

WSP Canada Inc.



Baby Point Wastewater Pumping Station Forcemain

City of Toronto
Toronto Water

Schedule B Municipal Class
Environmental Assessment

Project File Report

November 2018



TABLE OF CONTENTS

EXECUTIVE SUMMARY	V
1.0 INTRODUCTION	1
1.1 Study Objective	1
1.2 Background	1
1.3 Study Area	1
1.4 Environmental Assessment Process	2
1.4.1 Municipal Class Environmental Assessment	2
1.4.2 Part II Orders	6
1.4.3 Canadian Environmental Assessment Act	7
1.5 Project Team	7
2.0 PROBLEM / OPPORTUNITY IDENTIFICATION	9
3.0 EXISTING CONDITIONS	11
3.1 Natural Environment	11
3.1.1 Terrestrial Vegetation	11
3.1.2 Wildlife and Wildlife Habitat	12
3.1.3 Aquatic Habitat	14
3.1.4 Species at Risk	15
3.1.5 Groundwater	16
3.2 Socio-Economic Environment	18
3.2.1 Demographic Profile	18
3.2.2 Land Uses	19
3.2.3 Archaeological Resources	19
3.2.4 Cultural Heritage Resources and Cultural Landscapes	22
3.3 Technical Conditions	25
4.0 INVESTIGATION OF ALTERNATIVE SOLUTIONS	27
4.1 Alternative Solutions	27
4.1.1 Alternative 1: "Do Nothing"	27
4.1.2 Alternative 2: Contingency Planning	27
4.1.3 Alternative 3: Replace Existing Forcemain	27
4.1.4 Alternative 4: Twin Forcemain	28
4.1.5 Recommended Solution	28

5.0	ROUTE ALTERNATIVES	29
5.1	Preliminary Identification and Evaluation of Long-Listed Routes	29
5.2	Evaluation Criteria	31
5.3	Evaluation Methodology	32
6.0	ASSESSMENT OF ROUTE ALTERNATIVES	33
6.1	Natural Environment	33
6.1.1	Aquatic Species and Habitat	33
6.1.2	Terrestrial Vegetation	33
6.1.3	Wildlife and Wildlife Habitat	35
6.1.4	Species of Conservation Concern	36
6.1.5	Groundwater	37
6.2	Socio-Economic	39
6.2.1	Private Property	39
6.2.2	Traffic	39
6.2.3	Noise and Vibration	39
6.2.4	Air Quality	40
6.2.5	Businesses	40
6.3	Cultural Environment	40
6.3.1	Archaeological Resources	40
6.3.2	Built Heritage and Cultural Heritage Landscapes	41
6.4	Technical Considerations	42
6.4.1	Constructability	42
6.4.2	Construction Staging	44
6.4.3	Redundancy	44
6.4.4	Geotechnical and Hydrogeological	45
6.4.5	Utilities	46
6.5	Financial Evaluation	47
6.5.1	Capital and Construction Costs	47
6.5.2	Operational and Maintenance Costs	48
6.6	Evaluation Summary	48
7.0	PREFERRED ROUTE ALIGNMENT	63
7.1	Description of Preferred Alignment	63
7.2	Existing Utilities and Infrastructure	63
7.3	Natural Environment Impact Assessment and Mitigation	64
7.3.1	Aquatic Species and Habitat	64

7.3.2	Terrestrial Vegetation	64
7.3.3	Wildlife and Wildlife Habitat.....	67
7.3.4	Species of Conservation Concern.....	68
7.3.5	Groundwater.....	69
7.4	Socio-Economic Impact Assessment and Mitigation	70
7.4.1	Private Property.....	70
7.4.2	Traffic	71
7.4.3	Noise and Vibration	71
7.4.4	Air Quality	72
7.4.5	Businesses	72
7.5	Cultural Environment Impact Assessment and Mitigation	72
7.5.1	Archaeological Resources	72
7.5.2	Built Heritage and Cultural Heritage Landscapes	73
7.6	Approvals and Permits	75
7.7	Cost Estimate	76
7.8	Implementation Schedule	76
7.8.1	Notification of Completion	76
7.8.2	Proposed Construction Schedule.....	77
8.0	PUBLIC AND AGENCY CONSULTATION.....	79
8.1	Project Contact List	79
8.2	Notifications	79
8.2.1	Notice of Study Commencement and Public Drop-in Event #1	80
8.2.2	Notice of Public Drop-in Event #2	80
8.2.3	Notice of Completion	80
8.3	Public Drop-in Events	80
8.3.1	Public Drop-in Event #1	81
8.3.2	Public Drop-in Event #2	81
9.0	CONCLUSIONS AND RECOMMENDATIONS.....	83

LIST OF FIGURES

Figure 1-1: Study Area.....	2
Figure 1-2: Municipal Class EA Process	5
Figure 3-1: Ecological Land Classification.....	13
Figure 3-2: Recommendations for Stage 2 Archaeological Assessment for Options 1 and 2.....	21
Figure 3-3: Cultural Heritage Resources	24
Figure 5-1: Location of Alternative Route Options	30

LIST OF TABLES

Table 3-1: Inventory of Cultural Heritage Resources and Cultural Landscapes	22
Table 5-1: Summary of Evaluation Criteria.....	31
Table 6-1: Potential for Cultural Heritage Resources to be Impacted	41
Table 6-2: Evaluation of Alternatives Summary.....	49
Table 7-1: Summary of Cultural Heritage Impacts.....	74

APPENDICES

- APPENDIX A – ARCHAEOLOGICAL ASSESSMENTS
- APPENDIX B – CULTURAL HERITAGE ASSESSMENTS
- APPENDIX C – CONSULTATION RECORD

EXECUTIVE SUMMARY

Project Overview

The purpose of the Baby Point Wastewater Pumping Station (PS) Forcemain Schedule B Municipal Class Environmental Assessment (MCEA) study is to determine a recommended plan to improve reliability and provide redundancy to the existing Baby Point Wastewater Pumping Station forcemain, which connects to the Humber Sanitary Trunk Sewer at a location just north of Bloor Street West, along The Kingsway. Sections of the Baby Point Wastewater Pumping Station Forcemain are nearing the end of their service life. In order to ensure reliable future operation of the pumping station, an upgrade to the existing infrastructure will be required to provide redundancy and back-up the existing forcemain.

Alternative Solutions

The following alternative solutions were identified and considered, in accordance with the MCEA process:

1. Do Nothing
2. Contingency Planning
3. Replace Existing Forcemain
4. Twin Forcemain

Of the alternative solutions considered, Alternative 4: Twin Forcemain was determined to appropriately address the existing problem; as such, this alternative was carried forward. Route alternatives were then generated and evaluated to determine the preferred alternative for the new forcemain.

Evaluation of Alternatives

Four horizontal route alternatives were initially considered for the new forcemain, which include:

- ▶ Option 1: This alignment places the new forcemain along the approximate alignment of the existing forcemain from the Baby Point PS west through Étienne Brûlé Park adjacent to the Humber River, crossing under the Humber River and terminating at Adit No. 7 which is an access tunnel to the Humber Sanitary Trunk Sewer located along The Kingsway.
- ▶ Option 2: In this alignment the new forcemain would leave the Baby Point PS and head south crossing beneath the Humber River and the Old Mill Road bridge to the green space of King's Mill Park North located on the west side of the Humber River. The forcemain would then run adjacent to the Humber River Recreational Trail, passing beneath the TTC's raised Bloor subway structure and the Bloor Street West bridge and then continue along the centre

of the trail to its termination point at Adit No. 6 which is an additional access tunnel to the Humber Sanitary Trunk Sewer located along The Kingsway.

- ▶ Option 3: In this alignment the forcemain would head south from the Baby Point PS through Étienne Brûlé parking lot to Catherine Street, continue east on Catherine Street to Old Mill Drive, and then south to Bloor Street West. At Bloor the forcemain would run east along Bloor Street West until the intersection with Jane Street where the forcemain would terminate and discharge flows into an existing sanitary manhole.
- ▶ Option 4: Like Option 3, this alignment would start by heading south from the Baby Point PS through Étienne Brûlé parking lot to Catherine Street, continue east on Catherine Street to Old Mill Drive, and then south to Halford Avenue. From here the forcemain would run east along Halford Avenue to Riverview Gardens, and then head south to Bloor Street West until the intersection with Jane Street. At Jane the forcemain would terminate and discharge flows into an existing sanitary manhole.

Following the completion of a preliminary evaluation of each route, Options 3 and 4 were not carried forward for further assessment. This was based on constructability challenges initially identified due to the volume of utilities currently encumbering the roadways, and also based on public feedback related to extensive disruption anticipated due to construction through dense residential areas.

As part of the selection of the preferred horizontal alignments, a number of construction methodologies were identified and carried forward in the assessment:

- ▶ Option 1 (Open cut construction, with horizontal directional drilling (HDD) for the river crossing)
- ▶ Option 1 (HDD construction for the majority of the alignment, including HDD construction for the river crossing)
- ▶ Option 2 (HDD construction for the river crossing, followed by open cut for the remainder of the route)

Preferred Route Alignment

Based on various evaluation criteria related to the natural environment, socio-economic environment, cultural environment, technical considerations, and cost, Option 1 scored the highest in the evaluation of the alternative routes. The main benefits to this route are:

- ▶ Minimized impacts to private property, vehicular traffic and local businesses;
- ▶ Avoidance of Butternut planting site and less skewed alignment of river crossing;
- ▶ Least impact to existing Cultural Heritage Resources and the existing associated

landscapes; and

- ▶ High ease of constructability, short to moderate construction duration, and minimal impacts to utilities.

Consultation

A Notice of Commencement and Public Drop-in Event #1 was sent to provincial agencies, municipal staff, City Councillors, Emergency Service Providers, School Boards, Indigenous Communities, local MPPs, interest groups, and local residents and on September 27, 2017 notifying that the Schedule B Municipal Class EA process had been initiated for the proposed works.

Two Public Drop-in Events (PIE) were held during the course of the study. The first PIE was held at the Humbercrest United Church on October 12, 2017. The PIE sought feedback from stakeholders and presented existing conditions, alternative solutions considered and preferred solution, alternative route alignments being considered, proposed evaluation criteria and next steps. A total of eighteen (18) attendees were present at the PIE and four (4) comment sheets were submitted. Comments received included questions regarding forcemains; requests for boards to be shared online; preferences for Option 1 and Option 3; positive feedback about the alternatives presented; and concerns about impacts to private property, noise, wildlife, and adjacent sewers.

The second PIE was held at the Humbercrest United Church on January 16, 2018. The PIE presented and sought feedback on the results of the evaluation and the preliminary preferred route alternative. A total of twenty (20) attendees were present at the PIE and two (2) comment sheets were completed. Comments received included positive feedback on the selected preferred alternative (Option 1); questions regarding forcemains, the area to be serviced by the new forcemain, mitigation of impacts to Butternut trees, and the purpose of the study; concern over any potential cultural heritage impacts, and the current smell at the Baby Point Pumping Station in Étienne Brûlé Park; and issues were raised about past basement flooding events.

This Project File Report is being made to the public, other interested parties and external agencies for a 30-day review period as required under the Municipal Class EA process. A Notice of Completion was issued on November 15, 2018, and was placed on the City's website (www.toronto.ca/babypointstudy) and placed in the Bloor West Villager and Etobicoke Guardian (South) newspapers on November 15, 2018 and November 22, 2018, respectively. The Notice was also distributed to notify government agencies, Indigenous communities, stakeholders and members of the public on the project's mailing list.

This page intentionally left blank.