trucks	Councillor Farrow-Reed identified concerns raised by a resident with regard to speeding and truck volume on Ontario Street.	Staff undertook speed studies in 2018 and 2019 on three different sections of Ontario Street. No speeding issues or higher truck traffic volume were identified during the studies. Staff deployed a radar message board in the week of September 9, 2019, acting on another resident's concerns. Staff provided an update on September 19, 2019.	No further action is required.	09/18/19
11	06/17/19	4	Speeding	Councillor Inglis identified a concern raised by a resident with regard to speeding on Niagara Trail near Jubilee Woodlot Park.	In the week of July 2, 2019, staff deployed a radar message board to Niagara Trail between Monarch Drive and Hartwell Road. To improve road safety, staff installed new "Playground Ahead" warning signs.	The area located east of Barber Drive (E.) and north of 10 Side Road will be reviewed, as part of the 2020 Traffic Engineering Work Plan.	Ongoing

Item #	Date Received	Ward	Category	Traffic/ Transportation Concern	Actions Taken	Recommendation	Date Completed
12	06/25/19	4	Speeding	Councillor Fogal identified concerns raised by residents with regard to speeding on Danby Road between Silver Pond Drive and Eighth Line.	Staff acting on previous speeding concerns identified by residents deployed speed measuring devices on Danby Road between Hidden Lake Trail and the bridge. The speed survey completed between June 14 and June 21 did not identify a speeding issue. To improve road safety on Danby Road between Orchid Avenue and Silver Pond Drive, staff installed two (2) "SLOW" style pavement markings on September 17, 2019.	No further action is recommended.	09/17/19
13	07/13/19	4	Speeding	Councillor Fogal identified concerns raised by a resident concerning speeding issue on Delrex Boulevard between Weber Drive (East) and Guelph Street (Hwy 7).	In the week of August 26, 2019, staff deployed a radar message board on Delrex Boulevard near Gairey Drive.	This section of Delrex Boulevard will be added to the 2020 Traffic Engineering Work Plan for an operational review.	Ongoing
14	09/10/19	4	Intersection Safety	Councillor Lawlor identified concerns raised by a resident concerning low compliance levels with the Stop Sign Control located at the McFarlane Drive/Upper Canada Court intersection.	On September 11, 2019, staff informed Mayor and Ward 4 Councillors about the proposed intersection improvements that included a larger stop sign, painted stop bar and deployment of a radar message board. The safety improvements will be completed this year. Staff sent a speed enforcement request to the Halton Regional Police Service and deployed the radar message board in the weeks of October 7, 2019 and October 14, 2019.	Post studies to ensure compliance will be completed and added to the 2020 Traffic Engineering Work Plan.	Ongoing
15	16/1/2019	1	Train Issues	Mayor identified concerns raised by a resident with regards to train issues.	On January 17, 2019, staff provided an update with regards to the upcoming 2019 Safety Assessment of Metrolinx Railway Crossings.	Staff will provide further comments, after the safety assessment is completed.	Ongoing

Item #	Date Received	Ward	Category	Traffic/ Transportation Concern	Actions Taken	Recommendation	Date Completed
16	25/2/2019	1	Speeding	Mayor identified a concern raised by a resident with regards to speeding on Mill Street West and request to install a speed hump.	On February 25, 2019, staff informed the resident that Mill Street West is identified in the 2019 Traffic Engineering Work Plan.	Based on the traffic study results, further traffic calming measures are required on Mill Street West. The road will be compared to other proposed traffic calming projects scheduled in 2020 to determine which traffic calming project is the priority. The projects are evaluated in accordance with the Traffic Calming Implementation Protocol.	Ongoing
17	14/2/2019	3	Parking	Mayor identified a concern raised by a resident with regards to additional parking within the Dominion Gardens Development.	On February 22, 2019, staff responded directly to the resident. The boulevard parking will be reviewed in the fall 2019/Spring 2020, as part of the Uniform Traffic Control By-law (UTCb) 84-1 update.	Further to Council's direction, staff will undertake a Parking Study. The study replaces the UTCb 84-1 update in 2019. Staff expect the study to be completed by summer 2020.	Ongoing
18	29/3/2019	3	Intersection Safety	Councillor Johnson identified a concern raised by a resident with regards to road safety at the intersection of Arborglen Drive/Arborglen Drive. The resident requested the installation of an All-Way Stop Sign Control.	This intersection is identified in the 2019 Traffic Engineering Work Plan.	Staff will submit a report to the Planning, Public Works and Transportation Committee in the fall.	Ongoing
19	27/5/2019	3	Pedestrian Safety	Councillor Johnson identified a request raised by a resident with regards to a lack of controlled crossing area to access the multi-use pathway directly located on the east side of Eighth Line across from Arborglen Drive.	On May 28, 2019, staff informed Councillor Johnson that the intersection will be reviewed and reported back in the fall.	Staff will provide further comments following the completion of traffic studies and Active Transportation Master Plan.	Ongoing

Item #	Date Received	Ward	Category	Traffic/ Transportation Concern	Actions Taken	Recommendation	Date Completed
20	06/03/19	N/A	"Rainbow Crosswalk"	Through the Community & Corporate Affairs Committee, staff was requested the installation of a "Rainbow" crosswalk.	Staff received a quote from its pavement markings contractor. The approximate cost to install the "Rainbow" crosswalk is \$4,000.00. This is a new initiative and there is no allocated budget for this project. In some communities where these types of crossings have been implemented, it has been a joint cost sharing arrangement with a local community group. It should also be noted that vandalism has been experienced within other communities with these types of crosswalks.	This new initiative is brought forward for the Committee's consideration.	Ongoing
21	06/05/19	1	Truck Issues	Councillor Hurst identified a concern raised by a resident with regards to the truck idling noise issues at the rear of Sobeys Plaza in Acton.	On June 7, 2019, staff had phone conversations with both the manager of Sobeys Plaza and the manager of Sobeys operations. The area at the rear of Sobeys near the loading docks is being actively monitored by the manager of Sobeys operations. The notices advising truck delivery drivers not to idle at the rear of the plaza were sent on June 7, 2019.	Staff undertook pavement marking and signage improvements at the rear of the Sobeys Plaza to discourage illegal parking. To monitor on-site parking activities, staff worked with By-law enforcement staff and its contractor, to install a monitoring system.	09/10/19
22	22/2/2019	2	Speeding	Councillor Lewis identified a concern raised by a resident with regards to speeding on Fifth Line in Limehouse.	The Fifth Line section located on the north side of Limehouse is identified in the 2019 Traffic Engineering Work Plan.	The existing 50 km/h speed limit will be extended 300 m to the north, and the existing 80 km/h speed limit will be reduced to 70 km/h. Work to be completed by mid-November 2019.	10/15/19
23		2	Speeding and Trucks	Councillor Lewis identified concerns raised by residents with regards to speeding and engine brake noise issues on Confederation Street, north of Wildwood Road.	Confederation Street is identified in the 2019 Traffic Engineering Work Plan.	The existing 60 km/h speed limit on Confederation Street, north of Glen Crescent Drive will be reduced to 50 km/h. The Ninth Line speed limit north of the Glen William Hamlet will also be reduced from 80 km/h to 70 km/h. The sign work is to be completed by mid-November 2019.	10/15/19

Item #	Date Received	Ward	Category	Traffic/ Transportation Concern	Actions Taken	Recommendation	Date Completed
24	02/18/19	4	Speeding	Mayor and Ward 4 Councillors identified concerns raised by residents on Danby Road between Orchich Avenue and Eighth Line.	On February 19 & 20, 2019, staff provided initial responses to residents.	The speed study undertaken between June 14 and 21, 2019 on Danby Road between Hidden Lake Trail and the bridge did not identify speeding issues. To increase driver's awareness in the school zone, Town will implement two (2) SLOW pavement markings on Danby Road between Robinson Road and Orchid Avenue.	09/10/19
25	06/04/19	4	Road Safety	A petition and delegation request was submitted to the Town by the residents living near Barber Drive, on the east side of Mountainview Road South and north of Argyll Road. The petition identified speeding concerns near Barber Drive Park.	Staff have prepared the Memorandum No. TPW-2019-0016 to address the petition.	The speed studies undertaken on July 10 and 24, 2019 on Barber Drive (East) did not identify speeding issues. As part of 2020 Capital budget, staff recommended Barber Drive (E.) between Mountainview Road South and Danby Road for bike lane implementation, which should reduce the operating speeds further.	07/24/19

Item #	Date Received	Ward	Category	Traffic/ Transportation Concern	Actions Taken	Recommendation	Date Completed
31							
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