

1. Baseline Features and Servicing Conditions Extracts

1.1 Planning and Servicing Considerations

1.1.1 City of Brampton Official Plan

The City of Brampton's 2006 Official Plan, approved in part by the Ontario Municipal Board (OMB) in October 2008, includes modifications and deferrals that the Region had made in its Notice of Decision and Appeals to the OMB. The current document was consolidated in September 2015 with resolutions of appeals that were made to the OMB, conformance with the *Places to Grow: Growth Plan for the Greater Golden Horseshoe* and the amendments made to reflect Council-approved Official Plan amendments. Key aspects of the Official Plan relevant to this Class EA study that will need to be taken into consideration are summarized as follows:

- Steeles Avenue is considered a Primary Street Corridor (Schedule 2)
- The City's Citywide Pathway Network (Schedule C1) crosses through the study area, along the Etobicoke Creek valley
- There are pockets of areas designated as Valley and/Watercourse Corridor, Woodland and Other Wetland through the study area (Schedule D)
- The sole Major Recreational Open Space in the area is a City Wide Park (Schedule E)
- Steeles Industrial Secondary Plan Area (Schedule G)
- Highway 410 and Steeles Secondary Plan (Schedule G Secondary Plan Areas)

1.1.2 City of Brampton 2040 Vision

The City of Brampton completed a Citywide visioning exercise in 2018, culminating in an inspirational document designed to guide Brampton's changes over the next 25 years. *Brampton 2040 Vision: Living the Mosaic* focuses on the environment, employment, urban centres, neighbourhoods, transportation, social matters, health, and arts and culture. All concepts from this document will be subject to full planning or co-design programs with citizens.

The following areas identified in the 2040 Vision will need to be taken into consideration as this study moves forward:

- General: Major Growth Centre identified west of Highway 410 and Highway 407, including Kennedy Road onwards west to just east of Fletcher's Creek
- Sustainability and the Environment: New Sports Centre, New Uptown Central Park, New Biodome Park and Greenway Boulevard along Kennedy Road
- Uptown: The planned Uptown encompasses plans for residential and employment areas, research development and education area, hotels, convention and exhibition centre, sports arena, performing arts centre, retail space, energy plant, solar field, waste management area, heat recovery system, and recreational facilities
- Transit: Rapid Transit Line along Kennedy Road, Rapid Transit Station north of Highway 407 at Kennedy Road, Bus Rapid Transit (BRT) Line along Highway 407 and BRT Station east of Kennedy Road and north of Highway 407
- Street Network: Traffic Calming/Pedestrian pathway along Kennedy Road, new collector and local roads between Kennedy Road, Highway 410, Steeles Avenue East and Highway 407

1.1.3 Region of Peel Official Plan

The Region of Peel's Official Plan was adopted by the Regional Council on July 11, 1996. All phases of the hearings pertaining to Appeals of the Plan have been concluded. The December 2018 Office Consolidation of the Official Plan (Region 2018a) includes Ministry of Environment, Conservation and Parks (MECP) and OMB approvals as well as other approved amendments.

The Region's objective for water and wastewater services through the Official Plan is as follows:

"To provide water supply and sanitary sewer services to appropriate areas of the Region in an adequate, efficient, planned and cost-effective manner consistent with public needs and financial realities."

The policies from the Official Plan applicable to this study are as follows:

Policy 6.4.2.1: Require and provide full municipal sewage and water services to accommodate growth in the Urban System to the year 2031, and the three Rural Service Centres to the year 2021. The provision of full municipal sewage and water services in the Urban System and the three Rural Service Centres will be subject to the Regional financial and physical capabilities.

Policy 6.4.2.2: Ensure that no development requiring additional or new water supply and/or sanitary sewer services proceeds prior to the finalization of a Servicing Agreement with the Region, confirming the responsibility for, and ability to provide, appropriate facilities for water supply and sewage disposal. In the case of plans of subdivision, confirmation will be required prior to draft approval, that servicing is or will be available.

Policy 6.4.2.7: Ensure that the planning, construction, expansion, extension, operation and maintenance of water and sanitary sewer services protects the environmental systems and natural resources of Peel in a manner consistent with the objectives and policies in this Plan, the Niagara Escarpment Plan, the Oak Ridges Moraine Conservation Plan and the Greenbelt Plan.

As this study progresses, it will incorporate the following aspects of the Region's Official Plan:

- Etobicoke Creek's valley is designated as Core Area of the Greenlands System (Schedule A).
- The entirety of the study area is considered Urban System (Schedule D) and Built-up Area (Schedule D4).
- The study area is predominantly classified as Settlement Areas Outside the Greenbelt with the exception of the Etobicoke Creek alignment, which is classified as River Valley Connections Outside the Greenbelt (Schedule D3).
- Etobicoke Creek's valley is considered a River Valley Connection, and the Peel Parkway Belt West Plan Area is along the southern limits of the study area (Selected Areas of Provincial Interest).
- The study area falls within the Etobicoke Creek watershed, regulated by TRCA (Region of Peel Official Plan Figure 3 - Watershed Boundaries).
- The southern part of the study area, south of Highway 407 to the southern study area boundary, falls within the Toronto Pearson International Airport Operating Area (Region of Peel Official Plan Figure 11 - Toronto Pearson International Airport Operating Area).

1.1.4 Growth Plan for the Greater Golden Horseshoe

Under the *Places to Grow Act, 2005*, the Ministry of Municipal Affairs and Housing (MMAH) developed *A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019)*. This document is a provincial growth plan and guides government investments and municipalities on their own long-term growth plans. The following principles are relevant to this study:

- Prioritize intensification and higher densities to make efficient use of land and infrastructure and support transit viability.
- Provide flexibility to capitalize on new economic and employment opportunities as they emerge, while providing certainty for traditional industries, including resource-based sectors.
- Improve the integration of land use planning with planning and investment in infrastructure and public service facilities, including integrated service delivery through community hubs, by all levels of government.
- Protect and enhance natural heritage, hydrologic, and landform systems, features, and functions.
- Integrate climate change considerations into planning and managing growth such as planning for more resilient communities and infrastructure—that are adaptive to the impacts of a changing climate—and moving towards low-carbon communities, with the long-term goal of net-zero communities, by incorporating approaches to reduce greenhouse gas emissions.

Key points from the document that are relevant to this study are noted as follows:

- The planning forecasted population for the Region of Peel is shown in Table 1-1:
- The designated greenfield area of each upper-tier municipality, such as the Region of Peel, will be planned to achieve a minimum density of 80 residents and jobs combined per hectare within the planning horizon after July 1, 2017. However, areas such as natural heritage features and areas (natural heritage systems and floodplains where development is prohibited) will not be included in the greenfield area.
- The minimum intensification targets within delineated built-up areas is set to increase from 50% (from the March 2018 Municipal Comprehensive Review to 2031) to 60% (between 2031 and 2041) (Region 2018b).

Table 1-1. Population Forecasts for the Region of Peel

	2031	2036	2041
Population	1,770,000	1,870,000	1,970,000
Employment	880,000	920,000	970,000

1.1.5 Provincial Policy Statement

Ontario's MMAH issues the Provincial Policy Statement (PPS) under Section 3 of the *Planning Act*, which states the provincial government's policies and provides guidance on land use planning. The PPS enables municipalities to develop their official plans and make planning-related decisions. The latest update of the PPS was released in 2014 and includes the following relevant policies on infrastructure:

Policy 1.6.1: Infrastructure, electricity generation facilities and transmission and distribution systems, and *public service facilities* shall be provided in a coordinated, efficient and cost-effective manner that considers impacts from climate change while accommodating projected needs.

Planning for *infrastructure*, electricity generation facilities and transmission and distribution systems, and *public service facilities* shall be coordinated and integrated with land use planning so that they are:

- a) financially viable over their life cycle, which may be demonstrated through asset management planning; and
- b) available to meet current and projected needs.

Policy 1.6.3: Before consideration is given to developing new *infrastructure* and *public service facilities*:

- a) the use of existing *infrastructure* and *public service facilities* should be optimized; and
- b) opportunities for adaptive re-use should be considered, wherever feasible.

Policy 1.6.6.1: Planning for *sewage and water services* shall:

- a) direct and accommodate expected growth or development in a manner that promotes the efficient use and optimization of existing:
 - 1) municipal sewage services and municipal water services; and
 - 2) private communal sewage services and private communal water services, where municipal sewage services and municipal water services are not available;
- b) ensure that these systems are provided in a manner that:
 - 1) can be sustained by the water resources upon which such services rely;
 - 2) is feasible, financially viable and complies with all regulatory requirements; and
 - 3) protects human health and the natural environment;
- c) promote water conservation and water use efficiency;
- d) integrate servicing and land use considerations at all stages of the planning process; and
- e) be in accordance with the servicing hierarchy outlined through policies 1.6.6.2, 1.6.6.3, 1.6.6.4 and 1.6.6.5.

1.1.6 Parkway Belt West Plan

Implemented in 1978 based on the *Parkway Belt Planning and Development Act* and managed by the MMAH, the Parkway Belt West Plan (PBWP) creates a multi-purpose utility corridor, urban separator, and linked open-space system. Its primary function now is to allocate and protect land for the use of linear regional infrastructure (that is, transit, utility, and electric power facility corridors).

The component of the PBWP that falls within the Region of Peel is located in parallel to, and generally south of, Highway 407, encompassing the utility corridor that is south of Highway 407. Provincial Land Use Regulations are in effect in the area to control uses within the Parkway Belt Planning Area. As such, no municipality is allowed to undertake projects that conflict with the PBWP. The two land use categories designated along the area by the Province are Public Use Area (used for infrastructure and open space, public open space and buffer area, utility, electric power facility, road, and inter-urban transit) and Complementary Use Area (used for private uses that preserve open space and encourage agricultural, recreational, and institutional land use that does not involve urbanization of the land).

1.2 Assessment of Existing Infrastructure

The Etobicoke Creek Trunk Sewer within the Study Area primarily consists of twinned section of reinforced concrete pipe, ranging in diameter from 1050 mm to 1350 mm, constructed at different times between 1957 and 2007. The majority of the sewer was constructed in the early 1970s.

1.2.1 Feasibility Study of Sanitary Sewer at Old Brampton Wastewater Treatment Plant

In 2018, the Region completed a study of the trunk sewer to resolve issues in the area around the Old Brampton Wastewater Treatment Plant (WWTP), titled *Feasibility Study of Sanitary Sewer at Old Brampton WWTP* (Region 2018). The study included a review of as-built drawings, CCTV footage and

discussions with the Region's Operations and Maintenance staff to identify the following key challenges with the existing infrastructure (Figure 1-3):

- A total of 5 kilometres of the trunk sewer pipe experiences operational issues, starting at Kennedy Road to just south of Highway 407.
- Slopes of the sewers range from 0.02% (gentle slope) to over 1.0% (moderately steep). Based on uneven flows, it was noted that the slopes are inconsistent. Additionally, as the trunk was previously built to connect to the Old Brampton WWTP, the trunk sewer is shallow in certain sections.
- A section of sewer that had been previously repaired using cured-in-place pipe (CIPP) lining was reported to have significant wrinkling at the pipe invert and obvert.
- Sections of the trunk are known to experience historical surcharging and high permanent water levels.
- Inflow was reported from an abandoned connection on the WWTP site.
- The Industrial-Commercial-Institutional (ICI) sewer connection south of Biscayne Crescent is reported to have a section of exposed pipe caused by erosion and insufficient cover.
- Some access chambers are extremely deep because of the addition of highway ramps over the trunk sewer.
- Two access chambers are within the right-of-way of Highway 410 and pose difficulties for Operations to access them.
- The infrastructure related to the WWTP and research facilities was largely removed from the site, with the exception of the trunk sewer and associated flow structures, some large valve boxes with aboveground handles, and an abandoned control shed. The flow structures were fenced for safety reasons but remain on the site.

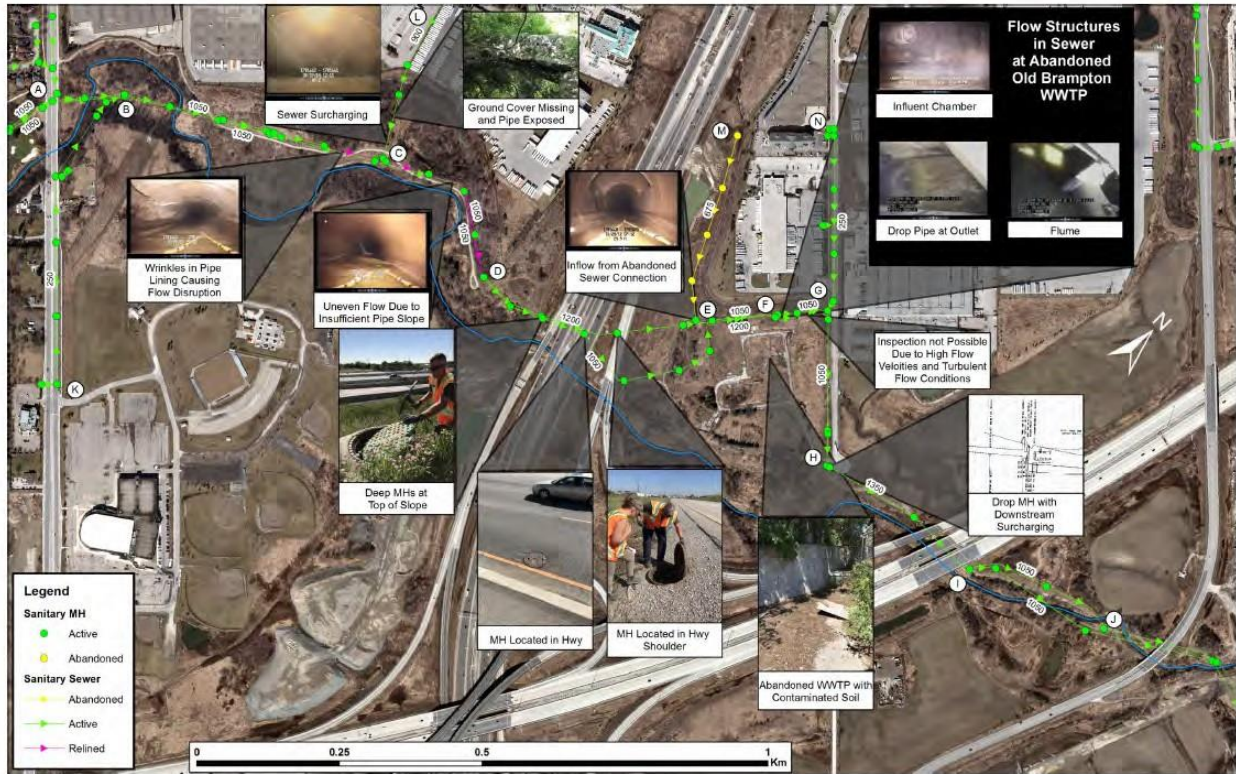


Figure 1-3. Existing Issues Identified by Feasibility Study (Black and Veatch 2018)

1.2.2 Field Investigation

A May 2019 field visit reviewed the observations of the Feasibility Study and noted the following additional concerns:

- A section of the trunk within the Old Brampton WWTP site is routed through an abandoned flume that had previously been fenced off. During the field visit, it was observed that the fence had been breached, and an access cover had been removed from the flume (Figure 1-4), providing direct access to the sewer. Region Operations Staff have subsequently addressed this issue.
- The segment previously identified with missing ground cover was observed to have an adjacent pit of unknown depth that had now filled with water (Figure 1-5).
- Some maintenance holes in the 410 West to West Creek reach are difficult to access, as they are placed overtop steep slopes adjacent to highways (Figure 1-6).
- Some maintenance holes in the section west of Highway 410 are difficult to access because of dense vegetation and overgrowth.
- Some maintenance holes in the section west of Highway 410 are in immediate proximity to Etobicoke Creek, requiring additional protection measures during maintenance activities to prevent discharge or damage to the creek banks (Figure 1-7).
- The site of the former Brampton WWTP was recently acquired by the Region and is being investigated for future uses, including storage of operation and maintenance equipment. The site is not used presently and has overgrown vegetation, and there are some remnants of the previous buildings and infrastructure still in place (Figure 1-8).

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Figure 1-4. Removed Access Cover to Flume



Figure 1-5. Eroded Ground Cover and Adjacent Pit



Figure 1-6. Maintenance Hole atop a Steep Slope Adjacent to a Highway



Figure 1-7. Maintenance Hole in Close Proximity to Etobicoke Creek



Figure 1-8. Former Brampton WWTP