New Septage Waste Haulage Receiving Station Schedule B Municipal Class Environmental Assessment

Project File Report

Prepared for:

The Corporation of the City of Hamilton

Prepared by:

Stantec Consulting Ltd.

June 21, 2019

Revision	Description	Author	Quality Check	Independent Review
1st Draft	1st Draft Project File to Client – April 17, 2019	SB, LY,	MK	PB
2nd Draft	2nd Draft Project File to Client – May 29, 2019	SB, LY	MK	
Final	Final for Public Review – June 21st, 2019			

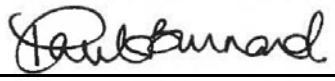
Sign-off Sheet

This document entitled New Septage Waste Haulage Receiving Station Schedule B Municipal Class Environmental Assessment was prepared by Stantec Consulting Ltd. ("Stantec") for the account of the Corporation of the City of Hamilton (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by

(signature)

Stephanie Bergman, Planner

Reviewed by 

(signature)

Paula Burnard, MCIP, RPP

Approved by

(signature)

Michael Kocher, P. Eng.

Table of Contents

1.0 Introduction and Background 1.1
1.1 Municipal Class Environmental Assessment Process 1.1
1.1.1 Types of Projects 1.2
1.1.2 Five-Phase Planning Process 1.2
1.1.3 Project Schedule 1.3
1.2 Study Area 1.5
1.3 Consultation Plan 1.5

2.0 Class EA Phase 1 – Identification of Problem and/or Opportunities 2.1
2.1 Existing Waste Haulage Receiving Stations 2.1
2.1.1 Upper Ottawa Street Waste Haulage Receiving Station 2.1
2.1.2 Woodward Avenue Waste Haulage Receiving Station 2.1
2.1.3 Operational Deficiencies 2.2
2.2 Background Studies and Reports 2.4
2.2.1 Septage Receiving System Location Criteria Memorandum, R.E. Poisson, December 23, 2009 ..... 2.4
2.2.2 Sewer Use By-Law, By-Law No. 14-090, Effective May 1, 2014 ..... 2.4
2.2.3 Sewer Use By-Law Review Phase II Report – Part 1, R.E. Poisson, October 2010 ..... 2.5
2.2.4 Sewer Use By-Law Review Phase II Report – Part 2, R.E. Poisson, October 2010 ..... 2.5
2.2.5 Eastport Conceptual Design Report, R.E. Poisson, April 2011 ..... 2.6
2.2.6 Evaluation of locations for a new waste haulage receiving station, City of Hamilton Staff, 2014 ..... 2.6
2.3 Problem Statement 2.7

3.0 Phase 2 – Alternative Solutions 3.1
3.1 Long List of Target Areas 3.2
3.1.1 Short List of Target Areas 3.4
3.2 Identification of Alternative Sites 3.6

4.0 Phase 2 – Existing Conditions 4.1
4.1 Socio-Economic and Cultural Environment 4.1
4.1.1 Existing Land Use, Future/Planned Land Use, and Adjacent Land Uses 4.1
4.1.2 Nuisance Impacts, Truck Routes, and Location 4.6
4.1.3 Built Cultural Heritage 4.7
4.1.4 Archaeological Resources 4.8
4.2 Natural Heritage 4.8
4.2.1 Airport Option 1 ..... 4.8
4.2.2 Airport Option 2 ..... 4.9
4.2.3 Upper James/Twenty Road 4.10

4.2.4 Hannon Option 1 ..... 4.11
4.2.5 Hannon Option 2 ..... 4.12
4.3 Drinking Water Source Protection 4.12
4.3.1 Airport Options 1 and 2, and Upper Hames/Twenty Road 4.13
4.3.2 Hannon Options 1 and 2 ..... 4.13
4.4 Technical Review 4.13
4.4.1 Proximity to Trunk Sanitary Sewer 4.13
4.4.2 Pumping Requirements 4.23
4.4.3 Impacts to Local Sewers 4.24
4.4.4 Impacts to Downstream Sewers 4.26
4.4.5 Site Design Considerations and Constructability 4.27
4.5 Permits and Approvals 4.29

5.0 Cost Estimates 5.1

6.0 Evaluation of Sites and Preliminary Recommendations 6.1

7.0 Overview of Stakeholder Input Received 7.1

8.0 Recommendations 8.1

9.0 Environmental Impacts and Mitigation 9.1
9.1 Socio-Economic 9.1
9.1.1 Property Acquisition 9.1
9.1.2 Traffic and Transportation 9.1
9.1.3 Archaeological and Built Cultural Heritage 9.1
9.2 Natural Heritage 9.2
9.2.1 Erosion and Sediment Control 9.2
9.2.2 Migratory Bird Convention Act 9.3
9.2.3 Endangered Species Act, 2007 ..... 9.3
9.2.4 Aquatic Habitat 9.4
9.2.5 Climate Change 9.4
9.3 Permits and Approvals 9.4

10.0 Class EA Filing Procedure 10.1
10.1 Formal Appeal Process – Part II Order 10.1
10.2 CLOSING 10.2

List of Tables

Table 3.1 Target Areas 3.2
Table 4.1 Summary of Pumping Requirements 4.23
Table 4.2 Sewer Capacity Analysis 4.25
Table 4.3 Site Design and Constructability 4.28
Table 6.1 Evaluation Criteria and Methodology 6.2
Table 6.2 Evaluation of Alternative Sites 6.3

NEW SEPTAGE WASTE HAULAGE RECEIVING STATION SCHEDULE B MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

List of Figures

Figure 1.1 Municipal Class Environmental Assessment Process.....1.4
Figure 1.2 Study Area.....1.7
Figure 2.1 Existing Waste Haulage Receiving Stations.....2.3
Figure 3.1 Map of Long List of Target Areas.....3.5
Figure 3.2 Map of Short List of Target Areas.....3.7
Figure 4.1 Airport Option 1 Facing South.....4.2
Figure 4.2 Airport Option 2 Facing West.....4.3
Figure 4.3 Upper James/Twenty Road (Facing West).....4.4
Figure 4.4 Hannon Option 1 Facing Southeast.....4.5
Figure 4.5 Hannon Option 2 Facing Southwest.....4.6
Figure 4.6 Drinking Water Source Protection Mapping.....4.14
Figure 4.7 Airport 1 and Airport 2 Sites - Aerial Imagery.....4.17
Figure 4.8 Airport 1 and Airport 2 Sites – Surrounding Land Use.....4.18
Figure 4.9 Upper James / Twenty Road – Aerial Imagery.....4.19
Figure 4.10 Upper James / Twenty Road – Surrounding Land Use.....4.20
Figure 4.11 Hannon 1 and Hannon 2 Sites – Aerial Imagery.....4.21
Figure 4.12 Hannon 1 and Hannon 2 Sites – Surrounding Land Use.....4.22

List of Appendices

Appendix A Consultation A.1

A.1 Notice of Study Commencement/PIC No. 1, Agency Response Form and Agency Mailing List
A.2 PIC No. 1 Sign-In and Comment Sheets
A.3 PIC No. 1 Display Boards
A.4 Notice of PIC No. 2, Agency Response Form and Agency Mailing List
A.5 PIC No. 2 Sign-in and Comment Sheets
A.6 PIC No. 2 Display Boards
A.7 Agency Consultation
A.8 Public Consultation
A.9 Indigenous Consultation
A.10 Notice of Completion and 30-Day Review

Appendix B Built Cultural Heritage Report B.1

Appendix C Stage 1 Archaeological Assessment C.1

Appendix D Natural Heritage Memorandum D.1

1.0 Introduction and Background

The City of Hamilton (City) has retained Stantec Consulting Ltd (Stantec) to complete a Schedule 'B' Municipal Class Environmental Assessment (Class EA) to identify a recommended location for a new septage waste haulage receiving station (SWHRS).

The City currently operates two septage waste haulage receiving stations, located at the Woodward Avenue Wastewater Treatment Plant (WWTP) and Upper Ottawa Street, respectively. These stations allow waste haulers to discharge 'Hauled Liquid Waste' which includes septage and holding tank waste from domestic sources, and certain hauled industrial wastes including liquid wastes. The waste haulage receiving stations currently operate using Hauled Sewage Discharge Declarations and tickets which are purchased by the haulers proving that the hauler has paid to discharge the waste.

Previous studies have determined that both existing stations need to be decommissioned and replaced. One new SWHRS is currently under construction at the Eastport Drive Sewage Pumping Station (to be completed in 2019). The purpose of this EA is to identify the recommended location for the second new SWHRS.

1.1 Municipal Class Environmental Assessment Process

The Ontario *Environmental Assessment Act* (EA Act) mandates that an Environmental Assessment (EA) be completed before the construction of any major municipal infrastructure, including drinking water systems. All municipalities in Ontario are subject to the provisions of the EA Act. The Municipal Engineer's Association (MEA) Municipal Class Environmental Assessment process (2000 as amended in 2007, 2011, and 2015), provides municipalities with a five-phase planning process approved under the EA Act to plan and undertake all municipal infrastructure projects in a manner that addresses all aspects of the environment as defined by the EA Act, including the Socio-economic, Cultural, Technical, Natural, and Economic Environments.

Key components of the Class EA planning process include:

- Public consultation early and throughout the planning process;
- Identification of a reasonable range of alternatives;
- Consideration of effects on the environment and ways to avoid/reduce impacts (mitigation);
- Systematic evaluation of alternatives;

- Clear documentation; and
- Traceable and transparent decision making.

1.1.1 Types of Projects

The MEA Class EA projects are classified as Schedule A, A+, B, or C based on a variety of factors including the general complexity of the undertaking, level of investigation required, and the extent of potential impacts on the environment that may occur. While the schedules provide a general framework for the Class EA undertaking, they each contain points of contact with the public and stakeholders that should be considered as minimum in fulfilling the requirements of the Class EA process under the EA Act.

Schedule A projects are generally small projects, have minimal impacts on the natural and social environments, and include the majority of municipal sewage operations, stormwater management, water operations, and maintenance activities. These projects are pre-approved, and do not require public consultation. Examples of Schedule A projects include watermain and sewer extensions where all such facilities are located within the Municipal road allowance or an existing utility corridor.

Schedule A+ projects are similarly pre-approved, but require that affected stakeholders be notified of the project.

Schedule B projects have the potential for some environmental and social impacts, and proponents are required to undertake a screening process involving mandatory contact with potentially affected members of the public, Indigenous communities, and relevant review agencies to ensure that they are aware of the project and that their concerns are addressed. Schedule B projects require the completion of Phases 1 and 2 of the Class EA planning process, which is documented in a Project File that is submitted for a mandatory 30-day public review period. Projects may include minor expansions to existing facilities, or other infrastructure installations requiring property acquisition.

Schedule C projects have the potential for significant environmental impacts and must follow the full planning process specified in the Class EA document including Phases 1 through 4. The project is documented in an Environmental Study Report (ESR), which is then filed for review by the Public, review agencies, and Indigenous communities. Projects generally include the construction of new facilities, and major expansions to existing facilities.

1.1.2 Five-Phase Planning Process

The main elements of the Class EA process have been incorporated into the five phases discussed below.

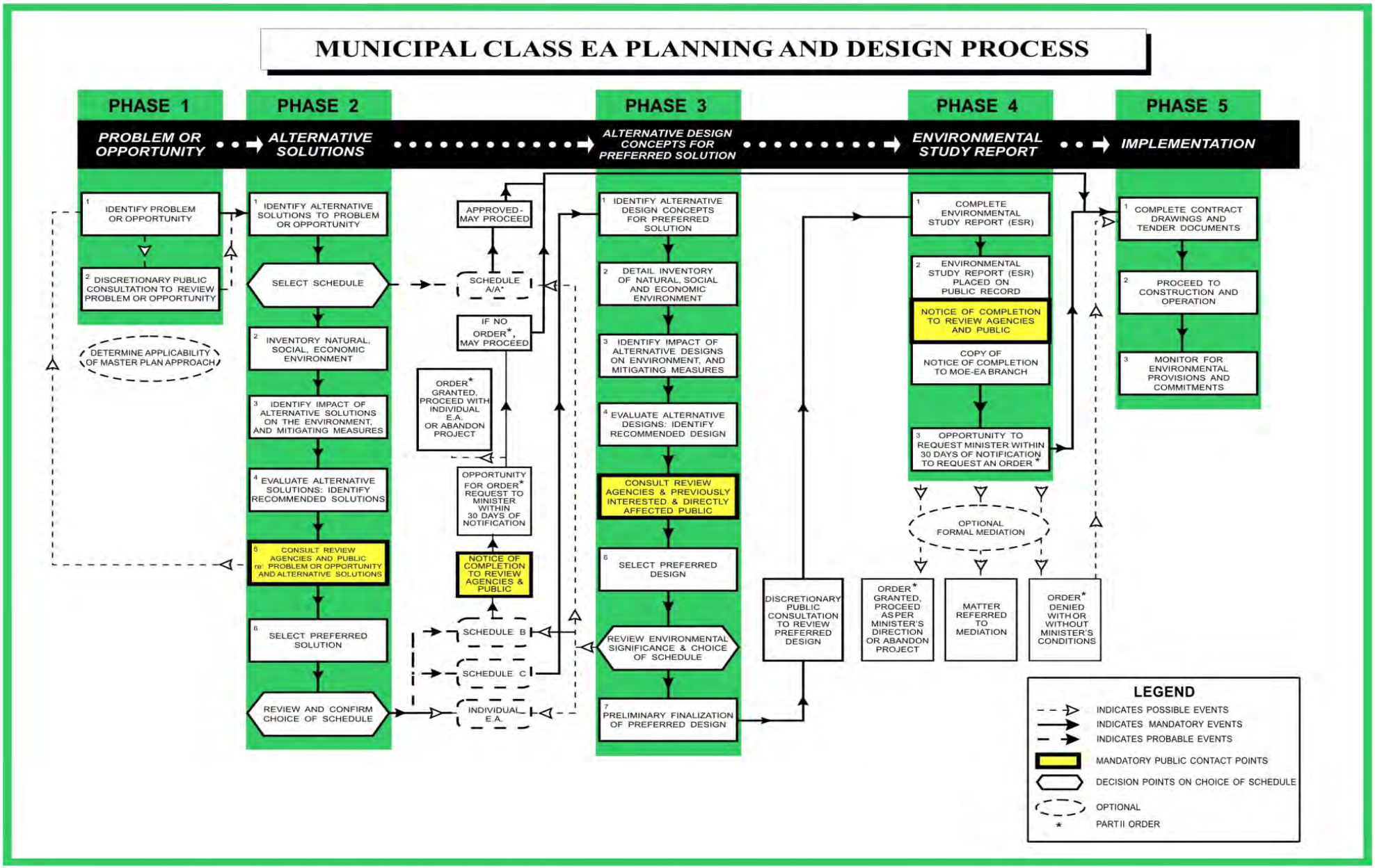
- **Phase 1** Identify the problem (deficiency) or opportunity, which may include public consultation to confirm/review the problem or opportunity.
- **Phase 2** Identify a reasonable range of alternative solutions to address the problem or opportunity. This phase also includes an inventory of the existing environment, and to assist in the evaluation of alternatives. A preferred solution is chosen based on the results of the evaluation and taking into account input from the public, review agencies, and Indigenous communities. It is at this point that the appropriate project Schedule is chosen and/or confirmed. If the project is identified as a Schedule B activity, the process and decisions are then documented in a Project File, which is made available for consideration by the public, review agencies, Indigenous communities for a mandatory 30-day review period. Schedule C projects proceed through Phases 3 and 4.
- **Phase 3** (For Schedule C projects only) Examine the alternative methods for implementing the preferred solution, i.e. design alternatives, based upon the existing environment, public and agency input, anticipated environmental effects and methods for minimizing negative effects and maximizing positive effects.
- **Phase 4** (For Schedule C projects only) Document the Class EA Process followed in an Environmental Study Report (ESR), which includes a summary of the rationale and the planning, design, and consultation process followed for the project and make the documentation available for consideration by the public, review agencies, Indigenous communities for a mandatory 30-day review period.
- **Phase 5** Complete contract drawings and documents, and proceed to construction and operation with monitoring to ensure adherence to environmental provisions and commitments.

Figure 1.1 illustrates the Class EA planning process, including mandatory points of contact with stakeholders throughout the project.

1.1.3 Project Schedule

Based on the framework provided Appendix 1 – Project Schedules of the MEA Class EA, the SWHRS Class EA is being planned as a Schedule B undertaking.

Figure 1.1 – Municipal Class EA Planning Process



1.2 Study Area

The overall study area for this Class EA includes areas throughout the City of Hamilton which are at a higher elevation that are serviced by the existing sanitary sewer collection system (excluding areas with combined sewers). These initial key areas are shown on Figure 2.1, and included: Flamborough, Dundas, Ancaster, Hamilton Mountain (both East and West Mountain), Glanbrook and Stoney Creek.

1.3 Consultation Plan

Consultation is a vital part of the Class EA process. Active engagement with all potentially affected parties including government agencies, members of the community, special interest groups, and Indigenous communities ensures a transparent and responsible planning process.

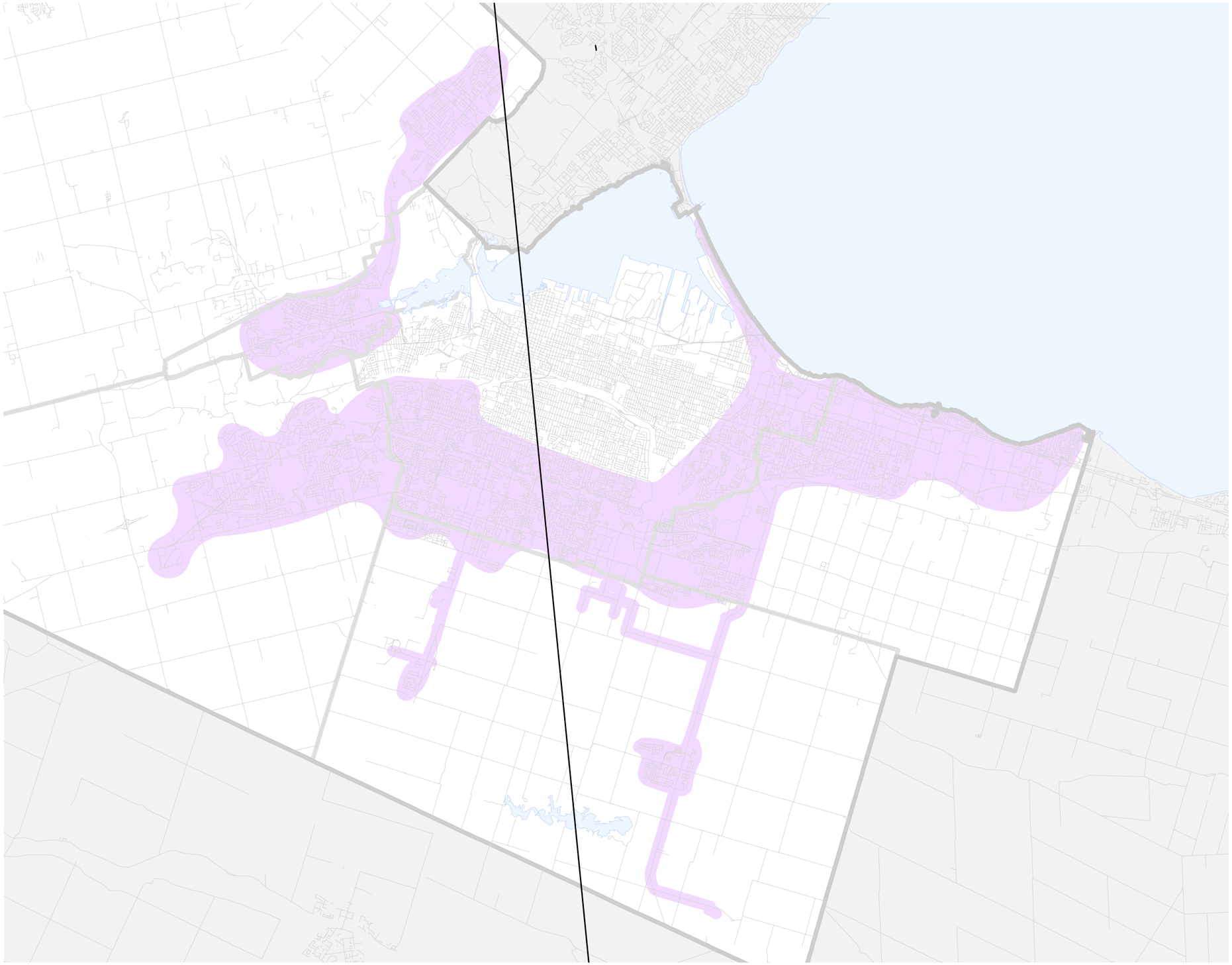
A contact list was created and updated throughout the study to include relevant Federal and Provincial government agencies, local government officials, Indigenous communities throughout Southern Ontario, neighbouring municipalities, and all others who have expressed interest in the study. Contact lists for study mailouts are included in Appendix A.

All communication with stakeholders has been documented and included in Appendix A. TRACER (Team Response and Commitment to Environmental Requirements) tables have been maintained to document all input received from the public, agencies, and Indigenous Communities, along with responses and commitments to carry forward. TRACER Tables are included in Appendix A.

The following provides an overview of the points of contact with stakeholders throughout the study. All project notifications were posted in the Hamilton Spectator for two consecutive editions.

- The Notice of Commencement and Notice of Public Information Centre (PIC) No. 1 introducing the project was mailed or emailed (where requested) to all stakeholders identified on the contact list starting October 20, 2017. A sample of the notice package is provided in Appendix A1.
- PIC No. 1 was held on November 9, 2017 from 6:00 - 8:00 pm at the Canadian Warplane Heritage Museum. The PIC was held during Phase 1 of the study to obtain initial feedback on potential SWHRS locations, existing study area conditions, and evaluation criteria. A comment sheet was provided to all PIC participants. PIC No. 1 materials are provided in Appendix A2 and A3.

- PIC No. 2 was held on September 19, 2018 from 6:00 - 8:00 pm at the Turner Park Library Programming Room. The PIC was held to present information on the long list and short list of alternative SWHRS sites, evaluation methodology and results, and the preliminary preferred site. All notices were mailed/emailed starting on August 31, 2018 to stakeholders identified on the contact list, those who attended PIC No. 1, and others who expressed interest in the study. A comment sheet was provided to all PIC participants. PIC No. 2 materials are provided in Appendix A4, A5 and A6.
- The Notice of Completion was published in the Hamilton Spectator newspaper (June 21, 2019 and June 28, 2019), mailed to all stakeholders and Indigenous communities (June 14, 2019), and posted to the City of Hamilton website starting June 21, 2019. The Project File was made available at the Office of the City Clerk, the Public Works Department, the Turner Park Library, and digitally on the City's website (http://www.hamilton.ca/newwastehaulageea). The Notice of Completion is available in Appendix A10.



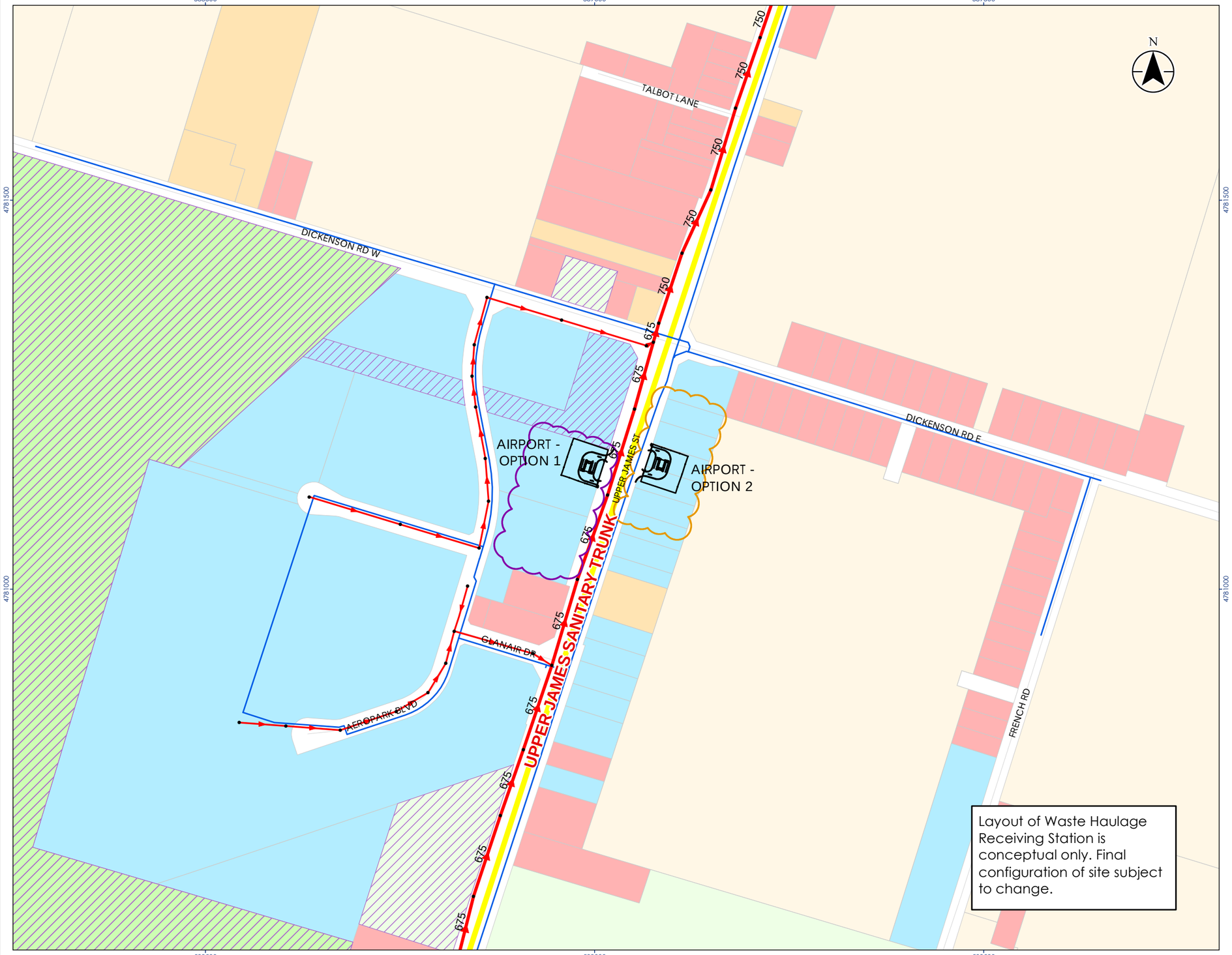
Stantec

Project Location

Client/Project

Figure No.

Title



Stantec

Legend

- Sanitary MH

Sanitary Sewer

- ≥ 600 mm
- 300 - 525 mm
- ≤ 250 mm
- Watermain
- Truck Route
- Public Land (Local)
- Other Parcel

Existing Land Use

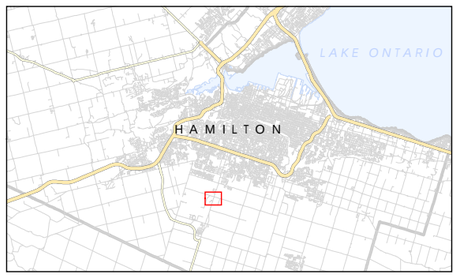
- Agricultural
- Commercial/ Office
- Residential
- Vacant Land
- Open Space
- Transportation and Utility
- Possible site locations for Airport Option 1
- Possible site locations for Airport Option 2

0 100 200 metres

1:5,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2017.



Project Location
City of Hamilton

165640234 REVA
Prepared by KDB on 2019-05-29

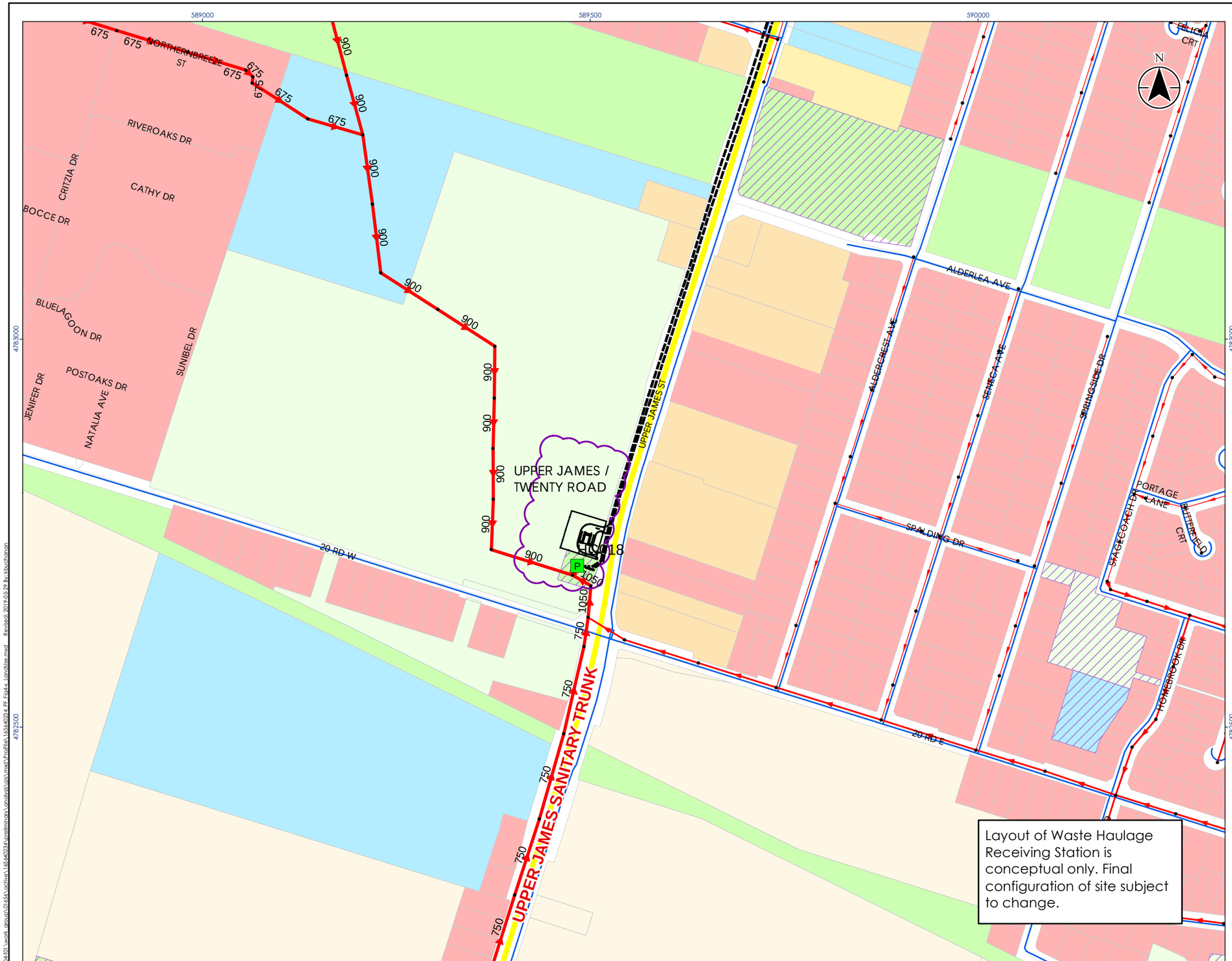
Client/Project
CITY OF HAMILTON
NEW SEPTAGE WASTE HAULAGE RECEIVING STATION
MUNICIPAL CLASS EA

Figure No.
4.8

Title
Airport Option 1 and Option 2 Surrounding Land Use

\\cd1004-f01.wsok.group\01655\active\165640234\preliminary\analysis\gis\mxd\Project\165640234_FF_Fig4x_LandUse.mxd Revised: 2019-05-29 By: kbouchanan

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.



Stantec

Legend

- Sanitary MH
- Sanitary Pumping Station
- Forcemain

Sanitary Sewer

- ≥ 600 mm
- 300 - 525 mm
- ≤ 250 mm
- Watermain
- Truck Route
- Public Land (Local)
- Other Parcel

Existing Land Use

- Agricultural
- Commercial/ Office
- Residential
- Institutional
- Vacant Land
- Open Space
- Transportation and Utility
- Possible site locations for Upper James / Twenty Road option

0 100 200 metres

1:5,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2017.

Project Location
City of Hamilton

165640234 REVA
Prepared by KDB on 2019-05-29

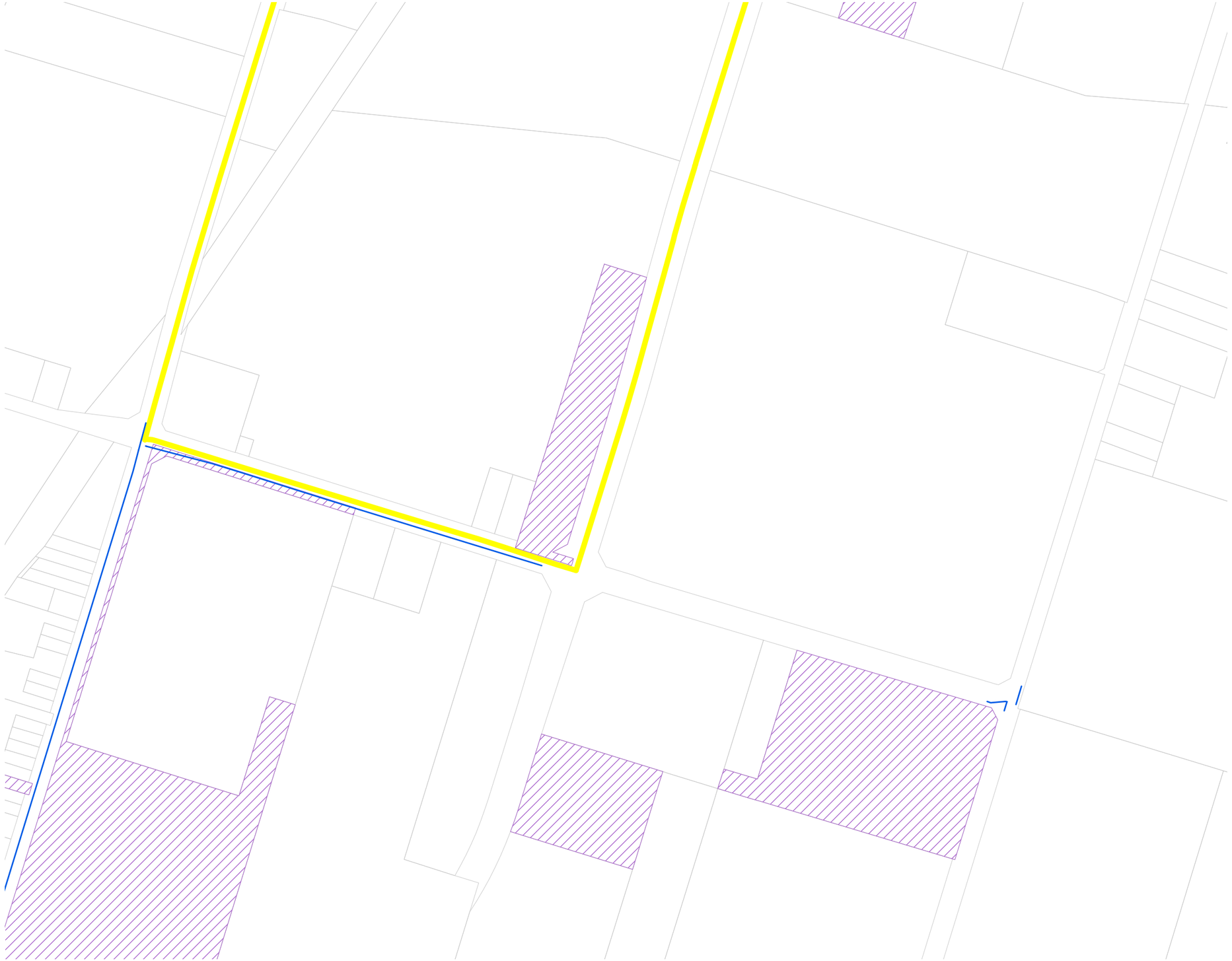
Client/Project
CITY OF HAMILTON
NEW SEPTAGE WASTE HAULAGE RECEIVING STATION
MUNICIPAL CLASS EA

Figure No.
4.10

Title
Upper James / Twenty Road
Surrounding Land Use

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

\\cd1004-f01.wsgt.group\01658\active\165640234\preliminary\arcgis\gis\mxd\Profile\165640234_PF_Fig4x_LandUse.mxd Revised: 2019-05-29 By: kbrunharan



LAKE ONTARIO
HAMILTON

4.4.2 Pumping Requirements

The pumping requirements for the proposed site candidates will be evaluated based on the requirements to convey flows from the site to the existing sanitary system and the impact to the existing downstream pumping stations. The flows from the existing Upper Ottawa SWHRS currently conveys flows via gravity into the Rymal Road area sewer. The City has indicated that minimal or no pumping of the new SWHRS flows is preferred to reduce the reliance on mechanical components. A summary of the general site topography, on-site pumping requirements and sewer depth is provided in Table 4.1 below:

Table 4.1 Summary of Pumping Requirements

Proposed Locations	Topography	Pumping Requirements	Sewer Depth
Airport 1	Overall flat topography at the proposed site location	Pumping requirements for the site will depend on the final site arrangement and the need for a holding tank as part of the site design.	Approximate depth of the sewer below grade at the proposed connection point is 7.5m to the pipe invert.
Airport 2	Overall flat topography at the proposed site location	Pumping requirements for the site will depend on the final site arrangement and the need for a holding tank as part of the site design.	Approximate depth of sewer below grade at the proposed connection point is 7.5m to the pipe invert.
Upper James/Twenty Road	Low lying area which would likely require imported fill to build up the existing site area.	Pumping is not anticipated for this option as the site could connect to the existing HC018 PS wet well which may allow for gravity discharge to the trunk sewer.	Approximate depth of sewer below grade at HC018 Twenty Road Pump Station is 8m.

Proposed Locations	Topography	Pumping Requirements	Sewer Depth
Hannon 1	Overall flat topography at the proposed site location	Pumping requirements for the site will depend on the final site arrangement and the need for a holding tank as part of the site design.	Approximate depth of sewer below grade at the proposed connection point is 6m to the pipe invert.
Hannon 2	Overall flat topography at the proposed site location	Pumping requirements for the site will depend on the final site arrangement and the need for a holding tank as part of the site design.	Approximate depth of sewer below grade at the proposed connection point is 6.3m to the pipe invert.

4.4.3 Impacts to Local Sewers

A key factor when selecting the optimal location for the new station is identifying any capacity constraints in the local collection system. The impact to the local sanitary sewer for each of the short-listed options was analyzed using the City's current Mike Urban Model of the existing sanitary system. A peak flow of 37 L/s from the new SWHRS was used for this analysis to determine the impact of the local sanitary systems for each of the 5 options considered. The 2010 Sewer Use By-Law Review, Part III Report (R.E. Poisson) recommended that a peak flow of 33 L/s should be used, however the ECA update for the new SWHRS at the Eastport PS (HC017) used a higher design discharge flow of 37 L/s. As a result, the more conservative design flow of 37 L/s was used for this analysis. It is noted that there has been limited reported of basement flooding issues within the local sewer systems in the vicinity of the proposed sites.

For this analysis, the City of Hamilton provided the following scenario results from the City's Mike Urban sewer model, in order to estimate the impact to the local sewer capacity with the addition of the new SWHRS:

- Full-pipe capacity
- Peak 2-Year Storm Flows
- Peak 5-year Storm Flows

The results of the analysis are summarized in the table below.

Table 4.2 Sewer Capacity Analysis

Site Location	Airport 1	Airport 2	Upper James/ Twenty Road	Hannon 1	Hannon 2
Local sewer	675mm Trunk	675mm Trunk	HC018 Twenty Road PS	900mm Trunk	825mm Trunk
Full Pipe Capacity	540 L/s	540 L/s	590 L/s (PS capacity)	1140 L/s	1200 L/s
2-Year Event - Peak Flow	279 L/s	279 L/s	151 L/s	419 L/s	196 L/s
5-Year Event – Peak Flow	430 L/s	430 L/s	760 L/s	624 L/s	217 L/s
Sewer Capacity Impact during 5-Year Storm	80% of the sewer capacity is reached	80% of the sewer capacity is reached	Flows at pump station exceed station's rated capacity	55% of the sewer capacity is reached	18% of the sewer capacity is reached

The results of the modelling analysis of the proposed locations indicated the following:

- The 5-Year Storm model shows the local trunk sewers reaching 80% capacity for site options Airport 1 and Airport 2.
- There is greater capacity in the local sewers for options Hannon 1 and Hannon 2 in comparison to the Airport 1, Airport 2 and the Upper James/Twenty Road PS options.
- The model showed that the HC018 PS Capacity will be exceeded during a 5-Year Storm event with the addition of the new SWHRS at the Upper James/Twenty Road option. For this proposed area, discharge from the SWHRS to the PS would likely need to be limited during high flow events.

In addition to the model results which indicate that the Hannon 1 and Hannon 2 options have the greatest available sewer capacity, the City is currently completing the construction of the new Upper Centennial Trunk Sewer, which will collect flows from the Binbrook PS (HC058), and further reduce flows to the both the Dartnall Road and Glover Road sanitary trunk sewers, thereby provided further available capacity for the flows from the proposed SWHRS.

4.4.4 Impacts to Downstream Sewers

After reviewing the impact to the local sanitary system using the City's model results, the impact to the downstream sewer systems was evaluated for each of the proposed site locations to determine if there are any capacity constraints, basement flooding issues or possible combined sewer overflows.

A summary of the impacts to the downstream sewer systems for each of the short-listed candidates is provided below.

4.4.4.1 Airport 1

Flows from the proposed Airport 1 location would be conveyed via gravity along Upper James St to the HC018 PS at Upper James St and Twenty Road West. The rated capacity of HC018 PS has increased to 590 L/s, however there are capacity concerns as shown in the modelling results for a 5-Year Storm event. Flows from the HC018 PS discharge to the Hamilton Mountain Sanitary Trunk sewer and are then conveyed to the Red Hill Sanitary Trunk Sewer. The downstream conveyance of flows from this proposed area does not pass through any combined sewer areas therefore this station location is not expected to increase the risk of combined sewer overflows or basement flooding.

4.4.4.2 Airport 2

Since the discharge location for the Airport 2 site would be near the discharge point for Airport 1, the impact to the downstream sewer system for the proposed Airport 2 location is the considered same as the Airport 1 option.

4.4.4.3 Upper James / Twenty Road

Flows from the HC018 PS discharge to the Hamilton Mountain Sanitary Trunk sewer and then to the Red Hill Sanitary Trunk Sewer. The modelling analysis detailed in the previous section (Impacts to Local Sewer Section) showed that there is sufficient capacity in the gravity sewer downstream of the station's forcemain discharge point for both 2-Year and 5-Year storm events. The downstream conveyance of flows from this proposed area does not pass through any combined sewer areas therefore this station

location is not expected to increase the risk of combined sewer overflows or basement flooding.

4.4.4.4 Hannon 1

Flows from the proposed Hannon 1 site will be conveyed to the Dartnall Road Area Sanitary Trunk Sewer and the Red Hill Sanitary Trunk Sewer. The proposed Hannon 1 location will have a similar flow path to the existing Upper Ottawa SWHRS.

Although there is currently sufficient capacity in the downstream sewers, flows from the Binbrook PS (HC058) will be re-directed via the new Upper Centennial Trunk Sewer. Construction of the new Upper Centennial Trunk Sewer and re-direction of Binbrook flows will increase capacity in the Hannon area trunks.

The downstream conveyance of flows from this proposed area do not pass through any combined sewer areas therefore this station location is not expected to increase the risk of combined sewer overflows or basement flooding.

4.4.4.5 Hannon 2

Due to the same downstream conveyance, the impact to the downstream sewer system for the proposed Hannon 2 location is the same as the Hannon 1 site.

Based on this evaluation, proposed site locations Hannon 1 and Hannon 2 show the least impact the downstream sewer system due to the greater available capacity in the downstream sewer and conveyed flows do not pass through an existing pumping station or combined sewer areas.

4.4.5 Site Design Considerations and Constructability

The following design and constructability considerations were reviewed for the proposed site locations:

- Servicing requirements/availability
- Site accessibility in terms of traffic and if alternative entrances are available
- Constructability issues such as soil conditions and groundwater issues
- Existing Topography

Table 4.3 Site Design and Constructability

	Airport 1	Airport 2	Upper James/ Twenty Road	Hannon 1	Hannon 2
Site Servicing	Property has been previously serviced and is development ready	Property has been previously serviced and is development ready	Servicing available for existing HC018 PS	Property has been previously serviced and is development ready	Property has been previously serviced and is development ready
Site Access	Local street access (Aeropark Blvd) for potential entrance instead of Upper James	Entrance via Upper James (high traffic)	Entrance via Upper James (high traffic)	Low traffic area, though truck traffic increasing with development	Low traffic area, though truck traffic increasing with development
Construct -ability	No anticipated constructability issues	No anticipated construct-ability issues	Construct-ability issues could arise due to adjacent wetland therefore potential for high groundwater and poor soil conditions	No anticipated construct-ability issues	No anticipated construct-ability issues

Overall, servicing is available for each of the potential site locations. For site access, sites Airport 1, Hannon 1 and Hannon 2 are the preferred options as they are located in low traffic areas. Airport 2 and the Upper James/Twenty Road sites are located along Upper James and therefore access may be difficult for trucks due to high traffic. The Airport 1 site could be accessed via Aeropark Boulevard instead of Upper James Street.

Constructability issues are not anticipated for sites Airport 1, Airport 2, Hannon 1 and Hannon 2. Due to the adjacent wetland at the Upper James/Twenty Road site, constructability issues may occur due to the high groundwater table and poor soil conditions. Due to the low-lying area, the existing site would likely need to be built-up with imported fill.

Overall, the proposed sites Airport 1, Hannon 1 and Hannon 2 present the least amount of site design challenges and constructability issues.

4.5 Permits and Approvals

For sites located adjacent to a Conservation Authority Regulated Area, a Conservation Authorities Act Section 28 Permit may be required (O. Reg. 161/06 – Hamilton Region Conservation Authority Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses; O. Reg. 155/06 Niagara Peninsula Conservation Authority: Regulation of Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses).

Where alternative sites have the potential for SAR habitats, confirmation of permitting requirements under the Endangered Species Act and/or Registration may be required.

For potential impacts to Hydro One lands, additional approvals may be required, which may include approval under the Infrastructure Ontario Public Work Class Environmental Assessment.

An Environmental Compliance Approval will also be required for the new station, along with typical utility coordination including a City of Hamilton Site Plan application.

5.0 Cost Estimates

The budgetary cost for the new SWHRS for Airport 1, Airport 2, Hannon 1 and Hannon 2 sites is approximately $4.5 – 5 million. The estimated capital cost for the facility was based on the cost for the recent Eastport Pump Station SWHRS, however additional costs are anticipated for the new site since it will be a greenfield facility, requiring additional site servicing, grading, and electrical components. The new facility will also be large enough to accommodate two trucks offloading at the same time, and provide an adequate turning radius on the site. The estimated budgetary cost for the Upper James/Twenty Road site is higher at $5.5 – 6 million, due to the increase in construction costs anticipated in order to raise the existing site grade and manage poor soil conditions and a high water table. Estimated capital costs for the preferred alternative will be refined further during the Conceptual Design phase.

Overall, property acquisition and operating and maintenance costs are expected to be similar between the short-listed sites.

6.0 Evaluation of Sites and Preliminary Recommendations

As part of Phase 2 of the Class EA process, the framework and criteria for assessing alternative solutions are identified to determine the advantages and disadvantages with respect to the Social/Cultural, Natural, Technical, and Economic components of the project. The criteria were developed to identify impacts to the Social/Cultural, Natural, Technical, and Economic Environments to satisfy the requirements under the EA Act. Each short-listed site was evaluated based on these criteria and given a score of 0, 3 or 5. A 5 rating represents a positive or minimal impact to the criteria, 3 represents a neutral/limited impact and a 0 represents a negative impact. Each environmental component was given the same overall weight.

The evaluation criteria and methodology used for the short list evaluation are described in Table 6.1, and the evaluation of options is provided in Table 6.2.

Based on the review of the Social/Cultural, Natural, Technical, and Economic Environment impacts for each of the short-listed sites, a scoring matrix was developed using the evaluation criteria presented earlier in this report. The scoring for each site location and criteria is presented in Table 6.2.

The results of the scoring evaluation indicate that the Hannon Option 1 site is the preliminary preferred location for the proposed SWHRS. The preliminary preferred location was presented to the public and stakeholders at Public Information Centre No. 2 to solicit feedback and input from the local community and stakeholders.

Table 6.1 – Short List Evaluation Criteria

Environmental Component	Criteria	Description	Scoring 5 Positive	3 Neutral	0 Negative
Socio-Economic/ Cultural	Existing land use	Existing developments on the site	Positive – there are no conflicting land uses currently on the site.	Neutral - There are existing uses on the site (e.g. pump station) which can be incorporated into the site design	Negative – There are existing incompatible uses on the site that would be displaced.
	Future/Planned Land Use including Active Development Applications	This includes consideration for existing active development applications as well as Provincial and local planning policy (Official Plan, Secondary Plans, etc.). Official Plan policies permit municipal infrastructure in all land use designations within Rural Hamilton (Policy C.3.0), and Urban Hamilton (Policy C.3.2.1 b), with consideration for the integration of the site with the character of surrounding land uses through landscaping, buffering, etc.	Positive – consistent with all policy objectives, and no impacts to existing development applications.	Neutral – May not be consistent with all policy objectives, no significant impacts to existing development applications.	Negative – may not be consistent with all policy objectives and negatively impacts existing development applications on the site.
	Adjacent land use (within 300m)	This criterion speaks to both existing and planned land uses adjacent to the proposed site.	Positive – there are no sensitive land uses (i.e. residential) within 300 m of the site	Neutral – there may be other/non-sensitive land uses within 300m of the site (commercial, etc.)	Negative – there are sensitive land uses within 300m of the site.
	Nuisance impacts (noise/odour)	The extent to which adjacent land uses may be impacted by operation of the SWHRS, including noise, odour, aesthetic, or other nuisance impacts.	Positive – Adjacent land uses are not expected to be impacted.	Neutral – adjacent land uses may be impacted to a degree, but mitigation measures can be identified to minimize impacts.	Negative – adjacent land uses are expected to be impacted by WHRS operations and there are no effective mitigation measures available.
	Truck Route/Impacts of increased traffic	Site location relative to identified truck routes, and impacts of increased traffic within existing communities. Increased truck traffic is expected to have similar impacts to road wear and tear for all site locations.	Positive – located along an identified truck route, no significant impacts to surrounding neighbourhoods.	Neutral – Not located along an identified truck route, but minimal anticipated impacts of increased truck traffic to surrounding communities.	Negative – not located along an identified truck route with potential impacts of increased truck traffic to surrounding neighbourhoods
	Central location (Convenience for Waste Haulers)	Site location complements the location of existing SWHRS to provide a centralized location for waste haul contractors.	Positive – central location that complements existing SWHRS.	Neutral – less central location in relation to other proposed sites.	Negative – Inconvenient location in relation to other proposed sites.
	Cultural Heritage	Impacts to potential/identified built cultural heritage resources.	Positive – no impacts to built cultural heritage resources.	Neutral – located in proximity to a built cultural heritage resource, where mitigation can be identified (screening, architectural site design features, etc.)	Negative – significantly impacts a built cultural heritage resource.
	Archaeology	Impacts to areas of archaeological potential as identified within the Stage 1 Archaeological Assessment	Positive – no areas of archaeological potential	N/A	Negative – impacts to areas of identified archaeological resources.
Natural Environment	Vegetation	Potential impact on woodlands and other areas of natural vegetation communities (excluding wetlands)	Positive – little-no impact. Limited areas of natural vegetation communities.	Neutral – limited areas of natural vegetation, impacts can be mitigated through site design and other best practices.	Negative – significant loss of wooded area/vegetation communities.

Environmental Component	Criteria	Description	Scoring 5 Positive	3 Neutral	0 Negative
	Wetlands/PSW	Potential Impact on Provincially Significant Wetlands, locally significant wetlands and unevaluated wetlands.	Positive – no wetlands in proximity to the site.	Neutral – wetlands present within the project area, potential for impacts can be mitigated through site design and other best practices.	Negative – loss of wetland areas.
	Features designated in City of Hamilton OP	Potential impact on Core Areas and Linkages	Positive – no Core Areas/Linkages located in proximity to the site.	Neutral – Core Areas/Linkages located in proximity to the site. Potential impacts can be mitigated through site design and other best practices.	Negative – loss of Core Areas/Linkages.
	Wildlife and Wildlife Habitat	Potential impact on Significant Wildlife Habitat (SWH), including Species of Conservation Concern (SOCC)	Positive – low-no potential for SWH.	Neutral – potential for SWH. Potential impact can be mitigated through species-specific measures (timing windows, etc.)	Negative – permanent loss of SWH.
	Species at risk	Potential impact on Species at Risk (SAR) (habitat and species)	Positive – low-no potential for SAR.	Neutral – potential impacts to SAR habitat. Impacts can be mitigated through species-specific measures.	Negative – permanent loss of SAR habitat.
	Watercourses/fisheries/aquatic impacts	Potential impact on existing watercourses Potential impact on fish/fish habitat	Positive – no watercourses/aquatic features present.	Neutral – aquatic resources present, impacts can be mitigated through site design/best management practices, and/or opportunities for enhancement.	Negative – permanent loss of fish habitat.
	Drinking Water Source Protection	Assess location within a vulnerable area (Wellhead Protection Area, Intake Protection Zone, Significant Groundwater Recharge Area, Highly Vulnerable Aquifer) and threat to the drinking water source.	Positive – not located within a vulnerable area.	Neutral – may be located within a SGRA/HVA, but no applicable significant threat policies apply.	Negative – Located within a SGRA/HVA. Significant threat policies apply.
Technical	Proximity to Trunk Sewer (amount of sewer construction needed)	Amount of linear infrastructure required to connect to available trunk sewer.	Positive – least amount of linear infrastructure required.	Neutral – moderate amount of infrastructure required	Negative – significant amount of infrastructure required.
	Pumping requirements	Pumping requirements to convey flows from the site to the existing distribution system, including impacts to existing downstream pumping stations.	Positive – least impact to downstream pumping stations, and no pumping requirements for conveyance of flows from the site.	Neutral – some impact to downstream pumping stations. Pumping may be required for conveyance of flows from the site.	Negative – most impact to downstream pumping stations and/or pumping required for conveyance of flows from the site.
	Impacts to local sewer system	Identify if local collection system near the proposed station has capacity constraints or concerns.	Positive – least amount of impact to local sewer system; sewers have significant capacity available including additional reserve capacity.	Neutral – some impacts to local sewer system; sewers have sufficient capacity available.	Negative – significant impact to local sewer system, insufficient capacity available.
	Impacts to downstream sewer system	Identify if existing system downstream has capacity constraints, basement flooding issues, or incidence of combined sewer overflows.	Positive – least amount of impact to downstream sewer system; sewers have significant capacity available including additional reserve capacity.	Neutral – some impact to downstream sewer system; sewers have sufficient capacity available.	Negative – significant impact to downstream sewer system, insufficient capacity available.
	Site Design Considerations	Identify if site location has site design constraints such as existing topography, high traffic area, availability of services, etc.	Positive – least amount of site design challenges.	Neutral – some site design challenges that are not expected to greatly impact overall capital costs.	Negative – significant constructability issues that are

Environmental Component	Criteria	Description	Scoring 5 Positive	3 Neutral	0 Negative
					likely to increase overall capital costs.
	Constructability	Any known soil conditions, groundwater issues, etc. that may impact construction of the station.	Positive – least amount of constructability issues.	Neutral – some constructability issues that are not expected to greatly impact overall capital costs.	Negative – significant constructability issues that are likely to increase overall capital costs.
	Permits and Approvals	Number and complexity of permit and approval requirements for candidate site.	Positive – fewer or limited permits and approvals required.	Neutral – typical permits and approvals required.	Negative – significant or challenging permits and approvals required.
Economic	Capital Costs	Capital costs for construction, including linear upgrades, downstream upgrades, pumps, etc.	5 points for least capital cost	3 points for average capital cost	0 points for highest capital cost
	Property acquisition costs	Potential for costs associated with property acquisition. Actual property acquisition costs would be determined by realty services should preferred location be located on private property.	Positive – property acquisition not required (City property), minimal loss of revenue from sale of property.	Neutral – If property acquisition required, typical acquisition costs anticipated. If located on City property, results in large loss of revenue from potential sale of property.	Negative – Property acquisition required. High property acquisition costs anticipated.
	Operations and maintenance costs	Additional long-term operations/ maintenance considerations including increased pump maintenance, energy costs, etc.	Positive – no significant increase in overall system operations and maintenance costs.	Neutral – potential for increase in overall system operations and maintenance costs.	Negative – potential for significant increase in overall system operations and maintenance.

Table 6.2 – Short List Evaluation Scoring

Criteria	Airport		Upper James/ Twenty Road	Hannon South	
	Airport 1	Airport 2		Hannon 1	Hannon 2
Socio-Economic/ Cultural					
Existing land use	• Part of active site plan application (site plan within approved subdivision) • Lands not owned by City	• Part of an active site plan application (car dealership) • Lands not owned by City	• Vacant land • Lands not owned by City	• Vacant land • Lands not owned by City	• Vacant land • Lands owned by City
	3	0	5	5	5
Future/Planned Land Use including Active Development Applications	• Airport Employment Area/ Airport Prestige Business Area within the Airport Secondary Plan. Not consistent with vision for “Prestige Business Area” land use. • Active site plan application with approved draft plan.	• Airport Employment Area/ Airport Prestige Business Area within the Airport Secondary Plan (SP). Not consistent with vision for “Prestige Business Area” land use. • Special Policy Area G within SP – permits a range of uses including restaurants, motor vehicle sales/rental, • Active site plan application (car dealership).	• Arterial Commercial • No Active planning applications.	• Located in Business Park Land Use • Part of Subdivision Application - Glanbrook Industrial Park (1980, Draft Approved)	• Located in Business Park Land Use • Part of Subdivision Application - McNally Industrial Park (1990, In Progress) •
	3	0	3	3	3
Adjacent land use (within 300m)	• Adjacent to proposed self-storage facility. • Across from proposed car dealership.	• Adjacent to Airport Prestige Business Area land use designations within SP, Rural and Open Space within OP.	• Surrounded by Arterial Commercial land use designations; • Across from some residential properties; • Adjacent to sanitary pump station, car dealership, and institutional uses (place of worship)	• Located within industrial land use area. • Adjacent to existing asphalt plant.	• Located within industrial land use area. • Adjacent to Maple Leaf Foods processing plant. Near existing industries including Canada Bread, Navistar, and Fibracast. • Located at high profile intersection within Business Park.
	3	3	3	5	3
Nuisance impacts (noise/odour)	• Potential for increased noise/odours to nearby / proposed businesses from site activities (truck unloading, site traffic) • Odour control mitigation measures will be integrated into design.	• Potential for increased noise/odours to nearby / proposed businesses from site activities (truck unloading, site traffic) • Odour control mitigation measures will be integrated into design.	• Odour control mitigation measures will be integrated into design. • Potential for increased noise/odours to nearby residences and businesses from site activities (truck unloading, site traffic) • Potential for light/noise pollution to surrounding	• Sufficient land available to provide adequate setbacks & shielding from surrounding properties. • Odour control mitigation measures will be integrated into design. • No directly adjacent residences/ businesses anticipated to be impacted by odours/noise from site.	• Sufficient land available to provide adequate setbacks & shielding from surrounding properties. • Odour control mitigation measures will be integrated into design. • Potential for increased noise/odours to nearby / proposed businesses from

Criteria	Airport		Upper James/ Twenty Road	Hannon South	
	Airport 1	Airport 2		Hannon 1	Hannon 2
			residences from 24-hour accessible site.		site activities (truck unloading, site traffic)
	3	3	0	5	3
Truck Route/Impacts of increased traffic	• Located along north-south truck route (Upper James Street). • Not close to east-west truck routes (Rymal Road / Hwy 6). • Additional truck traffic along Upper James Street (high traffic area). • Increased traffic through Mount Hope area.	• Located along north-south truck route (Upper James Street). • Not close to east-west truck routes (Rymal Road / Hwy 6). • Additional truck traffic along Upper James Street (high traffic area). • Increased traffic through Mount Hope area.	• Located along north-south truck route (Upper James Street). Close to east-west truck route (Rymal Road). Both within commercial/residential areas. • Additional truck traffic near Upper James Street / Twenty Road (high traffic area). • Potential for increased traffic through Mount Hope area.	• Located along north-south truck route (Dartnall Road). Close to east-west truck route (Rymal Road). Close to Lincoln Alexander Parkway. • Dartnall Road passes mainly through commercial/industrial areas.	• Not directly located on established truck route. • Located close to north-south truck route (Dartnall Road). Close to east-west truck route (Rymal Road). Close to Lincoln Alexander Parkway. • Dartnall Road passes mainly through commercial/industrial areas.
	0	0	3	5	3
Central location (Convenience for Waste Haulers)	• Centrally located to Flamborough, Dundas, Ancaster, Glanbrook, and Stoney Creek areas.	• Centrally located to Flamborough, Dundas, Ancaster, Glanbrook, and Stoney Creek areas.	• Centrally located to Flamborough, Dundas, Ancaster, Glanbrook, and Stoney Creek areas.	• Centrally located to Flamborough, Dundas, Ancaster, Glanbrook, and Stoney Creek areas.	• Centrally located to Flamborough, Dundas, Ancaster, Glanbrook, and Stoney Creek areas.
	5	5	5	5	5
Cultural Heritage	• No impacts.	• No impacts.	• Located in proximity to a listed property – Cultural Heritage Resource Assessment required.	• No impacts.	• No impacts.
	5	5	3	5	5
Archaeology	• No archaeological potential	• No archaeological potential	• Areas of archaeological potential – Stage 2 required (field investigation). Results of Stage 2 may clear site.	• Areas archaeological potential – Stage 2 required (field investigation). Results of Stage 2 may clear site.	• Areas of archaeological potential – Stage 2 required (field investigation). Results of Stage 2 may clear site.
	5	5	5	5	5
Socio-Economic/ Cultural Summary	**Category score: 27 / 40 Weighted score: 16.9 / 25 Category Rank: T-3rd**	**Category score: 21 / 40 Weighted score: 13.1 / 25 Category Rank: 4th**	**Overall score: 27 / 40 Weighted score: 16.9 / 25 Category Rank: T-3rd**	**Overall score: 38 / 40 Weighted score: 23.8 / 25 Category Rank: 1st**	**Overall score: 32 / 40 Weighted score: 20 / 25 Category Rank: 2nd**
Natural Environment					
Vegetation	• Sparsely vegetated old field habitat. • Little-no impact.	• Old field habitat with scattered trees. • Little-no impact.	• Old field/meadow habitat with scattered trees. Riparian habitat along watercourse; wetlands present.	• Mostly old field/meadow, with small areas of thicket. Marsh habitat along periphery of site; treed areas along watercourse.	• Old field/meadow habitat with small treed areas. • Little-no impact. Impacts to riparian habitat can be

Criteria	Airport		Upper James/ Twenty Road	Hannon South	
	Airport 1	Airport 2		Hannon 1	Hannon 2
			• Little-no impact. Impacts to riparian habitat can be mitigated through site design/BMPs.	• Moderate impact to vegetation and marsh habitat.	mitigated through side design/BMPs.
	5	5	3	3	5
Wetlands/PSW	• PSW on the northeast corner of Dickenson and Upper James Street, outside of the 120-metre area. • No impact.	• PSW on the northeast corner of Dickenson and Upper James Street, outside of the 120-metre area. • No impact.	• PSW present on the western edge of the site. • Little-to-no potential for impact. Impacts can be mitigated through site design/best practices.	• No wetlands located in proximity to the site. • No impact.	• No wetlands located in proximity to the site. • No impact.
	3	5	3	3	5
Features designated in City of Hamilton OP	• There are Core Areas (streams) which are regulated by the Conservation Authority. • Significant woodlands may be present on adjacent lands. • Little-no impact, can be mitigated through site design/best practices.	• There are Core Areas (streams) which are regulated by the Conservation Authority. • Little-no impact, can be mitigated through site design/best practices.	• Significant woodlands may be present on or adjacent to the site. • From City: this site is outside of the Core Areas and is outside of the area regulated by the Conservation Authority. However, it is adjacent to (within 120 metres of) a wetland and stream. • Little-no impact, can be mitigated through site design/best practices.	• Most of this site is regulated by the Hamilton Conservation Authority and there are Core Areas (streams) on the property. • Linkage areas may be present on adjacent lands. • Can be mitigated through site design.	• This site is regulated by the Conservation Authority and contains a Core Area (stream). • Little-no impact, can be mitigated through site design.
	3	3	3	3	3
Wildlife and Wildlife Habitat	• Records of Snapping Turtle and Milksnake in the general project area. • Potential SWH: reptile hibernaculum, open country bird breeding habitat. • Low-moderate impact. Can be mitigated.	• There are records of Snapping Turtle and Milksnake in the area. • Potential SWH: reptile hibernaculum, open country bird breeding habitat • Low-moderate impact. Can be mitigated.	• There are records of Snapping Turtle and Milksnake in the area. • Potential SWH: reptile hibernaculum, open country bird breeding habitat, amphibian breeding habitat. • Low-moderate impact. Can be mitigated.	• There are records of Snapping Turtle and Milksnake in the area. • Potential SWH: reptile hibernaculum, open country bird breeding habitat, amphibian breeding habitat • Low-moderate impact. Can be mitigated.	• There are records of Snapping Turtle and Milksnake in the area. • Potential SWH: reptile hibernaculum, open country bird breeding habitat, amphibian breeding habitat • Low-moderate impact. Can be mitigated.
	3	3	3	3	3
Species at risk	• No recent NHIC records for Threatened or Endangered species. Grassland habitat appears to be low quality (recent disturbance) and so unlikely to support grassland bird SAR.	• No recent NHIC records. This site may also contain habitat for grassland bird species at risk (Eastern Meadowlark, Bobolink). • Potential SAR bat maternity habitat in treed areas.	• No recent NHIC records. Barn Swallow records from E-bird. This site may also contain habitat for grassland bird species at risk (Eastern Meadowlark, Bobolink).	• No recent NHIC records. No recent E-bird records for bird SAR. This This site may contain habitat for grassland bird species at risk (Eastern Meadowlark, Bobolink, Barn Swallow).	• No recent NHIC records. No recent E-bird records for bird SAR. This This site may contain habitat for grassland bird species at risk (Eastern Meadowlark, Bobolink, Barn Swallow).

Criteria	Airport		Upper James/ Twenty Road	Hannon South	
	Airport 1	**Airport 2**		**Hannon 1**	**Hannon 2**
	• Little-no impact.	• Potential impact to grassland SAR to be confirmed.	• Potential impact to grassland SAR to be confirmed.	• Potential impact to grassland SAR to be confirmed.	• Potential impact to grassland SAR to be confirmed.
	5	5	3	3	3
Watercourses/fisheries/aquatic impacts	• Watercourse supporting Special Concern species (Grass Pickerel) crosses northwest corner of site. • Potential for impacts can be mitigated.	• Watercourse supporting Special Concern species (Grass Pickerel) crosses northern half of property. • Potential for impacts can be mitigated.	• Watercourse supporting Special Concern species (Grass Pickerel) crosses northern half of property. • Potential for impacts can be mitigated.	• Warmwater watercourse crosses middle of property. • Less ability to mitigate impacts due to location of watercourse.	• Warmwater watercourse crosses middle of property. • Less ability to mitigate impacts due to location of watercourse.
	3	3	3	3	5
Drinking Water Source Protection	• Located within HVA. No significant threats to municipal drinking water sources.	• Not located within a vulnerable area.	• Located within SGRA with vulnerability score of 6 and HVA. No significant threats to municipal drinking water sources.	• Located within HVA. No significant threats to municipal drinking water sources.	• Located within HVA. No significant threats to municipal drinking water sources.
	3	5	3	3	3
Natural Environment Summary	**Category Score: 25 / 35 Weighted Score: 17.9 / 25 Category Rank: 3rd**	**Category Score: 29 / 35 Weighted Score: 20.7 / 25 Category Rank: 1st**	**Criteria Score: 21 / 35 Weighted Score: 15 / 25 Category Rank: T-4th**	**Category Score: 21 / 35 Weighted Score: 15 / 25 Category Rank: T-4th**	**Category Score: 27 / 35 Weighted Score: 19.3 / 25 Category Rank: 2nd**
Technical					
Proximity to Trunk Sewer (amount of sewer construction needed)	• Adjacent to 675mm DIA trunk sewer along Upper James Street. • Connection to trunk sewer within existing ROW required.	• Adjacent to 675mm DIA trunk sewer along Upper James Street. • Connection to trunk sewer within existing ROW required.	• Located adjacent to Twenty Road PS. Potential for connection directly to PS wet well. • Minimal sewer construction required, may be contained to site.	• 600mm DIA and 900mm DIA trunk sewer passes through site. • Minimal sewer construction required, may be contained to site.	• Adjacent to 875mm DIA trunk sewer at Twenty Road East and Glover Road. • Connection to trunk sewer within existing ROW required.
	3	3	5	5	3
Pumping requirements	• Pumping may be required depending on final arrangement of site and whether holding tank is integrating into design. • Depth of trunk sewer within ROW approx. 7.5m below grade.	• Pumping may be required depending on final arrangement of site and whether holding tank is integrating into design. • Depth of trunk sewer within ROW approx. 7.5m below grade.	• Pumping not anticipated as connection to existing PS wet well would potentially allow for gravity discharge.	• Pumping may be required depending on final arrangement of site and whether holding tank is integrating into design. • Depth of trunk sewer within ROW approx. 6.0m below grade.	• Pumping may be required depending on final arrangement of site and whether holding tank is integrating into design. • Depth of trunk sewer within ROW approx. 6.3m below grade.
	3	3	5	3	3

Criteria	Airport		Upper James/ Twenty Road	Hannon South	
	Airport 1	Airport 2		Hannon 1	Hannon 2
Impacts to local sewer system	• <u>Local 675mm DIA trunk sewer</u> Full-pipe capacity (immediately adjacent sewer): 540 L/s Peak 5-YR Storm Flow: 279 L/s* Peak 5-YR Storm Flow: 430 L/s* Est. Peak Flow from WHRS: 33 L/s • 5-YR Storm Peak Flow ~ 80% of sewer capacity. • Limited reports of sewer system issues within vicinity of proposed site. Not a known problematic area with history of basement flooding. *Source – City Mike Urban Model.	• <u>Local 675mm DIA trunk sewer</u> Full-pipe capacity (immediately adjacent sewer): 540 L/s Peak 2-YR Storm Flow: 279 L/s* Peak 5-YR Storm Flow: 430 L/s* Est. Peak Flow from WHRS: 33 L/s • 5-YR Storm Peak Flow ~ 80% of sewer capacity. • Limited reports of sewer system issues within vicinity of proposed site. Not a known problematic area with history of basement flooding. *Source – City Mike Urban Model.	• <u>HC018 (Twenty Road PS)</u> Rated station capacity: 590 L/s Peak 2-YR Storm Flow: 151 L/s* Peak 5-YR Storm Flow: 760 L/s* Est. Peak Flow from WHRS: 33 L/s • Model flows to pumping station exceed station capacity during 5-year event. • Limited reports of sewer system issues within vicinity of proposed site. Not a known problematic area with history of basement flooding. • Possible to limit/prevent WHRS discharge into pumping station high flow events. *Source – City Mike Urban Model.	• <u>Local 900mm DIA trunk sewer</u> Full-pipe capacity: 1140 L/s Peak 2-YR Storm Flow: 419 L/s* Peak 5-YR Storm Flow: 624 L/s* Est. Peak Flow from WHRS: 33 L/s • 5-YR Storm Peak Flow ~ 55% of sewer capacity. • Limited reports of sewer system issues within vicinity of proposed site. Not a known problematic area with history of basement flooding. • Existing flows from Binbrook PS (HC058) will be re-directed to Upper Centennial Trunk Sewer once completed, further reducing flows along Dartnall Road area sanitary trunk sewer. *Source – City Mike Urban Model.	• <u>Local 825mm DIA trunk sewer</u> Full-pipe capacity: 1200 L/s Peak 2-YR Storm Flow: 196 L/s* Peak 5-YR Storm Flow: 217 L/s* Est. Peak Flow from WHRS: 33 L/s • 5-YR Storm Peak Flow ~ 18% of sewer capacity. • Limited reports of sewer system issues within vicinity of proposed site. Not a known problematic area with history of basement flooding. • Existing flows from Binbrook PS (HC058) will be re-directed to Upper Centennial Trunk Sewer once completed, further reducing flows within Glover Road sanitary trunk sewer. *Source – City Mike Urban Model.
	3	3	3	5	5
Impacts to downstream sewer system	• Discharged flows would be conveyed via gravity along Upper James Street to HCO18 (Twenty Road PS). • Twenty Road PS has of capacity issues, however recent upgrades increased station rated Peak Flow capacity to 590 L/s. • HC018 (Twenty Road PS) discharges to Hamilton Mountain Sanitary Trunk Sewer, which discharges to Red Hill Sanitary Trunk Sewer • Downstream conveyance of flows does not pass through combined sewer areas (Lower Hamilton), therefore	• Discharged flows would be conveyed via gravity along Upper James Street to HCO18 (Twenty Road PS). • Twenty Road PS has of capacity issues, however recent upgrades increased station rated Peak Flow capacity to 590 L/s. • HC018 (Twenty Road PS) discharges to Hamilton Mountain Sanitary Trunk Sewer, which discharges to Red Hill Sanitary Trunk Sewer • Downstream conveyance of flows does not pass through combined sewer areas (Lower Hamilton), therefore	• HC018 (Twenty Road PS) discharges to Hamilton Mountain Sanitary Trunk Sewer, which discharges to Red Hill Sanitary Trunk Sewer • Model results (2-Yr, 5-Yr) show sufficient capacity available in gravity sewer downstream of forcemain discharge point from Twenty Road PS. However model may need to be updated with increased capacity of Twenty Road PS (590 L/s) • Downstream conveyance of flows does not pass through combined sewer areas (Lower Hamilton), therefore	• Downstream system includes Dartnall Road Area Sanitary Trunk Sewer and Red Hill Sanitary Trunk Sewer. • Similar flow path to existing Upper Ottawa WHRS, which discharges into Rymal Road area sewer. • Existing flows from Binbrook PS (HC058) will be re-directed to Upper Centennial Trunk Sewer once completed, further reducing flows within Glover Road sanitary trunk sewer and downstream conveyance system.	• Downstream system includes Dartnall Road Area Sanitary Trunk Sewer and Red Hill Sanitary Trunk Sewer. • Similar flow path to existing Upper Ottawa WHRS, which discharges into Rymal Road area sewer. • Existing flows from Binbrook PS (HC058) will be re-directed to Upper Centennial Trunk Sewer once completed, further reducing flows within Glover Road sanitary trunk sewer and downstream conveyance system.

Criteria	Airport		Upper James/ Twenty Road	Hannon South	
	Airport 1	Airport 2		Hannon 1	Hannon 2
	not expected to increase risk of combined sewer overflows or basement flooding.	not expected to increase risk of combined sewer overflows or basement flooding.	not expected to increase risk of combined sewer overflows or basement flooding.	• Downstream conveyance of flows does not pass through combined sewer areas (Lower Hamilton), therefore not expected to increase risk of combined sewer overflows or basement flooding.	• Downstream conveyance of flows does not pass through combined sewer areas (Lower Hamilton), therefore not expected to increase risk of combined sewer overflows or basement flooding.
	3	3	3	5	5
Site Design Considerations	• Site property has been previously serviced and is ready for development. Flat topography. • Local street access provides potential alternative entrance instead of Upper James Street.	• Site property has been previously serviced. • Site entrance would be off Upper James Street, which is a high traffic area. May cause difficulty entering/exiting site for trucks.	• Services anticipated to be available from existing HC018. • Site entrance would be off Upper James Street, which is a high traffic area. May cause difficulty entering/exiting site for trucks.	• Site property has been previously serviced and is ready for development. Flat topography. • Low traffic area.	• Site property has been previously serviced and is ready for development. Flat topography. • Low traffic area.
	5	3	3	5	5
Constructability	• Previously serviced property ready for development. Little-no anticipated constructability issues.	• Previously serviced property ready for development. Little-no anticipated constructability issues.	• Adjacent to identified wetland. Potential for high groundwater table and poor soil conditions. • Low lying area would likely require imported fill to build-up existing site.	• Previously serviced property ready for development. Little-no anticipated constructability issues.	• Previously serviced property ready for development. Little-no anticipated constructability issues.
	5	5	3	3	3
Permits and Approvals	• New site location, Environmental Compliance Approval (ECA) required. • Niagara Peninsula Conservation Authority permit review required (regulated area). • Typical utility coordination and approvals for construction (Site Plan Approval, Building Permit, etc.)	• New site location, Environmental Compliance Approval (ECA) required. • Niagara Peninsula Conservation Authority permit review required (regulated area). • Typical utility coordination and approvals for construction (Site Plan Approval, Building Permit, etc.)	• Existing ECA in place for pumping station, amendment to existing ECA possible. • Niagara Peninsula Conservation Authority permit review required. Located within 120m of Regulated Wetland. • Typical utility coordination and approvals for construction (Site Plan Approval, Building Permit, etc.)	• New site location, Environmental Compliance Approval (ECA) required. • Hamilton Conservation Authority approval required (regulated area). • Typical utility coordination and approvals for construction (Site Plan Approval, Building Permit, etc.)	• New site location, Environmental Compliance Approval (ECA) required. • Hamilton Conservation Authority approval required (regulated area). • Typical utility coordination and approvals for construction (Site Plan Approval, Building Permit, etc.)
	3	3	3	3	3
Technical Summary	**Category Score: 25 / 35**	**Category Score: 23 / 35**	**Category Score: 25 / 35**	**Category Score: 29 / 35**	**Category Score: 27 / 35**

Criteria	Airport		Upper James/ Twenty Road	Hannon South	
	Airport 1	Airport 2		Hannon 1	Hannon 2
	Weighted Score: 17.9 / 25 Category Rank: T-3rd	**Weighted Score: 16.4 / 25 Category Rank: 4th**	**Weighted Score: 17.9 / 25 Category Rank: T-3rd**	**Weighted Score: 20.7 / 25 Category Rank: 1st**	**Weighted Score: 19.3 / 25 Category Rank: 2nd**
Economic					
Capital Costs (including linear upgrades)	• Budgetary cost: $4.5 - 5 million • Recent Eastport PS SWHRS tender results - $2.0 million • Additional costs anticipated due to greenfield site: - Lot grading, laneway entrance - Site servicing (water/hydro/sewer) - Electrical/ controls for new station • Capital costs to be further refined at Conceptual Design stage if selected as Preferred Alternative.	• Budgetary cost: $4.5 - 5 million • Recent Eastport PS SWHRS tender results - $2.0 million • Additional cost anticipated due to greenfield site: - Lot grading, laneway entrance - Site servicing (water/hydro/sewer) - Electrical/ controls for new station • Capital costs to be further refined at Conceptual Design stage if selected as Preferred Alternative.	• Budgetary cost: $5.5 - 6 million • Recent Eastport PS SWHRS tender results - $2.0 million • Low level site with existing wetland, imported fill likely required to raise existing grade. Poor soil conditions and high water table anticipated, increasing construction capital costs. • May be possible to utilize existing electrical systems (MCC etc.) for cost savings. • New entrance likely required should WHRS be located next to existing PS. • Capital costs to be further refined at Conceptual Design stage if selected as Preferred Alternative.	• Budgetary cost: $4.5 - 5 million • Recent Eastport PS SWHRS tender results - $2.0 million • Additional costs anticipated due to greenfield site: - Lot grading, laneway entrance - Site servicing (water/hydro/sewer) - Electrical/ controls for new station • Capital costs to be further refined at Conceptual Design stage if selected as Preferred Alternative.	• Budgetary cost: $4.5 - 5 million • Recent Eastport PS SWHRS tender results - $2.0 million • Additional cost anticipated due to greenfield site: - Lot grading, laneway entrance - Site servicing (water/hydro/sewer) - Electrical/ controls for new station • Capital costs to be further refined at Conceptual Design stage if selected as Preferred Alternative.
	3	3	0	3	3
Property Acquisition	• Property acquisition from private entity required. • Potential cost for acquisition unknown. • Typical land acquisition costs anticipated.	• Property acquisition from private entity required. • Potential cost for acquisition unknown. • Typical land acquisition costs anticipated.	• Vacant land, not owned by City. • Property acquisition required. • Typical land acquisition costs anticipated.	• Property acquisition from private entity required. • Potential cost for acquisition unknown.	• Vacant land, owned by City. No property acquisition required. • Lost revenue from sale of existing large property to large industrial user. • Remaining lands may be difficult to market if existing parcel is split up.
	3	3	3	3	3
Operating and Maintenance Costs	• Considered equal for each site location.	• Considered equal for each site location.	• Considered equal for each site location.	• Considered equal for each site location.	• Considered equal for each site location.
	3	3	3	3	3

NEW SEPTAGE WASTE HAULAGE RECEIVING STATION SCHEDULE B MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
April 17, 2019

Criteria	Airport		Upper James/ Twenty Road	Hannon South	
	Airport 1	Airport 2		Hannon 1	Hannon 2
Economic Summary	Category score: 9 / 15 Weighted score: 15 / 25 Category Rank: T-1st	Category score: 9 / 15 Weighted score: 15 / 25 Category Rank: T-1st	Category score: 6 / 15 Weighted score: 10 / 25 Category Rank: 2nd	Category score: 9 / 15 Weighted score: 15 / 25 Category Rank: T-1st	Category score: 9 / 15 Weighted score: 15 / 25 Category Rank: T-1st
Overall Summary	Socio-Economic/ Cultural: 16.9 / 25 Natural Environment: 17.9 / 25 Technical: 17.9 / 25 Economic: 15 / 25 Total Score: 67.7	Socio-Economic/ Cultural: 13.1 / 25 Natural Environment: 20.7 / 25 Technical: 16.4 / 25 Economic: 15 / 25 Total Score: 65.2	Socio-Economic/ Cultural: 16.9 / 25 Natural Environment: 15 / 25 Technical: 17.9 / 25 Economic: 10 / 25 Total Score:59.8	Socio-Economic/ Cultural: 23.8 / 25 Natural Environment: 15 / 25 Technical: 20.7 / 25 Economic: 15 / 25 Total Score: 74.5	Socio-Economic/ Cultural: 20 / 25 Natural Environment: 19.3 / 25 Technical: 19.3 / 25 Economic: 15 / 25 Total Score: 73.6
Overall Rank	3rd	4th	5th	1st	2nd

7.0 Overview of Stakeholder Input Received

The main points of contact with the public, stakeholders, and Indigenous communities is discussed in Section 1.3 above, and included two open house Public Information Centres, and direct project notifications. All comments received throughout the study have been documented in TRACER tables included in Appendix A7, A8, and A9. Input from stakeholders was incorporated into the evaluation of alternative solutions, and where appropriate, mitigation measures have been identified and will be carried forward through detailed design and construction. A brief overview of input received is provided below, in addition to how concerns will be addressed, where necessary:

- The station should not be located on lands designated as prime agricultural lands
    - Alternative sites avoided prime agricultural lands, and include lands designated for future development within the City of Hamilton Official Plan.
- Impacts of odours on residential areas from the new station is a concern
    - The design of the station will incorporate an odour control unit. Additionally, the station will include a direct piped connection which will also contribute to the mitigation of potential odours. The evaluation of alternative locations also took into consideration the proximity to residential areas.
- Increased truck traffic within residential areas that may be caused by the new station, and the resulting impact to physical road conditions. Concerns over the capacity of the existing road network, and the ability for adjacent roads to accommodate increased truck traffic from the new station
    - The evaluation of alternative locations considered the impacts to increased traffic on adjacent land uses, and the location along the City of Hamilton's identified Truck Routes. Truck volumes from the new station are not anticipated to significantly impact existing traffic volumes, or exceed the thresholds of the identified truck routes.
- Potential impacts to property values
    - The evaluation of alternative solutions took into consideration the character and nature of adjacent land uses. Site design will also incorporate urban design measures to mitigate impacts.
- Concerns surrounding a potential location of the facility near many major food processing plants may represent incompatible land uses

  - The evaluation of alternative solutions took into consideration the nature of adjacent land uses. Major food processing plants represent an industrial use with similar impacts, and appropriate site design measures can be incorporated into the design to mitigate perceived impacts of the facility.

- Preference was expressed for trucks to drive around the rear of the station building in order to screen from adjacent land uses
  - Screening will be incorporated into the design of the station in order to reduce visual impacts on adjacent land uses.
- No septage should be received from other municipalities
  - By-law 14-090 states under Section 9.1 that *"no person shall, directly or indirectly, discharge or permit the discharge of hauled sewage into a sewer works or into a connection to a sewer works, except where: (a) the hauled sewage originates from a generator located within the geographical boundaries of the City of Hamilton".*
- Equipment should be incorporated into the station to reduce the potential for debris entering the existing sewers (e.g. screens, filters)
  - Appropriate equipment such as rock traps, grinders, etc. will be incorporated into the design, as appropriate.

Requests were made by City of Hamilton Councillors that additional consultation be undertaken with businesses located in proximity to the recommended site in order to provide additional opportunities to discuss the project, concerns, and impacts. Registered letters were sent in November 2018 to three existing businesses/property owners, providing details of the study, and offering to meet to discuss any potential concerns. The details of the additional consultation is provided in the TRACER table in Appendix A8.

8.0 Recommendations

Hannon Option 1 has been identified as the recommended site for the new septage waste haulage receiving station.

In conjunction with City capital works and operations staff, the conceptual design for the facility will proceed following the 30-day review period for the Class EA. In general, the site layout is anticipated to include the following components:

- A process building housing septage receiving equipment, including electrical room;
- Odour control equipment to treat potentially odorous air from the process building;
- Two hard-piped connection locations (Cam-lock) for trucks to connect to for emptying their hauled waste;
- Spill containment area for truck off-loading locations;
- Water available outdoors at truck off-loading locations for minor wash down;
- Motion-activated outdoor lighting for truck discharge locations;
- Perimeter fencing for site security;
- 24-hour card access entrance for septage haulers;
- Adequate paved areas for truck turning radius;
- Underground sanitary sewer to connect the SWHRS discharge to the existing trunk sanitary sewer system nearby.

9.0 Environmental Impacts and Mitigation

9.1 Socio-Economic

The recommended location for the new SWHRS is expected to have minimal impact on existing or future surrounding land uses, which include a range of business and industrial uses. It is recommended that the design of the new station incorporate appropriate urban design and screening features to complement future development within the Prestige Business Park zoning to minimize any perceived impacts on neighbouring developments.

A direct piped connection and odour control unit shall be incorporated into the design of the station in order to mitigate the potential for odour impacts.

9.1.1 Property Acquisition

Acquisition of a parcel of land approximately 0.5 ha will be required to accommodate the new station. The exact location with Hannon Option 1 will be determined through the property acquisition process and a legal survey will be undertaken.

9.1.2 Traffic and Transportation

Based on the operations of other stations, it is estimated that 20 trucks, on average, will utilize this facility daily within a Monday to Friday operation; It is estimated that 16 trucks, on average, will utilize this facility daily within a Monday to Saturday operation.

Dartnall Road is designated as a Full Time Truck Route for vehicles weighing more than 4.5 tonnes (registered gross weight) and was designed to accept these truck loads. Therefore, no traffic or transportation impacts have been identified as a result of the new station.

9.1.3 Archaeological and Built Cultural Heritage

The Stage 1 Archaeological Assessment identified areas that retain archaeological potential. Prior to development, a Stage 2 Archaeological Assessment shall be completed in accordance with the recommendations within the Stage 1 assessment (see Appendix C).

The *Criteria for Determining Built Cultural Heritage and Cultural Heritage Landscapes* did not identify any potential for built cultural heritage or cultural heritage landscapes associated with the recommended site.

9.2 Natural Heritage

An Environmental Impact Study (EIS) may be required in order to identify key natural heritage features, assign appropriate setbacks and provide mitigation recommendations to reduce the risk of impact of the site development. The EIS should include targeted field investigations to assess the presence of SAR, SOCC and SWH, assess aquatic habitat in greater detail and delineate the boundaries of the natural heritage features.

Mitigation measures can be built into the design of the preferred site to reduce the risk of impacts to terrestrial and aquatic habitats. Activities related to construction including grading, cut-and-fill, and presence of heavy machinery can cause soil erosion and compaction, and mobilize silt and sediment into adjacent watercourses. Potential for machinery to destroy over-hanging vegetation may occur while working in natural areas. Encroachment into the natural areas can also occur by machinery, foot traffic, and discarding or storage of construction materials outside the construction envelope if not properly mitigated. The following strategies are recommended to mitigate impacts to aquatic and terrestrial habitats that will be retained through the site design, and should be incorporated into contract documentation:

- Clearly delineate/demarcate work areas to avoid encroachment and incidental damage to native trees and areas of natural vegetation.
- Educate workers on the requirements for and importance of avoiding entrance to the demarcated area.
- Inspectors should commit to maintaining construction vehicles and personnel to stay within the construction envelope, thereby limiting the disturbance of natural vegetation.
- All maintenance activities, vehicle refueling or washing, as well as the storage of chemical and construction equipment should be located >30 m from wetlands and floodplains, and >10m from Significant Woodland and other natural areas where possible.
- In the event of an accidental spill, the MECP Spills Action Centre should be contacted and emergency spill procedures implemented immediately.
- Accidental damage to trees, or unexpected vegetation removal, should be replaced/ restored with native species.

9.2.1 Erosion and Sediment Control

- Minimize the access and temporary work space to the extent possible to limit destabilization of soils near the work area.
- Timing of the work to minimize impacts to downstream fish habitat in the Hannon Creek system using the warm water timing windows that allow work to occur from July 1 to March 31 (no work from April 1 to June 30) of any given year.

- Silt fencing and/or barriers could be used along all work zones where there is potential for sedimentation of watercourses or wetlands, or inadvertent encroachment of construction vehicles into trees or natural areas.
- Dust could be controlled by using water and not chemical suppressants in dust-sensitive areas such as the mapped natural heritage features.
- No equipment should be permitted to enter any natural areas beyond the barrier fencing.
- All exposed soil areas should be stabilized (native seed mixes; sourced locally if possible) and re-vegetated, through the placement of seed and mulching or seed and an erosion control blanket, promptly upon completion of construction activities.
- Equipment should be re-fueled 30 m away from sensitive natural features (e.g. watercourses) to avoid potential impacts if an accidental spill occurs.
- In addition to any specified requirements, additional silt fence and/or silt logs should be available on site, prior to grading operations, to provide a contingency supply in the event of an emergency.
- Sediment and erosion controls should be monitored regularly and properly maintained as required. Controls are to be removed only after the soils of the construction area have been stabilized and adequately protected or until cover is re-established.
- The limits of construction adjacent to natural features to be retained will be fenced prior to construction and monitored during construction (along with sediment and erosion control measures) to make sure that the limits are maintained with respect to vehicular traffic and soil or equipment stockpiling.
- The Contractor is required to restore any disturbed natural areas to pre-construction conditions.

9.2.2 Migratory Bird Convention Act

Vegetation removal is recommended to occur outside of the core breeding bird season (i.e., April 15-August 9), which would avoid incidental take of any migratory bird nests, and thus be in compliance with the Migratory Bird Convention Act.

Nest sweeps are a secondary tool to avoid incidental take, but only if timing windows described above cannot be met and in simple habitats where vegetation is easy to search.

9.2.3 Endangered Species Act, 2007

Potential habitat for SAR Eastern Meadowlark have the potential to occur on the recommended site based on the suitability of habitat. Targeted SAR surveys are recommended to determine if these species are present. If the species are present, rules outlined in the Endangered Species Act, 2007 must be followed.

9.2.4 Aquatic Habitat

A warmwater watercourse is present on the east side of Dartnall Road, which was identified as a candidate for rehabilitation (including realignment) in the City of Hamilton Upper Hannon Creek Master Drainage Plan Municipal Class Environmental Assessment (AECOM, 2017). Should the design of the new station impact the existing watercourse, a detailed rehabilitation plan should be developed.

9.2.5 Climate Change

With respect to climate change mitigation, the new station will provide a centralized location for waste haulage that originates on the upper-mountain area of the City of Hamilton. This will in-turn reduce travel distances for waste haulage vehicles and contributions to greenhouse gas emissions. With respect to climate change adaptation, the site will be designed with appropriate storm drainage infrastructure and building code requirements in order to address severe weather events.

9.3 Permits and Approvals

Development or site alteration within the recommended site on the east side of Dartnall Road will be subject to a Section 28 permit under O. Reg. 161/06: Hamilton Conservation Authority Development, Interference with Wetlands and Alterations to Shorelines and Watercourses.

Consultation with Hydro One should be undertaken early in the detailed design process in order to confirm potential impacts to Hydro One lands and approval requirements. A TransCanada pipeline is also located within the Hydro corridor, and TransCanada should also be contacted during detailed design to confirm setback requirements.

Typical utility coordination, including a City of Hamilton Site Plan application will also be required.

10.0 Class EA Filing Procedure

The Project File is being placed on public record for the statutory 30-day review period, and all previously identified stakeholders will be provided notification in accordance with the consultation plan followed throughout the project. The Notice of completion is included in Appendix A10 and details the 30-day review period (June 21, 2019 to July 22, 2019), the locations at which the Project File is available, where comments should be directed during the review period, and outlines the Part II Order procedure discussed below. The Notice of Completion was published in the Hamilton Spectator newspaper (June 21, 2019 and June 28, 2019), mailed to all stakeholders and Indigenous communities (June 14, 2019), and posted to the City of Hamilton website starting June 21, 2019.

10.1 Formal Appeal Process – Part II Order

The Class EA planning process encourages the identification and resolution of concerns early and throughout the project, and it is the obligation of the proponent to adequately address concerns raised by the public, Indigenous communities, and review agencies. If an interested party feels as though their concerns have not been adequately addressed, and that the proposed undertaking needs to be subject to a more in-depth planning process, a request for a Part II Order may be submitted to the Ministry of the Environment, Conservation and Parks. Under the provisions of Section 16 of the EA Act, the Minister or delegate may require a proponent to comply with Part II of the EA Act by elevating the status of the project to a higher level of assessment before proceeding to implementation.

The Minister may deny the request, impose conditions on the proposed undertaking, or for Schedule B projects, the Minister may elevate the status of the project to a Schedule C project, requiring the completion of the full planning process prior to implementation. As per Section A.2.8 of the MEA Municipal Class EA document, the process for requesting a Part II Order involves the following:

- Persons with a concern bring it to the attention of the proponent during the planning process;
- If the concern is not resolved through consultation with the proponent, the person may request that the proponent voluntarily elevate the status of the project to a Schedule C project, or an Individual Environmental Assessment; and
- If the proponent refuses to elevate the status of the project, the person with the concern may send a written request to the Minister of the Environment, Conservation and Parks during the 30-day review period to issue an order to comply with Part II of the EA Act, with a copy to the proponent. A Part II Order request form

(Form number 012-2206E) is available online at: http://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/FormDetail?OpenForm&ACT=RDR&TAB=PROFILE&SRCH=&ENV=WWE&TIT=2206&NO=012-2206E

Some additional considerations for the Part II Order process are noted below:

- The request must be made upon the completion of the planning process (i.e. after a Notice of Completion is issued and all project documentation has been made available) so that all potential environmental impacts and impact management measures are understood;
- Must not be made for the sole purpose of delaying, stopping, or frustrating the planning and implementation of a project;
- Must focus on potential environmental effects (including the social, cultural, and natural environments) of a project, and not on decisions made outside of the Class EA process (for example, land use planning decisions made under the Planning Act, or issues related to municipal funding of projects);
- Must not raise issues that are not related to the projects; and
- Should be withdrawn promptly by the request if the proponent has satisfied the concerns of the requester.

It is the proponent's responsibility to provide several opportunities for public, Indigenous communities, and agency review and input, as well as that of the public, Indigenous communities and agencies to bring their concern to the attention of the proponent early in the planning process. Every reasonable effort must be made by the proponent to address concerns brought forward. If concerns have not been addressed upon the issuance of the Notice of Completion, any member of the public may submit a request to the Minister of the Environment, Conservation and Parks within the 30-day review period.

10.2 CLOSING

This Project File has been prepared to document the Municipal Class EA planning process completed for this Schedule B project. It outlines the process which the City of Hamilton has undertaken to address the problems identified, and the potential solutions to be implemented. This process has involved mandatory contact with the public, Indigenous communities and review agencies to ensure that they are aware of the project and that their concerns have been addressed, along with an evaluation of a range of alternatives leading to the project recommendations. The Notice of Completion

has been posted for 30-day review, and all correspondence received during this period will be appended to the final report in Appendix A10.