




CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Hamilton Water Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	July 6, 2022
SUBJECT/REPORT NO:	York and Valley (HD016) Booster Pumping Station Municipal Class Environmental Assessment Addendum Report (PW06121(b)) (Ward 13)
WARD(S) AFFECTED:	Ward 13
PREPARED BY:	Trevor Marks (905) 546-2424 Ext. 6025
SUBMITTED BY:	Mark Bainbridge Director, Water and Wastewater Planning and Capital Public Works Department
SIGNATURE:	

RECOMMENDATIONS

- (a) That the General Manager, Public Works, be authorized and directed to file the Notice of Completion and issue the York and Valley (HD016) Booster Pumping Station Upgrades Schedule B Municipal Class Environmental Assessment Addendum for the mandatory 30-day review period; and,
- (b) That upon completion of the 30-day agency and public review period, the General Manager, Public Works, be authorized and directed to proceed with the implementation of the preferred solution within the York and Valley (HD016) Booster Pumping Station Upgrades Schedule B Municipal Class Environmental Assessment Addendum Report funded from Project ID. No. 5141695883.

EXECUTIVE SUMMARY

The York and Valley (HD016) Water Booster Pumping Station is located at 501 York Road adjacent to the Borer's Falls Off Leash Park in Ward 13. Approval to increase station capacity was previously obtained through the City of Hamilton's (City) 2006 Water and Wastewater Master Plan (Master Plan) Municipal Class Environmental Assessment study.

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Recognizing that construction has not started within 10 years of the Master Plan filing in 2006 (York and Valley (HD016) Booster Pumping Station Planning Timeline, attached at Appendix “A” to Report PW06121(b)), the City is required to complete a Municipal Class Environmental Assessment (EA) Addendum.

The purpose of this EA Addendum is to review alternatives to address aging assets and increase pumping capacity at the station. Three (3) alternatives have been reviewed in the assessment – see Map of Short-Listed Alternative Sites attached as Appendix “B” to Report PW06121(b). A presentation summarizing the review of alternatives was posted on the City’s website April 28, 2022 as part of an online Public Information Centre (PIC). Reviewers were encouraged to provide feedback by May 12, 2022. Please note, no comments were received during this period. The preferred solution is to expand the existing station within City property (right-of-way) – referred to as option W-WS-3a.

Option W-WS-3a is preferred as it offers the following major benefits:

1. Shortest Schedule – this is especially important to meet the timing requirements to replace aging assets
2. Lowest Cost – No property to acquire, fewer permits
3. Least impact to the environment – the other two (2) alternatives required purchase of property within conservation lands

Out of three (3) criteria evaluated, the preferred solution only scored lower on one (1) evaluated criterion – Socio-Economic Environment. This is due to the permanent displacement of a small portion of the off-leash dog park which resides within the right-of-way. The portion of the dog park dedicated to large active dogs is located within the Hamilton Conservation property adjacent to the station, as a result, this space is leased by the City. The affected area is a small fenced zone dedicated to small and/or senior dogs. It is immediately south of the station and it must be relocated so the pumping station can be expanded. To mitigate the socio-economic environment issue presented by the preferred solution, Hamilton Water will coordinate with Parks and Cemeteries to relocate this space for small and senior dogs to a new area, ideally close to the existing space.

Upon completion of the mandatory 30-day review period of the EA, design of the preferred solution will be initiated, with construction commencing in 2025.

Please note that the York and Valley Road (HD016) Booster Pumping Station EA Addendum is separate from the Waterdown Trunk Watermain Twinning Class EA Assessment, which will focus on the downstream distribution watermain serving Ward 15 - www.hamilton.ca/waterdowntrunkwatermainEA. The outcomes of that EA process will be reported to Council on a separate timeline.

Alternatives for Consideration – See Page 9

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: York and Valley Booster Pumping Station (HD016) Capacity Upgrade, Standby Power and Building Expansion (Project ID 5141695883) has an approved project budget of \$14,540,000 based on a capital works conceptual cost estimation for the preferred solution.

Staffing: N/A

Legal: There are no known legal implications associated with this recommendation. However, Ministry of Environment, Conservation and Parks (MECP) approval of municipal undertakings such as road improvements and water and wastewater projects are subject to *Ontario's Environmental Assessment Act (Act)*. The *Act* allows for the approval of Class Environmental Assessment and the municipality has the option of following the planning process set out in the Municipal Engineers Association Class Environmental Assessment (amended 2007, 2011 and 2015) document. The Environmental Assessment Section A. 1.2.2 allows for Schedule B projects to be carried out for works which have the potential for some adverse environmental effects. The City of Hamilton is required to file the report on the public record for a minimum 30-day review period for the Environmental Assessment to have been satisfied.

HISTORICAL BACKGROUND

The York and Valley (HD016) booster pumping station was first constructed in 1980 and services the community of Waterdown as well as some rural properties in the Pleasantview Area. The station was included in the 2006 Water and Wastewater Master Plan (Master Plan) Municipal Class Environmental Assessment study (EA) due to the requirement to increase station pumping capacity to meet projected growth demands in Waterdown. Studies following the 2006 Master Plan have assessed the asset conditions within the station and refined the pumping capacity numbers to better suit current growth projections. In review of this information, City staff identified the need to complete an EA addendum to expand the existing station or build new. This is in part due to the space requirements in the current facility to add new equipment, but also to retain security of supply during construction by keeping the existing pumps in service.

A project team, including Public Works staff and consulting engineers was developed to undertake this EA study. Other key staff and sub-consultants including Environmental Scientists, Heritage Planners, and Archaeologists were engaged as required, to provide support for various components of the study.

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The EA study was completed as a Schedule B of the EA process. The EA for this project included public and review agency consultation, evaluation of alternatives, assessment of the impacts of the proposed works, and identification of measures to mitigate any adverse impacts. Upon completion of the study, a Project File Report documenting the planning and decision-making process and preferred solution was prepared and is ready for public review. Pending approval of this recommendation, a separate advertisement will be issued to advise the public and stakeholders of the Notice of Completion of the EA including identification of the option being implemented.

In reviewing potential locations, the evaluation criteria considered the following:

- Allow the existing station to remain in service throughout the duration of construction;
- Location in proximity to existing watermains and at suitable elevation for suction and discharge operating pressures;
- Suitable square footage for equipment and operator needs;
- Appropriate access for maintenance and emergency vehicles;
- Low impact to the environment; and
- Location with minimal impact to existing utilities.

Based on the criteria listed above, the following target locations were proposed as suitable alternatives:

- Expand the existing station within City property (right-of-way) – Preferred Solution (option W-WS-3a);
- Build a new station northeast of the existing station (option W-WS-3b); and
- Build a new station east of the existing station (option W-WS-3c).

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Development or site alteration within the proposed alternatives would occur on rural lands. As such, Rural Area General Provisions from Section 3.1 of the Rural Hamilton Official Plan outlines the following permitted use:

- 3.1.1 c) Municipal infrastructure such as water system facilities, sanitary, and storm water facilities, except for sanitary land fill sites, shall be permitted in all land use designations located in Rural Hamilton and shall comply with the policies of Sections C.3.4, Utilities, and C.5., Infrastructure of this Plan. Where facilities exist, they shall be designated Utilities on Schedule D – Rural Land Use Designations and the maps for Rural Settlement Areas in Volume 2 of this Plan.

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The City's consulting engineers have also prepared a Natural Environment Report for this Addendum, which is considered to be meeting the Urban Hamilton Official Plan and Rural Hamilton Official Plan policy requirements for preparing an Environmental Impact Statement and has been prepared in accordance with the Environmental Impact Statement Guidelines.

Other Acts impacting Report PW06121(b) include:

- *Ontario Environmental Assessment Act*
- *Ontario Environmental Protection Act*

RELEVANT CONSULTATION

Stakeholder meetings with the Ward 13 Councillor and the Hamilton Conservation Authority (adjacent property owners) were held in advance of the Public Information Centre (PIC). Displacement to the portion of Borer's Falls Off-Leash Park dedicated specifically to small and senior dogs was the main concern noted during these meetings. This prompted investigations by staff and the consultant, AECOM Ltd., to determine suitable mitigation measures as described in Report PW06121(b). A courtesy email was sent to representatives at the Royal Botanical Gardens to inform them that one (1) of the alternatives included a portion of their land on Valley Road.

Further public and review agency consultation is an integral and legislated component of any EA study. Stakeholders are initially notified of the study with a formal Notice of Commencement advertised in the local newspaper. Review agencies are notified directly by mail or e-mail.

Project stakeholder and review agency lists are developed at the onset of the study and maintained throughout, thus ensuring all interested parties are kept informed. All stakeholders are invited and encouraged to comment on the project at any time during the study.

Categorically, the Agency and Stakeholder Contact Lists include the following groups:

- Provincial Ministries and Agencies;
- Federal Agencies;
- Indigenous Communities;
- Property owners/businesses within the study area; and
- Others (e.g. Municipal, Utilities, School Boards, etc.)

An online PIC was hosted virtually through the City website for this addendum. Feedback was collected via a comment sheet that users could download and email to

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the project team. Ahead of the PIC, a Notice of Commencement and PIC was advertised in the Dundas Star and Flamborough Review. A newsletter version was also hand delivered to neighbouring residents. Finally, two (2) posters were mounted adjacent to each dog park entrance and adjacent to the station. The posters included a Quick Response (QR) code for easy access to the project webpage via a mobile device. No comments were received during the PIC comment period from April 28 to May 12.

The recommendations of this staff report are the final stage of consultation which is an inherent part of the EA process. The project team will receive and attempt to mitigate any Stakeholder concerns or requests for a Part II Order that is initiated within the mandatory 30-day review period.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

By applying the EA process, the project followed the legislated multi-phased analysis rationale. As this study is a Schedule B Addendum, only phases 1 and 2 apply prior to implementation:

Phase	Multi-phased Analysis Rationale	Consultation Requirements
1. Problem or Opportunity	<ul style="list-style-type: none">Identify the problem (deficiency) or opportunity	Optional
2. Alternate Solutions	<ul style="list-style-type: none">Identify alternative solutions to address the problem or opportunity by taking into consideration the existing environment and establish the preferred solution taking into account public and review agency input.Determine the appropriate schedule for the undertaking and document decisions in a Project File for Schedule B projects or proceed through the following phases for Schedule C projects	Mandatory

The planning and design processes were undertaken in such a way as to allow a reviewer to trace each step of the process. The documentation explained the reasons for the criteria used to identify and assess the alternatives, the proponent's weighing of these criteria, and the decision-making process that was followed.

To ensure that the planning and design process is easily traceable, the study ensured that:

- The analysis is understandable to the public;

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- All conclusions drawn from the analysis follow logically from the information gathered and presented; and,
- The public can replicate the conclusions based on the information presented.

Specifically, the narrative of this study is summarized as follows with detailed documentation in the EA Addendum Draft Report attached as Appendix “C” to Report PW06121(b). The EA Problem/Opportunity Statement was established at the onset of the study as follows:

- Significant near and long-term growth is expected within the Waterdown settlement area. The City’s 2006 Master Plan followed the EA Master Plan Approach # 2 planning process and confirmed the need to increase the pumping capacity of the York and Valley Booster Pumping Station (HD016) along with upgraded standby power to meet planned growth to 2031 and address security of supply.
- The proposed pumping station capacity increase was confirmed as a Schedule B EA project and was approved through the 2006 Master Plan. The 2006 EA recommended a firm capacity of 20.4 ML/d in 2031, however, updated planning values estimate a required 28 ML/d firm capacity.
- The York and Valley (HD016) Booster Pumping Station is located adjacent to the Borer’s Falls Off Leash Dog Park and requires careful consideration on how the proposed upgrades are designed and constructed. This considers that the small dog leash free area is part of the pumping station property, which is required to construct the proposed upgrades.
- Recognizing that the project has not commenced within 10 years of the Master Plan filing in 2006, the City is required to complete an EA Addendum. This will include a review of the planning and design process updates in light of what has changed since 2006.
- There are operational concerns as the York and Valley (HD016) Booster Pumping Station is critical to the Waterdown community and various pressure zones in the area. The City has also carried out condition assessments that have identified the need to update equipment assets within the existing facility.
- The proposed design approach will maintain operation through construction and will allow immediate upgrade of the system to maintain reliability of service and improve future accommodation of maintenance activities.
- Complete the EA Addendum planning process in consultation with key stakeholders, review agencies, Indigenous Communities, and the public that will confirm the preferred solution and design concept for the proposed pumping station upgrades to meet the anticipated 2027 in-service date.
- Coordinate the York and Valley (HD016) Booster Pumping Station planning and design process with the current City of Hamilton Waterdown Feedermain

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- Twinning EA study (upgraded HD016 Booster Pumping Station will include a chamber for the new feedermain).
- Confirm a preferred design approach that will maintain operation through construction and will allow immediate upgrade of the system to maintain reliability of service and improve future accommodation of maintenance.

All reasonable alternatives that meet the requirements of the Problem/Opportunity Statement were identified. The following is a list of the four (4) alternatives considered in the study:

Alternatives	Description
1. Do Nothing	<ul style="list-style-type: none"> • Status Quo – not a viable option due to risk of water supply
2. W-WS-3a Expand Existing Station (within the right-of-way) Preferred Solution	<ul style="list-style-type: none"> • The existing station property resides within the right-of-way along York Road • Expansion of the station property would be south, but within the right-of-way between the power lines and road setbacks • Requires displacement of a small portion of the dog park
3. W-WS-3b Expand by building a new station at property northeast of the existing station	<ul style="list-style-type: none"> • Land is located across from the station north of Valley Road • Land is currently owned by the Royal Botanical Gardens and is within Niagara Escarpment Development Control boundaries
4. W-WS-3c Expand by building a new station at property east of the existing station	<ul style="list-style-type: none"> • Land is located across from the station east of York Road • Land is currently owned by the Hamilton Conservation Authority and is under Niagara Escarpment Development Control boundaries

Evaluation Criteria reflect the Triple Bottom Line evaluation methodology. The evaluation criteria established by the project team are listed below. A detailed breakdown of each category is included in the EA Addendum Draft Report attached as Appendix “C” to Report PW06121(b).

- Land Use
- Technical
- Climate Change
- Natural Environment

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- Socio-Economic
- Cultural Environment
- Economic

Each alternative was screened against the evaluation criteria. The highest ranked alternative was deemed to be the preferred solution. Option W-WS-3a, expansion of the existing station was preferred as it offers the following major benefits:

- Shortest schedule – this is especially important to meet the timing requirements to replace aging assets;
- Lowest cost – no property to acquire, fewer permits; and
- Least impact to the environment – the other two (2) alternatives are located on conservation lands.

Mitigation measures of any negative impact (such as displacement of the area for small/senior dogs, noise control and dust control, as examples) of the preferred solution have been identified and become conditions of the Implementation Phase of the EA. Detailed mitigation measures are included in the EA Addendum Draft Report attached as Appendix “C” to Report PW06121(b).

Public and stakeholder consultation is an integral part of the EA process. See the Relevant Consultation section and the Project File for more details.

The final step in the analysis rationale before proceeding to implementation of the preferred solution is to undertake the mandatory 30-day review. A Notice of Completion of the EA as recommended herein will be issued in the third quarter of 2022. Notices will be issued via newspaper advertising and direct mail out to all members of the Stakeholder and Agency Contact lists. The Project File will be placed on public record along with contact information to receive concerns. All attempts will be made to mitigate all expressed concerns. Should resolution of a concern be unattainable the conflict may be escalated by the opponent to the MECF for a decision.

The above analysis rationale is a prescribed process under that EA. The project was completed under full compliance.

ALTERNATIVES FOR CONSIDERATION

The recommended alternative solution has been identified using an evaluation and screening process that fulfils the requirements under the Municipal Engineers Association Municipal Class EA document for Schedule B projects.

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The preferred solution, Option W-WS-3a is the expansion of the existing station within the existing parcel of the right-of-way along York Road. There are two (2) other alternatives for Council to consider with respect to the recommendations of Report PW06121(b):

1. To build a new station northeast of the existing station on the north side of Valley Road. This would require an agreement to purchase land owned by the Royal Botanical Gardens and re-route existing watermains.
2. To build a new station east of the existing station on the east side of York Road. This would require an agreement to purchase land owned by Hamilton Conservation and re-route existing watermains.

Should Council not wish to approve the filing of the York and Valley (HD016) Booster Pumping Station Upgrades Schedule B EA Addendum Project File Report, the EA process would be considered incomplete by the provincial government and the City will not have approval under provincial environmental legislation to implement the preferred solution. The outcome would be equivalent to the do nothing alternative, which would result in further risk to the water supply to the relevant pressure zone.

The alternative to not approve the filing of the York and Valley (HD016) Booster Pumping Station Upgrades Schedule B Municipal Class Environmental Assessment Addendum Project File Report is not recommended.

Financial: The purchase of land is required for each alternative listed in this section. Currently there is no budget in place for land acquisition.

Staffing: N/A

Legal: N/A

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Community Engagement and Participation

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Built Environment and Infrastructure

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APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW06121(b) – York and Valley (HD016) Booster Water Station
Planning Timeline

Appendix “B” to Report PW06121(b) – Map of Short - Listed Alternative Sites

Appendix “C” to Report PW06121(b) – York and Valley Road (HD016) Booster Water
Pumping Station – Municipal Class
Environmental Assessment Addendum