

POST- FILING COMMENTS

Post 30 Day Review Period

MOE

Ministry of the Environment

Central Region
Technical Support Section

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Région du Centre
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November 25, 2011

File: EA 05-04-05

David Simpson, P. Eng.
Manager of Water Planning
Halton Region
1151 Bronte Road
Oakville, ON L6M 3L1

**RE: Sustainable Halton Water and Wastewater Master Plan
Regional Municipality of Halton
Class Environmental Assessment
Notice of Study Completion**

Dear Mr. Simpson,

This letter is our response to the Notice of Completion for the above noted project. We have reviewed the Phase 1 and 2 Report and Project File and provide the following comments:

We have no concerns at this stage regarding the preferred strategies that rely on expanding lake-based treatment plants and/or maintaining existing groundwater based supplies at currently approved rates. Specific design-related comments may be provided at the completion of Phases 4 and 5 for the Schedule C undertakings. Typical issues that come up during expansion of lake-based water supply plants include dewatering during plant construction and total suspended solids limits in handling of backwash water from plants.

The water servicing strategy also involves a number of such undertakings as construction of pumping stations, reservoirs, pipelines and sewers. At this time, we do not have concerns related to this type of undertaking. Each of these projects may require approval from the ministry through a Permit to Take Water or Certificate of Approval, and specific technical input will be provided during the review of those applications.

We do have questions regarding some aspects of the water servicing strategy for Acton and Georgetown. We are unclear whether the proposal entails significantly increasing groundwater takings from currently approved rates. We are also unclear as to the meaning of artificial recharge as a component of the servicing strategies for these communities, and what this process would entail.

There are certain elements of the Master Plan which appear to involve undertakings that are subject to ongoing or completed studies that the ministry has had involvement in. It is unclear to us whether the Master Plan is proposing further expansions and upgrades to these facilities, or simply incorporating work that has already been completed or is in progress. It would be helpful for the Region to provide us with some details regarding the status of the following undertakings:

- Lindsay Court Well Expansion
- Prospect Park Well Field Expansion from 2.3 to 3.5 MLD
- Acton Well Field Development
- Cedervale Well Field Upgrade

We look forward to working with Halton Region during the Phase 4 and 5 Class Environmental Assessment studies for the Schedule C undertakings recommended.

Thank you for the opportunity to comment on this Master Plan. Please feel free to contact me directly at (416) 325-6966, or via email at dan.minkin@ontario.ca, if you have any questions about these comments.

Yours truly,



Dan Minkin
Environmental Resource Planner and EA Coordinator
Air, Pesticides and Environmental Planning

- c. John Duong, Halton Region
Tina Dufresne, Halton Peel District Office, MOE
Central Region EA File
A & P File



**Public Works
Water and Wastewater Services
1151 Bronte Road
Oakville ON L6M 3L1**

February 29, 2012

Dan Minkin
Environmental Resource Planner & EA Coordinator
Air, Pesticides and Environmental Planner
Ministry of the Environment
Central Region, Technical Support Section
5575 Yonge Street, 8th Floor
North York, Ontario M2M 4J1

Dear Mr Minkin,

**RE: SUSTAINABLE HALTON WATER AND WASTEWATER MASTER PLAN
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY**

Thank you for your interest in the Sustainable Halton Water and Wastewater Master Plan Study. We appreciate the comments the Ministry has provided during the review period. The comments you provided on November 25, 2011 will form part of the public record of comments received in the post-filing phase of the Master Plan study.

We duly note that your letter states that the MOE has no concerns at this stage with the preferred strategies that rely on expanding lake-based treatment plants and/or maintaining existing groundwater based supplies at currently approved rates. The Region will continue to consult with the MOE during Phases 4 and 5 for Schedule C undertakings and also through the approval process for new Permit to Take Water or Certificate of Approvals. As stated in your letter, the Region will expect further specific technical input from the MOE at that time

Of note, you requested clarification regarding the water servicing strategy for Acton and Georgetown and specifically whether the proposal entails significant increases to currently approved groundwater takings and the meaning of artificial recharge as a component of the servicing strategies.

The water servicing strategies for Georgetown and Acton are outlined in Section 13 of the Master Plan and for ease of reference we have inserted these excerpts below:

Georgetown

Georgetown is currently serviced by groundwater. However, the growth in the community will exceed the sustainable groundwater capacity. The groundwater service area will be maximized to maintain the community generally north of Silver Creek as well as the existing Norval community and Georgetown Southeast Greenfield service area in the groundwater service area. There are upgrades to the groundwater facilities needed to support this strategy. The new Georgetown Southwest Greenfield service area as well as the existing Georgetown South service area and the existing Stewarttown community will be serviced by extending the lake-based system.

The Regional Municipality of Halton

Components of the servicing strategy for the Georgetown lake-based service area include:

- Provide new lake-based water supply to new growth areas (Southwest Georgetown)
- New Zone 6 Pumping Station and Zone 4 reservoir at Trafalgar Road and No. 5 Side Road
- New transmission main along Trafalgar Road
- New lake-based Zone 6 Reservoir at 22nd Sideroad
- Consider lake-based servicing interconnection to the Region of Peel water system to enhance security of supply

Components of the servicing strategy for the Georgetown groundwater service area include:

- Transfer existing Georgetown South and Stewarttown areas to new lake-based supply in order to maintain the groundwater system within sustainable yields
- Increased water taking at Cedarvale and Lindsay Court Well Fields
- Consider Artificial Recharge to Silver Creek / wetlands as support to overall strategy

Acton

Independent groundwater servicing in the community of Acton will be maintained. This strategy will require expansions and upgrades to the existing water infrastructure along with the development of a new well field supply.

Components of the servicing strategy for the Acton groundwater service area include:

- Increased water taking at Prospect Park and Fourth Line Well Fields
- Third Line Reservoir to be expanded
- New north Acton Well Supply
- Consider Artificial Recharge to Black Creek / wetlands as support to overall strategy

For clarity the Master Plan strategy is based on increased water taking beyond the existing Permit To Take Water limits for Cedarvale, Lindsay Court, Prospect Park and Fourth Line well fields and also includes the development of a new well field in Acton. The Master Plan has utilized the previous separate studies as well as new analysis undertaken under the Sustainable Halton Master Plan to support this strategy. The Region recognizes that this is only the start of the process and that further studies, consultation and permitting will be required in order to achieve the future required approvals to achieve the increases.

In response to your question regarding the status of on-going and completed groundwater studies we can confirm that the Master Plan is a comprehensive strategy tailored to meet projected servicing requirements out to 2031. The Region has several groundwater supply studies that are on-going or recently completed. These studies have been reviewed and where appropriate incorporated into the Master Plan Strategy.

In regards to the inclusion of Artificial Recharge studies and capital works within the overall strategy, we believe there is merit in reviewing and studying in tandem with the other recommended groundwater supply projects, the options, benefits and potential mitigative results that can be generated from such projects. Again we look forward to preconsulting and working with the MOE on these projects during the early stages of development.

For clarity please find below a table listing Georgetown and Acton groundwater supply projects related to the Master Plan strategy and their Class EA schedule / status:

Acton		
Project #	Description	Schedule & Status
6437	Acton Well Field Development & Treatment (Zone A9G)	C
6439	Prospect Park Well Field Upgrades (Zone A9G)	C
6590	Acton Supply Standby Well (Zone A9G)	C
6676	Artificial Recharge Study	C
6677	Artificial Recharge Capital Works	C

Georgetown		
Project #	Description	Schedule & Status
97	Lindsay Court Well Field Expansion Class EA Study	B (Underway)
6440	Cedarvale Well Field Upgrades	C (Complete)
6678	Artificial Recharge Study	C
6679	Artificial Recharge Capital Works	C

We appreciate the dialog we had with the Ministry through the Master Plan study process and look forward to continuing to engage and consult with the MOE during further Schedule B and C studies and also through the approval process for new Permit to Take Water or Environmental Compliance Approvals.

Should you have any comments or additional questions regarding the study, please feel free to contact David Simpson at 905-825-6000 ext. 7601 (via email at david.simpson@halton.ca) or John Duong at 905-825-6000 ext. 7961 (via email at john.duong@halton.ca). You can also contact Chris Hamel at 905-747-7562 (via email at chris.hamel@aecom.com).

Sincerely,

Halton Region



David Simpson, P.Eng.
Manager of Water Planning

Halton Region



John Duong, P.Eng.
Manager of Wastewater Planning

AECOM Canada Ltd.



Chris Hamel, P.Eng.
Project Manager

encl.

CONSERVATION AUTHORITIES

Bhabha, Fatima

From: Campbell, Chris
Sent: Wednesday, November 16, 2011 12:24 PM
To: Bhabha, Fatima
Subject: FW: Sustainable Halton Water and Wastewater Master Plan 30 Day Review Period
Attachments: L-60114062-Study Completion to CH-20111011.docx

From: Simpson, David [<mailto:David.Simpson@halton.ca>]
Sent: Wednesday, November 16, 2011 12:17 PM
To: Jennifer Lawrence
Cc: Duong, John; Hamel, Chris; Campbell, Chris
Subject: RE: Sustainable Halton Water and Wastewater Master Plan 30 Day Review Period

Hi Jennifer,

I was surprised to here that you did not receive our Notice of Study Completion for the Sustainable Halton Water and Wastewater Master Plan. I can confirm that the notice was mailed out on Oct 7 as per the attachment, so you should have received it around Oct 11 prior to the formal start of the 30 day review period (Oct 13).

From our meeting on Sep 8, I didn't recall any specific action to provide Conservation Halton with the final Master Plan documentation - it is not normally our business practice to provide final hard copies of the document to various stakeholders. Rather, we had provided the draft documentation to your team and channelled discussion/feedback around this (i.e. Baseline Environmental Report, Project files for Sch A, A+, B and C projects which included the proposed alignments, pipe depths, applicable evaluation matrices, etc. From our discussions, we have updated project information specific to inquiries received from your team and this has been captured in the final document to the best of our ability. Furthermore, we had understood that there did not appear to be any significant concerns by Conservation Halton that we could not address in the Master Plan document. In fact, we specifically added a new section in the document on Implementation (Section 18 and Appendix 1-9) which outlines the Region's commitments and follow-on project requirements.

At this time, the Region will not be extending the formal 30-day review period. Although the review period has formally ended, we would still welcome your comments on the Master Plan. To facilitate this process, two CDs of the complete Master Plan project file have been couriered to you today for reference. This project file can also be accessed electronically from our study webpage: www.halton.ca/WaterWastewaterClassEAs - click on Sustainable Halton Water and Wastewater Master Plan. If you are able to provide comments by November 28, 2011, we will review and address where appropriate. It would be beneficial if you could confirm this approach with us, as we will include this correspondence as part of the project file.

The Region is committed to agency consultation and look forward to continued coordination.

Thanks,
David

David Simpson, P.Eng.
Manager of Water Planning
Water Services, Public Works
Regional Municipality of Halton
1151 Bronte Road, Oakville, ON L6M 3L1
Tel: 905-825-6000 ext. 7601

From: Jennifer Lawrence [<mailto:jlawrence@hrca.on.ca>]
Sent: Tuesday, November 15, 2011 8:26 PM
To: Campbell, Chris
Cc: Duong, John; Simpson, David; Hamel, Chris
Subject: RE: Sustainable Halton Water and Wastewater Master Plan 30 Day Review Period

Hi everyone,

Further to my response to Chris on Nov. 11, CH did not receive any copies of the final Master Plan for review. I think we only received the notice of study completion late last week but I've been out of the office all week so I haven't been able to confirm that. I'm in an OMB mediation session all week but perhaps you could email me to let me know what approach the Region wants to take given that we didn't have an opportunity to review the document prior to the completion of the 30 day period. I should be in the office on Friday if you'd like to discuss it further.

Thanks.
Jennifer

Jennifer Lawrence, BES, MCIP, RPP
Manager, Environmental Planning
Conservation Halton

-----Original Message-----

From: Campbell, Chris [<mailto:Chris.Campbell@aecom.com>]
Sent: Fri 11/11/2011 2:29 PM
To: Jennifer Lawrence
Cc: Duong, John; Simpson, David; Hamel, Chris
Subject: Sustainable Halton Water and Wastewater Master Plan 30 Day Review Period

Hi Jennifer

Further to our earlier meetings and consultation regarding the Sustainable Halton Water and Wastewater Master Plan we are fast approaching the end of the 30 day review period on the end of day, 14th November 2011. We appreciate the time Conservation Halton has made to work with the Project Team during the preparation of the MP and look forward to on-going project specific coordination. As we have yet to receive Conservation Halton comments, as a courtesy we thought we would send you a gentle reminder of the date.

Should you have any questions please don't hesitate to contact myself or anyone of the cc'ed Project Team listed above.

Kind regards

Chris

Chris Campbell MTP, MCIP, RPP, MRTPI
Manager, Infrastructure Planning
E: chris.campbell@aecom.com

AECOM

105 Commerce Valley Drive, Markham, ON L3T 7W3

t: 905.747.7533 f: 905.886.9494 w: www.aecom.com <<http://www.aecom.com/>>

Please note that my address and contact numbers have changed. My email remains chris.campbell@aecom.com <<mailto:chris.hamel@aecom.com>> . Please update your address books accordingly.

This message, including any attachments, is privileged and intended only for

the person(s) named above. This material may contain confidential or personal information which may be subject to the provisions of the Municipal Freedom of Information & Protection of Privacy Act. Any other distribution, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by telephone, fax or e-mail and permanently delete the original transmission from us, including any attachments, without making a copy.

Thank you



**Public Works
Water Planning, Water Services
1151 Bronte Road
Oakville ON L6M 3L1**

October 7, 2011

Jennifer Lawrence
Manager
Conservation Halton
2596 Britannia Road West RR#2
Milton, ON
L9T 2X6

Dear Ms. Lawrence,

**RE: SUSTAINABLE HALTON WATER AND WASTEWATER MASTER SERVICING PLAN
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY**

Halton Region has completed the Water and Wastewater Master Plan documentation. The Report recommends a preferred long term servicing strategy for the design and operation of all municipal water and wastewater systems in the Region, integrating existing and future servicing needs to the year 2031, with consideration beyond this timeframe.

This study has been undertaken in accordance with the requirements for master plans under Section 4, Approach #2 of the Municipal Class Environmental Assessment (EA) document (October 2000 as amended in 2007) which is approved under the Ontario Environmental Assessment Act, and will satisfy Phase 1 and 2 of the planning process. Under this approach, the study intends to fulfill the requirements for Schedule A, A+ and B projects. Halton Region has identified Schedule C projects that will follow on with separate studies in order to fulfill Phases 3 and 4 of the Municipal Class EA Requirements.

The final Master Plan documentation, which consists of three volumes, will be made available to the public for 30 calendar days, starting October 13, 2011 and ending November 14, 2011. The Report will be available for public review at the locations noted in the enclosed Notice of Completion.

The next steps in the Master Planning process are as follows:

- Address any comments received post-filing
- Schedule A, A+ and Schedule B Projects not requiring further study would move forward to implementation based on the identified schedule
- Schedule C Projects would move forward to complete Phases 3 and 4 under stand-alone studies based on the identified schedule
- Key follow on studies would be undertaken as required

We invite you to view the final Master Plan documentation at any of the five locations identified in the enclosed Notice of Completion. Should you have any comments or additional questions

The Regional Municipality of Halton



**Public Works
Water Planning, Water Services
1151 Bronte Road
Oakville ON L6M 3L1**

regarding the study, please feel free to contact David Simpson at 905-825-6000 ext. 7601 (via email at david.simpson@halton.ca) or John Duong at 905-825-6000 ext. 7961 (via email at john.duong@halton.ca). You can also contact Chris Hamel at 905-747-7562 (via email at chris.hamel@aecom.com).

Sincerely,

Halton Region

A handwritten signature in black ink, appearing to read "David Simpson".

David Simpson, P.Eng.
Manager of Water Planning

Halton Region

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

John Duong, P.Eng.
Manager of Wastewater Planning

AECOM Canada Ltd.

A handwritten signature in blue ink, appearing to read "Chris Hamel".

Chris Hamel, P.Eng.
Project Manager

encl.

The Regional Municipality of Halton



2596 Britannia Road West
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conservationhalton.ca

December 13, 2011

Mr. David Simpson
Region of Halton
1151 Bronte Road
Oakville, ON
L6M 3L1

Dear Mr. Simpson:

**Re: Sustainable Halton Water and Wastewater Master Plan
Region of Halton
CH File: MPR 543**

Staff of Conservation Halton have reviewed the final Master Plan, prepared by Aecom, dated October 2011 and offer the following comments.

Unfortunately the notice of study completion was received two days in advance of the deadline for comments. As a result, CH staff did not have an opportunity to review the final Master Plan and provide comments prior to the deadline. We appreciate that the Region has offered to withhold the final submission to MOE until such time as CH has had an opportunity to review the final Plan and to provide comment. We also appreciated the opportunity to meet with you and your consulting team to discuss our remaining outstanding comments. As discussed on December 12, 2011, the following items remain outstanding:

- **Appendix I-13, Supporting Environmental Baseline Maps-** No mapping of terrestrial natural heritage features is provided. As a bare minimum, the Region's Natural Heritage System should be included in this appendix.
- **Section 1.4 (Related Studies)** should include a section on Halton Region's Natural Heritage System which is, in essence, a Master Plan for the natural resources of the Region.
- **Section 5.2 (Natural Environment) and Figure 9 (Environmental Features within Halton Region)** should reference the Region's Natural Heritage System to reflect a holistic, systems-based approach to natural heritage protection with a focus on maintaining connections between features that are often isolated from one another. The approach presented in this section is currently features-based.
- **Section 5.2** should include high-level consideration/avoidance of areas with larger numbers of species at risk.
- **Appendix I-9, Implementation and Commitments** – Not all projects requiring Conservation Halton permits have been identified within this appendix. For example, the proposed wastewater main constructions along Eighth Line between Steeles Avenue and No. 10 Sideroad (Projects 6568 & 6569), were not listed in this Appendix even though several permits will be required to complete the

works and several of the additional study commitments listed for other projects would also potentially be applicable to these works. How will the Region ensure that pre-design consultation with Conservation Halton will occur for those projects not listed in Appendix 1-9? Staff request a commitment from the Region to complete all studies deemed necessary by Conservation Halton for all projects subject to Ontario Regulation 162/06, regardless of whether or not the project is listed in Appendix 1-9.

- **Wetlands** – The document does not appear to provide additional direction with respect to construction proposed in close proximity to a wetland. Please note that additional mitigation measures may be a requirement of Conservation Halton pursuant to Ontario Regulation 162/06, regardless of their identification or not in the Master Plan.
- **Missing Projects** - A number of projects for which more specific details were provided in the previous submission were not included within the final Master Plan. As such, staff could not confirm if our previous comments regarding the following projects were addressed or not. Staff note that without this information we cannot assess whether or not a permit can be issued for the proposed works. The outstanding issues must be resolved prior to or in conjunction with any associated applications pursuant to Ontario Regulation 162/06:

Water Projects – 54, 82, 3698, 6368, 6702

Wastewater Projects – 6115, 5069, 6540, 6579, 6585

- **Water Project 6661** – Conservation Halton staff had requested that additional information be provided in the event that the Region does not deem this project to be a Schedule C Class EA. As the Region continues to classify this project as a Schedule B EA, staff note that the following items will need to be addressed in conjunction with any subsequent permit application. We note that the Region should not undertake any other associated projects associated within this project until these issues are resolved, as we cannot determine the Region's ability to ultimately obtain a permit for the proposed crossing of Sixteen Mile Creek at this location:
 - The access shaft on the west side of the valley must be located far enough away from stable top of bank to ensure that it does not create or aggravate any slope stability issues as well as any conservation of land concerns. Ideally the access shaft would be located a minimum of 15 metres from stable top of bank. Currently the information provided indicates that the access shaft will be installed within the stable top of bank, which would not be supported by Conservation Halton.
 - Location of the east access shaft is currently proposed within the Regional Storm flood plain. Ideally the access shaft would be located outside of the Regional Storm flood plain in a location that would not impact slope stability or conservation of land. If this cannot be achieved, the potential for flooding of the access shaft must be addressed.
 - It must be demonstrated that tunnelling is a feasible option in this location without negatively impacting Sixteen Mile Creek. Mitigation measures that will be required, if necessary, in order to ensure the protection of the environmentally sensitive area.
- **Water Project 6665** - Staff noted in our previous comments that there is no road present within a portion of the project area. The table assessing alternatives continues to reference "Construction along existing roads". It should be specified that part of the route does not follow an existing road and will create a new disturbed area. Staff do not support the selection of the preferred alternative from a natural heritage perspective based on the information provided. In addition, the final Plan does not provide confirmation that there are no technical reasons why trenchless technology cannot be utilized

to cross all valleys (and not just the watercourses). As such, Conservation Halton staff cannot confirm at this time that approvals can be granted for the preferred alternative. Staff will require the above information prior to supporting any permit application for the proposed works. At the meeting on December 12, 2011, the Region confirmed that the cost estimate for this project includes the use of trenchless technology across all valley features, not just the watercourses.

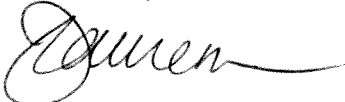
- **Water Project 6666** – This project identifies a crossing of the Sixteen Mile Creek valley north of Highway 407. At the December 12, 2011 meeting it was confirmed by the Region that this project is following the potential future alignment of James Snow Parkway.
- **Wastewater Project 6584** - Conservation Halton staff only has a concern with the preferred location of the pump station (Alternative #3) if locating the pump station at this time places constraints on the alternative alignments considered for Project 6585.

Summary - We request confirmation from the Region that they commit to addressing all of Conservation Halton's outstanding issues prior to or in conjunction with any future permit application, and agree to revise their servicing concepts, if necessary, in the event that they are unable to obtain all necessary approvals.

At the December 12, 2011 meeting the Region provided CH with a copy of the final "Baseline Environmental Studies Report: Natural Features and Hydrology". CH staff will not have an opportunity to review this prior to the Region submitting the final package to the MOE. Conservation Halton provided comments on the draft document in a letter dated June 15, 2011. We will review the final document in light of our previous comments and provide a response for the Region's file.

We trust the above is of assistance. If you require additional information, please contact the undersigned at extension 266.

Yours truly,



Jennifer Lawrence, MCIP, RPP
Manager, Environmental Planning

cc: Mr. Chris Campbell and Mr. Chris Hamel, AECOM, email
Mr. John Duong, Region of Halton, email

jl/devl planning\ca\halton\sust Halton wwwmp\final master plan.doc



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January 16, 2012

Mr. David Simpson
Region of Halton
1151 Bronte Road
Oakville, ON
L6M 3L1

Dear Mr. Simpson:

**Re: Sustainable Halton Water and Wastewater Master Plan
Region of Halton
Final Baseline Environmental Studies Report: Natural Heritage & Hydrology
CH File: MPR 543**

Staff of Conservation Halton have reviewed the *Baseline Environmental Studies Report: Natural Features and Hydrology*, prepared by AECOM, dated December, 2011. We appreciate that the majority of our comments, as outlined in our letter dated June 15, 2011 have either been addressed or incorporated into the report. Staff look forward to working with the Region of Halton on the implementation of the projects associated with the Sustainable Halton Water and Wastewater Servicing Master Plan.

We trust the above is of assistance. If you require additional information, please contact the undersigned at extension 266.

Yours truly,

Jennifer Lawrence, MCIP, RPP
Manager, Environmental Planning

cc: Mr. Chris Hamel, AECOM, email
Mr. Chris Campbell, AECOM, email

j\dev\planning\ea\halton\sustainable Halton wwwmp\final natural heritage hydrology.doc

February 29, 2012

Jennifer Lawrence
Manager, Planning Services
Conservation Halton
2596 Britannia Road West
Burlington, Ontario L7P 0G3

Dear Ms. Lawrence,

**RE: SUSTAINABLE HALTON WATER AND WASTEWATER MASTER PLAN
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY**

We appreciate the opportunity to have met with you and your team on December 12, 2011, to discuss your comments on the Master Plan. Further to the meeting we received these comments in written form on December 13, 2011 and a subsequent letter on January 16, 2012.

The project team has reviewed Conservation Halton's comments outlined in the two letters. Your agency's letters will be part of the post-filing record of comments received that will form a new section in the final Master Plan document.

In response to your letter of January 16, 2012 we duly note that Conservation Halton have reviewed the *Master Plan Baseline Environmental Studies Report: Natural Features and Hydrology* and in general are supportive of the study. The Region also looks forward to a positive continued working relationship with Conservation Halton during the implementation stages of the projects associated with the Master Plan.

Further to you itemized comments within your letter of December 13, 2011 please find our response below:

Regarding: Appendix 1-13, Section 1.4, Section 5.2 – Natural Heritage System

The Region recognizes the importance of the Natural Heritage System and the Master Plan carefully considered this system in the preparation, evaluation and selection of the preferred strategies and specific project alignments and sites. The Natural Heritage System is highlighted in Figure 4 of the Master Plan and summarized in Section 5.2. As discussed at our meeting the *Master Plan Baseline Environmental Studies Report* also provided the detailed supporting documentation as shown in Figures 2, 6, 8, 10 and 12 and Section 4.4.

The Master Plan process has endeavoured to minimize the potential impact to the Natural Heritage in the preparation of the strategy but also recognizes that further studies, consideration and consultation with Review and Permitting Agencies may be required during the implementation stages of the projects.

In response to Conservation Halton's request for ease of reference, a further map of the Region's Natural Heritage System will be added to Appendix 1-13 of the Master Plan.

Regarding: Appendix 1-9 Implementation and Commitments, Wetlands

The Region can confirm that it will meet agreed required further study and mitigative components for all projects within the Halton Conservation Regulation Limit.

Regarding: Missing Projects

The final Master Plan Volume II Project File included project information for those Schedule B projects that were being satisfied under this current Master Plan. It did not include background information for those projects that were previously satisfied under the 2008 Master Plan Update. The draft information previously provided was a comprehensive list of all projects previously satisfied and new. However as stated the Region is committed to further consultation and undertaking of the agreed steps in order to obtain the necessary permits and approvals required for all projects within the Halton Conservation Regulation Limit.

Regarding: Projects 6661, 6665, 6666 and 6584

The Region duly notes the comments made regarding the above listed projects and look forward to further discussion on these and others during the implementation stages of the projects.

We appreciate the dialog we had with your agency throughout the Master Plan study process and look forward to continuing to engage and consult with Conservation Halton.

Should you have any comments or additional questions regarding the study, please feel free to contact David Simpson at 905-825-6000 ext. 7601 (via email at david.simpson@halton.ca) or John Duong at 905-825-6000 ext. 7961 (via email at john.duong@halton.ca). You can also contact Chris Hamel at 905-747-7562 (via email at chris.hamel@aecom.com).

Sincerely,

Halton Region



David Simpson, P.Eng.
Manager of Water Planning

Halton Region



John Duong, P.Eng.
Manager of Wastewater Planning

AECOM Canada Ltd.



Chris Hamel, P.Eng.
Project Manager

encl.

NIAGARA ESCARPMENT COMMISSION

Bhabha, Fatima

From: Campbell, Chris
Sent: Friday, November 11, 2011 2:41 PM
To: Bhabha, Fatima
Subject: FW: Sustainable Halton Water and Wastewater Master Plan 30 Day Review Period

From: Campbell, Chris
Sent: Friday, November 11, 2011 2:40 PM
To: 'david.johnston@ontario.ca'
Cc: 'Simpson, David'; Duong, John; Hamel, Chris
Subject: Sustainable Halton Water and Wastewater Master Plan 30 Day Review Period

Hi David

Further to our earlier meetings and consultation regarding the Sustainable Halton Water and Wastewater Master Plan we are fast approaching the end of the 30 day review period on the end of day, 14th November 2011. We appreciate the time the NEC has made to work with the Project Team during the preparation of the MP and look forward to on-going project specific coordination. As we have yet to receive NEC comments, as a courtesy we thought we would send you a gentle reminder of the date.

Should you have any questions please don't hesitate to contact myself or anyone of the cc'ed Project Team listed above.

Kind regards

Chris

Chris Campbell MTP, MCIP, RPP, MRTPI
Manager, Infrastructure Planning
E: chris.campbell@aecom.com

AECOM

105 Commerce Valley Drive, Markham, ON L3T 7W3

t: 905.747.7533 f: 905.886.9494 w: www.aecom.com

Please note that my address and contact numbers have changed. My email remains chris.campbell@aecom.com. Please update your address books accordingly.

Niagara Escarpment Commission
Niagara Escarpment Commission

232 Guelph St.
Georgetown, ON L7G 4B1
Tel: 905-877-5191
Fax: 905-873-7452
www.escarpment.org

Commission de l'escarpement du Niagara
Commission de l'escarpement du Niagara

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Ontario's Niagara Escarpment
A World Biosphere Reserve

November 29, 2011
David Simpson, P. Eng.
Manager of Water Planning
Regional Municipality of Halton
1151 Bronte Road
Oakville, ON L6M 3L1

Dear Mr. Simpson:

**RE: NOTICE OF COMPLETION
(Sustainable Halton Water and Wastewater Master Plan Class
Environmental Assessment Study)**

The Niagara Escarpment Commission (NEC) is in receipt of the above-described Notice of Completion with the thirty (30) day "Public Review" period having commenced on October 13, 2011 and having ended on November 14, 2011. I appreciate your indulgence in allowing the NEC an opportunity to provide comment outside of the commenting period.

In a review of the Schedule "B" Master Plan projects, we note that proposed water projects with the following identification numbers in the City of Burlington are either located within the area of the Niagara Escarpment Plan (NEP) or in proximity:

ID 6601 7.8 million litre/day expansion at Beaufort Water Pumping Station;
ID 6665 400 mm watermain between the Tyandaga Reservoir and Beaufort Reservoir;
ID 6670 2.5 million litre water storage expansion at Beaufort Reservoir;
ID 6602 7.5 million litre storage expansion at Waterdown Reservoir; and,
ID 6863 Waterdown Road Pumping Station Expansion.

Schedule "B" Master Plan projects in the Town of Milton represented by the following ID number is either within or in proximity to the area of the NEP:

- ID 6398 600 mm watermain on re-aligned Tremaine Road from Steeles Avenue to existing watermain on Peru Road south of Highway 401.

Schedule "B" Master Plan Water projects in the Town of Halton Hills with the following ID numbers are either within the NEP area or in close proximity:

- ID 6608 750 mm watermain on Trafalgar Road from 15th Side Road to 22 Side Road Lake-based Reservoir; and,

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- ID 6694 10 million litre storage at 22nd Side Road;

There is one (1) Schedule "A" project in the City of Burlington described as a 4.5 million litre expansion to the Tyandaga Reservoir that is planned between the years 2017 and 2021 (ID 6669).

There are two (2) Schedule "A" projects proposed for the Town of Milton described as a 300 mm watermain along No. 14 Side Road from Tremaine Road to the Milton Reservoir, and a relining of the Walkers Line Well Feedermain with 150 mm pipe within an existing easement from Appleby Line eastward. The timeline for each project is within the 2012-2016 period (ID 6318 and ID 6664 respectively)

There is no Schedule "A" project identified for the Town of Halton Hills that falls within the area of the NEP.

In regards to the Schedule "B" projects in the City of Burlington, we understand that the site of ID 6601 (Beaufort Pumping Station expansion) is constrained but that a preferred site has been identified for expansion adjacent to the current site. The new station will provide sufficient capacity for maximum demands in established as well as proposed infill areas and fire flows which we understand the current station is incapable of providing.

ID 6670 (expansion of Beaufort Reservoir), the expansion is required to meet operational requirements. A new site is required since the existing site is confined. We understand that the Class EA considered three alternatives and the preferred alternative was off site but adjacent with a house situated on it.

ID 6665 proposes a 400 mm watermain between the Tyandaga Reservoir and the Beaufort Reservoir and expansion. We understand that four (4) watermain alignments were considered with Alternative 4 selected as the preferred alignment through the Class EA. This alignment provides the most direct route along the edge of Kerncliffe Park, onto Homer Drive, to Brant Street, north on Brant Street, west on Beaufort Drive, northwest to Portview Court and connecting to the Beaufort Reservoir. It does cross several creeks, extends adjacent to an Environmentally Sensitive Area (ESA) and has the potential for some environmental impact.

The Pumping Station and Reservoir expansion projects are within the area of the NEP's "Escarpment Protection Area" designation. The Beaufort area was added to the NEP on February 26, 2005 with the provincial government approval of the *Greenbelt Act* and Plan. Prior to this date, the area was governed by the policies in the Parkway Belt West Plan. Both current facilities are permitted by the NEP as existing uses and as utility facilities, defined in the NEP as "a water supply". Replacement or expansion of a utility facility may be permitted provided relevant Development Criteria in Part 2 of the NEP are met on the review of a Development Permit Application, including environmental, and visual considerations, and compliance with municipal land use requirements and applicable provincial policies and regulations (such as *Species-at-Risk* and *Endangered Species Act*).

The alternative alignment selected for ID 6665 appears to potentially involve only a small part of the NEP-regulated area at the Tyandaga site though it skirts the NEP-regulated area on its south side but re-enters the NEP-regulated area at the Brant Street/Beaufort Drive intersection to, and including, the Reservoir and Pumping Station.

A Development Permit is required for the portion of the project that is subject to the NEP and a review of the application will be assessed on similar environmental and visual policies in the NEP, municipal land use requirements, and other applicable provincial policies and regulations.

Depending on the exact location of the expansion of the Tyandaga Reservoir as the Schedule "A" project, it may be within the NEP Area and subject to the "Escarpment Natural Area" designation. In this designation only an "essential" utility may be permitted and any expansion would have to be deemed necessary and in the public interest and only after all alternatives have been considered. The expansion would also be required to substantially comply with the key objective of the designation which is to maintain the most natural Escarpment features, stream valleys, wetlands and related significant natural areas.

Schedule "B" projects identified as ID 6602 and 6863 propose an expansion to the reservoir on Waterdown Road and pumping station respectively to service the proposed developments in North Aldershot. While these sites are not within the area of the NEP, they are in close proximity. The NEC would have a significant concern in regards to any proposal that provides for an elevated water tower for additional storage as may now be the case on Waterdown Road. A structure at a height of which could be 30 m or more could have a significant visual impact on the Escarpment landscape which would be contrary to the Purpose of the NEP which is "to provide for the maintenance of the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment and to ensure that only such development occurs as is compatible with that natural environment" (NEC staff underline). A 30 m or higher water tower would not contribute to the enhancement of the open landscape or preserve the natural scenery of the Escarpment. Further discussions on servicing options should be discussed between the NEC and the Region prior to any development commitments or servicing approvals being finalized. We say this as ID 3699 from the Water Capital Program identified a 4.5 million litre in-ground reservoir proposed for North Aldershot as "being satisfied under separate planning study".

The Schedule "B" project in the Town of Milton (ID 6398) proposes a watermain along the re-aligned Tremaine Road from Steeles Avenue north to Peru Road. A small area from Steeles Avenue to the Canadian Pacific Rail line lies within the NEP "Escarpment Protection Area" designation and a Development Permit is required. We also note on the Map associated with the Preferred Water Servicing Strategy that there is notation that a watermain from the realigned Main Street to Steeles Avenue that appears to follow the realigned Tremaine Road at this location. It is described as a funded project of the 2008 Master Plan. This site crosses the NEP and the "Escarpment Protection Area" and "Escarpment Rural Area" designations. A Development Permit is required to install the watermain.

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In regards to the Milton Schedule "A" projects, the first is within an area designated as "Escarpment Protection Area". The second is within areas designated as "Escarpment Protection Area" and "Escarpment Rural Area". It is presumed that both projects represent an upgrade to the present system and the alignment is not changing. A Development Permit will be required for both projects and the review will principally follow a similar approach as the numerous Burlington site reviews.

A further Schedule "A" project identified as ID 6675 describes a residual management study and optimization plan proposed for the Kelso well field. There was no other information provided. The NEC requests that it be included in such a future study.

The two Schedule "B" projects in the Town of Halton Hills are proposed on lands provided with the "Escarpment Protection Area" designation. A Development Permit was issued some years ago for the reservoir on 22nd Side Road. A Development Permit is required to construct a new reservoir and the watermain connection. The review of an application will follow along similar lines as for those projects in Burlington and Milton.

Thank you for the opportunity to provide comment and we trust that our observations/comments will be taken into consideration.

Should you have any questions, please contact David Johnston at (905) 877-7815.

Yours truly,



Ken Whitbread
Manager

DJ:gdc

- c. Bill Mann, Director of Planning, Town of Milton
Bruce Krushelnicki, Director of Planning, City of Burlington
John Linhardt, Director of Planning, Town of Halton Hills
John Linhardt, Director of Planning, Town of Halton Hills
Ron Glenn, Director of Planning, Region of Halton



**Public Works
Water and Wastewater Services
1151 Bronte Road
Oakville ON L6M 3L1**

February 29, 2012

Ken Whitbread
Manager
Niagara Escarpment Commission
232 Guelph Street
Georgetown, Ontario L7G 4B1

Dear Mr. Whitbread,

**RE: SUSTAINABLE HALTON WATER AND WASTEWATER MASTER PLAN
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY**

Thank you for your interest in the Sustainable Halton Water and Wastewater Master Plan Study. We appreciate the comments your agency has provided during the review period. The comments you provided on November 29, 2011 will form part of the public record of comments received in the post-filing phase of the Master Plan study.

As stated in your letter we acknowledge the need for Development Permit Approval for projects within NEC designated lands and the Region is committed to early consultation with these projects.

We duly note NEC's comments regarding the Waterdown Reservoir expansion Project ID 6602 and can confirm that the current project is for the expansion of an in-ground reservoir within the existing site boundary. We also note NEC's concerns regarding the future North Aldershot servicing and can confirm that the Region remains committed as originally agreed under the 2008 Master Plan to on-going discussion with NEC prior to development commitments or servicing approvals being finalized for this area.

As requested the Region will also ensure that the NEC is consulted during the Kelso Well Field Residual Management Study and Optimization Plan.

We appreciate the dialog we had with your agency throughout the Master Plan study process and look forward to continuing to engage and consult with the Niagara Escarpment Commission during detailed design and implementation.

The Regional Municipality of Halton



**Public Works
Water and Wastewater Services
1151 Bronte Road
Oakville ON L6M 3L1**

Should you have any comments or additional questions regarding the study, please feel free to contact David Simpson at 905-825-6000 ext. 7601 (via email at david.simpson@halton.ca) or John Duong at 905-825-6000 ext. 7961 (via email at john.duong@halton.ca). You can also contact Chris Hamel at 905-747-7562 (via email at chris.hamel@aecom.com).

Sincerely,

Halton Region

A handwritten signature in black ink, appearing to read "David Simpson".

David Simpson, P.Eng.
Manager of Water Planning

Halton Region

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

John Duong, P.Eng.
Manager of Wastewater Planning

AECOM Canada Ltd.

A handwritten signature in blue ink, appearing to read "Chris Hamel".

Chris Hamel, P.Eng.
Project Manager

encl.

The Regional Municipality of Halton

HEAD OFFICE 1151 Bronte Road, Oakville, Ontario L6M 3L1 • Tel: 905-825-6000 • Toll free: 1-866-442-5866 • TTY: 905-827-9833 • www.halton.ca

DEVELOPMENT COMMUNITY

Bhabha, Fatima

From: Campbell, Chris
Sent: Monday, November 21, 2011 10:55 AM
To: Borowiec, Laura
Subject: FW: Sustainable Halton Water and Wastewater Master Plan water & Wastewater Capital Program

From: Chris Povell [<mailto:cpovell@metrocon.ca>]
Sent: Wednesday, November 16, 2011 3:02 PM
To: Hamel, Chris
Cc: Simpson, David; Duong, John; Karl Gonnsen; Campbell, Chris; Najak, Zahir; Dave Pitblado
Subject: RE: Sustainable Halton Water and Wastewater Master Plan water & Wastewater Capital Program

Mr. Hamel,

In response to your e-mail dated November 08, 2011, it should be clarified that there is not a Secondary Planning Process underway for North Aldershot that is compatible with the requirements of the Class EA process. There is an application for an Official Plan Amendment, Rezoning & Plan of Subdivision for the Paletta International properties known as Eagle Heights and the Taylor Property. In support of these applications, Metropolitan Consulting has prepared a Functional Servicing and Stormwater Management Report (FSR). The FSR has been submitted to approval agencies and is currently being reviewed by Halton Region.

The FSR does not have the scope to constitute a Class EA for the North Aldershot reservoir(project 3699) or the 300mm watermain feeding the reservoir (project 3700). The proponent for the reservoir should be the Region, not the developer. Alternative locations would need to be considered including lands not owned by Paletta International. Previously options included in ground and elevated storage, it appears that only in ground is now being considered, this decision has been made by the Region presumably as part of the Master Plan process.

The route for the 300mm wastewater main (project# 5907) has been considered as part of the FSR including options that are within the developers control. Similar wastewater mains are designated as Schedule A+ projects in the Master Plan. It would appear to be feasible to similarly designate project 5907 under the Master Plan.

It is difficult to see how the Class EA requirements can be met by the Planning Act application with the developer as proponent. This concern is exacerbated by recent amendments to the Municipal Class EA which, we understand, have made the Integration of the Municipal Class EA with the Planning Act impractical. We are trying to get further clarification on this issue.

We have discussed our concerns with Zahir Najak, Region Development Engineer, and he shares our concern with how the EA and development application processes can proceed.

Please consider this a formal comment on the Sustainable Halton Water & Wastewater Master Plan and a request for a meeting with you and Region staff to discuss our concerns and determine the appropriate course of action to address them.

Yours Truly,

Chris Povell, P.Eng.
Senior Consultant
Metropolitan Consulting Inc.
2290 Queensway Drive
Burlington, ON L7R 3T2
Tel: (905) 637-2926 ext.232
Fax: (905) 637-3268
e-mail: cpovell@metrocon.ca

From: Hamel, Chris [<mailto:Chris.Hamel@aecom.com>]
Sent: Tuesday, November 08, 2011 4:51 PM
To: Chris Povell
Cc: david.simpson@halton.ca; john.duong@halton.ca; Karl Gonnsen; Campbell, Chris
Subject: RE: Sustainable Halton Water and Wastewater Master Plan water & Wastewater Capital Program

Dear Mr. Povell,

Thank you for your interest in the Sustainable Halton Water and Wastewater Master Plan.

Please find the following clarification regarding the projects within North Aldershot.

North Aldershot is currently completing an Area Servicing Plan under the Secondary Planning Process. This refers to a process where the planning for a block of land is completed under a publicly consulted process. The Secondary Plan will identify the developable land, determine the preferred land use and layout the roads. The water and wastewater infrastructure in North Aldershot, namely the ID 3699 reservoir, ID 3700 watermain, and ID 5907 sewer, will need to be co-ordinated with this land and road layout.

As such, under the Master Plan, there was not sufficient information to specifically identify the alignment and location of infrastructure to satisfy the Class Environmental Process. In this case, the North Aldershot infrastructure will be confirmed under the Area Servicing Plan as part of the Secondary Planning Process. The Secondary Planning Process will have public meetings and provide opportunity for public comment. It also has a requirement for review and comment by Halton Region. As such, we are confident that the servicing strategy will be consistent with the Master Plan and will have undergone sufficient review.

Projects related to North Aldershot but outside the Secondary Plan boundary are being satisfied under the Sustainable Halton Water and Wastewater Master Plan. These projects include the work at the Waterdown Road pumping station and reservoir (IDs 6863 and 6602) and sewer ID 6143.

We believe this approach provides the best opportunity for detailed review of the projects and public input on these projects. This approach is consistent with the requirements of the MEA Class Environmental Assessment process.

Trusting this provides sufficient clarification. Should you have further questions, please contact the project team.

Yours truly,

Chris Hamel, P.Eng.
Associate Vice-President
Community Infrastructure

e: chris.hamel@aecom.com
d: 905.747.7562

AECOM
105 Commerce Valley Drive West, Suite 700, Markham, ON L3T 7W3
t: 905.886.7022 f: 905.886.9494 w: www.aecom.com

From: Chris Povell [<mailto:cpovell@metrocon.ca>]
Sent: November 2, 2011 4:58 PM
To: Hamel, Chris
Cc: david.simpson@halton.ca; john.duong@halton.ca; Karl Gonnsen
Subject: Sustainable Halton Water and Wastewater Master Plan water & Wastewater Capital Program

Chris,

I have reviewed the Sustainable Halton Water and Wastewater Master Plan and in particular the Capital Program and EA Schedule information shown on Tables 45 & 46. I note that the North Aldershot projects 3699, 3700 & 5907 under the EA

Schedule column say "Being Satisfied Under Separate Planning Study". Can you clarify specifically what this means and why these projects are being treated differently from others included in the Master plan EA.

Chris

Chris Povell

Metropolitan Consulting Inc
2290 Queensway Drive
Burlington, ON L7R 3T2
Tel: (905) 637-2926 ext.232
Fax: (905) 637-3268
e-mail: cpovell@metrocon.ca

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Thank you

February 29, 2012

Chris Povell
Senior Consultant
Metropolitan Consulting Inc.
2291 Queensway Drive
Burlington, Ontario L7R 3T3

Dear Mr. Povell,

**RE: SUSTAINABLE HALTON WATER AND WASTEWATER MASTER PLAN
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY**

Thank you for your interest in the Sustainable Halton Water and Wastewater Master Plan Study. We appreciate the comments you provided on November 2, 2011 and November 16, 2011 during the review period. The comments will form part of the public record of comments received in the post-filing phase of the Master Plan study.

In response to your emails, we have provided the following:

- There will be Regional infrastructure, including a reservoir, required in the vicinity of your client's applications that will be subject to Class Environmental Assessment (EA) process.
- We understand that Metropolitan Consulting has prepared a Functional Servicing and Stormwater Management Report (FSR) which was submitted to approval agencies and the Region of Halton for review.
- We also recognize that this FSR in isolation may not be the most appropriate method to undertake a Class EA Study for all of the infrastructure projects required within the North Aldershot area.
- The route for the 300 mm wastewater main (project ID #5907) and the 400 mm watermain (project ID #3700) should continue to be considered in the FSR. We believe the EA requirements for this infrastructure can be satisfied through the Planning Act processes.
- We note that the requirements of the Class EA for the reservoir (project ID #3699), including determination of its location and type, have not been satisfied through the Master Plan.
- The FSR and other documentation provided by your client and its consultants will provide a useful input to the Region's Class EA Study for the reservoir to be carried out in the future.



**Public Works
Water and Wastewater Services
1151 Bronte Road
Oakville ON L6M 3L1**

Should you have any comments or additional questions regarding the study, please contact David Simpson at 905-825-6000 ext. 7601 (via email at david.simpson@halton.ca), John Duong at 905-825-6000 ext. 7961 (via email at john.duong@halton.ca). You can also contact Chris Hamel at 905-747-7562 (via email at chris.hamel@aecom.com).

Sincerely,

Halton Region

A handwritten signature in black ink, appearing to read "David Simpson".

David Simpson, P.Eng.
Manager of Water Planning

Halton Region

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

John Duong, P.Eng.
Manager of Wastewater Planning

AECOM Canada Ltd.

A handwritten signature in blue ink, appearing to read "Chris Hamel".

Chris Hamel, P.Eng.
Project Manager

encl.

The Regional Municipality of Halton

September 30, 2011
Project 10113

The Regional Municipality of Halton
Public Works
1151 Bronte Road,
Oakville, Ontario
L6M 3L1

Attention: Mr. John Duong, P.Eng.
Manager of Wastewater Planning

**Subject: Sustainable Halton Water and Wastewater Master Plan
Further Comments on behalf of Fieldgate Developments and Great
Gulf Homes (Boyne West lands)**

Dear John:

Further to the Planning and Public Works Committee meeting on September 28, 2011, we are writing on behalf of our Boyne Survey West clients with regard to the Sustainable Halton Water and Wastewater Master Plan. Specifically, we are writing on behalf of Fieldgate Developments and Great Gulf Homes who collectively own over 400ac of land south of Louis St Laurent and north of Britannia Road between Tremaine Road and First Line. (See attached Fig. 1)

We have the following comments:

Boyne Survey Lands – Tributary to Existing Tremaine SPS

The Region's "Preliminary Preferred Wastewater Servicing Strategy" figures presented at the February 2011 PIC showed that the Boyne Survey lands west of 1st Line are to be serviced by trunk gravity sewers to the existing Tremaine Road SPS, which was constructed within the Fieldgate Subdivision lands just south of the future Louis St Laurent Drive. This servicing arrangement was depicted showing gravity sewers on both the west and east side of the CN corridor, conveying sanitary drainage to the existing SPS.

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This February 2011 sanitary servicing approach was supported by the Boyne Survey West landowners as it was consistent with the June 2008 South Halton Water Wastewater Master Plan update which clearly identified that the entire Boyne lands west of 1st line are to be serviced by the Tremaine SPS (see Appendix 1-7B of the Region's 2008 report).

Furthermore the final servicing scheme envisioned at the time of the original Tremaine Road SPS design, in 2006, accounted for the entire Boyne lands west of 1st Line (Milton Phase 3 lands), from both a flow and depth standpoint. Significant technical analysis and exchange of information was undertaken between the Region and the tributary landowners (ie Fieldgate, Great Gulf, Townwood, and Varga) during the summer of 2006. This exchange resulted in these particular Milton Phase 3 landowners entering into a financial agreement with the Region in the fall of 2006, in which these landowners funded a portion of the pump station construction costs (see attached correspondence).

The latest Preferred Wastewater Servicing Strategy presented in Attachment 2 of the September 12, 2011 Sustainable Halton Water and Wastewater Master Plan Executive Summary, however, appears to incorporate a deviation from the plan presented at the February 2011 Public Information Centre. The latest plan appears to identify that the Boyne lands west of 1st line and east of the CN corridor will not be conveyed to the existing Tremaine SPS but rather diverted to a new 675mm trunk sewer to be constructed along Britannia Road.

This is of concern to both Fieldgate and Great Gulf as this change to the Wastewater Servicing Strategy not only has the potential to delay development of their lands east of the CN corridor but it will likely drive the need for additional earth filling on their lands. This potential time delay and potential fill requirement will have a financial impact on the Fieldgate and Great Gulf lands... lands which, as noted above, entered into a financial agreement with the Region to fund the pump station construction.

As a result we request that the Region provides clarification as to rational for the change in the Wastewater Servicing Strategy described above and depicted in the September 2011 report.

Wastewater Servicing of the Education Village Lands

As identified in the Preferred Wastewater Servicing Strategy presented in Attachment 2 of the September 12, 2011 Sustainable Halton Water and Wastewater Master Plan Executive Summary, it appears that the Region is intending to service a portion of the Milton Education Village Lands wastewater flows to the existing Tremaine SPS.

Our clients do not object to this approach in principal, provided that this is not at the expense of the development of the Fieldgate or Great Gulf lands west of 1st line.

It is our understanding that the Tremaine SPS was designed with a flow capacity of 550l/s. It is also our understanding that at the time of the SPS design, it was expected that the combined wastewater flows from the Milton Phase 2 lands and the Milton Phase 3 lands would make up the ultimate station capacity.

We are concerned that the existing Tremaine SPS does not have sufficient capacity for pumping sanitary flows from the Milton Education Village lands in addition to the tributary Milton Phase 2 lands west of 1st Line, the Milton Phase 3 lands west of 1st Line.

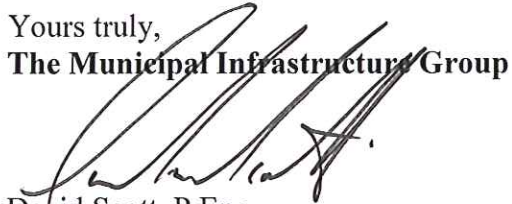
We request that the Region provides us with confirmation of the proposed drainage areas and flows to the Tremaine SPS as envisioned in the latest draft of the Sustainable Halton Water and Wastewater master Plan.

Furthermore, we suggest that should sufficient capacity not exist in the Tremaine SPS for the Milton Education lands in addition to the tributary lands ...then options for upgrades to this SPS should be recommended in the Master Plan to accommodate the Education Village lands, rather than the apparent solution comprising the diversion of flows from Phase 3 lands west of 1st Line to a new Britannia Road sewer system.

On behalf of our clients Fieldgate Developments and Great Gulf Homes, we request a meeting be arranged at this time with Region Staff, Carlo Stefanutti, Katy Schofield, Colin Chung, and myself to review the above in greater detail. In addition we request a subsequent written response to our submission.

In the meantime, we wish to thank the Region for inviting our participation in this project and we look forward to working with the Region and AECOM to refine the preferred water and wastewater servicing strategy for the Sustainable Halton lands.

Yours truly,
The Municipal Infrastructure Group



David Scott, P.Eng.
Founding Partner

cc Dave Andrews, Region of Halton
Ron Glenn, Region of Halton
Zahir Najak, Region of Halton
Chris Hamel, AECOM
Bill Mann, Town of Milton
Colin Chung, GSAI
Carlo Stefanutti, Fieldgate Developments
Katy Schofield, Great Gulf Homes

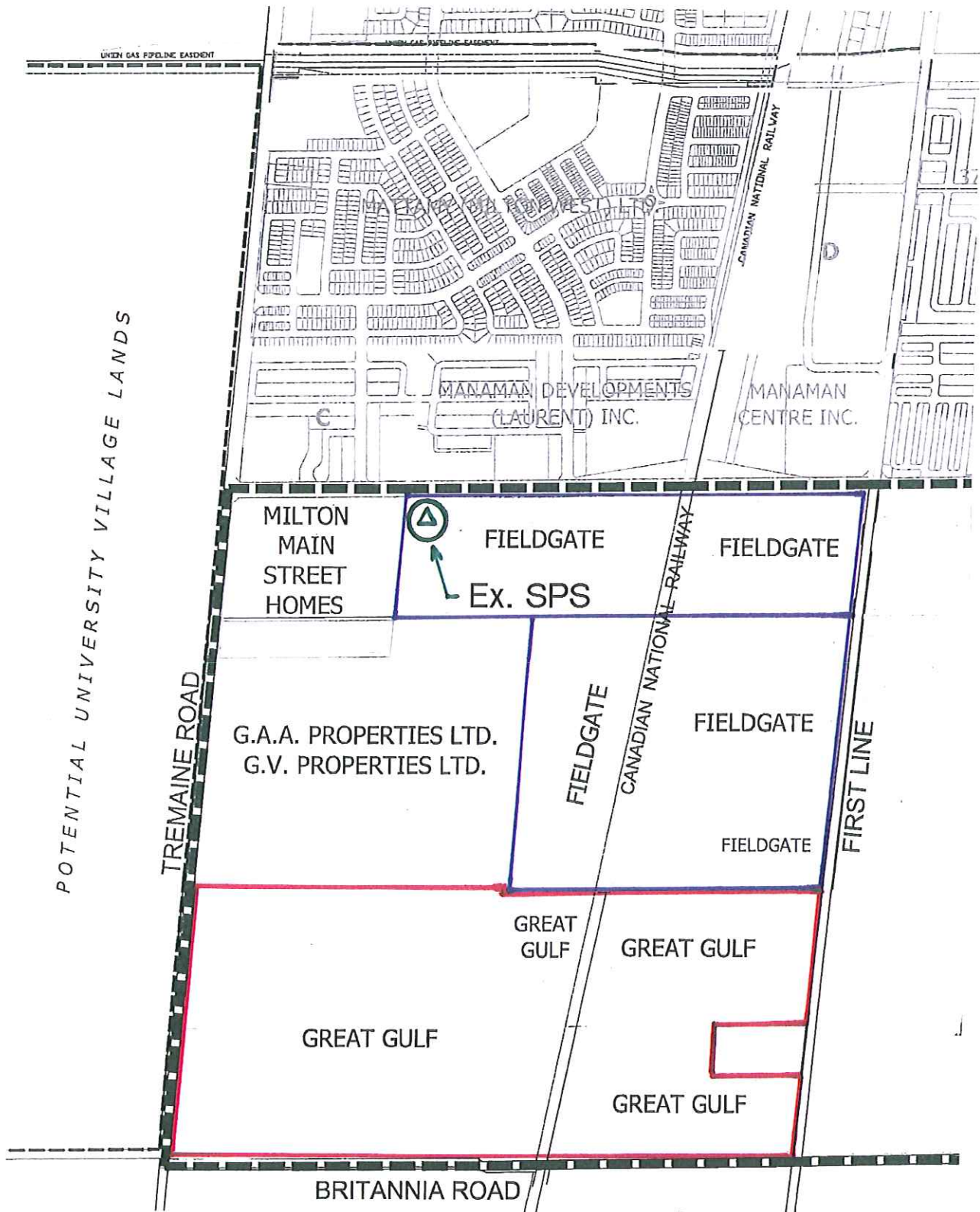


Figure 1A

Bhabha, Fatima

From: Campbell, Chris
Sent: Tuesday, November 15, 2011 8:32 AM
To: Bhabha, Fatima
Subject: FW: Sustainable Halton Water & Wastewater Master Plan Coordination

From: Hamel, Chris
Sent: Monday, November 14, 2011 2:31 PM
To: carlo@fieldgatedevelopments.com; katy@greatgulfhomes.com; jose@greatgulfhomes.com; dscott@tmig.ca
Cc: Duong, John; Andrews, Dave; Zamojc, Mark; Campbell, Chris
Subject: Sustainable Halton Water & Wastewater Master Plan Coordination

To all,

Thank you for your interest in the Sustainable Halton Water and Wastewater Master Plan. We are further responding to your comments recently summarized in your letter dated September 30, 2011 and in addition to the meeting held TMIG, Fieldgate, Great Gulf Homes and AECOM on Tuesday November 8, 2011.

From our meeting, we wish to summarize the following:

1. The servicing strategy under the Sustainable Halton Water and Wastewater Master Plan has evolved from the 2008 Master Plan
2. It has been determined that the long term strategy for the land east of the CN Rail and north of Britannia Road should ultimately convey flows southeast to the Boyne trunk sewer
3. It is anticipated that the Boyne trunk sewer and the sewers on the east side of Bronte Road will be completed with the next Allocation Program to support the Boyne Survey Area, which will proceed from a west to east direction. Based on this schedule, the Master Plan strategy should support the timing of the Boyne lands
4. We appreciate Fieldgate and Great Gulf Homes concerns to minimize risk that infrastructure is available in time.
5. The ultimate strategy does not preclude the development area from using the Louis St Laurent pump station if necessary from a timing standpoint. However, it is expected that the areas would ultimately use the long term Master Plan strategy.
6. The Region will continue to work with the development community to ensure servicing is in place to meet the development timing. The Region will consider interim connection to the Louis St Laurent pump station but will continue to move the ultimate infrastructure forward.
7. On this basis, we believe the strategy provides flexibility for servicing the lands.
8. The ultimate strategy does not have any negative impact on the sewer depths in the area.

It was also noted that the ultimate strategy as well as potential interim strategies should be reflected in the Area Servicing Plans currently being reviewed by the Region.

In addition, it is recognized that there are historical agreements in place regarding the financing of the Louis St Laurent pump station. We believe that a meeting is merited to ensure the intent of the repayment is clarified in light of the updated servicing strategy. The Region will review the agreements and ensure the appropriate individuals / groups are coordinated with for a future meeting.

Trusting this is sufficient.

Thanks,

Chris Hamel, P.Eng.
Associate Vice-President
Community Infrastructure

e: chris.hamel@aecom.com
d: 905.747.7562

AECOM

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February 29, 2012

David Scott, P.Eng.
TMIG.
8800 Dufferin St, Suite 200
Vaughan, Ontario L4K 0C5

Dear Mr. Scott,

**RE: SUSTAINABLE HALTON WATER AND WASTEWATER MASTER PLAN
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY**

Thank you for your interest in the Sustainable Halton Water and Wastewater Master Plan Study. We appreciate the comments you provided on behalf of the Britannia South Landowners Group on September 30, 2011 during the review period. The comments will form part of the public record of comments received in the post-filing phase of the Master Plan study.

In response to your letter, we have provided the following:

1. The servicing strategy under the Sustainable Halton Water and Wastewater Master Plan has evolved from the 2008 South Halton Water and Wastewater Master Plan Update
2. It has been determined that the long term strategy for the land east of the CN Rail and north of Britannia Road should ultimately convey flows southeast to the Boyne trunk sewer
3. It is anticipated that the Boyne trunk sewer and the sewers on the east side of Bronte Road will be completed with the next Allocation Program to support the Boyne Survey Area, which will proceed from a west to east direction. Based on this schedule, the Master Plan strategy supports the timing of the Boyne lands.
4. We appreciate Fieldgate and Great Gulf Homes concerns regarding the timely availability of infrastructure to support planned development.
5. The use of spare capacity within the existing system to facilitate development within planned growth areas was a baseline consideration when preparing the Master Plan. Maximizing the use of existing facilities, while ensuring safe operational buffers, is a key master planning principle. However, it is expected that the areas would ultimately use the long term Master Plan strategy.
6. The Region will continue to work with the development community to ensure servicing is in place to meet the development timing.
7. The ultimate strategy does not have any negative impact on the sewer depths in the area.

It was also noted that the ultimate strategy as well as various strategies to maximize existing infrastructure be reflected in the Area Servicing Plans currently being reviewed by the Region.



**Public Works
Water and Wastewater Services
1151 Bronte Road
Oakville ON L6M 3L1**

Should you have any comments or additional questions regarding the study, please feel free to contact David Simpson at 905-825-6000 ext. 7601 (via email at david.simpson@halton.ca) or John Duong at 905-825-6000 ext. 7961 (via email at john.duong@halton.ca). You can also contact Chris Hamel at 905-747-7562 (via email at chris.hamel@aecom.com).

Sincerely,

Halton Region

A handwritten signature in black ink, appearing to read "David Simpson".

David Simpson, P.Eng.
Manager of Water Planning

Halton Region

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

John Duong, P.Eng.
Manager of Wastewater Planning

AECOM Canada Ltd.

A handwritten signature in blue ink, appearing to read "Chris Hamel".

Chris Hamel, P.Eng.
Project Manager

The Regional Municipality of Halton

HEAD OFFICE 1151 Bronte Road, Oakville, Ontario L6M 3L1 • Tel: 905-825-6000 • Toll free: 1-866-442-5866 • TTY: 905-827-9833 • www.halton.ca

Borowiec, Laura

From: Campbell, Chris
Sent: Wednesday, December 14, 2011 3:43 PM
To: Borowiec, Laura
Subject: FW: SUSTAINABLE HALTON WATER AND WASTEWATER MASTER PLAN

From: Mark Pavkovic [<mailto:mp@nationalhomes.com>]
Sent: Thursday, December 08, 2011 12:59 PM
To: Simpson, David; Duong, John; chris.hamel@aecom.com
Subject: SUSTAINABLE HALTON WATER AND WASTEWATER MASTER PLAN

Good Afternoon Gentlemen – I hope this message finds you well. Can you please kindly advise when the comments and outcome of the 30 day notice period in relation to the above noted Master Plan will be released for public information.

Thank you,

Mark Pavkovic

Land Acquisition & Development
T. 905.669.9199
F. 905.660.9894
M. 416.500.1114
E. mp@nationalhomes.com

291 Edgeley Boulevard Suite # 1
Concord, ON • L4K 3Z4 • Canada
www.nationalhomes.com



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**Public Works
Water and Wastewater Services
1151 Bronte Road
Oakville ON L6M 3L1**

February 29, 2012

Mark Pavkovic
Land Acquisition & Development
National Homes
291 Edgeley Boulevard, Suite #1
Concord, Ontario L4K 3Z4

Dear Mr. Pavkovic,

**RE: SUSTAINABLE HALTON WATER AND WASTEWATER MASTER PLAN
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY**

Thank you for your interest in the Sustainable Halton Water and Wastewater Master Plan Study. We appreciate the comments you provided in your email on December 8, 2011.

Residents, stakeholders, and review agencies have provided comments during the 30-day review period. We continue to respond and prepare a Post Filing Summary Section to be added to the Master Plan document. The project team has also met and discussed the study with review agencies since the lapse of the 30-day review period to ensure adequate and meaningful consultation is achieved prior to finalizing the document. We expect that the final Master Plan documentation as well as the comments received will be available in the early New Year.

Should you have any comments or additional questions regarding the study, please feel free to contact David Simpson at 905-825-6000 ext. 7601 (via email at david.simpson@halton.ca) or John Duong at 905-825-6000 ext. 7961 (via email at john.duong@halton.ca). You can also contact Chris Hamel at 905-747-7562 (via email at chris.hamel@aecom.com).

Sincerely,

Halton Region

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David Simpson, P.Eng.
Manager of Water Planning

Halton Region

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

John Duong, P.Eng.
Manager of Wastewater Planning

AECOM Canada Ltd.

A handwritten signature in blue ink, appearing to read "Chris Hamel".

Chris Hamel, P.Eng.
Project Manager

encl.

The Regional Municipality of Halton

PUBLIC/OTHER

Bhabha, Fatima

From: Campbell, Chris
Sent: Friday, December 09, 2011 11:31 AM
To: Borowiec, Laura
Subject: FW: SHMP Meeting Notes; [REDACTED]
Attachments: Meeting Minutes [REDACTED]_Dec 7 2011.pdf

From: Huk, Dave [<mailto:Dave.Huk@halton.ca>]
Sent: Friday, December 09, 2011 11:24 AM
To: Hamel, Chris; Campbell, Chris
Subject: FW: SHMP Meeting Notes; [REDACTED]

Gentlemen

Here's some minutes for a meeting we had with the owner of [REDACTED] regarding ID 6665, Second Feed to Beaufort Reservoir, to include with the 30 day review documentation.

Dave Huk
Senior Project Manager
Infrastructure Planning
Water Services, Public Works
Regional Municipality of Halton
Phone: 905-825-6000, Ext. 7639
Toll Free: 1-866-442-5866

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Thank you

**Sustainable Halton Water and Wastewater Master Plan -
Preferred Water Servicing Alternative for Second Feed to Beaufort Reservoir
& Booster Pumping Station**

Summary of Meeting Notes

Date : December 7, 2011

Time: 9:00 AM

Location: [REDACTED]

Attended: David Simpson, Manager of Water Planning, Halton (DS)
David Huk, Senior Project Manager, Halton (DH)
[REDACTED] (GP)

Purpose: To discuss Sustainable Halton Master Plan (SHMP) Preferred Servicing Alternative for the Second Feed to Beaufort Reservoir (Zone B4) and Booster Pumping Station (Zone B5) and to discuss potential impacts to [REDACTED] City of Burlington.

Item	Description	Action By
<u>1.0 Sustainable Halton Water Master Plan Background</u>		
1.1	DH stated: <ul style="list-style-type: none"> Existing Beaufort Reservoir & Pump Station is undersized and does not meet current MOE design guidelines Existing reservoir property at [REDACTED] has been fully utilized and does not have sufficient space to allow for expansions to the existing facilities Acquisition of [REDACTED] (adjacent to existing site) is part of the preferred servicing alternative in the SHMP since it would provide the necessary property to expand the existing reservoir and pump station Part of the proposed upgrade to the water system includes a second watermain feed to the new reservoir site The preferred routing of the northerly portion of the second watermain feed is up [REDACTED] across an easement along the easterly and northerly boundary of [REDACTED]. This project is planned for design in 2012 and start of construction in 2014. 	Info

	<ul style="list-style-type: none"> Information from a 1964 Subdivision Agreement (copy provided to GP) suggests a 10 foot wide exists over [REDACTED]. Conflicting documents owned by GP require that existence of this easement be confirmed. 	
<p><u>2.0 Issues Discussion</u></p>		
<p>2.1</p>	<p>GP stated:</p> <ul style="list-style-type: none"> Existing Regional watermain on site was abandoned when it was discovered to be approximately seven feet outside of the easement boundary near the northwest limit of the property Site drainage is the primary concern with any future proposals for this location. Improvements would be requested to resolve existing drainage concerns and to ensure development of [REDACTED] water works does not exasperate existing problems Traffic noise from Dundas Street is a concern. Trees are suggested on future reservoir property as screening help with the noise issue. No leafy trees suggested to reduce risk of blocking catch basins. A 1971 survey does not identify an easement on the east property boundary of [REDACTED]. The existence of this easement is questioned. No problem with proposal to install a new watermain along the eastern property limit of [REDACTED] per se, as long as impact to the property is minimal. Trenchless installation methods preferred (directional drilling) to minimize impact to landscaping Gas service exists along east property boundary so proper utility locates must be carried out during any proposed construction There is a concern with the slope stability along back property line Inquired about the aesthetics and height of the future proposed new reservoir facility. Suggest owner of [REDACTED] be consulted during the design and implementation stage of any future water works [REDACTED] [REDACTED] <p>DH stated:</p> <ul style="list-style-type: none"> Restoration of landscaping, utility locates, preservation of drainage would be a construction requirement GP would be financially compensated for any further easements required 	<p>Info</p>
<p>3.0 Next Steps</p>		
<p>3.1</p>	<ul style="list-style-type: none"> DS advised that GS and the owner of [REDACTED] would be included as persons to be consulted as part of the design and construction process for the Beaufort Reservoir feed and for the Beaufort Reservoir & Pump 	<p>DS</p>

	<p>Station reconstruction</p> <ul style="list-style-type: none"> • Meeting notes will be included in the project file to notify future designer of issues to be resolved • Copy of Preferred Water Servicing Strategy map and Project Tracking Sheet for the Second Feed to Beaufort Reservoir provided to GP • Future correspondence to GP to be provided by mail. • DS to be the Regional contact 	<p>DS</p> <p>DH</p> <p>INFO</p> <p>INFO</p>
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These minutes were prepared by Dave Huk, Halton Region. If there are errors or omissions, please contact Dave Huk at dave.huk@halton.ca.

Sustainable Halton Capital Program

IPFS ID:6665

Project Description: 400 mm WM between Tyandanga Reservoir and Beaufort Reservoir (Zone B4)

Project Documentation

1. Project Tracking Sheet Summary
2. Alternative Solutions on Map
3. Alternatives Evaluation Table
4. Preferred Solution on Map
5. Tracking Sheet



Public Works
DEVELOPMENT PROJECT TRACKING SHEET

Date Prepared/Updated: 30-Sep-11
Version Number: 1
Prepared/Updated By: AECOM

Project Number: Overview
IPFS: 6665

Project Name/Description:

New 400 mm Zone B4 watermain between Tyandaga Reservoir and Beaufort Reservoir.

Project Need:

The Zone B4 watermain between the Tyandaga Reservoir and the Beaufort Reservoir is required to provide supply redundancy to Zone B4. The feedermain will be 400 mm in diameter and approximately 2.75 km in length.

Evaluation:

Alternative alignments were screened on the basis of their technical, environmental, legal/jurisdictional, socio-cultural, and economic impacts. Between the Tyandaga (Zone 3) and the Beaufort (Zone 4) Reservoirs, there is a large environmentally sensitive area, Niagara Escarpment lands, and a series of small creeks. Therefore, alternative alignments that minimized crossing these environmental designated areas were considered most favourable.

Special Consideration:

There were a few specific factors that played key roles in the screening process, such as:

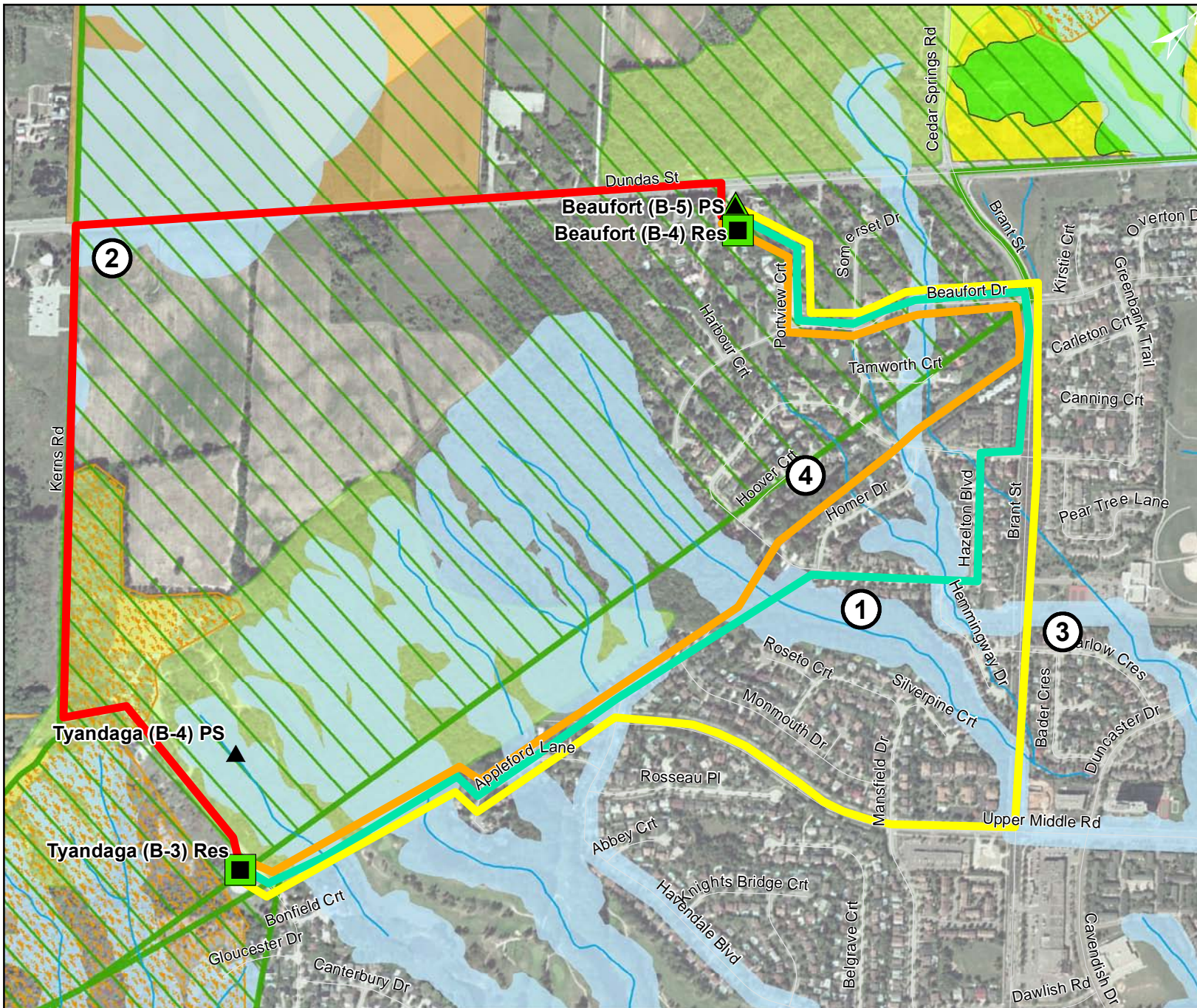
- Environmental/Natural Heritage: Alignment is adjacent to Kerncliff Park, and is adjacent to NEC Natural designated lands.
- Cultural/Heritage: No significant impacts anticipated.
- Transport: N/A.
- Bridge Crossing: No bridge crossings are involved.
- Long Term Servicing: N/A.

Selection of Preferred Servicing Alternative:

Four (4) watermain alignments were evaluated as follows:

- Alternative 1 – Watermain from Tyandaga Zone B3 Reservoir northeast along the edge of Kerncliff Park to Havendale Blvd, east along Havendale Blvd and Hazelton Blvd, north on Brant Street to Beaufort Drive, west on Beaufort Drive to Portview Court, and northwest to connect to the Beaufort Zone 4 Reservoir.
- Alternative 2 – Watermain from Tyandaga Zone B3 Reservoir northwest on Kerns Road to Dundas Street, and east on Dundas Street to Beaufort Zone B4 Reservoir.
- Alternative 3 – Watermain from Tyandaga Zone B3 Reservoir north along edge of Kerncliff Park to Upper Middle Road, east on Upper Middle Road to Brant Street, north along Brant Street, west along Beaufort Drive to Portview Court, and northwest to connect to the Beaufort Zone 4 Reservoir.
- Alternative 4 – Watermain from Tyandaga Zone B3 Reservoir northeast along edge of Kerncliff Park, on Homer Drive to Brant Street, north on Brant Street, west on Beaufort Drive to Portview Court, and northwest to connect to the Beaufort Zone 4 Reservoir.

Alternative 4 was selected as the preferred alignment. This alignment was the most direct route from the Tyandaga Reservoir to the Beaufort Reservoir. The cross sectional profile along the route showed that Alternative 4 was also preferable from a technical standpoint. The project has been classified as Schedule "B" because it involves the crossing of small creeks, is adjacent to an environmentally sensitive area, and has potential for some adverse environmental impacts which will require mitigative measures



Legend

Existing Facilities

- Project Area
- Well
- Standpipe
- Water Purification Plant
- Reservoir
- Elevated Tower

2008 MP Proposed Facilities

- Pumping Station
- Booster Pumping Station
- Well
- Water Purification Plant
- Reservoir

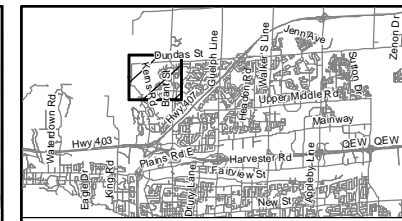
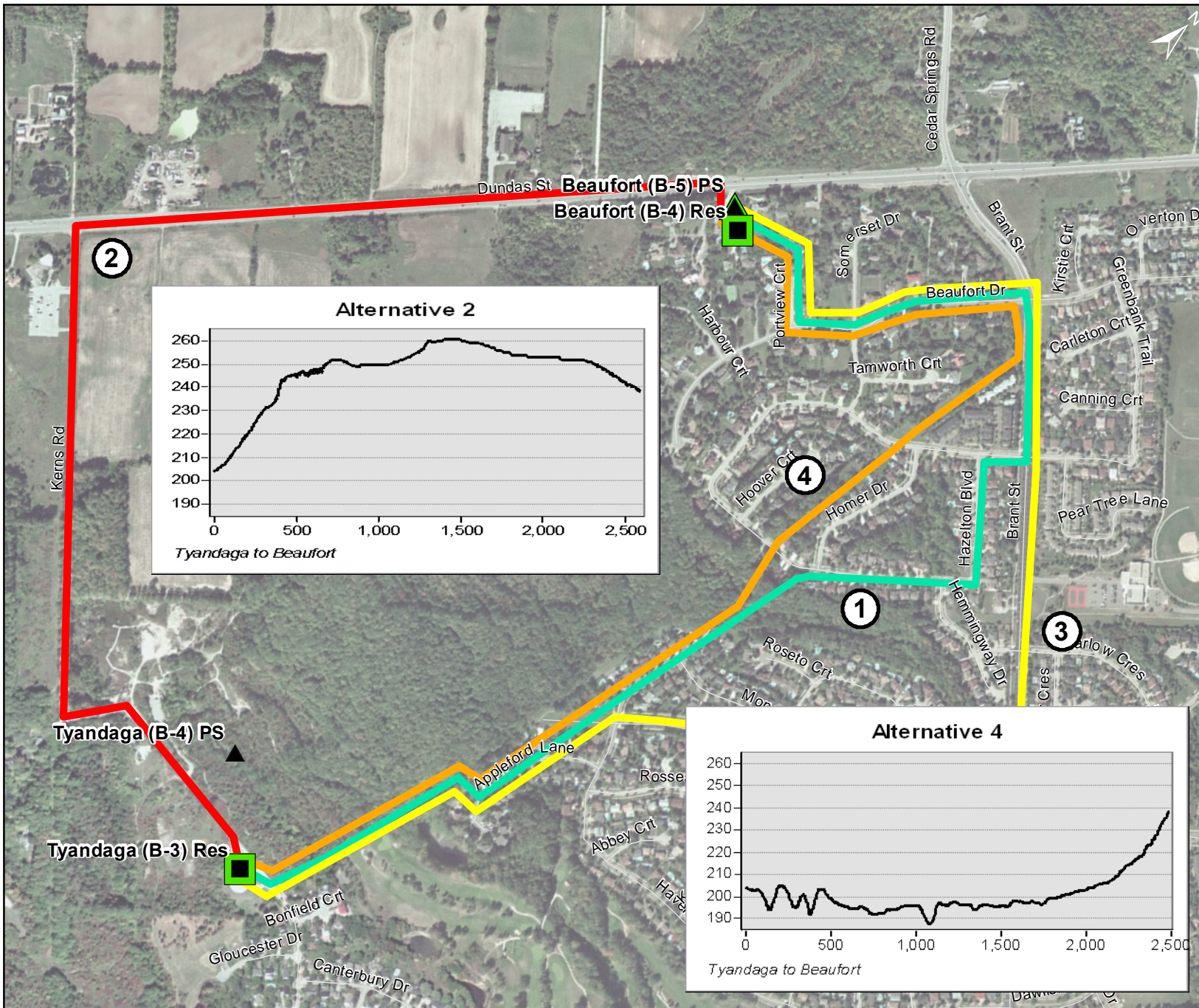
Sustainable Halton MP Proposed Facilities

- Future Pumping Station
- Future Booster Pumping Station
- Future Well
- Future Water Purification Plant
- Future Reservoir

Environmental and Planning Features

- ANSI
- ESA
- Greenbelt
- Greenland - A
- Greenland - B
- Provincial Wetlands
- Regional Wetlands
- Escarpment Protected Area
- Escarpment Rural Area
- Escarpment Natural Area
- Conservation Halton - Regulation Limit
- Credit Valley Conservation - Regulation Limit
- Grand River Conservation Authority - Regulation Limit
- Lakes, Rivers and Creeks

0 55 110 220 Meters



- Project Area

Legend

Existing Facilities

- ▲ Pumping Station
- ⊙ Well
- Standpipe
- Water Purification Plant
- Reservoir
- ⚡ Elevated Tower

2008 MP Proposed Facilities

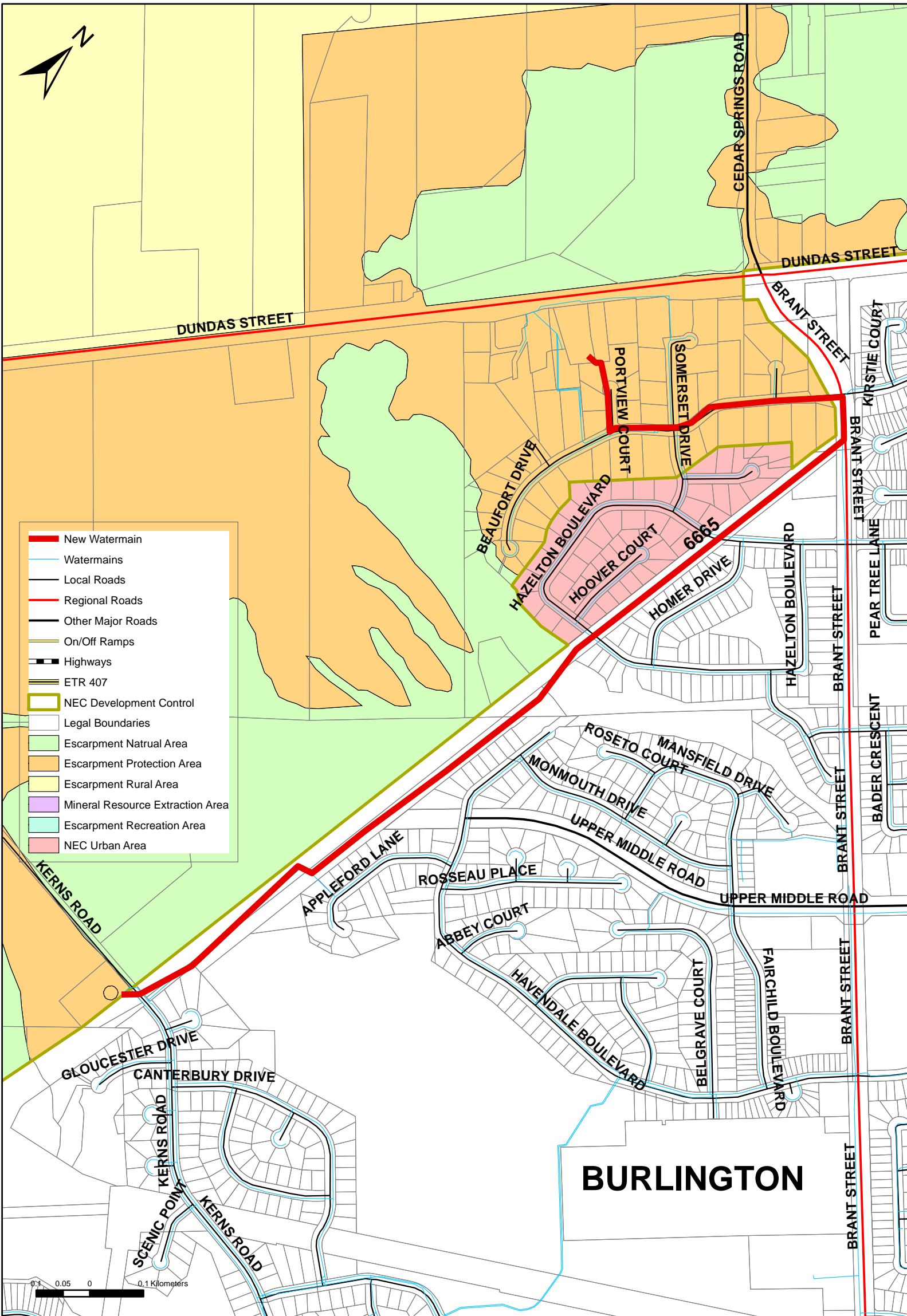
- ▲ Pumping Station
- ▲ Booster Pumping Station
- ⊙ Well
- Water Purification Plant
- Reservoir

Sustainable Halton MP Proposed Facilities

- ▲ Future Pumping Station
- ▲ Future Booster Pumping Station
- ⊙ Future Well
- Future Water Purification Plant
- Future Reservoir
- Lakes Rivers and Creeks
- ANSI
- ESA
- ▨ Greenbelt
- ▨ Greenland
- ▨ Provincial Wetlands
- ▨ Regional Wetlands
- ▨ Escarpment Protected Area
- ▨ Escarpment Rural Area
- ▨ Escarpment Natural Area

110 55 0 110 Meters

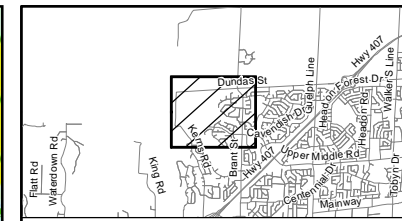
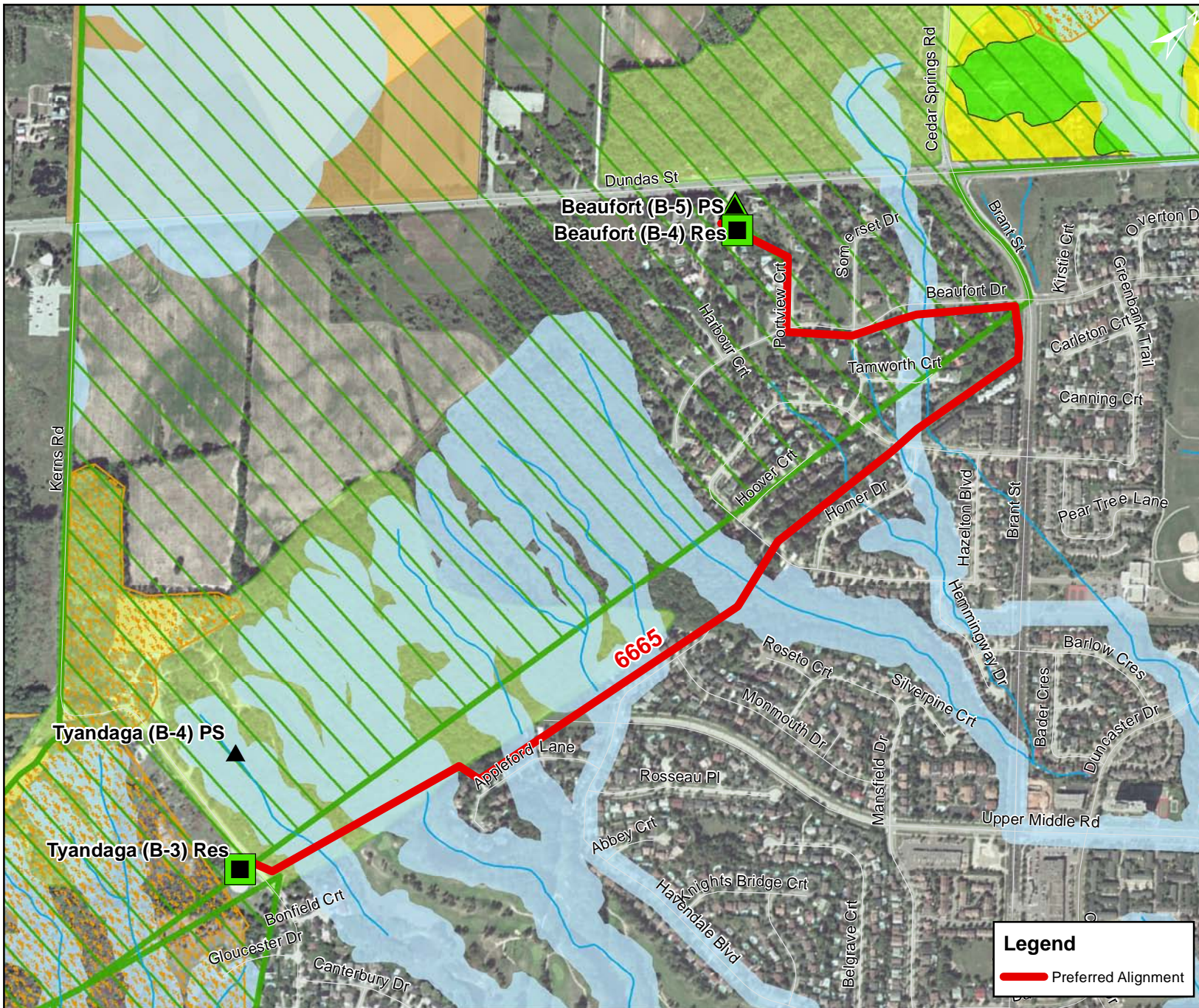
Niagara Escarpment Commission Mapping Water Projects



ID 6665: 400mm WM between Tyandaga Reservoir and Beaufort Reservoir

Project No. 6665 - Zone B4 400 mm Watermain from Tyandaga Reservoir to Beaufort Reservoir

Project No. 6665 - New 400 mm Zone B4 watermain between Tyandaga Reservoir and Beaufort Reservoir				
Alternatives	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Description	New 400 mm WM from Tyandaga Zone B3 Reservoir to Beaufort Zone B4 Reservoir Watermain northeast along the edge of Kerncliff Park and utility corridor to Havendale Blvd, east along Havendale Blvd and Hazelton Blvd, north on Brant Street to Beaufort Drive, west on Beaufort Drive to Portview Court, and northwest to connect to the Beaufort Zone 4 Reservoir	New 400 mm WM from Tyandaga Zone B3 Reservoir to Beaufort Zone B4 Reservoir from north on Kerns Road to east on Dundas St Watermain north on Kerns Road to Dundas Street, and east on Dundas Street to Beaufort Zone B4 Reservoir	New 400 mm WM from Tyandaga Zone B3 Reservoir from the edge of Kerncliff Park to south east on Upper Middle Rd, along Brant St to Beaufort Zone B4 Reservoir Watermain northeast along the edge of Kerncliff Park and utility corridor to south east on Upper Middle Rd, then north on Brant Street to Beaufort Drive, west on Beaufort Drive to Portview Court, and northwest to connect to the Beaufort Zone 4 Reservoir	New 400 mm WM from Tyandaga Zone B3 Reservoir south from Brant St. through woodlands to Beaufort Zone B4 Reservoir Watermain northeast along edge of Kerncliff Park and utility corridor, on Homer Drive to Brant Street, north on Brant Street, west on Beaufort Drive to Portview Court, and northwest to connect to the Beaufort Zone 4 Reservoir
Environmental	Watermain alignment adjacent to NEC Protected lands and ESA (Kerncliff Park), through existing residential area, and Beaufort section through NEC Protected lands One (1) road crossing at Brant St. and Hazelton Blvd Six (6) stream crossings along unnamed Tributaries of Hagar Creek (all permanent) Potential impact to stream, woodlands, and environmentally significant natural habitat lands	Watermain alignment exclusively along existing road right of way, adjacent to ESA (Kerncliff Park) and Greenlands, and through NEC Protected lands Dundas sections run through NEC Protected lands No stream crossings Potential impact to woodlands and environmental significant natural habitat lands	Watermain alignment adjacent to NEC Protected lands and ESA (Kerncliff Park), through existing residential area, and Beaufort section through NEC Protected lands Alignment adjacent to NEC Natural Areas along Kerncliff Park Six (6) stream crossings along unnamed Tributaries of Hagar Creek (all permanent) Potential impact to woodlands and environmental significant natural habitat lands	Watermain alignment adjacent to NEC Protected lands and ESA (Kerncliff Park), through existing residential area, and Beaufort section through NEC Protected lands Alignment adjacent to NEC Natural Areas along Kerncliff Park Seven (7) stream crossings (1 seasonal), along unnamed Tributaries of Hagar Creek Potential impact to woodlands and environmental significant natural habitat lands
Technical	Potential for conflict with utilities along utility corridor and within residential areas Construction along existing roads No topographical constraints along watermain route Moderate watermain length Use of trenchless technology for water crossings	Potential for conflict with utilities along utility corridor and within residential areas Construction along existing road right of way Cross-sectional profile of watermain route shows a localized high point that could present construction and operational challenges for the hydraulic grade line Short watermain length Use of trenchless technology for environmental crossings Potential to coordinate with proposed Halton Region Transportation Master Plan projects	Potential for conflict with utilities, within residential areas Construction along existing roads No topographical constraints along watermain route Longest watermain length Use of trenchless technology for water crossings Potential to coordinate with proposed Halton Region Transportation Master Plan projects	Potential for conflict with utilities along utility corridor and within residential areas Construction along existing roads No topographical constraints along watermain route Shortest watermain length Use of trenchless technology for water crossings
Socio / Cultural	Alignment crosses through low to high residential areas, and commercial employment lands along Brant Sreet Potential for moderate traffic disruptions / disturbance for local traffic on Beaufort Dr, Hazelton Blvd, and Brant St. during construction Temporary impacts to residents during construction. Noise disturbance will be limited by ensuring construction takes place during normal working hours. Dust will be controlled through construction contract obligations.	A few residences along watermain route Potential for moderate traffic disruptions / disturbance along Dundas Street and Kerns Road during construction Minor and temporary impacts to any nearby landowners during construction. Noise disturbance will be limited by ensuring construction takes place during normal working hours. Dust will be controlled through construction contract obligations. Dundas section runs adjacent to properties that have been identified/listed in Burlington's Heritage Resource Inventory Additional mitigative actions will be taken to ensure the protection of Heritage Resource properties identified along the construction route	Alignment crosses through low to high residential areas, and commercial employment lands along Brant St Greater part of construction along Upper Middle Road and Brant Street - potential for traffic disruptions / disturbance expected Temporary impacts to residents during construction. Noise disturbance will be limited by ensuring construction takes place during normal working hours. Dust will be controlled through construction contract obligations.	Alignment crosses through low to high density residential areas Potential for traffic disruptions / disturbance for local traffic near Beaufort Dr, Homer Dr, and Havendale Blvd during construction Temporary impacts to residents during construction. Noise disturbance will be limited by ensuring construction takes place during normal working hours. Dust will be controlled through construction contract obligations.
Financial	Moderate watermain distance	Short watermain distance	Longest watermain distance	Shortest watermain distance
Legal / Jurisdictional	Approvals / permits required by: Halton Region Conservation Authority for stream crossings Niagara Escarpment Commission for NEC Protected land crossings Coordination required with TransCanada Pipeline for use of existing utility corridor	Approvals / permits required by: Halton Region Conservation Authority and Niagara Escarpment Commission for crossing of NEC Protected areas Ministry of Natural Resources for Greenland areas	Approvals / permits required by: Halton Region Conservation Authority for stream crossings Niagara Escarpment Commission for NEC Protected land crossings Coordination required with TransCanada Pipeline for use of existing utility corridor	Approvals / permits required by: Halton Region Conservation Authority for stream crossings Niagara Escarpment Commission for NEC Protected land crossings Coordination required with TransCanada Pipeline for use of existing utility corridor
Overall Score	Moderate	Low	Moderate	High



- Project Area

Legend

Existing Facilities

- Pumping Station
- Well
- Standpipe
- Water Purification Plant
- Reservoir
- Elevated Tower

2008 MP Proposed Facilities

- Pumping Station
- Booster Pumping Station
- Well
- Water Purification Plant
- Reservoir

Sustainable Halton MP Proposed Facilities

- Future Pumping Station
- Future Booster Pumping Station
- Future Well
- Future Water Purification Plant
- Future Reservoir

Environmental and Planning Zones

- ANSI
- ESA
- Greenbelt
- Greenland - A
- Greenland - B
- Provincial Wetlands
- Regional Wetlands
- Escarpment Protected Area
- Escarpment Rural Area
- Escarpment Natural Area

Regulation Limits

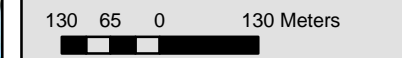
- Conservation Halton - Regulation Limit
- Credit Valley Conservation - Regulation Limit
- Grand River Conservation Authority - Regulation Limit

Water Features

- Lakes, Rivers and Creeks

Legend

Preferred Alignment





2011 Sustainable Halton Water & Wastewater Master Plan - Public Works
PROJECT TRACKING SHEET

Date Prepared/Updated: August 25 2011
Version Number: 2
Prepared/Updated By: AECOM

Project Number: N/A
IPFS: 6665

Project Description:

400 mm WM between Tyandanga Reservoir and Beaufort Reservoir (Zone B4)

Scope of Work:

The new Zone B4 400 mm watermain will be 2752 m long and will be constructed between Tyandanga Reservoir and Beaufort Reservoir (Twin existing WM). The project will require environmental crossings. Watermain to be partially constructed with existing road right of way and partially in new easement lands. Environmental crossing construction methodology will be determined during detailed design stages in consultation with Review/Permitting Agencies.

Project Justification:

Watermain distribution network upgrade required to service existing service area. The existing transfer capacity to the Beaufort Reservoir and in the Burlington (Zone B4) is currently constrained. Project will alleviate constraint and provide improved level of service.

Class EA Requirements (Special Studies Required, Schedule A, A+, B or C and Justification):

Schedule B
-Will be satisfied under SH Master Plan

Triggers Affecting Project Need:

Existing operational constraint and infill growth.

Project Timing:

In Service: 2016
Class EA: B

Design: 2012
Construction: 2014
Land: 2012



Oversizing/Benefit to Existing

There is a benefit to existing portion cost. There are existing constraints with the transfer capacity to the Beaufort Reservoir and in the Burlington B4 pressure zone. This project is required to support existing demands and future demands in Burlington. Demand percentage based on Burlington existing service area.

Property Requirements:

Easement required

Cost Estimate (2012 Dollars): Refer to Cost Estimate Spreadsheet Attachment

Permits and Approvals Required:

	Yes	No	If yes, describe type:
MOE Permit to Take Water		X	
MOE Certificate of Approval - Water	X		
MOE Certificate of Approval - Sewage		X	
MOE Certificate of Approval - Air		X	
Class Environmental Assessment		X	Covered in MP (2011)
Ministry of Natural Resources	X		Req consultation with NEC/ NEC Development Permit
Department of Fisheries Approval		X	Consultation re: Endangered Species Act
Transport Canada/Navigable Waters		X	
Archaeological Stage 1,2,3,4		X	
Marine Archaeological		X	
Site Plan		X	
Building Permit		X	
Conservation Permit	X		Conservation Halton
Ministry of Transport - Encroachment Order		X	
Rail Crossing		X	
Gas Pipeline Crossing		X	
Other		X	



2011 Sustainable Halton Water & Wastewater Master Plan - Public Works
PROJECT TRACKING SHEET

Attachments

Comment

i.	Plan & Profiles	
ii.	Sketch Of Facility	
iii.	Cost Estimates	
iv.	Calcs/Spreadsheet	
v.	Other	

Additional Comments:

During the subsequent steps of project implementation, primarily during detailed design, the following requirements will be considered:

- Final refinement of infrastructure alignment and facility siting
- Final refinement of construction methodologies
- Completion of additional supporting investigations as required such as geotechnical, hydrogeotechnical and site specific environmental studies
- Review and mitigation of potential construction related impacts
- Completion of all approval requirements including but not limited to provincial approvals (MOE, MNR), local municipality approvals (site plans, building permits), and conservation authority approvals.

Circulation:

Manager

	(date/initial)
	(date/initial)

Project Manager

To be completed by Infrastructure Planning Department

Component ID	_____	Staging	_____ (yr)	_____ (\$)
		Staging	_____ (yr)	_____ (\$)
		Staging	_____ (yr)	_____ (\$)

Legend

Existing Infrastructure

- ▲ Water Pumping Station
- Water Well
- Water Standpipe
- Water Reservoir
- Water Purification Plant
- ⊕ Elevated Water Tower
- - - Existing Watermain
- Watermain

Previously Approved Infrastructure

- ▲ Water Pumping Station
- Water Well
- Water Purification Plant
- Water Reservoir

Proposed/Upgrade Infrastructure

- ▲ Water Pumping Station
- Water Well
- Water Purification Plant
- Water Reservoir
- Watermain
- Distribution-Built Boundary Watermain

Funded Infrastructure

- ▲ Water Pumping Station
- Water Reservoir
- Funded Project - Watermain (2008 MP Projects)
- X Existing Interregional connections
- Existing Milton Groundwater Servicing
- Existing Central Milton Groundwater Service Area Boundary
- Water Pressure Zones
- Proposed Lake Base Service Area

