



The Regional Municipality of Durham

Works Committee Agenda

Council Chambers
Regional Headquarters Building
605 Rossland Road East, Whitby

Wednesday, March 6, 2019

9:30 AM

1. Declarations of Interest

2. Adoption of Minutes

A) Works Committee meeting – [February 6, 2019](#)

Pages 4 - 12

3. Statutory Public Meetings

There are no statutory public meetings

4. Delegations

There are no delegations

5. Presentations

5.1 Susan Siopis, Commissioner of Works, re: 2019 Works Department General Tax and Solid Waste Management Business Plans and Budgets (2019-W-25) [Item 7.2 L]

6. Waste

6.1 Correspondence

A) Correspondence dated February 7, 2019 from the Municipality of Clarington, re: Report #2019-COW-3: Durham Region's Solid Waste Management Servicing and Financing Study

13 - 15

Recommendation: Refer to staff for consideration

6.2 Reports

There are no Waste Reports to consider

7. Works

7.1 Correspondence

7.2 Reports

- A) Extension of Lease for Premises with 2381502 Ontario Inc., Operating as Midtown Centre at 200 John Street in the City of Oshawa for the Regional Municipality of Durham Social Services Department ([2019-W-14](#)) 16 - 19
- B) Regional Road 3 and Regional Road 57 Traffic Signal, Columbus Road and Grandview Street All-way Stop Control, and Lake Ridge Road Between Dundas Street and Highway 401 Street Lighting Construction Agreement with the Ontario Ministry of Transportation ([2019-W-15](#)) 20 - 32
- C) Winchester Road and Thornton Road Traffic Signal Construction Agreement with the Ontario Ministry of Transportation ([2019-W-16](#)) 33 - 44
- D) The Regional Municipality of Durham's Drinking Water Systems Annual 2018 Summary Report ([2019-W-17](#)) 45 - 98
- E) Termination of Industrial Raw Water Agreement with Coveris Americas (Formerly Liqui-Box Canada Inc.), in the Town of Whitby ([2019-W-18](#)) 99 - 101
- F) Service Level Agreement to Operate and Maintain Traffic Control Signals Located at Highway 407 and Highway 412 Interchanges between the Regional Municipality of Durham and OM&R 407 East Development Group General Partnership ([2019-W-19](#)) 102 - 110
- G) Extension of Lease with the Township of Brock for the Sunderland Patrol Yard Building Located at S1015 Regional Road 10, in the Township of Brock ([2019-W-20](#)) 111 - 113
- H) Approval to Award a Sole Source Agreement for the Replacement of the Zebra Mussel Control Systems located at the Oshawa Water Supply Plan, in the City of Oshawa ([2019-W-21](#)) 114 - 117

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|---|-----------|
| I) Approval to Award a Sole Source Agreement to Continue the Provision of Bioxide and Associated Chemical Dosing System to Reduce Odour and Corrosion in the Trunk Sanitary Sewer located in Lord Elgin Park, in the Town of Ajax (2019-W-22) | 118 - 124 |
| J) Amendments to Regional Roads By-law #22-2018 (2019-W-23) | 125 - 130 |
| K) Cemetery Connections to the Regional Water Supply System (2019-W-24) | 131 - 134 |
| L) 2019 Works Department Business Plans and Budgets (2019-W-25) | 135 – 143 |

Links to the 2019 Works Department Business Plans and Budgets:

- [Works – General Tax](#)
- [Works – Solid Waste Management](#)

8. Advisory Committee Resolutions

There are no advisory committee resolutions to be considered

9. Confidential Matters

There are no confidential matters to be considered

10. Other Business

11. Date of Next Meeting

Wednesday, April 3, 2019 at 9:30 AM

12. Adjournment

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The Regional Municipality of Durham

MINUTES

WORKS COMMITTEE

Wednesday, February 6, 2019

A regular meeting of the Works Committee was held on Wednesday, February 6, 2019 in Council Chambers, Regional Headquarters Building, 605 Rossland Road East, Whitby, Ontario at 9:30 AM

Present: Councillor Mitchell, Chair attended the meeting at 9:34 AM
Councillor Marimpietri, Vice-Chair
Councillor Barton
Councillor Crawford
Councillor John Neal
Councillor Smith
Regional Chair Henry

Also

Present: Councillor Collier attended the meeting at 9:56 AM
Councillor Joe Neal left the meeting at 11:28 AM
Councillor Kerr attended the meeting at 9:43 AM

Absent: Councillor McLean

Staff

Present: E. Baxter-Trahair, Chief Administrative Officer
J. Demanuele, Director of Business Services, Works Department
J. Hunt, Director of Legal Services, Corporate Services – Legal Services
R. Jagannathan, Director of Transportation and Field Services, Works Department
M. Januszkiewicz, Director of Waste Management, Works Department
J. Paquette, Manager (Works), Corporate Communications
J. Presta, Director of Environmental Services, Works Department
S. Rashad, Systems Support Specialist, Corporate Services – IT
S. Siopis, Commissioner of Works
S. Penak, Committee Clerk, Corporate Services – Legislative Services

In the absence of the chair, Vice-Chair Marimpietri assumed the chair from 9:30 AM to 9:39 AM.

1. Declarations of Interest

There were no declarations of interest.

2. Adoption of Minutes

Moved by Regional Chair Henry, Seconded by Councillor Barton,
(17) That the minutes of the regular Works Committee meeting held on
Wednesday, January 9, 2019, be adopted.

CARRIED

3. Statutory Public Meetings

There were no statutory public meetings.

4. Delegations

4.1 Alex Williamson, President, Pine Grove Cemetery Board, re: Regional Water
Installation at the Ontario Pine Grove Cemetery

A. Williamson appeared before the Committee regarding regional water
installation at the Ontario Pine Grove Cemetery.

A. Williamson informed the Committee that the cemetery property's southern line
has 90m of frontage and has been used for burials since 1831, therefore no
commercial or residential buildings could be built there.

A. Williamson requested that the \$27,000 levy fee and \$5,000 installation fee be
waived or, at the least, consideration of the standard rate multiplied by a 10-metre
opening.

Staff responded to questions from the Committee regarding standard practices,
as it relates to the waiving of connection frontage fees.

Moved by Councillor John Neal, Seconded by Councillor Smith,
(18) That staff be requested to investigate the request from the delegate to
waive the levy fee and installation fee, and any previous situations, and
report back to the Works Committee with a recommendation.

CARRIED

5. Presentations

There were no presentations to be heard.

6. Waste

6.1 Correspondence

A) Information Report #2018-INFO-127: Single Use Plastics

Chair Mitchell advised that Report #2018-INFO-127 of the Commissioner of Works was received for information at the January 9, 2019 Works Committee meeting.

6.2 Reports

A) City of Vancouver Single-Use Items Reduction Strategy (2019-WR-1)

Report #2019-WR-1 from S. Siopis, Commissioner of Works, was received.

Detailed discussion ensued regarding the City of Vancouver's initiatives and costs; whether single-use plastics would be a topic at the 2019 Federation of Canadian Municipalities (FCM) conference; extended producer responsibility; and the importance of continuing public education related to product packaging.

Staff responded to questions and noted that discussions and meetings are ongoing with producers and local municipalities on mechanisms that will allow extended producer responsibility to be brought to Ontario. Staff also advised that enabling regulations are being drafted to accelerate the process that would outline the transition process and future responsibilities of the producers. Staff advised they will bring back a report to Committee with more information, when available.

Moved by Councillor Barton, Seconded by Regional Chair Henry,
(19) That Report #2019-WR-1 of the Commissioner of Works be lifted from the table.

CARRIED

Moved by Councillor Marimpietri, Seconded by Councillor Crawford,
(20) That we recommend to Council:

- A) Whereas plastic waste is an urgent environmental issue creating waste disposal concerns and threatening the health of waterways and oceans:
- i) That federal and provincial leadership is required to adequately address waste generation issues that are significantly beyond the control of individual municipalities; and
 - ii) That Regional Chair Henry submit a letter to the Premier of Ontario and Minister of the Environment, Conservations and Parks highlighting the need for provincial leadership to encourage the development of

plastics recycling markets and energy recovery solutions where recycling is not a viable option.

CARRIED AS AMENDED
LATER IN THE MEETING
(SEE FOLLOWING MOTION)

Moved by Councillor Marimpietri, Seconded by Councillor Barton,
(21) That the main motion (20) of Councillors Marimpietri and Crawford be amended to add a new Part iii) and iv) as follows:

- iii) Furthermore; that the federal and provincial governments undertake a full review of single use plastics and duly ban those deemed most dangerous to our environment; and
- iv) That the federal and provincial governments continue to encourage producers and operators currently utilizing single use plastic to instead proactively conduct their businesses with recyclable materials in mind.

CARRIED

The main motion (20) of Councillors Marimpietri and Crawford was then put to a vote and CARRIED AS AMENDED.

B) Award of Request for Proposal #633-2018 Energy from Waste Facility Professional Services for Operations and Maintenance Monitoring Services for the Durham York Energy Centre (2019-WR-2)

Report #2019-WR-2 from S. Siopis, Commissioner of Works, was received.

In response to a question, S. Siopis outlined the specific tasks HDR performs to support Regional Staff in the oversight of the EFW. She also indicated that HDR and the Region have a positive working history to date and confirmed that the staff recommendation to award the assignment to HDR is based on results of an RFP Process.

M. Januszkiewicz clarified the role of HDR and confirmed that monetary value of the new contract is consistent with the past allocation in the DYEC operating budget for outlined activities.

M. Januszkiewicz committed to follow up with Councillor Joe Neal regarding viewing the HDR Corporation reports.

Moved by Councillor Smith, Seconded by Councillor Barton,
(22) That we recommend to Council:

- A) That Request for Proposal #633-2018 be awarded to HDR Corporation to provide professional services for operations and maintenance monitoring services for the Durham York Energy Centre for a three year period beginning March 1, 2019 and ending December 31, 2021, at a total upset limit not to exceed \$768,436* with Durham's share (78.6%) to be funded from the Solid Waste Management – Durham York Energy Centre annual operating budget; and
- B) That the Commissioner of Finance be authorized to execute the professional services agreement.
(* includes disbursements and are before applicable taxes

CARRIED

C) Energy from Waste – Waste Management Advisory Committee (Host Community Agreement Committee) Membership Appointments (2019-WR-3)

Report #2019-WR-3 from S. Siopis, Commissioner of Works, was received.

Moved by Regional Chair Henry, Seconded by Councillor Marimpietri,
(23) That we recommend to Council:

- A) That the following five applicants selected by members of the Works Committee be appointed for membership on the Energy from Waste – Waste Management Advisory Committee for a two-year term (2019-2020):
- George Rocoski
 - Anna-Marie Burrows
 - William Basztyk
 - Theresa Farrell
 - Clayton McLean; and
- B) That a copy of Report #2019-WR-3 be forwarded to the Municipality of Clarington for information.

CARRIED

7. Works

7.1 Correspondence

- A) Correspondence dated February 3, 2019 from Marysia and Richard Colvin regarding Report #2019-W-13: Additional Background Information Regarding the Legalities of the 2005 Ontoro Boulevard and Range Road Petition Process and Proposed Next Steps, and submitting additional comments

Moved by Regional Chair Henry, Seconded by Councillor Crawford,
(24) That the correspondence dated February 3, 2019 from Marysia and Richard Colvin regarding regarding Report #2019-W-13: Additional Background Information Regarding the Legalities of the 2005 Ontoro Boulevard and Range Road Petition Process and Proposed Next Steps and submitting additional comments be referred to consideration of Report #2019-W-13 of the Commissioner of Works.

CARRIED

7.2 Reports

A) Site Plan Agreement for the Regional Municipality of Durham Municipal Hazardous and Special Waste Facility, in the Municipality of Clarington (2019-W-10)

Report #2019-W-10 from S. Siopis, Commissioner of Works, was received.

Staff responded to questions regarding any input received from the Municipality of Clarington regarding this agreement; and potential challenges and costs related to renovating the building.

Moved by Councillor Smith, Seconded by Councillor Crawford,
(25) That we recommend to Council:

That the Regional Chair and Clerk be authorized to execute all documents associated with the site plan agreement and building permit process for the reconfiguration and renovation of the facility located at 1998 Regional Road 57, in the Municipality of Clarington to accommodate a new Municipal Hazardous and Special Waste facility.

CARRIED

B) Report on Private Wells on Fielding Court in the Town of Ajax (2019-W-11)

Report #2019-W-11 from S. Siopis, Commissioner of Works, was received.

Detailed discussion ensued regarding the water quantity and quality in private wells for homes on Fielding Court, in the Town of Ajax (Ajax), and the broader definition of a health issue.

S. Siopis advised that this area would require a similar petition process as with Ontoro/Range Road and noted that there is not as much documented evidence regarding Fielding Court.

In response to a question, J. Hunt advised that the regulation surrounding who can determine a health issue has changed in that it no longer must be determined by the Medical Officer of Health (MOH), but that a health issue does need to be established.

Moved by Councillor Crawford, Seconded by Councillor Barton,
(26) That we recommend to Council:

- A) Whereas according to the Greenbelt Plan, properties within the Greenbelt can be connected to municipal services such as water only when a health risk exists;

Whereas residents on Fielding Court (Town of Ajax) have raised water quality and quantity concerns with their private water supply systems (wells) dating back to 2001, and continue to do so as of December 2018;

Whereas most residents on Fielding Court are supplementing their water supply with water that is trucked in;

Therefore be it resolved that Works Committee deem the quality of water from private wells for the residences of Fielding Court a health risk; and

- B) That staff be directed to report back to the Works Committee on a go forward plan to extend the municipal water supply to the residents of Fielding Court, in the Town of Ajax.

CARRIED AS AMENDED
LATER IN THE MEETING
(SEE FOLLOWING MOTION)

Moved by Regional Chair Henry, Seconded by Councillor Crawford,
(27) That the main motion (26) of Councillors Crawford and Barton be amended in Part A) so that the fourth clause now reads as follows:

Therefore be it resolved that staff investigate the quality and quantity of water from the private wells of the residences of Fielding Court to determine whether there is a health risk.

CARRIED

The main motion (26) of Councillors Crawford and Barton was then put to a vote and CARRIED AS AMENDED.

- C) Bulk Water Filling Stations and Hydrant Permits – Status Updates (2019-W-12)

Report #2019-W-12 from S. Siopis, Commissioner of Works, was received.

Discussion ensued regarding the discontinuation of water companies self-invoicing for bulk water.

Staff responded to questions from the Committee regarding the design features being built into the new bulk water filling stations including the ability to accommodate very large trucks; the location of the bulk water filling stations;

enforcement methods and how to educate the public on unlawful water taking; and lower tier municipalities bulk water agreements.

In response to a concern raised by Regional Chair Henry, J. Presta agreed to look into the lower tier municipalities bulk water agreements with regards to mark-ups and whether lower tiers pay for bulk water.

J. Presta agreed to provide Councillor Barton with the detailed costs of filling a truck with water by truck size.

S. Siopis advised Committee that staff could draft a memo in time for Regional Council February 27, 2019 with background information that would include a summary of the previous staff reports regarding the bulk water filling stations and hydrant permits and the rationale of the previous recommendations; investigate the question of contracts and local area municipal contracts and provide a summary of the information found; the concerns of a return on investment of building more bulk water filling stations; the main objective of how to protect the water system; and the possibility of using technology in the future that would monitor the water meters.

Moved by Councillor Marimpietri, Seconded by Councillor Smith,
(28) That we recommend to Council:

That the Regional Municipality of Durham continue to implement the renewal of bulk water filling stations and reduce hydrant permits as new bulk water filling station capacity is operational.

CARRIED

D) Additional Background Information Regarding the Legalities of the 2005 Ontoro Boulevard and Range Road Petition Process and Proposed Next Steps (2019-W-13)

Report #2019-W-13 from S. Siopis, Commissioner of Works, was received.

Detailed discussion ensued regarding the 2005 Ontoro Boulevard and Range Road petition process.

Councillor Collier requested that Report #2019-W-13 of the Commissioner of Works be referred back until after the 2019 budget has passed. S. Siopis advised that the second petition could be timed so that it occurred after budget deliberations.

In response to a question, J. Hunt advised that the Greenbelt Act was proclaimed retroactively on February 24, 2005 and was enforced December 16, 2004. He also advised that a map of the 2005 Greenbelt Plan that identified the lands in the Plan at the time the Greenbelt came into force on December 16, 2004, could be provided via email to Councillors.

Moved by Councillor Marimpietri, Seconded by Councillor Barton,
(29) That we recommend to Council:

That the Regional Municipality of Durham undertake a new petition of the Ontoro
Boulevard and Range Road area for the installation of Regional water service.

CARRIED

8. Advisory Committee Resolutions

There were no advisory committee resolutions to be considered.

9. Confidential Matters

There were no confidential matters to be considered.

10. Other Business

A) Intersection at Delpark Homes Centre

Councillor John Neal questioned whether a signal would be built at the entrance
to the Delpark Homes Centre on Harmony Road, Oshawa. S. Siopis agreed to
follow up with staff on this and get back to him directly.

11. Date of Next Meeting

The next regularly scheduled Works Committee meeting will be held on
Wednesday, March 6, 2019 at 9:30 AM in the Lower Level Boardroom (LL-C),
Regional Headquarters Building, 605 Rossland Road East, Whitby.

12. Adjournment

Moved by Regional Chair Henry, Seconded by Councillor Marimpietri,
(30) That the meeting be adjourned.

CARRIED

The meeting adjourned at 11:41 AM

Respectfully submitted,

D. Mitchell, Chair

S. Penak, Committee Clerk

Clarington

If this information is required in an alternate format, please contact the Accessibility Co-ordinator at 905-623-3379 ext. 2131

February 7, 2019

Ralph Walton, Regional Clerk/Director of Legislative Services
The Regional Municipality of Durham
**VIA Email: ralph.walton@durham.ca **

Re: Report PSD-010-19 - Resolution regarding Durham Region's Solid Waste Management Servicing and Financing Study Report #2019-COW-3 PLN 33.3.10

File Number: PG.25.06

C.S. - LEGISLATIVE SERVICES

Original
To: <i>Agenda - Work</i>
Copy <i>E. Baxter - Trehan</i>
To: <i>S. S. S. S. S.</i>
<i>N. Taylor</i>
C.C. S.C.C. File
Take Appr. Action

At a meeting held on February 4, 2019, the Council of the Municipality of Clarington approved the following Resolution #C-034-19:

Whereas Regional Staff presented Report #2019-COW-3, Solid Waste Management Servicing and Financing Study on January 16, 2019 to outline a number of processes, amongst them being:

- Endorsement of a long term waste management vision founded on managing waste as a resource;
- Commencement of public consultation and communications for the Regional Municipality of Durham's Long Term Waste Management Strategy (Update for 2021-2040);
- Authorization to apply to the Ministry of Environment, Conservation and Parks (MECP) to increase the processing limit of 140,000 tonnes per year to 160,000 tonnes per year at the Durham York Energy Centre (DYEC);
- Commencement of the focused Environmental Assessment (EA) Terms of Reference for the future expansion of the DYEC to 250,000 tonnes per year with anticipated construction in 10-15 years.

Whereas Clarington is concerned that some of the actions are pre-judging the results of the Long Term Waste Management Strategy and are a more costly approach to waste diversion; and

Whereas Clarington is concerned with the on-going operational issues at the DYEC and in particular the air emissions (ambient and stack) which have shown exceedances in the past; and

CORPORATION OF THE MUNICIPALITY OF CLARINGTON

40 TEMPERANCE STREET, BOWMANVILLE, ONTARIO L1C 3A6 905-623-3379 www.clarington.net

Whereas the emissions sources tests at the DYEC from September 2018 indicate that it is operating at 91% of the ECA Compliance Approval Limit for NOx; and

Whereas Section 22.1 of the EA stipulates that the maximum amount of waste that may be processed at the DYEC is 140,000 tonnes per year; and

Whereas the Region committed to a 70% waste diversion target in the DYEC EA and the Host Community Agreement; and

Whereas on June 13, 2018 Regional Council approved anaerobic digestion (AD) with a mixed waste transfer and pre-sort facility as the preferred technologies for the Region's long term organic management strategy (Report #2018-COW-146) which is necessary to move from 55% to 70% diversion;

Now therefore be it resolved that:

1. Clarington Council requests Durham Region Council to direct staff to:
 - a) Proceed with haste on renewing its commitment to waste reduction, reuse, and diversion by reviewing, updating, and consulting with the public on the Long Term Waste Management Strategy;
 - b) Continue to investigate the AD process for implementation by Regional staff with a report to Regional Council, together with a final business case, before June 2019 outlining steps necessary to complete this project within a 3 year timeframe;
 - c) Prepare a public consultation and communication plan, including anticipated timelines, to educate the community about the preferred technologies (approval as per #2018-COW-146), including the rationale, regulatory process, siting, opportunities for public input, and how the project contributes to the Region's 70% waste diversion target;
 - d) Clarify how they intend to obtain the input of the public with respect to any proposed increase to the processing limit of the DYEC;
 - e) Post the work plan for the dioxins and furans long-term sampling system (AMESA) on the DYEC website, and provide a timeline for verification of the AMESA system, as required by the DYEC ECA and, upon completion of the actions in the work plan report back on the results to Durham Region and Clarington Councils;
 - f) Prepare and implement a communications plan to include greater promotion, education, enforcement and public awareness of the Region's waste management system; and
 - g) Continue to perform both an additional annual source test at the DYEC and the DYEC Ambient Air Monitoring Program for at least 3 additional years, minimum.

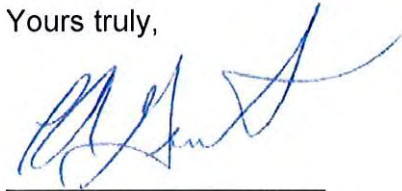
That Clarington forward a request to the MECP to prepare a report on local airshed quality, including (i) the sources and concentrations of NOx and Sox, and how any lowered ambient air standards for NOx and Sox, will be managed given that this will result in exceedances at current emissions levels; and (ii) that identifies and evaluates the sources and concentrations of local airshed emissions, associated health risks and overall air quality and

That Clarington inform the MECP of its position that any amendment to the EA to increase the processing limit of the DYEC beyond the current 140,000 tonnes per year be contingent upon a full review of the proposal under the Environmental Assessment Act, that applies appropriate and up to date health-based toxicity reference values and standards, and include a consideration of the concerns listed above.

That this resolution be circulated to the MECP, Durham Region, and area municipalities including York Region; and

That Report PSD-010-19 be received and all interested parties listed in the Report and any delegations be advised of Council's decision.

Yours truly,



C. Anne Greentree, B.A., CMO
Municipal Clerk

AG/sg

- c. Andrew Brouwer, City Clerk, City of Oshawa
S. Cassell, Clerk, City of Pickering
Nicole Cooper, Town Clerk, Town of Ajax
L. Fawn, Clerk, County of Peterborough
Thomas Gettinby, Municipal Clerk & CAO, Township of Brock
B. Gilmer, Clerk, Municipality of Port Hope
Chris Harris, Town Clerk, Town of Whitby
J. Kennedy, Clerk, City of Peterborough
B. Larmer, Clerk, Town of Cobourg
Debbie Leroux, Director of Legislative Services/Clerk, Township of Uxbridge
JP Newman, Director of Corporate Services/Clerk, Township of Scugog
Chris, Raynor, Clerk, Region of York



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: [#2019-W-14](#)
Date: March 6, 2019

Subject:

Extension of Lease for Premises with 2381502 Ontario Inc., Operating as Midtown Centre at 200 John Street in the City of Oshawa for the Regional Municipality of Durham Social Services Department

Recommendation:

That the Works Committee recommends to Regional Council:

- A) That an Extension of Lease for 1,863.2 square metres (20,055 square feet) of office space, being part of the building located at 200 John Street, in the City of Oshawa, be approved on the following terms and conditions:
- i) The term of the lease extension to be for a period of five years commencing May 1, 2019, ending April 30, 2024;
 - ii) The annual rental rate for the five year period of the lease to be \$280,770* based on a rate of \$150.69* per square metre (\$14.00* per square foot);
 - iii) The Regional Municipality of Durham continues to be responsible for all operating costs for the leased space;

- B) That the Regional Chair and Clerk be authorized to execute all documents associated with the extension of lease agreement.
-

Report:**1. Purpose**

- 1.1 This report seeks authorization for the Regional Municipality of Durham (Region) to extend the lease agreement with 2381502 Ontario Inc., operating as Midtown Centre, for leased space for the Social Services Department at 200 John Street, in the City of Oshawa. Dollar amounts followed by an asterisk (*) are before applicable taxes in all instances.

2. Background

- 2.1 The Region currently leases 1,863.2 square metres (20,055 square feet) of space at 200 John Street, in the City of Oshawa, for the Region's Social Services Department Employment Resource Centre. The Region has been leasing this space since 1999. The space includes 4,279 square feet of rentable area on the main level and 15,776 square feet of rentable area on the upper level in the shopping center. The Social Services Department has advised that they wish to extend their leasing arrangement for this combined space.
- 2.2 In 2017 the Region leased an additional 21,893 square feet of office space at Midtown Centre for the Region's Social Services Department Income Support Program under a separate lease. In the future the Region will combine both of these leases into one main lease when the rental periods commence.
- 2.3 Ownership of Midtown Mall was transferred in October 2013, with 2381502 Ontario Inc. purchasing the property and renaming it as Midtown Centre. The Region has been leasing with this Landlord for since May 1, 2014.

3. Discussions

- 3.1 Negotiations with 2381502 Ontario Inc., operating as Midtown Centre, have resulted in an extension of lease with a term of five years commencing May 1, 2019 and ending April 30, 2024.
- 3.2 The total annual rental rate for the five years of the extension of lease will be \$280,770* based on a rate of \$150.69* per square metre (\$14.00* per square foot) per annum. This is the same rate currently being paid for this space.

- 3.3 The Region will be responsible for all operating costs for the proportionate share of the leased premises, estimated to be \$130.22* per square metre (\$11.67* per square foot) in 2019 for a total annual operating cost of \$234,042*. This cost per square metre includes taxes, common area maintenance and utilities on the main floor. Utilities on the upper floor are metered separately and are the Region's responsibility.
- 3.4 The Region will continue to be responsible for all janitorial costs related to the leased space.

4. Financial Implications

- 4.1 Financing for the extension of lease of \$280,770* per annum will continue to be provided within the Social Services Operating Budget for this facility. Base rent for the extension of lease will remain at \$150.69* per square metre (\$14.00* per square foot) for the duration of the lease term with additional rent estimated costs as noted.
- 4.2 Since approval of this lease extension requires a long-term financial obligation for payment is required beyond the term for which Council was elected, the Regional Treasurer has updated the Region's financial debt and obligation limit. In accordance with Section 4 of the Ontario Regulation 403/02, the Region's Treasurer has calculated an updated long-term debt-financial limit and has determined that the limit has not been exceeded. Therefore, this lease does not require the approval of the Local Planning Appeal Tribunal.

5. Conclusion

- 5.1 The Social Services Department has advised that they wish to extend the lease for space at 200 John Street, in the City of Oshawa, and it is recommended that the Regional Municipality of Durham enter into an extension of lease based on the above noted terms and conditions.
- 5.2 This report has been reviewed by the Finance Department.

5.3 For additional information, please contact Jeremy Harness, Manager, Administrative Services and Real Estate, at 905-668-7711, extension 3475.

Respectfully submitted,

Original signed by:

Susan Siopis, P.Eng.
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: [#2019-W-15](#)
Date: March 6, 2019

Subject:

Regional Road 3 and Regional Road 57 Traffic Signal, Columbus Road and Grandview Street All-way Stop Control, and Lake Ridge Road Between Dundas Street and Highway 401 Street Lighting Construction Agreement with the Ontario Ministry of Transportation

Recommendation:

That the Works Committee recommends to Regional Council:

- A) That the Regional Road 3 and Regional Road 57 Traffic Signal, Columbus Road and Grandview Street All-way Stop Control, and Lake Ridge Road Between Dundas Street and Highway 401 Street Lighting Construction Agreement with the Ontario Ministry of Transportation be approved; and
 - B) That the Regional Chair and Regional Clerk be authorized to execute the Regional Road 3 and Regional Road 57 Traffic Signal, Columbus Road and Grandview Street All-way Stop Control, and Lake Ridge Road Between Dundas Street and Highway 401 Street Lighting Construction Agreement with the Ontario Ministry of Transportation in the form provided in Attachment #1.
-

Report:

1. Purpose

- 1.1 The purpose of this report is to seek authorization for the Regional Chair and Regional Clerk to execute the Regional Road 3 and Regional Road 57 Traffic Signal, Columbus Road and Grandview Street All-way Stop Control, and Lake Ridge Road Between Dundas Street and Highway 401 Street Lighting Construction Agreement with the Ontario Ministry of Transportation (MTO).

2. Background

2.1 As part of the MTO's Highway 407 East project, the MTO and the Regional Municipality of Durham (Region) identified that:

- The intersection at Regional Road 3 and Regional Road 57 required a temporary traffic signal to improve traffic operations and safety caused by the ongoing construction of Highway 407 and adjacent road closures.
- The intersection at Columbus Road and Grandview Street required all-way stop control to improve traffic operations and safety caused by the ongoing construction of Highway 407 and adjacent road closures.
- The location on the west side of Lake Ridge Road between Dundas Street and Highway 401 requires the installation of five street lights, as a replacement of existing ones on the old Lake Ridge Road, to improve traffic operations and safety along the realigned Lake Ridge Road.

2.2 The Region agreed to undertake these works on behalf of the MTO, at MTO's expense, upon the terms and conditions set out in the attached agreement.

3. Financial Implications

3.1 The MTO shall reimburse and pay the Region 100 per cent of the actual costs, as set out in Schedule "B" of the attached agreement to complete the installation of a temporary traffic signal at Regional Road 3 and Regional Road 57. The actual cost incurred by the Region to install the traffic signal at Regional Road 3 and Regional Road 57 is \$58,051. The Region will invoice the MTO for these costs upon execution of the agreement by the Region and the MTO.

3.2 The MTO shall reimburse and pay the Region 100 per cent of the actual costs, as set out in Schedule "D" of the attached agreement to complete the installation of all-way stop control at Columbus Road and Grandview Street. The actual cost incurred by the Region to install the all-way stop control at Columbus Road and Grandview Street is \$3,048. The Region will invoice the MTO for these costs upon execution of the agreement by the Region and the MTO.

3.3 The MTO shall reimburse and pay the Region 100 per cent of the actual costs, as set out in Schedule “F” of the attached agreement to complete the installation of five (5) street lights on the west side of Lake Ridge Road between Dundas Street and Highway 401. The estimated cost to install the five (5) street lights on the west side of Lake Ridge Road between Dundas Street and Highway 401 is \$55,000. The Region will invoice the MTO for the actual cost incurred by the Region upon completion of the Work and upon execution of the agreement by the Region and the MTO.

4. Conclusion

4.1 It is recommended that the Regional Municipality of Durham enter into the Regional Road 3 and Regional Road 57 Traffic Signal, Columbus Road and Grandview Street All-way Stop Control, and Lake Ridge Road Between Dundas Street and Highway 401 Street Lighting Construction Agreement with the Ontario Ministry of Transportation in the form provided in Attachment #1.

4.2 This report and attachment have been reviewed by Legal Services – Corporate Services.

4.3 For additional information, contact Steven Kemp, Manager of Traffic Engineering and Operations at 905-668-7711, extension 4701.

5. Attachments

Attachment #1: Regional Road 3 and Regional Road 57 Traffic Signal, Columbus Road and Grandview Street All-way Stop Control, and Lake Ridge Road Between Dundas Street and Highway 401 Street Lighting Construction Agreement with the Ontario Ministry of Transportation

Respectfully submitted,

Original signed by:

Susan Siopis, P.Eng.
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer

THIS AGREEMENT is effective as of the day of 2019.

B E T W E E N:

HER MAJESTY THE QUEEN in right of the Province of Ontario,
represented by the Ministry of Transportation for the Province of Ontario

(hereinafter referred to as the "Ministry");

- and -

Regional Municipality of Durham

(hereinafter referred to as the "Region")

(collectively, the Ministry and the Region are referred to as “Parties”)

WHEREAS the Ministry has jurisdiction and control over Highway 407 East, and the Region has jurisdiction and control over the intersection at Regional Road 57 and Concession Road 8, and the intersection at Columbus Road East and Grandview Street North, such roads being adjacent to the Highway 407 East right-of-way (the “ROW”);

AND WHEREAS Phase 1 of the Highway 407 East project consists of 22 kilometres of new east-west highway from Brock Road in Pickering to Harmony Road North in Oshawa, and a 10 kilometres north-south highway, the West Durham Link (WDL), connecting Highway 407 East to Highway 401;

AND WHEREAS part of the Highway 407 East project, the Ministry and the Region identified that the intersection at Regional Road 57 and Concession Road 8 required temporary traffic control signals to improve traffic operations and safety at this location caused by ongoing construction of Highway 407 and adjacent road closures;

AND WHEREAS part of the Highway 407 East project, the Ministry and the Region identified that the intersection at Columbus Road East and Grandview Street North required installation of all-way stop control to improve traffic operations and safety at this location caused by ongoing construction of Highway 407 and adjacent road closures;

AND WHEREAS part of the Highway 407 East project, the Ministry and the Region identified that the location on the west side of Lake Ridge Road between Dundas Street and Highway 401 North required realignment and installation of five (5) street lights to improve traffic operations and safety along the realigned Lake Ridge Road;

AND WHEREAS the Ministry has agreed to allow the Region to undertake the Works described in this Agreement on behalf of the Ministry, upon the terms and conditions set out in this Agreement.

NOW THEREFORE in consideration of the mutual covenants and agreements of the Parties hereinafter contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties covenant and agree as follows:

DEFINITIONS

1. In this Agreement,

- a) “Works” means all the work required to design and construct temporary traffic control signals and all-way stop sign including and not necessarily limited to: design, obtaining of necessary permits/as-builts and approvals, construction, construction administration, construction inspection, materials testing and resolution of liens and claims, power supply and connection.
- b) “Regional Director” means the Regional Director of the Central Region of the Ministry of Transportation for the Province of Ontario, or a nominee.

SCOPE OF WORK

1. The Region shall undertake and execute the Works in accordance with Municipal standards and specifications, policies and practices, Ontario Provincial Standards and applicable Ministry standards.
2. The Region shall secure all necessary approvals to carry out the Works.
3. The Region shall maintain the Works and be responsible for the Works and acknowledges that the Ministry shall not be liable for any costs or claims in respect of the Works except as specifically set out in section 5 herein.
4. The Region shall remove the Works at the point in time that the Region determines that the Works are no longer required.

FINANCIAL CONTRIBUTION

5. The Ministry shall reimburse and pay the Region 100% of the actual costs, as set out in

Schedule “B” of this Agreement, necessary to satisfactorily complete the portion of the Works relating to installation of temporary traffic control signals at Regional Road 57 and Concession Road 8, as illustrated in Schedule “A” of this Agreement. The estimated price of the Works is \$58,051.94 (including applicable taxes). The Region shall obtain the Ministry’s prior written approval before incurring any cost in respect of the Works that may or will exceed this estimated price.

6. The Ministry shall reimburse and pay the Region 100% of the actual costs, as set out in Schedule “D” of this Agreement, necessary to satisfactorily complete the portion of the Works relating to installation of all-way stop control at Columbus Road East and Grandview Street North, as illustrated in Schedule “C” of this Agreement. The estimated price of the Works is \$3,048.47 (including applicable taxes). The Region shall obtain the Ministry’s prior written approval before incurring any cost in respect of the Works that may or will exceed this estimated price.
7. The Ministry shall reimburse and pay the Region 100% of the actual costs, as set out in Schedule “F” of this Agreement, necessary to satisfactorily complete the portion of the Works relating to installation of five (5) street lights along the west side of Lake Ridge Road between Dundas Street and Highway 401 North to improve traffic operations and safety at this location, as illustrated in Schedule “E” of this Agreement. The estimated price of the Works is \$55,000.00 (including applicable taxes). The Region shall obtain the Ministry’s prior written approval before incurring any cost in respect of the Works that may or will exceed this estimated price.

INVOICING

7. The Region shall invoice the Ministry upon completion of the Works.
8. The Ministry shall pay the Region the invoiced amount within sixty (60) days of receipt of the invoice.

THIS AGREEMENT shall enure to the benefit of and be binding upon the parties hereto and their respective successors and assigns.

IN WITNESS WHEREOF the Parties have executed this Agreement effective as of the day first above written.

HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO,
as represented by the Minister of Transportation

Per:

Minister of Transportation

SIGNED this day of 2019.

The Regional Municipality of Durham

Regional Chair

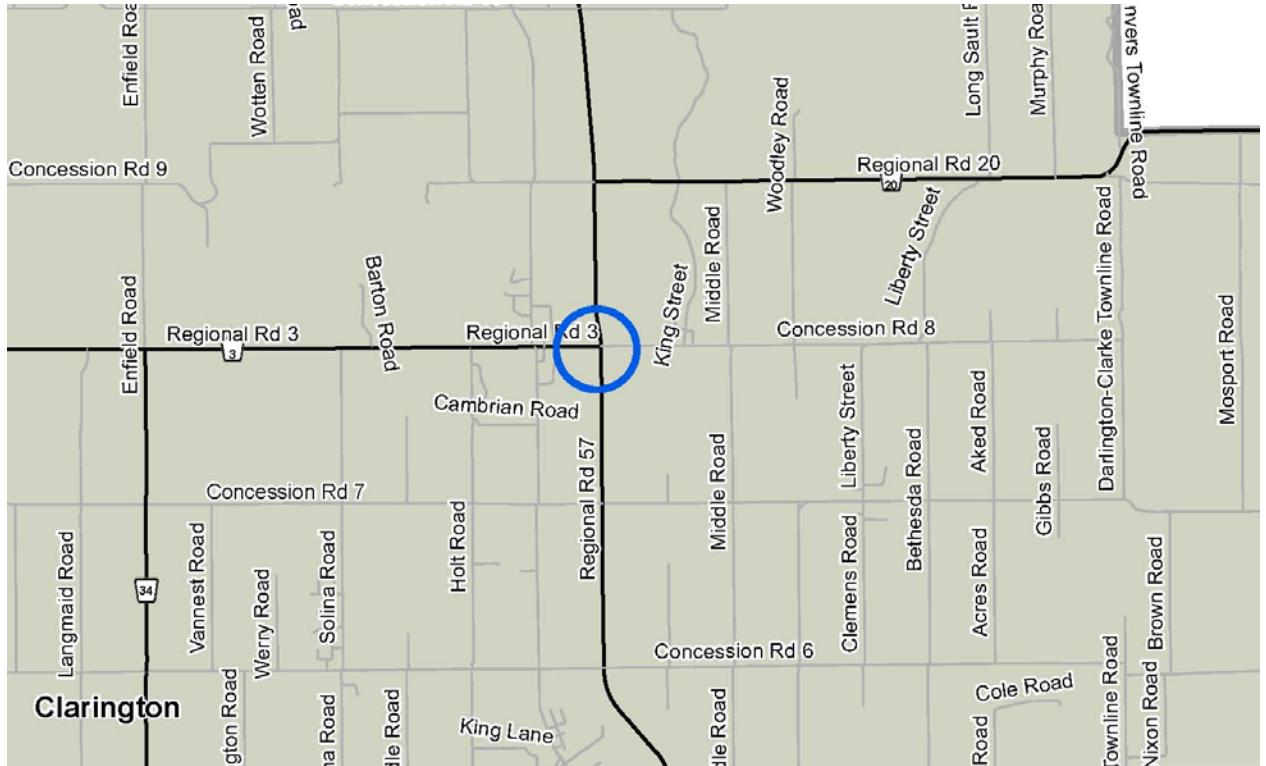
Regional Clerk

SIGNED this day of 2019.

SCHEDULE "A" TO AN AGREEMENT BETWEEN THE MINISTRY AND REGIONAL MUNICIPALITY OF DURHAM

INSTALLATION OF TEMPORARY TRAFFIC CONTROL SIGNALS AT REGIONAL ROAD 57 AND CONCESSION ROAD 8

KEY MAP



SCHEDULE “B” TO AN AGREEMENT BETWEEN THE MINISTRY AND REGIONAL MUNICIPALITY OF DURHAM

SUMMARY OF COST SHARING DETAILS – INSTALLATION OF TEMPORARY TRAFFIC CONTROL SIGNALS AT REGIONAL ROAD 57 AND CONCESSION ROAD 8

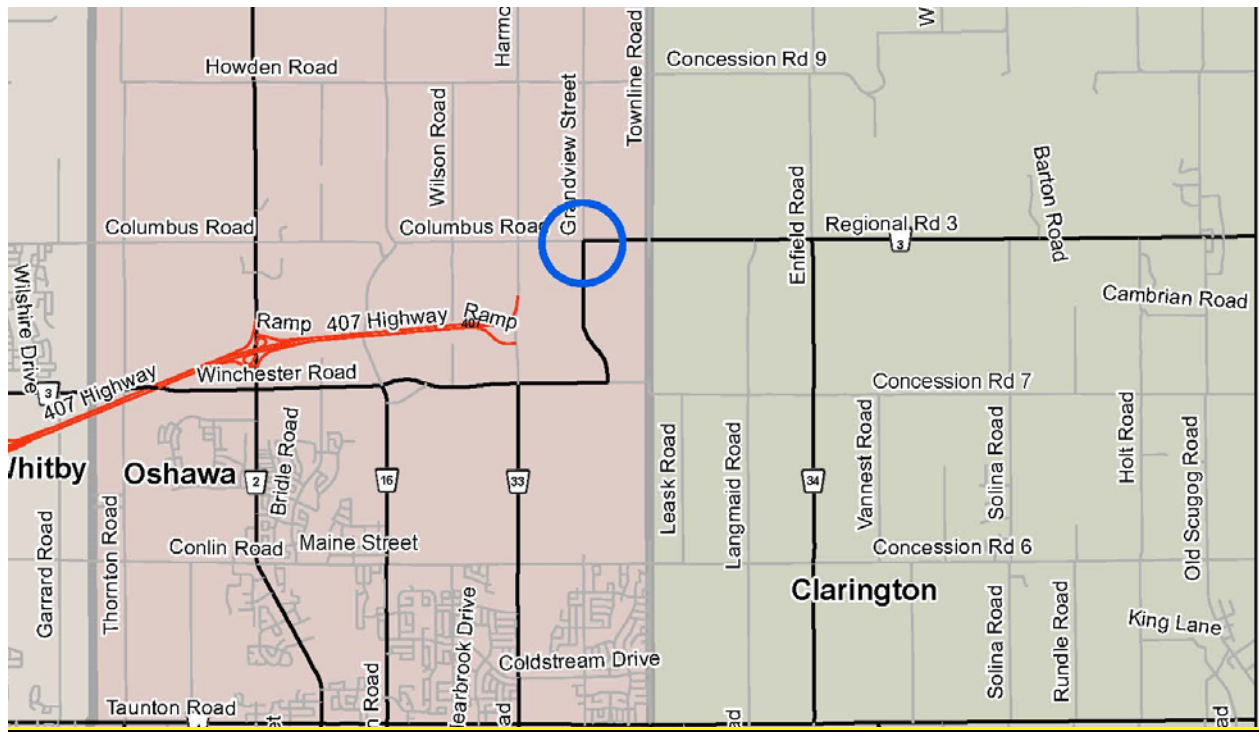
ITEM	TOTAL COST	Sharing Percentage		Shared Costs (\$)	
		MTO	Region	MTO	Region
Design	\$2,944.83	100%	0%	\$2,944.83	\$0
Installation	\$32,128.34			\$32,128.34	\$0
Materials	\$21,769.38			\$21,769.38	\$0
Utility Relocation	\$339.34			\$339.34	\$0
Other	\$870.05			\$870.05	\$0
Total	\$58,050.94			\$58,050.94	\$0

Note: Cost sharing was based on actual costs rather than estimated costs. Cost includes applicable taxes.

SCHEDULE "C" TO AN AGREEMENT BETWEEN THE MINISTRY AND REGIONAL MUNICIPALITY OF DURHAM

INSTALLATION OF ALL-WAY STOP CONTROL AT COLUMBUS ROAD EAST AND GRANDVIEW STREET NORTH

KEY MAP



**SCHEDULE "D" TO AN AGREEMENT BETWEEN THE MINISTRY AND REGIONAL
MUNICIPALITY OF DURHAM**

SUMMARY OF COST SHARING DETAILS - INSTALLATION OF ALL-WAY STOP
CONTROL AT COLUMBUS ROAD EAST AND GRANDVIEW STREET NORTH

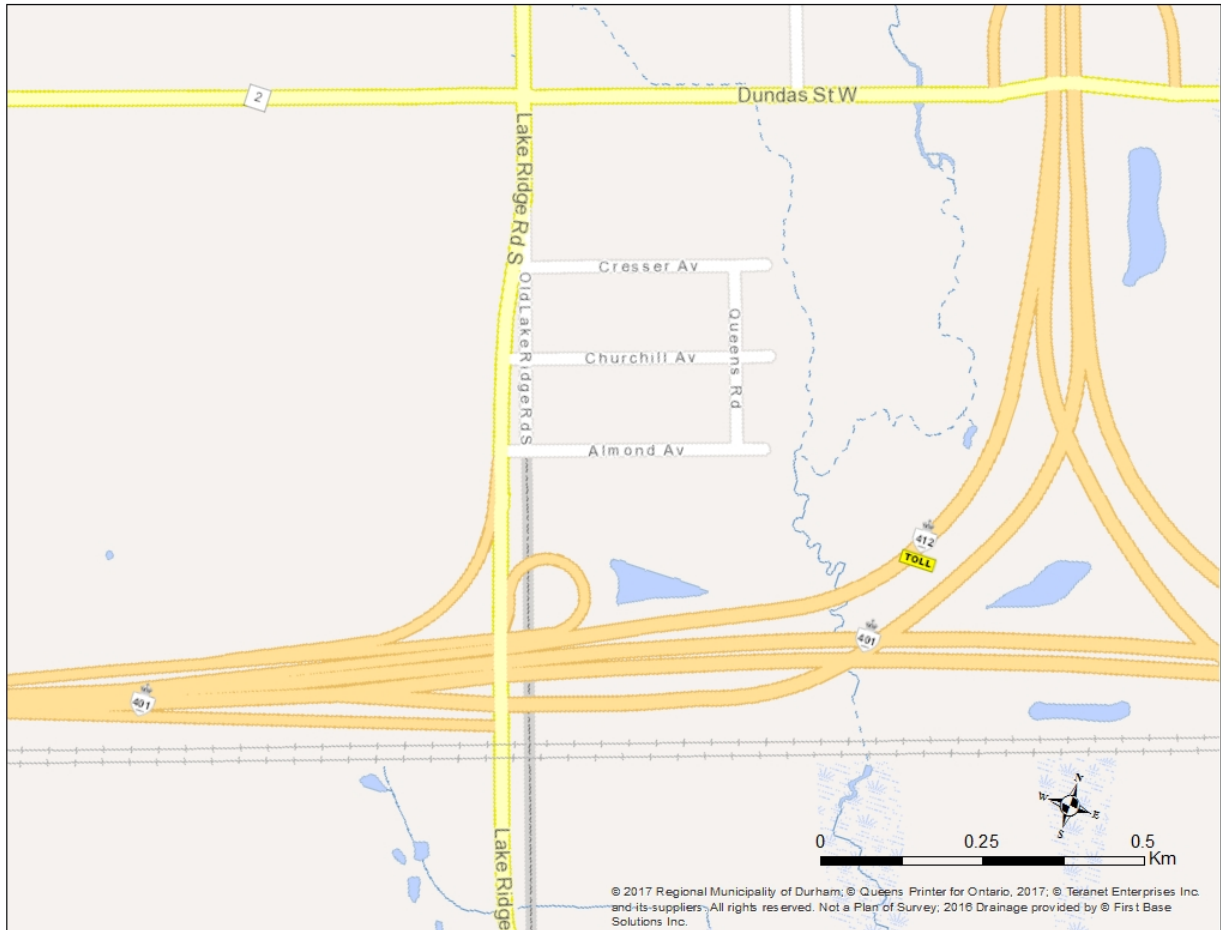
ITEM	TOTAL COST	Sharing Percentage		Shared Costs (\$)	
		MTO	Region	MTO	Region
Installation	\$3,048.47	100%	0%	\$3,048.47	\$0
Total	\$3,048.47			\$3,048.47	\$0

Note: Cost sharing was based on actual costs rather than estimated costs. Cost includes applicable taxes.

SCHEDULE "E" TO AN AGREEMENT BETWEEN THE MINISTRY AND REGIONAL MUNICIPALITY OF DURHAM

REALIGNMENT AND INSTALLATION OF FIVE (5) STREET LIGHTS ALONG THE WEST SIDE OF LAKE RIDGE ROAD BETWEEN DUNDAS STREET AND HIGHWAY 401 NORTH

KEY MAP



**SCHEDULE "F" TO AN AGREEMENT BETWEEN THE MINISTRY AND
REGIONAL MUNICIPALITY OF DURHAM**

SUMMARY OF COST SHARING DETAILS – REALIGNMENT AND INSTALLATION OF
FIVE (5) STREET LIGHTS ALONG THE WEST SIDE OF LAKE RIDGE ROAD BETWEEN
DUNDAS STREET AND HIGHWAY 401 NORTH

ITEM	TOTAL COST	Sharing Percentage		Shared Costs (\$)	
		MTO	Region	MTO	Region
Design/Contracts	\$5,125.00	100%	0%	\$5,125.00	\$0
ESA permits/As-builts (Consultant Services)	\$7,500.00			\$7,500.00	\$0
Power Supply/Connection (Veridian)	\$4,800.00			\$4,800.00	\$0
Electrical Contractor	\$30,000.00			\$30,000.00	\$0
Contingency	\$4,750.00			\$4,750.00	\$0
Admin. (6%)	\$2,825.00			\$2,825.00	
Total	\$55,000.00			\$55,000.00	\$0

Note: Cost sharing was based on actual costs rather than estimated costs. Cost includes applicable taxes.



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: [#2019-W-16](#)
Date: March 6, 2019

Subject:

Winchester Road and Thornton Road Traffic Signal Construction Agreement with the Ontario Ministry of Transportation

Recommendation:

That the Works Committee recommends to Regional Council:

- A) That the Winchester Road and Thornton Road Traffic Signal Construction Agreement with the Ontario Ministry of Transportation be approved; and
 - B) That the Regional Chair and Regional Clerk be authorized to execute the Winchester Road and Thornton Road Traffic Signal Construction Agreement with the Ontario Ministry of Transportation in the form provided in Attachment #1.
-

Report:

1. Purpose

- 1.1 The purpose of this report is to seek authorization for the Regional Chair and Regional Clerk to execute the Winchester Road and Thornton Road Traffic Signal Construction Agreement with the Ontario Ministry of Transportation (MTO).

2. Background

- 2.1 As part of the MTO's Highway 407 East project, the MTO undertook a safety and operational review at the Winchester Road and Thornton Road intersection. The review recommended traffic signals and other modifications to enhance the safety and operational features of the intersection.

- 2.2 The MTO's review determined that the traffic signal at Winchester Road and Thornton Road was required urgently and requested that the Regional Municipality of Durham (Region) install the traffic signal on behalf of MTO at MTO's expense.
- 2.3 MTO retained Parsons Inc. to complete the traffic signal design drawings used by the Region to tender the traffic signal construction project in November of 2017. The Region awarded the traffic signal construction to Guild Electric in December of 2017. All traffic signal work was completed and the traffic signal was commissioned on February 27, 2018.

3. Financial Implications

- 3.1 The total estimated cost to be paid by MTO as broken down in Schedule B of the attached agreement was \$152,446.85. The MTO is to pay the actual costs.
- 3.2 The Region will invoice the MTO for the actual costs incurred by the Region upon execution of the agreement by the Region and the MTO.

4. Conclusion

- 4.1 It is recommended that the Regional Municipality of Durham enter into the Winchester Road and Thornton Road Traffic Signal Construction Agreement with the Ontario Ministry of Transportation in the form provided in Attachment #1.
- 4.2 This report and agreement have been reviewed by Legal Services – Corporate Services.

4.3 For additional information, contact Steven Kemp, Manager of Traffic Engineering and Operations at 905-668-7711, extension 4701.

5. Attachments

Attachment #1: Winchester Road and Thornton Road Traffic Signal Construction Agreement with the Ontario Ministry of Transportation

Respectfully submitted,

Original signed by:

Susan Siopis, P.Eng.

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer

THIS AGREEMENT is effective as of the day of 2019.

B E T W E E N:

**HER MAJESTY THE QUEEN in right of the Province of Ontario,
represented by the Ministry of Transportation for the Province of Ontario**

(hereinafter referred to as the "Ministry");

- and -

The Regional Municipality of Durham

(hereinafter referred to as the "Region");

WHEREAS the Ministry has jurisdiction and control over King's Highway 407 East, including the intersection at Winchester Road and Thornton Road, such being within King's Highway 407 East right-of-way (the "ROW");

AND WHEREAS as part of the Ministry's Highway 407 East project, the Ministry undertook a safety and operational review at the Winchester Road and Thornton Road intersection, which review recommended traffic signals and other improvements to enhance the safety and operational features of the intersection;

AND WHEREAS the Ministry has agreed to allow the Region to undertake the Works for the Intersection Improvements as described in this Agreement on behalf of the Ministry, upon the terms and conditions set out in this Agreement.

NOW THEREFORE in consideration of the mutual covenants and agreements of the Parties hereinafter contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties covenant and agree as follows:

DEFINITIONS

1. In addition to those terms elsewhere defined in this Agreement, in this Agreement,
 - a) “Contract Administration” means any amounts associated with the Region’s staff providing administrative support for the construction of the Works that will include the construction administration carried out by the Region and any inspection, materials testing, surveying and general administration necessary for such construction, all of which is estimated and set out in Schedule “B” of this Agreement under the heading Engineering, Inspection & Contract Administration (5%);
 - b) “Intersection Improvements” means the installation of traffic signals at Winchester Road and Thornton Road intersection and construction of such other structures as described and illustrated in Schedule “A” of this Agreement and more specifically set out in the construction contract drawings prepared by Parsons, dated November 23, 2017;
 - c) “Regional Director” means the Regional Director of the Central Region of the Ministry of Transportation for the Province of Ontario, or a nominee; and,
 - d) “Works” means all the work required to construct the Intersections Improvements including and not necessarily limited to: construction, construction administration, construction inspection and materials testing.

SCOPE OF WORK

2. In carrying out the Works, the Region, as proponent (as defined by the *Environmental Assessment Act*, R.S.O. 1990, c. E. 18 (the “Act”)), shall comply with the Act and the Municipal Class Environmental Assessment process and obtain from the Ministry of Environment, as well as the Ministry of Natural Resources, all clearances and approvals required by the Act, if any.

CONSTRUCTION TENDER

3. The Region shall tender, advertise, award and administer the contract for the construction of the Works.
4. The Region shall provide the Ministry with a copy of the unit bid prices for the Works immediately following the close of tender. Subject to applicable law, including the *Freedom of Information and Protection of Privacy Act* (Ontario), the Ministry shall keep the unit bid prices for the Works confidential.

5. The Region shall, in its discretion, obtain either a performance bond or a standby irrevocable letter of credit or other performance security as it deems appropriate from the construction contractor in favour of both the Ministry and the Region, in an amount reasonably acceptable to the Region, to secure performance of the construction contract for the Works as tendered in accordance with this Agreement.

CONSTRUCTION

6. The Region shall undertake and execute the Works in accordance with the applicable Municipal standards and specifications, policies and practices, Ontario Provincial Standards and such applicable Ministry standards.
7. The Region shall ensure that all Works are completed in compliance with:
 - a) the contract drawings and documents prepared by Parsons and given to the Region ; and,
 - b) the terms and conditions of the Agreementand that all Works falling within the Ministry's ROW are subject to Ministry inspection and approval.
8. The Region shall secure all necessary approvals to carry out the Works.
9. The Region shall obtain the Ministry's approval for any changes to the Works that have a cost to the Ministry in excess of fifty thousand dollars (\$50,000). Such approval shall be obtained by the Region prior to the changes being performed. The Ministry shall provide a response in writing within four (4) business days of receipt of the request for such approval by the Region, failing which this requirement shall be waived.
10. The Region shall be fully responsible for traffic control and safety during construction of the Works, including the supply, installation, relocation and maintenance of all traffic control devices and warning signs that the Ministry requires for highways and intersections within the Ministry's jurisdiction, which shall be carried out in accordance with the Ontario Traffic Manual.
11. At the request of the Ministry, the Region has agreed to provide four Wavetronix radar detectors, a Wavetronix Click 650 cabinet interface device and two optical pre-emption detectors. The Ministry will return these items back to the Region upon installation of more type permanent traffic signals or upon request of the Region allowing for time for their replacement.

12. The Region and the Ministry shall establish and agree upon a construction schedule before the Works commence. All Works contemplated by this Agreement are scheduled to be substantially performed by February 27, 2018 or such later date as agreed upon by the Parties, provided there are not delays in obtaining access to the sites due to construction of the Highway 407 or similar factors reasonably beyond the Region's control.
13. The Region shall keep full records of the progress of the Works, including quality assurance and inspection records, and shall provide them to the Ministry, with the exclusion of any personal information which may be contained therein, at the Ministry's request within ten (10) business days' notice.
14. The Region may, at its discretion, undertake additional works beyond the scope of the Works set out in this Agreement. For greater certainty, the Parties understand and agree that such additional work and the costs in respect of such additional work are entirely the Region's responsibility and that the Ministry shall not be responsible or provide any financial compensation for such additional works.
15. When the Works are completed under this Agreement or when the Region is of the view the Works are performed, the Region shall provide written notice to the Regional Director, and the Regional Director shall cause the Works within Ministry's ROW to be inspected. If the Regional Director finds these Works to have been satisfactorily completed in accordance with the contract drawings and documents, the Regional Director shall give the Region written notice that the Works have been completed.

INSURANCE AND INDEMNITY

16. The Region, at its cost, shall maintain, or shall cause the construction contractor to maintain commercial general liability insurance protecting and indemnifying the Region and the Ministry from and against all claims for damage or injury to persons, including loss of life to persons, occurring on lands affected by the Works outlined by the Agreement until the Regional Director gives the Region notice that the Works are completed, and
 - (a) Commercial general liability insurance shall be in the amount of not less than Five Million (\$5,000,000.00) Dollars in respect of bodily injury or death of any one person in any one occurrence;
 - (b) insurance shall be maintained with a company or companies licensed to

do business in the Province of Ontario;

- (c) the Region shall promptly furnish the Ministry with certificates of the insurance signed by the insurance company at the request of the Ministry; and
- (d) the policy shall not be subject to cancellation or amendment without reasonable notice to the Ministry and the policy shall contain a cross liability endorsement.

17. The Region shall cause the construction contractor to indemnify and save harmless the Ministry from and against all claims, actions, causes of action or liability for loss, damage, accident or injury (hereinafter collectively referred to as “claims”) in any manner arising due to, out of, from or in connection with the Works undertaken and performed by or on behalf of the Region, its agents, consultants, contractors, employees, etc, in connection with this Agreement.

FINANCIAL REIMBURSEMENT

18. The Parties agree that the estimated costs of the Works as shown in Schedules “B” attached to this Agreement are for estimating purposes only and that it is the intention of the Parties to pay the actual costs of the Works subject to the limits and the terms and conditions set out in this Agreement.

19. For additional clarity, it is understood that neither party will seek to recover from the other party any amounts for Contract Administration except as specifically stated in this agreement.

20. The Ministry shall reimburse the Region for Region Staff time associated with the Construct Administration, and such other costs described and outlined in Schedule “B” .

21. As set out in Schedule “B” of this Agreement, the Ministry shall reimburse and pay the Region the actual costs necessary to satisfactorily complete the portion of the Works relating to the signal improvements at Winchester Road and Thornton Road intersection. The estimated price of this portion of the Works is \$152,446.85 as set forth in Schedule “B” of this Agreement.

INVOICING

22. The Region shall invoice the Ministry on a monthly basis for the actual costs of the Works payable by the Ministry to the Region under this Agreement. The Region shall submit all invoices to the Ministry contact named in this Agreement.

23. The Ministry shall pay the Region the invoiced amount within sixty (60) days of receipt of the

invoice.

GENERAL

24. The Region warrants that it has taken all necessary steps, done all acts, passed all by-laws and obtained all approvals within its power legally required to give it the authority to enter into this Agreement.
25. The Region shall prepare and maintain financial documents and records as may be necessary to record the costs of the Works and shall use these documents to invoice the Ministry.
26. The Region shall accommodate audits by the Ministry of the Works performed by the Region at the discretion of the Ministry and on ten (10) business days' notice. The Region agrees to allow on-site audits by the Ministry during regular business hours.
27. Any notices to be given under the provisions of this Agreement shall be in writing and shall be given by personal delivery, or sent by electronic facsimile, or mailed by prepaid registered mail, or delivered by courier service, or emailed. Subject to change by either party with written notice, notice shall be addressed as follows:

To the Ministry:

Shane Giguere
Traffic Supervisor,
Major Projects Office
Ministry of Transportation
7th Floor, Building D
1201 Wilson Avenue
Downsview, Ontario
M3M 1J8

Telephone: (416) 235-5600
Facsimile: (416) 235-4267
shane.giguere@ontario.ca

To the Region of Durham:

Joel Walker
Project Manager
Works Department - Traffic Engineering and Operations
The Regional Municipality of Durham
101 Consumers Drive, PO Box 623
Whitby, Ontario
L1N 6A3

Telephone: 905-666-8116 or 1-866-786-8116 Ext. 4739
Cell: 905-261-7869
Joel.Walker@Durham.ca

Notices shall be deemed to have been effectively given on the date of personal delivery, the date of

the email, the date of electronic facsimile transmission, or the date of delivery by courier service, or in the case of service by registered mail, five (5) days after the date of mailing.

THIS AGREEMENT shall enure to the benefit of and be binding upon the parties hereto and their respective successors and assigns.

IN WITNESS WHEREOF the Parties have executed this Agreement effective as of the day first above written.

**HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO,
as represented by the Minister of Transportation**

Per:

Manager, Major Projects Office

SIGNED this day of 2018.

THE REGIONAL MUNICIPALITY OF DURHAM

John Henry
Regional Chair and CEO

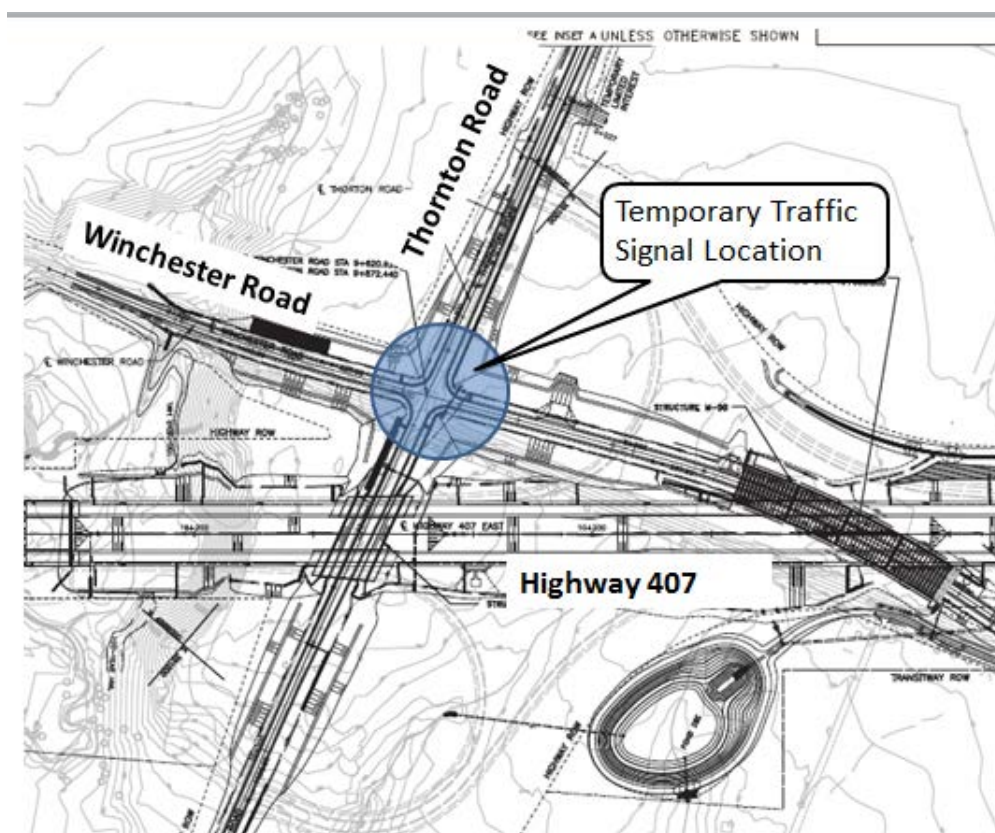
Ralph Walton
Regional Clerk

SIGNED this day of 2019.

**SCHEDULE "A" TO AN AGREEMENT BETWEEN THE MINISTRY AND THE
REGIONAL MUNICIPALITY OF DURHAM**

WINCHESTER ROAD AT THORNTON ROAD INTERSECTION IMPROVEMENTS

KEY MAP



SUMMARY OF INTERSECTION IMPROVEMENTS:

1. Traffic signal installation
2. Enhanced intersection lighting
3. Wavetronix radar detection
4. Associated work such as signing, pavement markings, electrical

**SCHEDULE "B" TO AN AGREEMENT BETWEEN THE MINISTRY AND THE
REGIONAL MUNICIPALITY OF DURHAM**

SUMMARY OF COST DETAILS

Item	Estimated Cost to be paid by MTO
Construction	\$112,955.00
Traffic Control	\$5,000.00
Engineering, Inspection & Contract Administration (5%)	\$5,647.75
Contingency (10%)	\$11,295.50
Subtotal	\$134,898.25
Taxes (13% HST)	\$17,548.60
Total	\$152,446.85

Unless specified in the Agreement, MTO to pay the actual costs of construction.



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: [#2019-W-17](#)
Date: March 6, 2019

Subject:

The Regional Municipality of Durham's Drinking Water Systems Annual 2018 Summary Report

Recommendations:

That the Committee of the Whole recommends to Regional Council:

- A) That the 2018 Summary Report for the Regional Municipality of Durham Drinking Water Systems be received for information;
 - B) That receipt of this report be confirmed by resolution of Regional Council; and
 - C) That a copy of this resolution will be forwarded to the Ontario Ministry of the Environment, Conservation and Parks' York-Durham District Office to indicate the conditions of Schedule 22 of Ontario Regulation 170/03 have been fulfilled.
-

Report:

1. Purpose

- 1.1 The Regional Municipality of Durham (Region) is required to prepare a Summary Report for each of the municipal drinking water systems under Ontario Regulation (O.Reg.) 170/03 of the Safe Drinking Water Act (SDWA). The Summary Report is to be completed and submitted to Regional Council prior to March 31 of each year.

2. Summary Report

2.1 Schedule 22 of O.Reg. 170/03 requires that a Summary Report provide the following information:

22-2. (1) The owner of a drinking water system shall ensure that, not later than March 31 of each year after 2003, a report is prepared in accordance with subsections (2) and (3) for the preceding calendar year and is given to,

- (a) In the case of a drinking water system owned by a municipality, the members of the municipal council;
- (b) In the case of a drinking water system owned by a municipal service board established under section 195 of the Municipal Act 2001, the members of the municipal service board; or
- (c) In the case of a drinking water system owned by a corporation, the board of directors of the corporation.

22-2. (2) The report must,

- (a) List the requirements of the Act, the regulations, the system's approval, drinking water works permit, municipal drinking water licence, and any orders applicable to the system that were not met at any time during the period covered by the report; and
- (b) For each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure.

22-2. (3) The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

1. A summary of the quantities and flow rates of the water supplied during the period covered by report, including monthly average and maximum daily flows.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to

subsection 5 (4), to the flow rates specified in the written agreement.

- 22-2. (4) If a report is prepared under subsection (1) for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

- 2.2 The following table reflects all of the Drinking Water Systems and their municipal drinking water licences managed by the Region:

Table 1: List of All Drinking Water Systems (DWS) and their Municipal Drinking Water Licences

Drinking Water System	Municipal Drinking Water Licence #	Issue Date
Oshawa *	003-111	October 16, 2017
Whitby *	003-111	October 16, 2017
Ajax *	003-111	October 16, 2017
Beaverton	003-107	October 16, 2017
Blackstock	003-101	October 16, 2017
Bowmanville	003-103	October 16, 2017
Cannington	003-106	October 16, 2017
Greenbank	003-104	October 16, 2017
Newcastle	003-109	October 16, 2017
Orono	003-108	October 16, 2017
Port Perry	003-102	October 16, 2017
Sunderland	003-110	October 16, 2017
Uxbridge	003-105	December 12, 2017

2.3 Table 2: Drinking Water Compliance Requirements and Water Taking Conditions

Drinking Water System	Compliance Requirements	Water Taking Conditions
Oshawa *	Non-Compliant	Did Not Exceed
Whitby *	Non-Compliant	Did Not Exceed
Ajax *	Non-Compliant	Did Not Exceed
Beaverton	Non-Compliant	Did Not Exceed
Blackstock	Non-Compliant	Did Not Exceed
Bowmanville	Non-Compliant	Did Not Exceed
Cannington	Compliant	Did Not Exceed
Greenbank	Compliant	Did Not Exceed
Newcastle	Non-Compliant	Exceeded
Orono	Compliant	Did Not Exceed
Port Perry	Compliant	Did Not Exceed
Sunderland	Non-Compliant	Did Not Exceed
Uxbridge	Compliant	Did Not Exceed

*Oshawa, Whitby and Ajax are licenced as one system. For the purpose of this report the Drinking Water Systems (DWS) are listed individually.

- 2.4 The drinking water system supplying water to the Uxbridge Industrial Park (Uxville) is not required to be covered by this report as it is regulated by the Ministry of Health and Long-Term Care, under O. Reg. 319/08.

3. General Overview of Compliance Status

- 3.1 The Summary Report requires a review of each DWS with respect to the SDWA, Permits to Take Water (PTTW), Municipal Drinking Water Licence (MDWL), Drinking Water Works Permit (DWWP), Ministry of the Environment, Conservation and Parks (MECP) inspections and orders and to provide an explanation of any non-compliance issues that were identified during the reporting period.
- 3.2 Water quality monitoring data is available in the Annual Water Quality Report. Hard copies of this report are available at the Region's Headquarters building located at 605 Rossland Road East, Whitby on Level 5. The Annual Water Quality Report is also available on the [Region's website](http://www.durham.ca) at www.durham.ca.
- 3.3 The Drinking Water Quality Management Standard (DWQMS) Element 20, requires that the results of the annual management review meeting, the identified deficiencies, decisions and action items be reported to the Owner. The annual DWQMS Management Review meeting was held on June 1, 2018. Attending the meeting were staff that are identified in the Operational Plan as being part of the management team. The meeting included a review of the agenda items that are listed in the DWQMS 2.0, Element 20. The only action item identified during the meeting was a reminder that an internal audit of the DWQMS needed to be completed. This internal audit was completed by staff on June 15 and 20, 2018. The results were satisfactory.
- 3.4 The Region is also required, as part of accreditation to the DWQMS, to have an external audit of the management system completed by an approved auditor. The 2018 audit commenced in November 2018 and was completed on February 7, 2019. The audit found no non-conformances to the DWQMS and five opportunities for improvement which will be responded to by the drinking water system staff.

4. Specific Compliance Items

- 4.1 A review indicated that all of the DWS met all compliance requirements of O. Reg. 170/03 with the following exceptions:

(a) O. Reg. 170/03 Schedule 16-6 – Reporting Adverse Test Results and Other Problems: Manner of making immediate report

Beaverton DWS

- On November 24, 2017, during an inspection of the standpipe, it was discovered that the vent screen on the top of the standpipe was missing. The Region was made aware of the missing vent screen on November 27. The standpipe was isolated and drained. On November 28, the standpipe was cleaned and disinfected, bacteriological samples were collected and submitted for analysis on November 30. Following satisfactory bacteriological results, the standpipe was put back into service December 1. An Adverse Water Quality Incident (AWQI) was reported on December 1.
- The AWQI reported on December 1 did not meet the requirements of Schedule 16-6 of O. Reg. 170/03, which requires that an immediate verbal report be given to the Medical Officer of Health and the Ministry of the Environment, Conservation and Parks (MECP) through the Spills Action Centre.
- The Region has created a Standard Operating Procedure (SOP) to address possible deficiencies observed during annual safety inspections of standpipes to ensure that water will not be directed to users that does not meet the Procedure for Disinfection of Drinking Water in Ontario.
- Training has been provided to all required staff on the SOP and reporting procedures.

(b) O. Reg. 170/03 Schedule 17-2 Corrective Action: Improper disinfection

Sunderland DWS

- The Sunderland DWS uses a portion of the watermains from the well supply to the first service connection as part of the disinfection process involving chlorine concentration and contact time (CT). Upon review of the system's CT calculations it was determined that while operating at worst case scenario (maximum flow), appropriate CT was not potentially achieved prior to the first service connection.

- To correct the CT, a new watermain was designed and constructed to satisfy the CT requirements of the Ontario Procedure for Disinfection of Drinking Water. The Region reviewed the drinking water system's operational data for 2018 and found that the CT was achieved prior to the first service connection at all times.

(c) Sunderland Drinking Water Works Permit Schedule B: General 3.0 Watermain Additions, Modifications, Replacements and Extensions

Sunderland DWS

- The Region recorded the alteration of the drinking water system for the watermain designed to satisfy the CT requirements to the first service connection using a "Form 1" – Record of Watermains Authorized as a Future Alteration, however, the watermain was designed for the purpose of satisfying the CT requirements, therefore a Form 1 cannot be used for Approval. Approval for the design and construction of the watermain should have been obtained from the MECP's Environmental Assessment and Permissions Division.
- The Region obtained approval from the MECP's Environmental Assessment and Permissions Division prior to utilizing of the watermain. The Region reviewed the requirements of Condition 3 of Schedule B of the DWWP with all applicable staff prior to January 15, 2019.

(d) O. Reg. 128/04 Section 27. (4) Record-keeping re operation of subsystem

Blackstock DWS

- Daily operations logbook entries were made in the Orono Depot logbook by a relieving supervisor that were ambiguous as to the author.
- On January 8, 2019 an email was issued stating proper logbook procedures to all Orono Depot supervisors involved and the information was shared in a meeting on January 17, 2019. A meeting for all depots was held January 24 and the information was discussed.

(e) Microcystins Sampling LocationsSurface Water DWS

- On August 10, 2018 the Region changed the total microcystin sampling location from the distribution system to the point of entry to comply with the MECP Director's direction via the letter dated May 4, 2018. The Director's letter was not received by operations staff until August 9, 2018. Prior to receipt of the letter dated May 4, 2018, the Region was collecting samples from the locations for monitoring Trihalomethane in the distribution system as per previous direction from the MECP (2017) Director's letters.

(f) Permit to Take Water Flow ExceedenceNewcastle DWS

- On July 8, the raw water flow (5,917.8 litre per minute (L/min)) exceeded the Permit To Take Water (PTTW) instantaneous flow rate (5,600 L/min) for 1.5 minutes due to raw water valve maintenance.
- Maintenance was performed on the raw water flow control valve, setpoints and the limits were verified. This exceedance is not shown in Attachment Number (No.) 1, as the PTTW maximum daily flow rate (8,180 cubic metres per day) was not exceeded.

(g) Municipal Drinking Water Licence, Schedule B 16.0 Operations and Maintenance ManualOshawa/Whitby/Ajax DWS

- The Operations and Maintenance Manual did not reflect the most recent Drinking Water Work Permit (DWWP) for the Taunton Road Reservoir and Pumping Station. The Region rectified the discrepancies found in the inspection and provided the inspector with an updated version prior to the issuance of the inspection report.
- The Region will routinely review all Operation and Maintenance Manuals to ensure they are current and reflect any changes in the DWS.

(h) Order made under the Environmental Assessment Act: Declaration - Sunderland Emergency Well

Sunderland DWS

- Sunderland DWS consists of Well # 1 and Well # 2. Well # 2 has been out of service since May 2017 due to raw water quality issues. There are no other water sources available if Well #1 fails.
- In order to comply with the Environmental Assessment Act, the establishment of a new well on a new site must follow the Municipal Engineers Association's Municipal Class Environmental Assessment Schedule B planning process, which can require between one to three years to complete.
- The Region requested that a declaration order be issued by the MEC to expedite the construction of the emergency well and modular treatment system. The treatment system will connect to the existing distribution system and should be operational by April 2019.

5. Summary of Water Flows

- 5.1 Drinking Water System Capacity and Water Flow Data are provided in Attachment #1 as summary charts. Each summary chart provides monthly average and maximum daily flow for the reporting period. Some of the flow data in Attachment #1 has been pro-rated. Pro-rating is used to determine the volume of water pumped over a 24 hour period. Pro-rated data will be represented in the chart headings.

6. Public Notification and Information

- 6.1 The Summary Report is available to the public through the Region of Durham Works Department, located at 605 Rossland Road East, Level 5, in Whitby and on the [Region's website](http://www.durham.ca) at www.durham.ca.

7. Conclusion

- 7.1 As required under Ontario Regulation 170/03, this Summary Report for the Regional Municipality of Durham's Drinking Water Systems is provided to Regional Council. It is recommended that receipt of this report be confirmed by resolution of Regional Council to meet this condition and that a copy of the resolution is forwarded to the Ministry of the Environment, Conservation and Parks.

8. Attachments

Attachment #1: Drinking Water System Capacity and Water Flow Data

Respectfully submitted,

Original signed by:

Susan Siopis, P.Eng.

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer

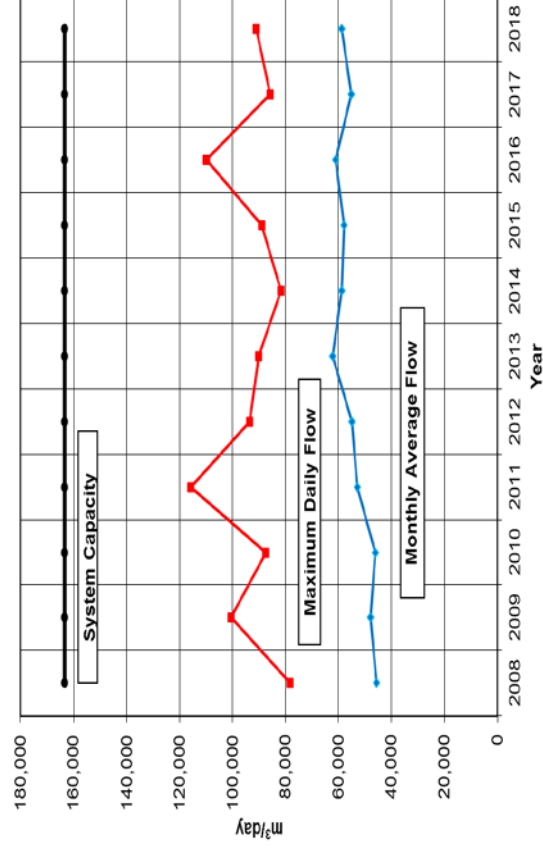
The Regional Municipality of Durham
 Ajax Drinking Water System
 2018 Flow Data – Raw and Treated Water

Month	Raw Water Monthly Average Flow Cubic metres per day (m ³ /day)	Raw Water Maximum Daily Flow m ³ /day	Raw Water Number of Days Exceeding Maximum Daily Flow	Treated Water Monthly Average Flow m ³ /day	Treated Water Maximum Daily Flow m ³ /day	Treated Water Number of Days Exceeding Maximum Daily Flow
January	55,233	86,292	0	53,061	67,468	0
February	52,163	59,522	0	50,901	59,592	0
March	51,863	62,195	0	50,374	60,200	0
April	53,513	64,544	0	51,714	62,225	0
May	60,928	80,999	0	63,181	84,785	0
June	74,467	90,642	0	71,714	87,790	0
July	77,064	96,589	0	74,144	91,039	0
August	68,561	85,668	0	65,930	84,628	0
September	64,885	76,729	0	62,332	73,883	0
October	57,722	74,162	0	56,108	73,957	0
November	54,363	74,546	0	53,362	72,274	0
December	54,203	66,162	0	52,874	66,377	0
Annual Total	22,070,157			21,484,774		
Maximum		96,589			91,039	
Average	60,414			58,808		
% Capacity		57			56	
Permit to Take Water Limit		170,000				
Municipal Drinking Water Licence Limit					163,500	

The Regional Municipality of Durham Ajax Drinking Water System Capacity and Treated Water Flow Data

Year	Monthly Average Flow cubic metres per day (m ³ /day)	Maximum Daily Flow m ³ /day	System Capacity m ³ /day
2008	45,712	78,257	163,500
2009	48,046	100,470	163,500
2010	46,113	87,458	163,500
2011	52,931	115,690	163,500
2012	54,910	93,551	163,500
2013	62,300	90,229	163,500
2014	58,867	81,640	163,500
2015	57,883	88,945	163,500
2016	60,997	109,869	163,500
2017	55,247	85,808	163,500
2018	58,808	91,039	163,500

Ajax Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham
Oshawa Drinking Water System

2018 Flow Data - Plant Number (#) 1 Raw Water and Plant # 2 Raw Water

Month	Plant # 1 Raw Water Monthly Average Flow Cubic metres per day (m ³ /day)	Plant # 1 Raw Water Maximum Daily Flow m ³ /day	Plant # 1 Raw Water Number of Days Exceeding Maximum Daily Flow	Plant # 2 Raw Water Monthly Average Flow m ³ /day	Plant # 2 Raw Water Maximum Daily Flow m ³ /day	Plant # 2 Raw Water Number of Days Exceeding Maximum Daily Flow
January	0	0	0	49,575	60,950	0
February	0	0	0	48,145	54,581	0
March	0	0	0	48,531	56,117	0
April	0	0	0	49,140	54,775	0
May	0	0	0	51,481	60,847	0
June	0	0	0	59,848	74,485	0
July	0	0	0	62,421	72,186	0
August	0	0	0	54,921	69,972	0
September	0	0	0	56,555	72,058	0
October	0	0	0	48,273	54,730	0
November	0	0	0	47,040	54,515	0
December	0	0	0	46,666	52,009	0
Annual Total	Not Required (N/A)	N/A	N/A	18,943,413	N/A	N/A
Maximum					74,485	
Average				51,883		
% Capacity					70	
Permit to Take Water Limit						
Municipal Drinking Water Licence Limit		27,000			107,000	

Plant # 1 was not operational in 2018.

**The Regional Municipality of Durham
Oshawa Drinking Water System
2018 Flow Data - Total Raw Water and Treated Water**

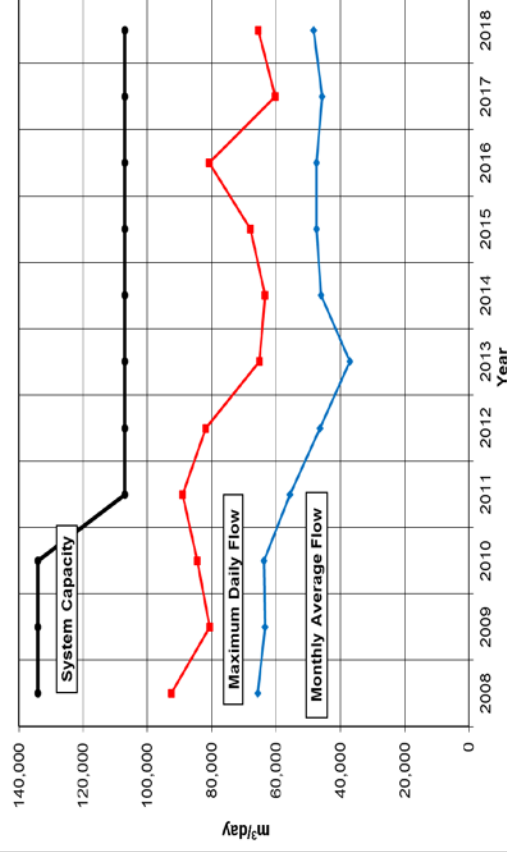
Month	Total Raw Water Monthly Average Flow Cubic metres per day (m ³ /day)	Total Raw Water Maximum Daily Flow m ³ /day	Total Raw Water Number of Days Exceeding Maximum Daily Flow	Total Treated Water Monthly Average Flow m ³ /day	Total Treated Water Maximum Daily Flow m ³ /day	Total Treated Water Number of Days Exceeding Maximum Daily Flow
January	49,575	60,950	0	47,080	56,425	0
February	48,145	54,581	0	45,784	51,442	0
March	48,531	56,117	0	43,511	51,945	0
April	49,140	54,775	0	46,672	53,611	0
May	51,481	60,847	0	48,370	56,769	0
June	59,848	74,485	0	55,470	65,556	0
July	62,421	72,186	0	57,017	63,846	0
August	54,921	69,972	0	50,520	63,023	0
September	56,555	72,058	0	52,148	64,011	0
October	48,273	54,730	0	45,164	51,201	0
November	47,040	54,515	0	44,533	52,662	0
December	46,666	52,009	0	43,741	48,666	0
Annual Total	18,943,413	NR	NR	17,644,168	NR	NR
Maximum		74,485			65,556	
Average	51,883	NR	NR	48,334	NR	NR
% Capacity		56			61	
Permit to Take Water Limit	NR	134,000	NR	NR	NR	NR
Municipal Drinking Water Licence Limit					107,000	

The Regional Municipality of Durham Oshawa Drinking Water System Capacity and Treated Water Flow Data

Year	Monthly Average Flow cubic metres per day (m ³ /day)	Maximum Daily Flow m ³ /day	System Capacity m ³ /day
2008	65,800	92,610	134,000
2009	63,474	80,714	134,000
2010	63,857	84,568	134,000
2011	55,790	89,049	107,000
2012	46,366	81,828	107,000
2013	37,155	65,193	107,000
2014	46,124	63,427	107,000
2015	47,429	67,944	107,000
2016	47,443	80,756	107,000
2017	45,763	60,306	107,000
2018	48,334	65,556	107,000

Oshawa Plant Number (#1) has a capacity of 27,000 m³/day. Plant # 2 has a capacity of 107,000 m³/day. Only Plant # 2 was operational during the reporting period.

Oshawa Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham
 Whitby Drinking Water System
 2018 Flow Data - Raw Process Water and Raw Industrial Water

Month	Raw Process Water Monthly Average Flow Cubic metres per day (m ³ /day)	Raw Process Water Maximum Daily Flow m ³ /day	Raw Process Water Number of Days Exceeding Maximum Daily Flow	Raw Industrial Water Monthly Average Flow m ³ /day	Raw Industrial Water Maximum Daily Flow m ³ /day	Raw Industrial Water Number of Days Exceeding Maximum Daily Flow
January	54,519	57,261	0	4,870	6,268	0
February	53,721	54,988	0	5,318	6,058	0
March	53,323	55,758	0	5,124	6,630	0
April	53,176	56,161	0	4,676	7,679	0
May	56,344	76,215	0	6,048	9,509	0
June	62,376	81,635	0	6,823	11,989	0
July	60,452	80,017	0	3,334	9,368	0
August	59,360	71,628	0	5,500	8,970	0
September	56,538	64,180	0	5,268	7,681	0
October	54,743	59,368	0	5,647	6,746	0
November	53,875	57,935	0	5,635	6,327	0
December	53,404	55,551	0	4,801	6,594	0
Annual Total	20,439,597			1,916,013		
Maximum		81,635			11,989	
Average	55,986			5,254		

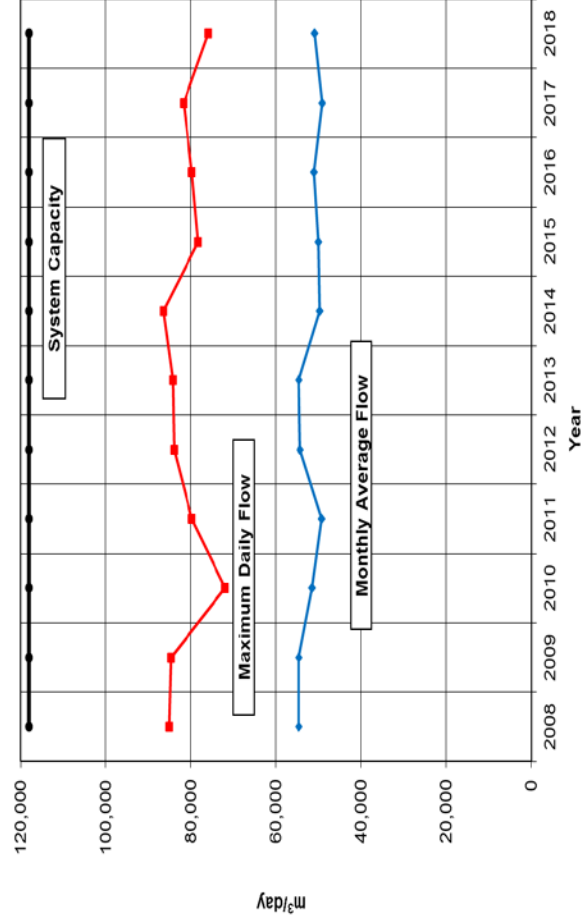
**The Regional Municipality of Durham
Whitby Drinking Water System
2018 Flow Data - Total Raw Water and Treated Water**

Month	Raw Water Monthly Average Flow Cubic metres per day (m ³ /day)	Raw Water Maximum Daily Flow m ³ /day	Raw Water Number of Days Exceeding Maximum Daily Flow	Treated Water Monthly Average Flow m ³ /day	Treated Water Maximum Daily Flow m ³ /day	Treated Water Number of Days Exceeding Maximum Daily Flow
January	59,691	62,564	0	50,501	53,746	0
February	59,321	60,902	0	49,969	51,164	0
March	58,747	61,270	0	49,407	51,485	0
April	58,106	61,160	0	48,826	51,191	0
May	62,668	84,355	0	52,244	71,412	0
June	69,572	87,333	0	56,629	75,943	0
July	64,059	87,432	0	53,512	72,403	0
August	65,171	78,278	0	53,118	65,332	0
September	62,092	70,725	0	50,061	56,606	0
October	60,671	65,368	0	49,303	52,800	0
November	59,818	63,818	0	49,043	52,517	0
December	58,522	61,932	0	48,837	51,687	0
Annual Total	22,464,099			18,600,488		
Maximum		87,432			75,943	
Average	61,537			50,954		
% Capacity		61			64	
Permit to Take Water Limit		144,000				
Municipal Drinking Water Licence Limit					118,000	

The Regional Municipality of Durham Whitby Drinking Water System Capacity and Treated Water Flow Data

Year	Monthly Average Flow cubic metres per day (m ³ /day)	Maximum Daily Flow m ³ /day	System Capacity m ³ /day
2008	54,678	85,022	118,000
2009	54,582	84,604	118,000
2010	51,587	72,013	118,000
2011	49,316	79,712	118,000
2012	54,348	83,824	118,000
2013	54,657	84,127	118,000
2014	49,822	86,351	118,000
2015	50,101	78,362	118,000
2016	51,136	79,744	118,000
2017	49,246	81,622	118,000
2018	50,954	75,943	118,000

Whitby Drinking Water System Capacity and Treated Water Flow Graph



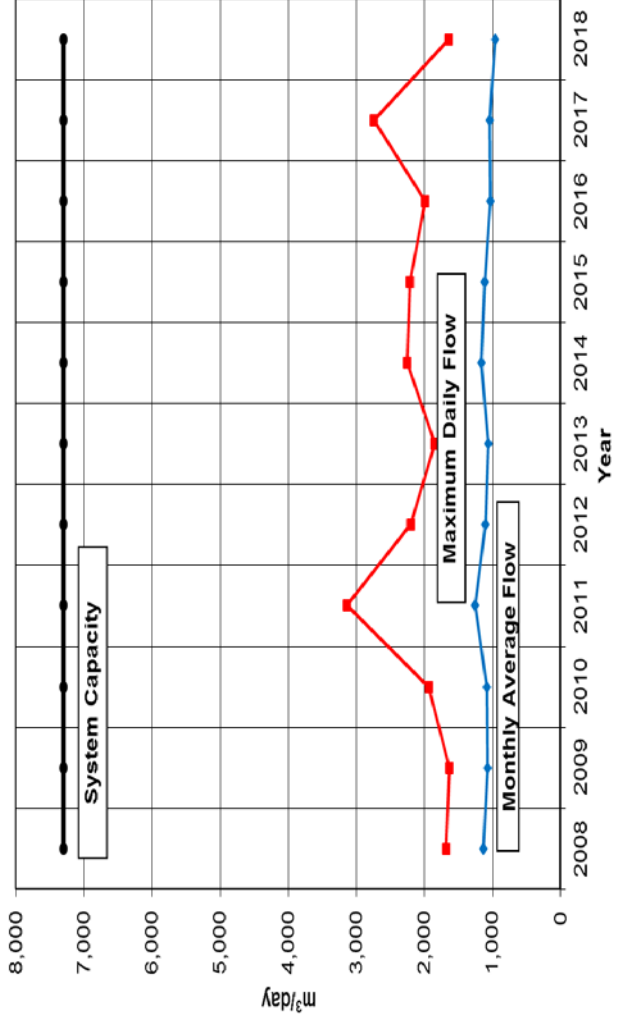
The Regional Municipality of Durham
 Beaverton Drinking Water System
 2018 Flow Data – Raw and Treated Water (Pro-rated)

Month	Raw Water Monthly Average Flow Cubic metres per day (m ³ /day) Pro-rated	Raw Water Maximum Daily Flow m ³ /day Pro-rated	Raw Water Number of Days Exceeding Maximum Daily Flow	Treated Water Monthly Average Flow m ³ /day Pro-rated	Treated Water Maximum Daily Flow m ³ /day Pro-rated	Treated Water Number of Days Exceeding Maximum Daily Flow
January	1,015	1,213	0	882	1,040	0
February	964	1,182	0	856	940	0
March	1,089	1,440	0	964	1,128	0
April	1,045	1,424	0	910	1,080	0
May	1,137	1,442	0	926	1,257	0
June	1,199	1,543	0	1,045	1,486	0
July	1,512	1,923	0	1,322	1,619	0
August	1,092	1,417	0	1,285	1,643	0
September	1,142	1,504	0	961	1,242	0
October	933	1,343	0	805	993	0
November	898	1,274	0	774	1,004	0
December	958	1,232	0	843	1,074	0
Annual Total	398,197		N/A	350,851		N/A
Maximum		1,923			1,643	
Average	1,082			964		
% Capacity		26			23	
Permit to Take Water Limit	N/A	7,300		N/A	N/A	N/A
Municipal Drinking Water Licence Limit					7,300	

The Regional Municipality of Durham Beaverton Drinking Water System Capacity and Treated Water Flow Data

Year	Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Maximum Daily Flow m ³ /day Pro- rated	System Capacity m ³ /day
2008	1,129	1,679	7,300
2009	1,076	1,636	7,300
2010	1,085	1,939	7,300
2011	1,259	3,143	7,300
2012	1,101	2,202	7,300
2013	1,057	1,850	7,300
2014	1,161	2,251	7,300
2015	1,112	2,208	7,300
2016	1,034	1,989	7,300
2017	1,039	2,740	7,300
2018	964	1,643	7,300

♀ Beaverton Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham
Blackstock Drinking Water System

2018 Flow Data - Well Number (#) 7* and Well # 8 Raw Water

Month	Well # 7 Raw Water Maximum Taken per Minute (litres)	Well # 7 Raw Water Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Well # 7 Raw Water Maximum Daily Flow Pro-rated m ³ /day Pro-rated	Well # 7 Raw Water Number of Days Exceeding Maximum Flow (days)	Well # 8 Raw Water Maximum Taken per Minute (litres)	Well # 8 Raw Water Monthly Average Flow m ³ /day Pro-rated	Well # 8 Raw Water Maximum Daily Flow Pro-rated m ³ /day Pro-rated	Well # 8 Raw Water Number of Days Exceeding Maximum Flow (days)
January	0	0	0	0	564	106	152	0
February	0	0	0	0	558	112	146	0
March	0	0	0	0	558	110	144	0
April	0	0	0	0	582	105	143	0
May	0	0	0	0	582	126	166	0
June	0	0	0	0	576	128	216	0
July	0	0	0	0	552	104	225	0
August	0	0	0	0	540	104	318	0
September	0	0	0	0	531	109	156	0
October	0	0	0	0	531	128	207	0
November	0	0	0	0	540	114	158	0
December	0	0	0	0	630	116	153	0
Annual Total	Not Required (N/A)	N/A	N/A	N/A	N/A	41,011	N/A	N/A
Maximum					630		318	
Average						114		
% Capacity					92		32	
Permit to Take Water Limit	N/A	N/A	985	N/A	684	N/A	985	N/A

*Well # 7 not in service.

The Regional Municipality of Durham
 Blackstock Drinking Water System

2017 Flow Data - Reservoir/System Total Treated Water

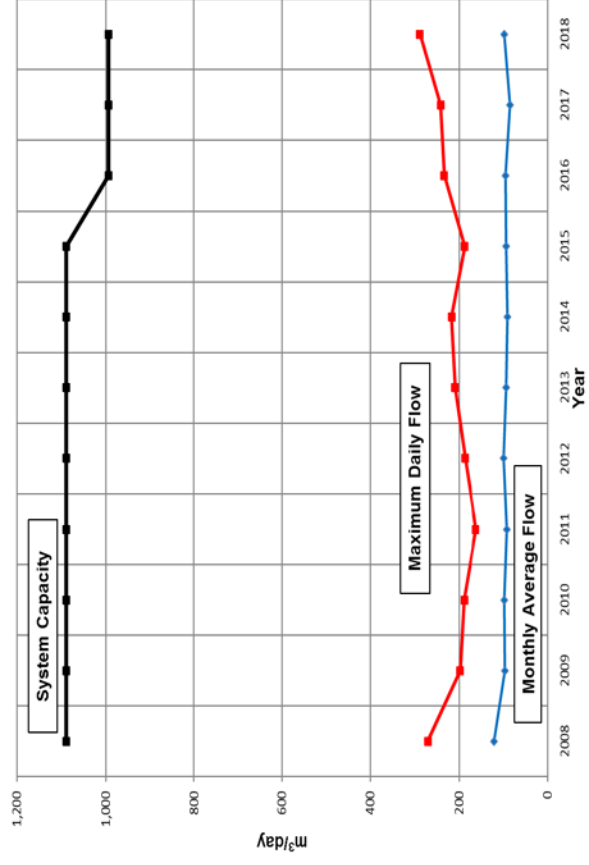
Month	Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Maximum Daily Flow m ³ /day Pro-rated	Number of Days Exceeding Maximum Flow
January	89	130	0
February	99	135	0
March	94	143	0
April	90	109	0
May	111	156	0
June	114	205	0
July	86	131	0
August	87	289	0
September	93	128	0
October	117	198	0
November	100	137	0
December	100	127	0
Total	35,615	N/A	N/A
Maximum		289	
Average	98	N/A	N/A
% Capacity		29	
Municipal Drinking Water Licence Limit	N/A	994	N/A

The Regional Municipality of Durham Blackstock Drinking Water System Capacity and Treated Water Flow Data

Year	Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Maximum Daily Flow m ³ /day Pro-rated	System Capacity m ³ /day
2008	120	271	1,089
2009	96	198	1,089
2010	98	189	1,089
2011	92	162	1,089
2012	99	187	1,089
2013	93	210	1,089
2014	91	218	1,089
2015	94	188	1,089
2016	95	234	994*
2017	84	242	994*
2018	98	289	994*

*Well # 7 not in service.

Blackstock Drinking Water System Capacity and Treated Water Flow Graph



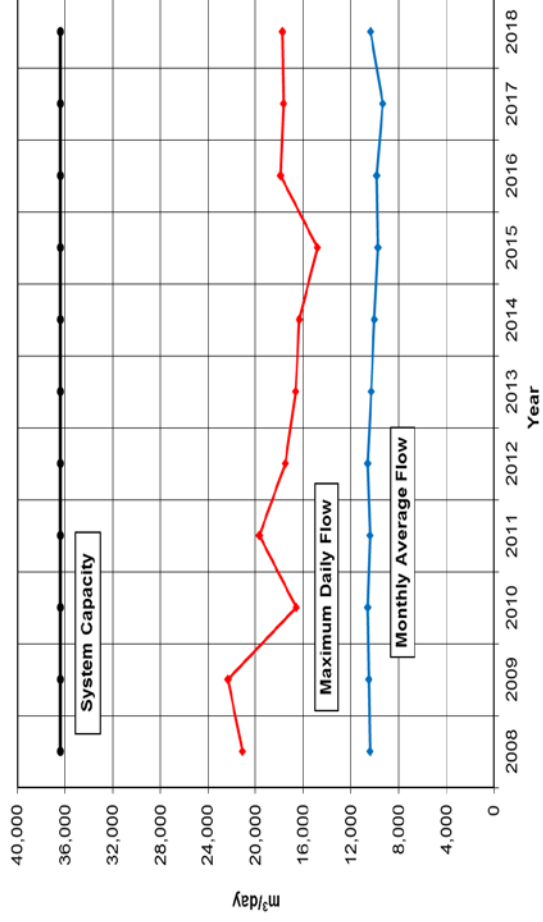
The Regional Municipality of Durham
Bowmanville Drinking Water System
2018 Flow Data – Raw and Treated Water Raw Water

Month	Raw Water Monthly Average Flow Cubic metres per day (m ³ /day)	Raw Water Maximum Daily Flow m ³ /day	Raw Water Number of Days Exceeding Maximum Daily Flow	Treated Water Monthly Average Flow m ³ /day	Treated Water Maximum Daily Flow m ³ /day	Treated Water Number of Days Exceeding Maximum Daily Flow
January	9,906	11,539	0	9,253	11,016	0
February	9,744	10,801	0	9,099	10,272	0
March	9,736	12,724	0	8,964	11,582	0
April	9,778	11,122	0	9,121	11,091	0
May	11,212	14,399	0	10,527	13,503	0
June	12,880	18,254	0	12,086	17,750	0
July	13,860	16,904	0	12,844	16,206	0
August	12,674	17,381	0	11,739	15,473	0
September	11,723	15,491	0	10,826	14,246	0
October	10,687	13,942	0	9,847	13,069	0
November	10,515	12,646	0	9,697	11,721	0
December	10,765	12,921	0	10,083	11,709	0
Annual Total	4,063,785	N/A	N/A	3,777,626	N/A	N/A
Maximum		18,254			17,750	
Average	11,123	N/A	N/A	10,340	N/A	N/A
% Capacity		38			49	
Permit to Take Water Limit	N/A	47,700	N/A	N/A	N/A	N/A
Municipal Drinking Water Licence Limit					36,368	

The Regional Municipality of Durham Bowmanville Drinking Water System Capacity and Treated Water Flow Data

Year	Monthly Average Flow cubic metres per day (m ³ /day)	Maximum Daily Flow m ³ /day	System Capacity m ³ /day
2008	10,407	21,106	36,368
2009	10,511	22,348	36,368
2010	10,631	16,607	36,368
2011	10,394	19,710	36,368
2012	10,611	17,518	36,368
2013	10,280	16,633	36,368
2014	10,051	16,333	36,368
2015	9,722	14,815	36,368
2016	9,858	17,935	36,368
2017	9,321	17,659	36,368
2018	10,340	17,750	36,368

Bowmanville Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham
Cannington Drinking Water System

2018 Flow Data - Well Number (#) 2 Raw Water and Treated Water

Month	Well # 2 Raw Water Maximum Taken per Minute (litres)	Well # 2 Raw Water Monthly Average Flow Cubic metres per day (m ³ /day) Pro-rated	Well # 2 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 2 Raw Water Number of Days Exceeding Maximum Daily Flow	Well # 2 Treated Water Monthly Average Flow m ³ /day Pro-rated	Well # 2 Treated Water Maximum Daily Flow m ³ /day Pro-rated	Well # 2 Treated Water Number of Days Exceeding Maximum Daily Flow
January	80	57	96	0	57	96	0
February	80	55	110	0	55	110	0
March	80	47	55	0	47	55	0
April	80	49	65	0	49	65	0
May	80	55	71	0	55	71	0
June	80	56	67	0	56	67	0
July	80	61	76	0	61	76	0
August	80	56	68	0	56	68	0
September	80	56	62	0	56	62	0
October	80	58	72	0	58	72	0
November	80	57	62	0	57	62	0
December	80	56	71	0	56	71	0
Annual Total	Not Required (N/A)	20,179	N/A	N/A	20,139	N/A	N/A
Maximum	80		110			110	
Average	N/A	55	N/A	N/A	55	N/A	N/A
% Capacity	95		91			21	
Permit to Take Water Limit	84	N/A	121	N/A	N/A	N/A	N/A
Municipal Drinking Water Licence Limit						510**	

*Treated water volumes calculated by subtracting waste from raw water volumes.

**Limit is combined for Wells 2 & 7.

The Regional Municipality of Durham
Cannington Drinking Water System

2018 Flow Data - Well Number (#) 7 Raw Water and Treated Water

Month	Well # 7 Raw Water Maximum Taken per Minute (litres)	Well # 7 Raw Water Monthly Average Flow Cubic metres per day (m ³ /day) Pro-rated	Well # 7 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 7 Raw Water Number of Days Exceeding Maximum Daily Flow	Well # 7 Treated Water Monthly Average Flow m ³ /day Pro-rated	Well # 7 Treated Water Maximum Daily Flow m ³ /day Pro-rated	Well # 7 Treated Water Number of Days Exceeding Maximum Daily Flow
January	260	193	324	0	193	324	0
February	265	189	373	0	189	373	0
March	260	162	182	0	162	182	0
April	260	165	221	0	165	221	0
May	265	185	237	0	185	237	0
June	260	188	223	0	188	223	0
July	260	208	255	0	208	255	0
August	260	191	231	0	191	231	0
September	256	190	207	0	190	207	0
October	260	201	237	0	201	237	0
November	260	198	219	0	198	219	0
December	260	196	241	0	196	241	0
Annual Total		69,048	NR	NR	68,915	NR	NR
Maximum	265		373			373	
Average	NR	189	NR	NR	189	NR	NR
% Capacity	98		96			73	
Permit to Take Water Limit	270	NR	389	NR	NR	NR	NR
Municipal Drinking Water Licence Limit						510**	

*Treated water volumes calculated by subtracting waste from raw water volumes.

**Limit is combined for Wells 2 & 7.

The Regional Municipality of Durham
Cannington Drinking Water System

2018 Flow Data - * Well Numbers (#) 2 and 7 Treated Water

Month	Well # 2 and 7 Treated Water Monthly Average Flow Cubic metres per day (m ³ /day) Pro-rated	Well # 2 and 7 Treated Water Maximum Daily Flow m ³ /day Pro-rated	Well # 2 and 7 Treated Water Number of Days Exceeding Maximum Daily Flow
January	250	420	0
February	244	483	0
March	209	237	0
April	214	286	0
May	240	308	0
June	244	290	0
July	269	331	0
August	247	300	0
September	246	269	0
October	259	310	0
November	254	281	0
December	251	312	0
Annual Total	89,053	N/A	N/A
Maximum		483	
Average	244	N/A	N/A
% Capacity		95	
Municipal Drinking Water Licence Limit	N/A	510	N/A

*Treated water volumes calculated by subtracting waste from raw water volumes.

The Regional Municipality of Durham
Cannington Drinking Water System

2018 Flow Data - Well Number (#) 3 Raw Water and Treated Water

Month	Well # 3 Raw Water Maximum Taken per Minute (litres)	Well # 3 Raw Water Average Flow Cubic metres per day (m ³ /day) Pro-rated	Well # 3 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 3 Raw Water Number of Days Exceeding Maximum Daily Flow	Well # 3 Treated Water Monthly Average Flow m ³ /day Pro-rated	Well # 3 Treated Water Maximum Daily Flow m ³ /day Pro-rated	Well # 3 Treated Water Number of Days Exceeding Maximum Daily Flow
January	170	125	207	0	125	207	0
February	170	122	240	0	122	240	0
March	170	106	111	0	106	111	0
April	170	108	147	0	108	147	0
May	170	117	142	0	117	142	0
June	170	121	139	0	121	139	0
July	170	132	164	0	132	164	0
August	170	123	141	0	123	141	0
September	170	124	148	0	124	148	0
October	170	129	150	0	129	150	0
November	170	128	139	0	128	139	0
December	170	128	157	0	128	157	0
Annual Total	Not Reported (NR)	44,603	NR	NR	44,524	NR	NR
Maximum	175		240			240	
Average	NR	122	NR	NR	122	NR	NR
% Capacity	97		92			93	
Permit to Take Water Limit	180	NR	259	NR	NR	NR	NR
Municipal Drinking Water Licence Limit						259	

*Treated water volumes calculated by subtracting waste from raw water volumes.

The Regional Municipality of Durham
Cannington Drinking Water System

2018 Flow Data - *Well Number (#) 4 Raw Water and Treated Water

Month	Well # 4 Raw Water Maximum Taken per Minute (litres)	Well # 4 Raw Water Monthly Average Flow Cubic metres per day (m ³ /day) Pro-rated	Well # 4 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 4 Raw Water Number of Days Exceeding Maximum Daily Flow	Well # 4 Treated Water Monthly Average Flow m ³ /day Pro-rated	Well # 4 Treated Water Maximum Daily Flow m ³ /day Pro-rated	Well # 4 Treated Water Number of Days Exceeding Maximum Daily Flow
January	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0
October	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0
Annual Total							
Maximum							
Average							
% Capacity							
Permit to Take Water Limit	192		277				
Municipal Drinking Water Licence Limit						276	

*Well # 4. offline

The Regional Municipality of Durham
Cannington Drinking Water System

2018 Flow Data - Well Number (#) 8 Raw Water and Treated Water

Month	Well # 8 Raw Water Maximum Taken per Minute (litres)	Well # 8 Raw Water Monthly Average Flow Cubic metres per day (m ³ /day) Pro-rated	Well # 8 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 8 Raw Water Number of Days Exceeding Maximum Daily Flow	Well # 8 Treated Water Monthly Average Flow m ³ /day Pro-rated	Well # 8 Treated Water Maximum Daily Flow m ³ /day Pro-rated	Well # 8 Treated Water Number of Days Exceeding Maximum Daily Flow
January	370	251	422	0	251	422	0
February	380	239	464	0	239	464	0
March	380	206	230	0	206	230	0
April	380	214	314	0	214	314	0
May	380	234	305	0	234	305	0
June	390	235	287	0	235	287	0
July	380	243	303	0	243	303	0
August	310	195	226	0	195	226	0
September	310	197	224	0	197	224	0
October	320	197	222	0	197	222	0
November	320	213	239	0	213	239	0
December	370	217	263	0	217	263	0
Annual Total		80,402			80,269		
Maximum	430		464			464	
Average		220			220		
% Capacity	76		57			57	
Permit to Take Water Limit	568		818				
Municipal Drinking Water Licence Limit							818

*Treated water volumes calculated by subtracting waste from raw water volumes.

The Regional Municipality of Durham
Cannington Drinking Water System

2018 Flow Data – Total System Raw and Treated Water

Month	Raw Water Monthly Average Flow Cubic metres per day (m ³ /day) Pro-rated	Raw Water Maximum Daily Flow m ³ /day Pro-rated	Raw Water Number of Days Exceeding Maximum Daily Flow	Treated Water Monthly Average Flow m ³ /day Pro-rated	Treated Water Maximum Daily Flow m ³ /day Pro-rated	Treated Water Number of Days Exceeding Maximum Daily Flow
January	627	1,049	0	626	1,049	0
February	606	1,186	0	605	1,186	0
March	522	559	0	521	559	0
April	537	639	0	536	639	0
May	590	755	0	590	755	0
June	601	713	0	600	713	0
July	645	795	0	645	795	0
August	565	638	0	564	638	0
September	567	629	0	566	629	0
October	585	628	0	584	628	0
November	596	660	0	596	659	0
December	597	731	0	596	731	0
Annual Total	214,335			213,847		
Maximum		1,186			1,186	
Average	586			586		
% Capacity		64			64	

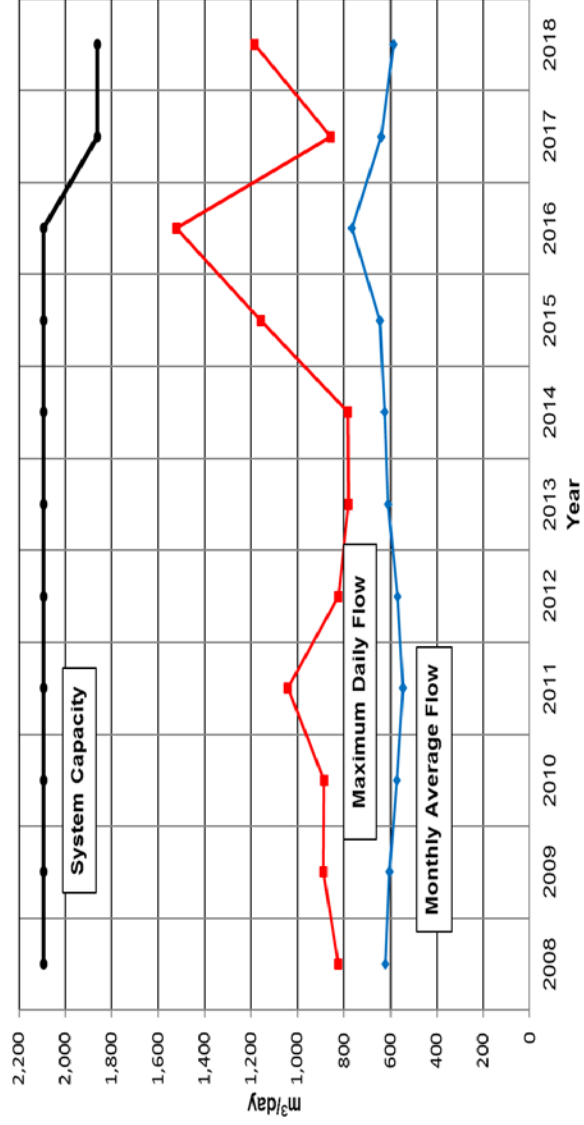
*Treated water volumes calculated by subtracting waste from raw water volumes.

The Regional Municipality of Durham Cannington Drinking Water System Capacity and Treated Water Flow Data

Year	Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Maximum Daily Flow m ³ /day Pro- rated	System Capacity m ³ /day
2008	623	824	2,093
2009	605	890	2,093
2010	572	887	2,092
2011	546	1,041	2,092
2012	570	824	2,092
2013	611	781	2,092
2014	625	782	2,092
2015	645	1,157	2,092
2016	765	1,523	2,092
2017	641	857	1,863*
2018	586	1,186	1,863

*Capacity changed due to decommissioning of Well 6.

77 Cannington Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham
Greenbank Drinking Water System

2018 Flow Data - Well Number (#) 1 Raw Water and Well # 3 Raw Water

Month	Well # 1 Raw Water Maximum Taken per Minute (litres)	Well # 1 Raw Water Monthly Average Flow cubic metres per (day m ³ /day) Pro-rated	Well # 1 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 1 Raw Water Number of Days Exceeding Maximum Flow (days)	Well # 3 Raw Water Maximum Taken per Minute (litres)	Well # 3 Raw Water Monthly Average Flow m ³ /day Pro-rated	Well # 3 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 3 Raw Water Number of Days Exceeding Maximum Flow (days)
January	60	19	29	0	80	29	45	0
February	60	18	22	0	80	28	34	0
March	60	17	23	0	81	28	35	0
April	60	19	24	0	80	29	34	0
May	65	24	35	0	80	37	54	0
June	60	22	35	0	80	33	55	0
July	60	23	32	0	80	36	49	0
August	60	17	21	0	75	27	33	0
September	60	18	22	0	75	28	35	0
October	60	19	34	0	75	31	56	0
November	60	18	29	0	85	31	50	0
December	60	18	21	0	80	31	36	0
Annual Total		7,083				11,102		
Maximum	65		35		85		56	
Average		19				30		
% Capacity	93		35		93		43	
Permit to Take Water Limit	70		101		91		130	

The Regional Municipality of Durham
Greenbank Drinking Water System

2018 Flow Data - Well Number (#) 4 Raw Water and Well # 5 Raw Water

Month	Well # 4 Raw Water Maximum Taken per Minute (litres)	Well # 4 Raw Water Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Well # 4 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 4 Raw Water Number of Days Exceeding Maximum Flow (days)	Well # 5 Raw Water Maximum Taken per Minute (litres)	Well # 5 Raw Water Monthly Average Flow m ³ /day Pro-rated	Well # 5 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 5 Raw Water Number of Days Exceeding Maximum Flow (days)
January	60	21	32	0	60	20	32	0
February	60	19	25	0	60	20	26	0
March	65	20	25	0	63	20	26	0
April	64	21	26	0	60	20	25	0
May	64	15	31	0	62	27	39	0
June	60	25	41	0	62	25	41	0
July	60	27	37	0	62	27	37	0
August	60	21	25	0	63	21	25	0
September	60	22	27	0	62	22	27	0
October	60	24	42	0	62	24	42	0
November	62	23	36	0	67	22	34	0
December	62	23	26	0	68	20	23	0
Annual Total	7,637	8,096						
Maximum	65		42		68		42	
Average		22				22		
% Capacity	96		43		100		43	
Permit to Take Water Limit	68		99		68		99	

The Regional Municipality of Durham
Greenbank Drinking Water System

2018 Flow Data - Well Number (#) 6 Raw Water

Month	Well # 6 Raw Water Maximum Taken per Minute (litres)	Well # 6 Raw Water Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Well # 6 Raw Water Daily Flow m ³ /day Pro-rated	Well # 6 Raw Water Number of Days Exceeding Maximum Flow (days)
January	80	29	48	0
February	80	30	37	0
March	85	28	38	0
April	82	29	36	0
May	85	38	55	0
June	85	34	56	0
July	82	36	50	0
August	80	28	33	0
September	80	28	35	0
October	80	31	56	0
November	83	30	49	0
December	85	31	36	0
Annual Total	Not Required (NR)	11,300	NR	NR
Maximum	85		56	
Average	NR	31	NR	NR
% Capacity	93		43	
Permit to Take Water Limit	91	NR	130	NR

The Regional Municipality of Durham
Greenbank Drinking Water System

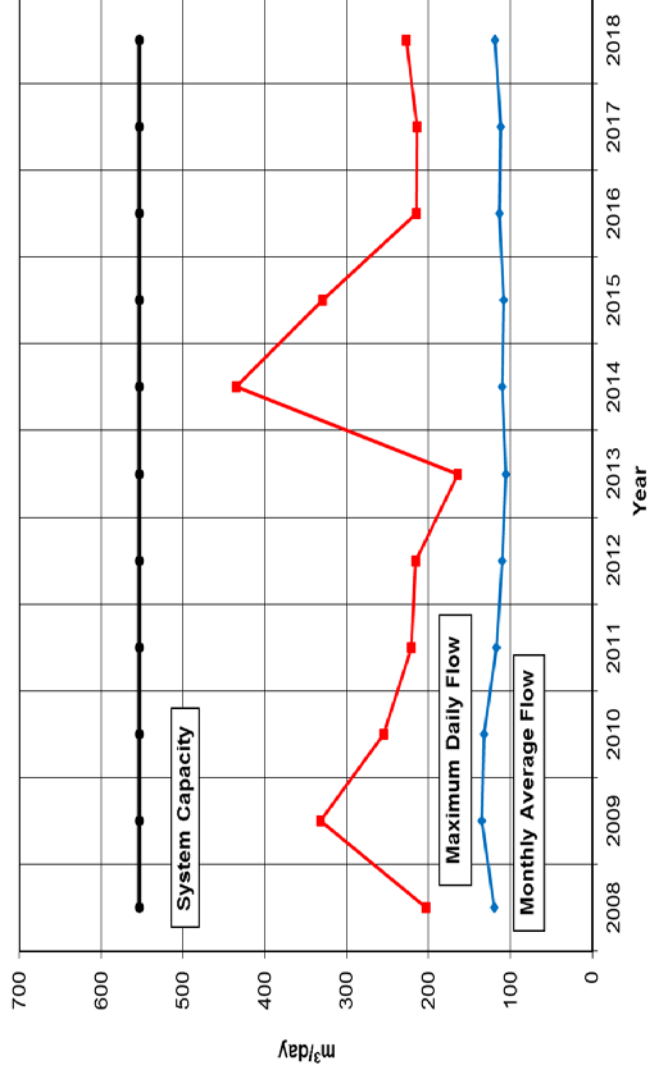
2018 Flow Data - Reservoir/System Total Treated Water

Month	Treated Water Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Treated Water Maximum Daily Flow m ³ /day Pro-rated	Treated Water Number of Days Exceeding Maximum Flow (days)
January	115	141	0
February	110	123	0
March	110	121	0
April	114	128	0
May	129	200	0
June	139	228	0
July	144	206	0
August	111	137	0
September	111	141	0
October	108	121	0
November	117	177	0
December	118	133	0
Annual Total	43,395	NR	NR
Maximum		228	
Average	119	NR	NR
% Capacity		41	
Permit to Take Water Limit	NR	NR	NR
Municipal Drinking Water Licence Limit		553	

The Regional Municipality of Durham Greenbank Drinking Water System Capacity and Treated Water Flow Data

Year	Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Maximum Daily Flow m ³ /day Pro-rated	System Capacity m ³ /day
2008	120	203	553
2009	135	332	553
2010	132	255	553
2011	117	221	553
2012	110	216	553
2013	106	164	553
2014	110	435	553
2015	108	329	553
2016	114	215	553
2017	112	214	553
2018	119	228	553

Greenbank Drinking Water System Capacity and Treated Water Flow Graph



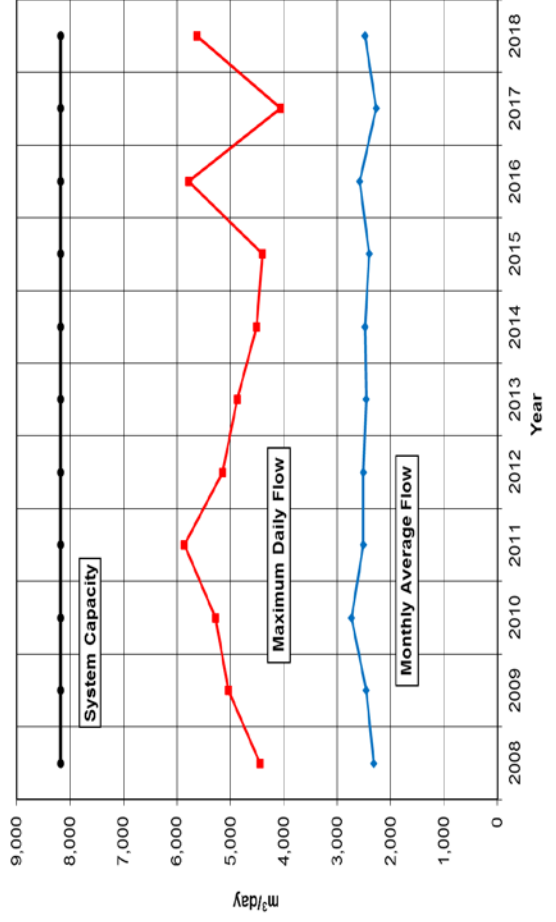
**The Regional Municipality of Durham
Newcastle Drinking Water System
2018 Flow Data - Raw Water and Treated Water**

Month	Raw Water Monthly Average Flow Cubic metres per day (m ³ /day)	Raw Water Maximum Daily Flow m ³ /day	Raw Water Number of Days Exceeding Maximum Daily Flow	Treated Water Monthly Average Flow m ³ /day	Treated Water Maximum Daily Flow m ³ /day	Treated Water Number of Days Exceeding Maximum Daily Flow
January	2,351	3,173	0	2,208	2,976	0
February	2,219	3,119	0	2,077	2,866	0
March	2,227	3,330	0	2,066	3,077	0
April	2,307	3,173	0	2,151	2,992	0
May	2,672	4,349	0	2,532	4,158	0
June	3,198	5,639	0	3,048	5,623	0
July	3,744	5,396	0	3,534	5,226	0
August	3,061	4,438	0	2,850	3,982	0
September	2,802	4,123	0	2,583	3,859	0
October	2,485	3,441	0	2,297	3,196	0
November	2,326	3,445	0	2,153	3,217	0
December	2,369	3,267	0	2,207	3,361	0
Annual Total	967,298	N/A	N/A	904,761	N/A	N/A
Maximum		5,639			5,623	
Average	2,647	N/A	N/A	2,476	N/A	N/A
% Capacity		69			69	
Permit to Take Water Limit	N/A	8,180	N/A	N/A	N/A	N/A
Municipal Drinking Water Licence Limit					8,173	

The Regional Municipality of Durham Newcastle Drinking Water System Capacity and Treated Water Flow Data

Year	Monthly Average Flow cubic metres per day (m ³ /day)	Maximum Daily Flow m ³ /day	System Capacity m ³ /day
2008	2,315	4,442	8,173
2009	2,458	5,040	8,173
2010	2,734	5,276	8,173
2011	2,515	5,862	8,173
2012	2,508	5,149	8,173
2013	2,457	4,868	8,173
2014	2,480	4,504	8,173
2015	2,398	4,398	8,173
2016	2,579	5,777	8,173
2017	2,272	4,056	8,173
2018	2,476	5,623	8,173

Newcastle Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham
Orono Drinking Water System

2018 Flow Data - Well Number (#) 3* Raw Water and Well # 4 Raw Water

Month	Well # 3 Raw Water Maximum Taken per Minute (litres)	Well # 3 Raw Water Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Well # 3 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 3 Raw Water Number of Days Exceeding Maximum Flow (days)	Well # 4 Raw Water Maximum Taken per Minute (litres)	Well # 4 Raw Water Monthly Average Flow m ³ /day Pro-rated	Well # 4 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 4 Raw Water Number of Days Exceeding Maximum Flow (days)
January	744	266	324	0	732	261	303	0
February	756	238	294	0	732	248	277	0
March	756	241	280	0	732	233	277	0
April	732	300	417	0	732	308	355	0
May	732	272	452	0	720	259	440	0
June	732	433	794	0	780	349	474	0
July	732	446	585	0	708	393	527	0
August	720	418	701	0	708	357	494	0
September	720	295	428	0	708	316	546	0
October	720	267	376	0	750	226	316	0
November	720	323	381	0	708	326	385	0
December	732	360	483	0	708	315	424	0
Annual Total	Not Required (N/A)	90,348	N/A	N/A	N/A	29,086	N/A	N/A
Maximum	756		794		780		546	
Average	N/A	322	N/A	N/A	N/A	299	N/A	N/A
% Capacity	83		91		86		63	
Permit to Take Water Limit	909	N/A	873	N/A	909	N/A	873	N/A

*Well cannot be run for more than sixteen hours per day.

The Regional Municipality of Durham
Orono Drinking Water System

2018 Flow Data - Well Number (#) 5* Raw Water and System Total Treated Water**

Month	Well # 5 Raw Water Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Well # 5 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 5 Raw Water Number of Days Exceeding Maximum Flow (days)	System Total Treated Water Monthly Average Flow m ³ /day Pro-rated	System Total Treated Water Maximum Daily Flow m ³ /day Pro-rated	System Total Treated Water Number of Days Exceeding Maximum Daily Flow (days)
January	0	0	0	259	324	0
February	0	0	0	235	294	0
March	0	0	0	234	280	0
April	0	0	0	297	417	0
May	0	0	0	289	452	0
June	0	0	0	430	794	0
July	0	0	0	442	585	0
August	0	0	0	423	701	0
September	0	0	0	314	534	0
October	0	0	0	283	376	0
November	0	0	0	340	750	0
December	0	0	0	358	483	0
Annual Total	Not Required (N/R)	N/R	N/R	118,047	N/R	N/R
Maximum					794	
Average				325		
% Capacity					91/46	
Permit to Take Water Limit		873	N/R			N/R
Municipal Drinking Water Licence Limit					873/1,745***	

*Well not in service

**Treated water volumes calculated by subtracting waste from raw water volumes

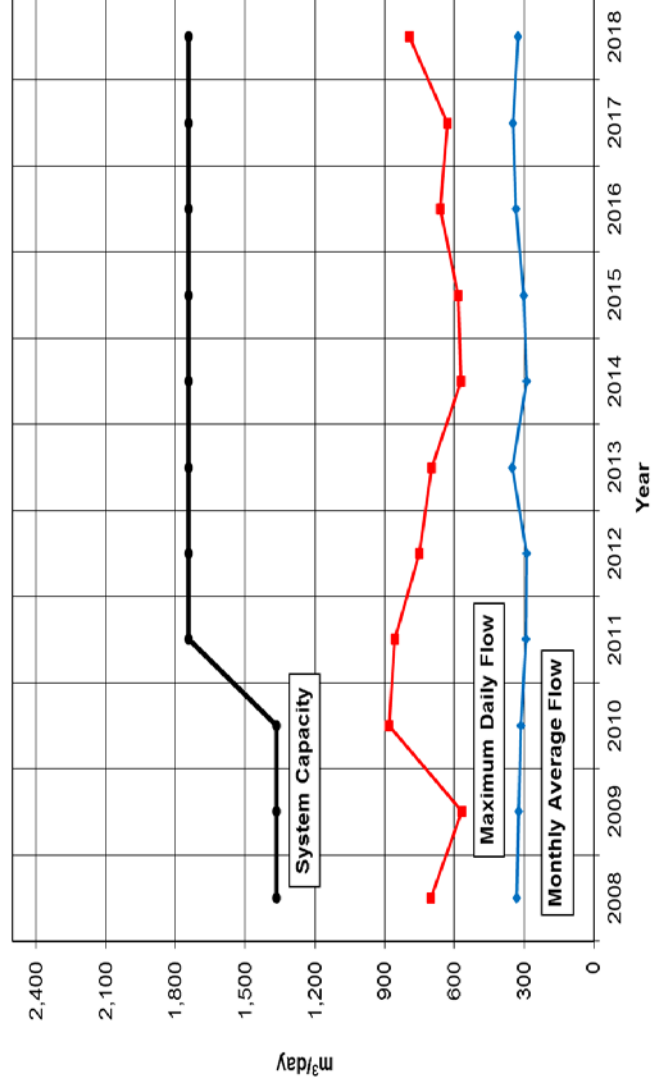
***The rated capacity can be increased to 1,745 m³/day for up to 90 days per calendar year

Orono Drinking Water System Capacity and Treated Water Flow Data

Year	Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Maximum Pro-rated Daily Flow m ³ /day	System Capacity m ³ /day
2008	333	703	1,364
2009	322	568	1,364
2010	314	882	1,364
2011	292	858	1,745*
2012	289	751	1,745*
2013	350	699	1,745*
2014	288	572	1,745*
2015	301	584	1,745*
2016	336	661	1,745*
2017	348	631	1,745*
2018	325	794	1,745*

*The rated capacity can be increased to 1,745 m³/day not exceeding 90 days per calendar year.

Orono Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham
Port Perry Drinking Water System

2018 Flow Data - Well Number (#) 3 Raw and Treated Water and Well # 5 Raw and Treated Water

Month	Well # 3 Maximum Taken per Minute (litres)	Well # 3 Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Well # 3 Maximum Daily Flow m ³ /day Pro-rated	Well # 3 Raw Water Number of Days Exceeding Maximum Flow (days)	Well # 5 Maximum Taken per Minute (litres)	Well # 5 Monthly Average Flow m ³ /day Pro- rated	Well # 5 Maximum Daily Flow m ³ /day Pro-rated	Well # 5 Number of Days Exceeding Maximum Flow (days)
January	1,700	207	311	0	1,700	209	312	0
February	1,700	186	268	0	1,700	188	272	0
March	1,700	179	238	0	1,700	181	243	0
April	1,700	208	318	0	1,700	210	333	0
May	1,700	195	297	0	1,700	198	289	0
June	1,700	205	283	0	1,700	208	302	0
July	1,700	208	329	0	1,700	212	320	0
August	1,700	175	257	0	1,700	177	256	0
September	1,700	166	479	0	1,700	168	486	0
October	1,700	217	848	0	1,700	219	865	0
November	1,700	284	1,109	0	1,700	289	1,127	0
December	1,700	213	348	0	1,700	213	352	0
Annual Total	Not Required (N/A)	73,948	N/A	N/A	N/A	74,867	N/A	N/A
Maximum	1,700		1,109		1,700		1,127	
Average	N/A	203	N/A	N/A	N/A	206	N/A	N/A
% Capacity	94		42		94		43	
Permit to Take Water Limit	1,817	N/A	2,617	N/A	1,817	N/A	2,617	N/A
Municipal Drinking Water Licence Limit			2,618				2,618	

The Regional Municipality of Durham
Port Perry Drinking Water System

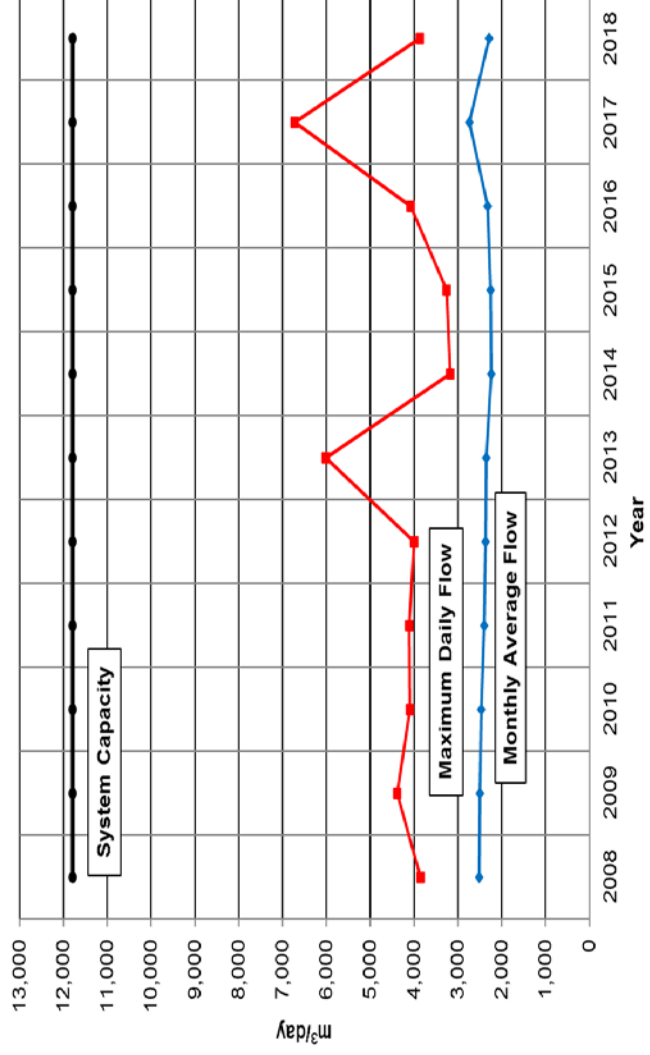
2018 Flow Data - Well Number (#) 6 Raw and Treated Water and System Total Treated Water

Month	Well # 6 Maximum Taken per Minute (litres)	Well # 6 Monthly Average Flow cubic metres per day (m ³ /day) Pro- rated	Well # 6 Maximum Daily Flow m ³ /day Pro-rated	Well # 6 Raw Water Number of Days Exceeding Maximum Flow (days)	Treated Water Monthly Average Flow m ³ /day Pro- rated	Treated Water Maximum Daily Flow m ³ /day Pro- rated	Treated Water Number of Days Exceeding Maximum Flow (days)
January	4,200	1,697	2,051	0	2,113	2,418	0
February	4,200	1,687	1,877	0	2,061	2,307	0
March	4,200	1,687	1,884	0	2,047	2,259	0
April	4,200	1,657	2,126	0	2,075	2,462	0
May	4,200	2,060	2,616	0	2,452	3,160	0
June	4,200	2,318	2,904	0	2,731	3,318	0
July	4,200	2,309	3,210	0	2,729	3,761	0
August	4,000	1,858	2,403	0	2,210	2,751	0
September	4,000	2,099	3,675	0	2,433	3,873	0
October	4,000	1,878	2,766	0	2,314	3,203	0
November	4,000	1,602	2,066	0	2,175	2,585	0
December	4,000	1,700	2,023	0	2,126	2,408	0
Annual Total	Not Required (N/A)	688,707	N/A	N/A	837,522	N/A	N/A
Maximum	4,200		3,675			3,873	
Average	N/A	1,879	N/A	N/A	2,289	N/A	N/A
% Capacity	88		56			33	
Permit to Take Water Limit	4,543	N/A	6,542	N/A	N/A	N/A	N/A
Municipal Drinking Water Licence Limit			6,545				

The Regional Municipality of Durham Port Perry Drinking Water System Capacity and Treated Water Flow Data

Year	Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Maximum Daily Flow m ³ /day Pro-rated	System Capacity m ³ /day
2008	2,517	3,854	11,781
2009	2,499	4,383	11,781
2010	2,454	4,096	11,781
2011	2,391	4,106	11,781
2012	2,365	4,001	11,781
2013	2,341	6,006	11,781
2014	2,228	3,167	11,781
2015	2,245	3,251	11,781
2016	2,317	4,075	11,781
2017	2,740	6,724	11,781
2018	2,289	3,873	11,781

90 Port Perry Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham
Sunderland Drinking Water System

2018 Flow Data - Well Number (#) 1 Raw Water and *Treated Water

Month	Well # 1 Raw Water Maximum Taken per Minute (litres)	Well # 1 Raw Water Monthly Average Flow Cubic metres per day (m ³ /day) Pro-rated	Well # 1 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 1 Raw Water Number of Days Exceeding Maximum Daily Flow	Well #1 Treated Water Monthly Average Flow m ³ /day Pro-rated	Well #1 Treated Water Maximum Daily Flow m ³ /day Pro-rated	Well #1 Treated Water Number of Days Exceeding Maximum Daily Flow
January	456	360	415	0	360	415	0
February	450	409	478	0	409	478	0
March	444	368	411	0	368	411	0
April	438	335	419	0	335	419	0
May	438	380	480	0	380	480	0
June	432	410	492	0	410	492	0
July	432	392	551	0	392	551	0
August	420	357	421	0	357	421	0
September	414	448	576	0	448	576	0
October	414	355	402	0	355	402	0
November	420	384	427	0	384	427	0
December	450	317	364	0	317	364	0
Annual Total	Not Required (N/A)	137,158	N/A	N/A	137,186	N/A	N/A
Maximum	456		576			576	
Average	N/A	376	N/A	N/A		376	N/A
% Capacity	45		42			42	
Permit to Take Water Limit	1,023	N/A	1,373	N/A	N/A	N/A	N/A
Municipal Drinking Water Licence Limit						1,374	

*Treated water volumes calculated by subtracting waste from raw water volumes

The Regional Municipality of Durham
Sunderland Drinking Water System

2018 Flow Data - *Well Number (#) 2 Raw Water and Treated Water

Month	Well # 2 Raw Water Maximum Taken per Minute (litres)	Well # 2 Raw Water Monthly Average Flow Cubic metres per day (m ³ /day) Pro-rated	Well # 2 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 2 Raw Water Number of Days Exceeding Maximum Daily Flow	Well # 2 Treated Water Monthly Average Flow m ³ /day Pro-rated	Well # 2 Treated Water Maximum Daily Flow m ³ /day Pro-rated	Well # 2 Treated Water Number of Days Exceeding Maximum Daily Flow
January	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0
October	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0
Annual Total	Not Required (NR)	NR	NR	NR	NR	NR	NR
Maximum							
Average							
% Capacity							
Permit to Take Water Limit	1,023	NR	1,373	NR	NR	NR	NR
Municipal Drinking Water Licence Limit						1,374	

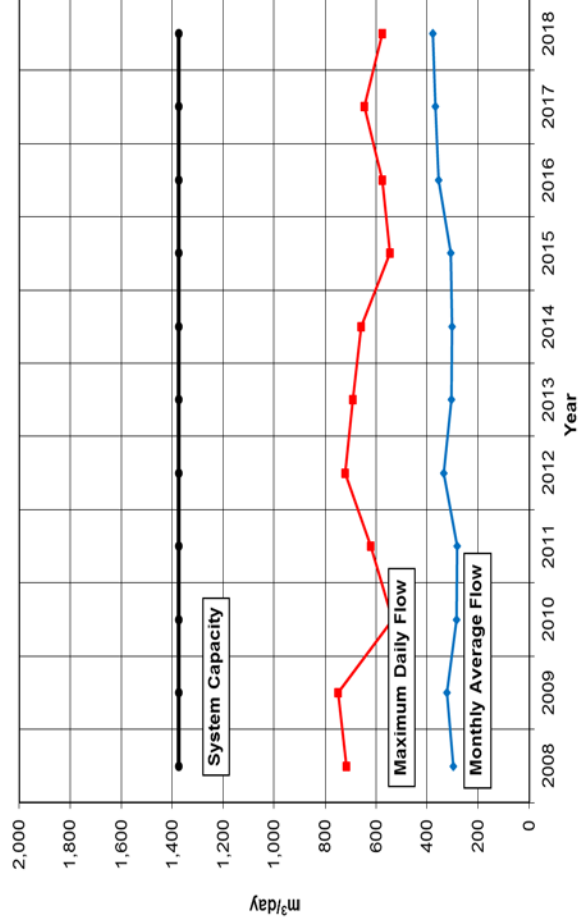
*Well # 2 offline.

The Regional Municipality of Durham Sunderland Drinking Water System Capacity and Treated Water Flow Data

Year	Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Maximum Daily Flow m ³ /day Pro- rated	*System Capacity m ³ /day
2008	297	719	1,374
2009	323	749	1,374
2010	284	535	1,374
2011	282	622	1,374
2012	334	722	1,374
2013	303	693	1,374
2014	301	660	1,374
2015	307	546	1,374
2016	355	576	1,374
2017	367	647	1,374
2018	376	576	1,374

*Sunderland DWS cannot achieve its rated capacity due to hydraulic restrictions within the treatment process.

Sunderland Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham
 Uxbridge Drinking Water System

2018 Flow Data - Well Number (#) 5 Raw Water and Treated Water

Month	Well # 5 Raw Water Maximum Taken per Minute (litres)	Well # 5 Raw Water Monthly Average Flow Cubic metres per day (m ³ /day) Pro-rated	Well # 5 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 5 Raw Water Number of Days Exceeding Maximum Daily Flow	Well # 5 Treated Water Monthly Average Flow m ³ /day Pro-rated	Well # 5 Treated Water Maximum Daily Flow m ³ /day Pro-rated	Well # 5 Treated Water Number of Days Exceeding Maximum Daily Flow
January	2,760	1,103	1,679	0	1,100	1,679	0
February	2,760	1,072	1,338	0	1,070	1,338	0
March	2,760	1,095	1,278	0	1,094	1,278	0
April	2,760	1,082	1,303	0	1,081	1,303	0
May	2,760	1,320	1,805	0	1,318	1,805	0
June	2,760	1,465	2,040	0	1,464	2,040	0
July	2,760	1,574	2,261	0	1,574	2,261	0
August	2,760	1,188	1,596	0	1,188	1,596	0
September	2,760	1,224	1,662	0	1,222	1,662	0
October	2,760	1,057	1,254	0	1,056	1,254	0
November	2,760	990	1,224	0	987	1,224	0
December	2,760	956	1,323	0	953	1,323	0
Annual Total	NOT REQUIRED (MPS)	278,594	N/A	N/A	278,366	N/A	N/A
Maximum	2,760		2,261			2,261	
Average	N/A	1,177	N/A	N/A	1,176	N/A	N/A
% Capacity	92		52			27	
Permit to Take Water Limit	3,000	N/A	4,320	N/A	N/A	4,320	N/A
Municipal Drinking Water Licence Limit			8,251*			8,251*	

*Limit is combined for Wells 5 and 7.

The Regional Municipality of Durham
Uxbridge Drinking Water System

2018 Flow Data - Well Number (#) 7 Raw Water and Treated Water

Month	Well # 7 Raw Water Maximum Taken per Minute (litres)	Well # 7 Raw Water Monthly Average Flow Cubic metres per day (m ³ /day) Pro-rated	Well # 7 Raw Water Maximum Daily Flow m ³ /day Pro-rated	Well # 7 Raw Water Number of Days Exceeding Maximum Daily Flow	Well # 7 Treated Water Monthly Average Flow m ³ /day Pro-rated	Well # 7 Treated Water Maximum Daily Flow m ³ /day Pro-rated	Well # 7 Treated Water Number of Days Exceeding Maximum Daily Flow
January	1,500	802	1,613	0	800	1,613	0
February	1,500	774	957	0	773	957	0
March	1,500	763	979	0	761	979	0
April	1,500	810	1,135	0	808	1,135	0
May	1,500	810	1,162	0	808	1,162	0
June	1,500	811	1,251	0	810	1,251	0
July	1,560	571	1,263	0	566	1,263	0
August	1,500	663	1,195	0	661	1,195	0
September	1,500	865	1,075	0	864	1,075	0
October	1,500	725	960	0	722	960	0
November	1,560	783	1,363	0	781	1,363	0
December	1,560	830	950	0	829	950	0
Annual Total		152,918			152,730		
Maximum	1,560		1,613			1,613	
Average		767			765		
% Capacity	52		37			20	
Permit to Take Water Limit	3,000		4,320			4,320	
Municipal Drinking Water Licence Limit			8,251*			8,251*	

*Limit is combined for Wells 5 and 7.

The Regional Municipality of Durham
Uxbridge Drinking Water System

2018 Flow Data - Well Number (#) 5 and 7 Treated Water and Well # 6 Raw and Treated Water

Month	Well # 5 and 7 Treated Water Monthly Average Flow Cubic metres (m ³ /day) Pro-rated	Well # 5 and 7 Treated Water Maximum Daily Flow m ³ /day Pro-rated	Well # 5 and 7 Treated Water Number of Days Exceeding Maximum Daily Flow	Well # 6 Maximum Taken per Minute (litres)	Well # 6 Monthly Average Flow m ³ /day Pro-rated	Well # 6 Maximum Daily Flow m ³ /day Pro-rated	Well # 6 Number of Days Exceeding Maximum Daily Flow
January	1,110	1,679	0	2,520	1,390	1,649	0
February	1,053	1,338	0	2,520	1,337	1,597	0
March	1,063	1,296	0	2,520	1,315	1,591	0
April	1,088	1,303	0	2,520	1,296	1,583	0
May	1,260	1,805	0	2,520	1,540	1,982	0
June	1,386	2,040	0	2,520	1,741	2,136	0
July	1,637	2,381	0	2,520	1,717	2,298	0
August	1,295	1,596	0	2,520	1,489	2,013	0
September	1,206	1,662	0	2,520	1,517	1,808	0
October	1,032	1,254	0	2,520	1,350	1,626	0
November	1,002	1,390	0	2,520	1,317	1,636	0
December	1,027	1,398	0	2,520	1,390	1,587	0
Annual Total	431,095				529,338		
Maximum		2,381		2,520		2,298	
Average	1,180				1,450		
% Capacity		29		92		59	
Permit to Take Water Limit		4,320		2,727		3,927	
Municipal Drinking Water Licence Limit		8,251*				3,931	

*Limit is combined for Wells 5 and 7.

The Regional Municipality of Durham
Uxbridge Drinking Water System

2018 Flow Data - Total System Raw Water and Treated Water

Month	Raw Water Monthly Average Flow Cubic metres per day (m ³ /day) Pro-rated	Raw Water Maximum Daily Flow m ³ /day Pro-rated	Raw Water Number of Days Exceeding Maximum Daily Flow	Treated Water Monthly Average Flow m ³ /day Pro-rated	Treated Water Maximum Daily Flow m ³ /day Pro-rated	Treated Water Number of Days Exceeding Maximum Daily Flow
January	2,502	3,282	0	2,500	3,282	0
February	2,392	2,590	0	2,390	2,590	0
March	2,380	2,584	0	2,378	2,569	0
April	2,386	2,541	0	2,384	2,541	0
May	2,802	3,446	0	2,800	3,446	0
June	3,129	3,963	0	3,127	3,963	0
July	3,356	4,416	0	3,354	4,401	0
August	2,786	3,237	0	2,785	3,237	0
September	2,725	3,253	0	2,723	3,253	0
October	2,384	2,581	0	2,382	2,581	0
November	2,322	2,471	0	2,319	2,471	0
December	2,418	2,963	0	2,416	2,963	0
Annual Total	961,036			960,568		
Maximum		4,416			4,401	
Average	2,632			2,630		
% Capacity		54				
Permit to Take Water Limit		8,251				
Municipal Drinking Water Licence Limit					8,251** 3,931***	

*Permit to Take Water allows two wells to operate simultaneously however, the daily total taking of water for any combination is limited to a maximum of 8,251 m³/day.

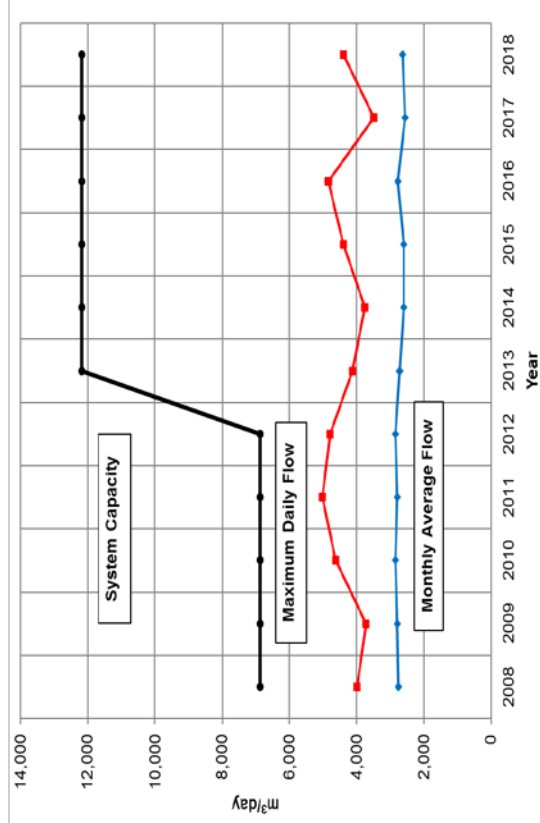
**8,251 m³/day is the rated capacity for Wells # 5 and 7.

***3,931 m³/day is the rated capacity for Well # 6

The Regional Municipality of Durham Uxbridge Drinking Water System Capacity and Treated Water Flow Data

Year	Monthly Average Flow cubic metres per day (m ³ /day) Pro-rated	Maximum Daily Flow m ³ /day Pro- rated	System Capacity m ³ /day
2008	2,761	3,991	6,877
2009	2,794	3,718	6,877
2010	2,859	4,626	6,877
2011	2,803	5,017	6,877
2012	2,846	4,796	6,877
2013	2,721	4,139	12,182
2014	2,605	3,760	12,182
2015	2,609	4,401	12,182
2016	2,772	4,839	12,182
2017	2,564	3,497	12,182
2018	2,630	4,401	12,182

Uxbridge Drinking Water System Capacity and Treated Water Flow Graph





The Regional Municipality of Durham Report

To: Works Committee
From: Commissioners of Works
Report: [#2019-W-18](#)
Date: March 6, 2019

Subject:

Termination of Industrial Raw Water Agreement with Coveris Americas (Formerly Liqui-Box Canada Inc.), in the Town of Whitby

Recommendations:

That the Works Committee recommends to Regional Council:

- A) That the Industrial Raw Water Agreement with Coveris Americas (formerly Liqui-Box Canada Inc.) be terminated; and
 - B) That the Regional Chair and Clerk be authorized to execute the necessary amendment.
-

Report:

1. Purpose

- 1.1 The purpose of this report is to provide details and seek authorization to terminate the Industrial Raw Water Agreement with Coveris Americas in accordance with the terms and conditions of the Industrial Raw Water Agreement.

2. Background

- 2.1 The Regional Municipality of Durham (Region) operates two industrial raw water supply systems at the Whitby Water Supply Plant (WSP) serving local industries. One system supplies water to Gerdau Ameristeel and the second system supplies water to WEGU Canada Ltd. and Coveris Americas.

3. Status of the Coveris Americas

- 3.1 In late 2017, Coveris Americas, a manufacturing plant, decided to switch to a new system using potable water supply. Coveris Americas constructed and commissioned a closed loop water system in July 2018 and has shut off the raw water system connection.
- 3.2 Staff recommends terminating the Industrial Raw Water Agreement with Coveris Americas.

4. Financial Implications

- 4.1 The 2019 raw water rate charged to the end users has taken in consideration that Coveris Americas switched their raw water supply to potable water supply.

5. Conclusion

- 5.1 It is recommended that the Industrial Raw Water Agreement with Coveris Americas (formerly Liqui-Box Canada Inc.) be terminated in accordance with the terms and conditions of the Industrial Raw Water Agreement.
- 5.2 This report has been reviewed by Legal Services – Corporate Services Department and the Finance Department. The Commissioner of Corporate Services and Commissioner of Finance concur with the recommendations.

5.3 For additional information, please contact Alfred Ho, Project Engineer,
Environmental Services Design Division at 905-668-7711 extension 3458.

Respectfully submitted,

Original signed by:

Susan Siopis, P.Eng.
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine Baxter-Trahair
Chief Administrative Officer



The Regional Municipality of Durham Report

To: The Works Committee
From: Commissioner of Works
Report: [#2019-W-19](#)
Date: March 6, 2019

Subject:

Service Level Agreement to Operate and Maintain Traffic Control Signals Located at Highway 407 and Highway 412 Interchanges between the Regional Municipality of Durham and OM&R 407 East Development Group General Partnership

Recommendations:

That the Works Committee recommends to Regional Council:

- A) That a Service Level Agreement to facilitate Traffic Control Signal Maintenance and Operations with OM&R 407 East Development Group General Partnership to permit the Regional Municipality of Durham to undertake operation and maintenance functions of the existing traffic control signals at various interchange locations along Highway 407 and along Highway 412 in the Regional Municipality of Durham on a cost recovery basis be approved; and
 - B) That the Regional Chair and Clerk be authorized to execute the Service Level Agreement.
-

Report:

1. Purpose

- 1.1 The purpose of this report is to formalize a service level agreement (SLA) between the OM&R 407 East Development Group (EDG) General Partnership and the Regional Municipality of Durham (Region) for the operation and maintenance of traffic control signals, including associated traffic signage and pavement markings, at various signalized interchange locations on Highway 407 between Regional Road 1 (Brock Road) and Regional Road 33 (Harmony Road)

and Highway 412 between Dundas Street and Highway 407.

2. Background

- 2.1 Since the repeal of the Regional Municipality of Durham Act in 2003, the Region has continued to undertake the design, installation, operation and maintenance of traffic control signals on behalf of various jurisdictions including, but not limited to, local area municipalities, Ministry of Transportation Ontario (MTO) and Highway 407 Electronic Toll Route (ETR). As such, the Region has entered into agreements with the various stakeholders that encompass all traffic control signals in the Region of Durham.
- 2.2 This proposed SLA will permit the Works Department to undertake routine and emergency maintenance and operational programming for traffic control signals owned by EDG which owns and operates Highway 407 between Brock Road and Harmony Road as well as Highway 412. Execution of a SLA between EDG and the Region will provide a service that optimizes the efficiency, reliability and safety of the traffic control signal network. In providing these services, the Region remains committed to a proactive, accountable and cost effective approach through continual signal system improvements.

3. Financial Implications

- 3.1 All costs as described and incurred under the executed SLA will be borne by EDG. The Region will invoice EDG for all labour, material and equipment costs for maintenance activities performed by Regional staff on EDG traffic control signals as well as a proportion of all operating costs associated with the connection to the Region's central traffic control systems. The agreement specifies that either party may terminate the agreement within 120 days of written notification. All repair work will be conducted to meet or exceed Provincial Minimum Maintenance Standards (Ontario Regulation 239/02). Further additions or deletions to the list of SLA locations, regarding the assumption of operation and maintenance responsibilities for traffic control signals at Highway 407 and Highway 412 interchanges, will be adjusted as required.

4. Conclusion

- 4.1 The attached Service Level Agreement document (Attachment #1) has been reviewed by both the Finance and Legal Departments who have provided their concurrence. It is recommended that the Regional Chair and Clerk be authorized to execute the service level agreement.

- 4.2 This report has been reviewed by the Finance Department and Corporate Services – Legal Department.
- 4.3 For additional information, please contact Steven Kemp, Manager – Traffic Engineering and Operations, at 905-666-8116, extension 4701.

5. Attachments

Attachment #1: Agreement to Facilitate Traffic Control Signal Maintenance and Operations

Respectfully submitted,

Original signed by:

Susan Siopis, P.Eng.
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer

**AGREEMENT TO FACILITATE
TRAFFIC CONTROL SIGNAL MAINTENANCE
AND OPERATIONS**

THIS AGREEMENT made in triplicate this 10th day of January 2019.

BETWEEN:

**OM&R 407 East Development Group General Partnership
As operator of Highway 407 / Highway 412 EDG hereinafter referred to as "OM&R
407EDG"**

OF THE FIRST PART,

- AND -

**The Regional Municipality of Durham
Hereinafter referred to as the "Region"**

OF THE SECOND PART

WHEREAS the Crown in Right of Ontario has granted 407 East Development Group General Partnership ("Project Co") the exclusive concession to design, construct, finance, operate, maintain and rehabilitate Highway 407 / Highway 412 through a Project Agreement dated May 15, 2012;

AND WHEREAS Project Co has entered into a contract with OM&R 407EDG to operate, maintain and rehabilitate Highway 407 / Highway 412 through an OM&R Contract dated May 15, 2012;

AND WHEREAS there are Traffic Control Signals located at the intersection of Highway 407 / Highway 412 and municipal arterial roads within the Region, which locations are listed on Schedule 'A', which is attached to, forms part of and is subject to the terms of this Agreement;

AND WHEREAS for the purpose of controlling traffic, it has been agreed between the Parties hereto that the Region, on behalf of and at the cost and expense of OM&R 407EDG, shall operate, maintain and rehabilitate the Traffic Control Signals at the locations listed on Schedule 'A';

NOW THEREFORE THIS AGREEMENT WITNESSES that in consideration of the premises and covenants herein contained the Parties hereto for themselves and their respective successors and assigns agree each with the other as follows:

PART 1 – DEFINITIONS

1. In this Agreement:

- (a) **"Central Computerized Traffic Signal Control System"** means all hardware and software based operating systems, applications, integrated auxiliary devices and communication infrastructure required to control Traffic Control Signals from a centralized location.

- (b) **“Communication Systems”** means any system including all above-ground and below-ground plant, which communicates with, and is interconnected through, various media including but not limited to underground conduit, fibre optics, cabling or wireless systems, that transfer data from one location to another or to a centralized location.
- (c) **“Emergency Vehicle Pre-emption”** means all the above-ground and below-ground plant required for pre-empting Traffic Control Signals to provide emergency fire vehicles a green signal display in their direction of their travel.
- (d) **“Inspection”** means the physical inspection of traffic signal structures and components, including Integrated Auxiliary Devices to identify potential problem areas and ensuring safe and satisfactory performance.
- (e) **“Integrated Auxiliary Devices”** means all aboveground and underground plant required for operating auxiliary traffic devices including but not limited to, red light cameras, accessible pedestrian signals, vehicle/pedestrian and cyclist detection, Emergency Vehicle Pre-emption, closed circuit television, transit vehicle priority, uninterruptible power supply and other traffic signal related devices.
- (f) **“Intersection Painting”** means Transverse or Longitudinal Pavement Markings on the road surface for the purpose of vehicle guidance and pedestrian crossing at signalized intersections, including lane lines, directional arrows, stop bars, continuity lines and pedestrian crosswalks, unless otherwise indicated in the Agreement.
- (g) **“Longitudinal Pavement Markings”** means the white and yellow painted lane lines on the road surface.
- (h) **“Luminaire”** - means a complete roadway lighting unit consisting of a lamp or lamps and ballasting (when applicable) together with the parts designed to distribute light, to position and protect the lamps and to connect the lamps to the power supply at signalized intersections.
- (i) **“Municipality”** means a single tier municipality or a lower tier municipality in reference to its geographical area or to the municipal corporation, as the context requires.
- (j) **“OM&R Contract”** means the agreement between OM&R 407EDG and Project Co referred to in the recitals.
- (k) **“Parties”** means OM&R 407 East Development Group General Partnership as the operator of Highway 407 / Highway 412 and the Regional Municipality of Durham and **“Party”** means either of them.
- (l) **“Project Co”** has the meaning given in the recitals.
- (m) **“Traffic Control Signal(s)”** means those Traffic Control Signals listed in Schedule ‘A’.
- (n) **“Traffic Signing”** means either regulatory, warning and guidance signs to inform road users, placed upon or adjacent to a roadway, signal pole, mast arm or an overhead span wire.

- (o) **“Transverse Markings”** means painted stop bars, pedestrian crosswalks, turn arrows and any other pavement markings within the limits of the signalized intersection.

PART 2 – GENERAL


2. The Region, on behalf of OM&R 407EDG and at the cost and expense of the OM&R 407EDG, shall carry out the maintenance and operation of the Traffic Control Signals at the intersections listed in Schedule ‘A’, including providing all necessary repairs, replacement, Inspection, cleaning, relamping and Luminaires of the Traffic Control Signals.
3. Notwithstanding section 2 of this Agreement, OM&R 407EDG shall not pay for the installation or maintenance of any additional equipment to the Traffic Control Signals that is not either prescribed by this Agreement or requested by OM&R 407EDG.
4. OM&R 407EDG shall permit connection of the Traffic Control Signals to a Central Computerized Traffic Signal Control System. The Region shall be solely responsible for making all necessary arrangements for the establishment of the Communication System connection between the Traffic Control Signals and the Central Computerized Traffic Signal Control System. Communications costs for the Traffic Control Signals shall be paid by OM&R 407EDG together with a pro-rated cost for the Central Computerized Traffic Signal Control System operation based on the percentage of OM&R 407EDG Traffic Control Signals in the system. Despite the preceding provisions, the Region must obtain written approval from OM&R 407EDG prior to connecting the Traffic Control Signals to the Central Computerized Traffic Signal Control System.
5. The Region will undertake all operational issues related to the signalized intersections where the Traffic Control Signals are located and listed in Schedule ‘A’. This will include, without limitation, processing of timing plans, capacity analysis, field reviews, timing changes and addition of new phases. OM&R 407EDG reserves the right to obtain from the Region a copy of the timing plans for review and may make appropriate revisions to meet Highway 407 / Highway 412 traffic requirements and/or impacts. The Region will comply with such revisions.
6. The Region shall not carry out modifications to the Traffic Control Signals, Intersection Painting or replace any Traffic Signing unless prior approval has been obtained from the Operations Manager of OM&R 407EDG or his or her nominee. OM&R 407EDG prior approval is not required if the modifications are determined by the Region to be necessary for the flow of traffic, however, the Region will notify OM&R 407EDG of such modifications.
7. OM&R 407EDG shall consult with the Region before requesting the Region to carry out any modifications to the Traffic Control Signals which would have the result of affecting the flow of traffic.
8. All electrical power costs associated with the operation of the Traffic Control Signals will be paid directly by the Ontario Ministry of Transportation. The Region is not responsible for electrical power.
9. The Region shall invoice OM&R 407EDG in arrears every ninety (90) days for the cost and expenses incurred by the Region to operate and maintain the Traffic Control Signals prescribed herein, and

- (a) the invoices shall be in a form and detail agreeable to OM&R 407EDG and the Region;
 - (b) the operation and maintenance costs and expenses under this Agreement shall be comparable to the costs and expenses attributable to the operation and maintenance of similar traffic signals located in the Region; and
 - (c) to the maintenance and operating costs the Region may add a 5% surcharge for administration and overhead.
10. The Region shall provide a standard of service for repair work similar to all other traffic control signals within the Region.
 11. The Region shall indemnify and save harmless OM&R 407EDG, Project Co and the Province of Ontario from and against any claim, action, cause of action or liability for loss, damage, accident or injury in any manner arising due to the Region's negligence arising out of, from or in connection with the work undertaken, performed or failed to be performed by the Region or its agents under this Agreement.
 12. OM&R 407EDG shall indemnify and save harmless the Region from and against any claim, action, cause of action or liability for loss, damage, accident or injury arising due to, out of, from or in connection with the operation or maintenance by OM&R 407EDG or its agents (other than the Region) of Highway 407 / Highway 412, as it relates to the performance of this Agreement.
 13. This Agreement and the Schedule attached hereto may be amended or modified only by a mutual agreement executed in writing by each of the Parties.
 14. Either Party may terminate this Agreement at any time by serving written notice to this effect on the other party, but such termination shall not become effective until such time as OM&R 407EDG, has had a reasonable opportunity to make satisfactory alternative arrangements for the operation and maintenance of the Traffic Control Signals and notifies the Region to this effect. OM&R 407EDG shall proceed promptly to make such alternative arrangements once notice to terminate the Agreement has been served on the other Party. The period of time from which written notice is served by one Party to the other and to the date at which termination becomes effective shall not exceed one hundred and twenty (120) days.
 15. If the OM&R Contract is terminated for any reason whatsoever, this Agreement shall automatically terminate with immediate effect however provided that the pre-conditions of Clause 14 have been met to the satisfaction of the parties and the 120 days have passed post the delivery date of the written notice from one party to the other in this agreement.
 16. This Agreement and its performance shall be governed exclusively by the laws of the Province of Ontario and the federal laws of Canada applicable therein. The Parties irrevocably attorn to the exclusive jurisdiction of the courts of Ontario.

IN WITNESS WHEREOF each of the Parties hereto has executed this Agreement.

This 10th day of January, 2019.

OM&R 407 East Development Group General Partnership

Signature: 

Name: David Garcia

Title: CEO

Date: January 10th, 2019

Signature: 

Name: Rave Ratnarajah

Title: CFO

Date: January 10th, 2019

The Regional Municipality of Durham

Signature: _____

Name: _____

Title: _____

Date: _____

Signature: _____

Name: _____

Title: _____

Date: _____

SCHEDULE "A"

Location

Effective Date

1. Highway 412 Northbound Ramp & Taunton Road
2. Highway 407 Eastbound Ramp & Baldwin Street
3. Highway 407 Eastbound Ramp & Thicksen Road North
4. Highway 407 Eastbound Ramp & Simcoe Street North

TOTAL OF 4 LOCATIONS



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: #2019-W-20
Date: March 6, 2019

Subject:

Extension of Lease with the Township of Brock for the Sunderland Patrol Yard Building Located at S1015 Regional Road 10, in the Township of Brock

Recommendation:

That the Works Committee recommends to Regional Council:

- A) That the Regional Municipality of Durham enter into a Lease Extension Agreement with the Corporation of the Township of Brock, for the Township of Brock owned patrol yard building located at S1015 Regional Road 10, on the following terms and conditions:
- i. The term of the lease extension to be for a period of five years commencing January 14, 2019 and ending on January 13, 2024, with either party having the right to terminate the lease upon three months prior written notice; and
 - ii. The annual rental rate currently be \$3,856.23* for the first year with the rent adjusted in the subsequent four years in accordance with the annual Ontario Consumer Price Index based on the 12 month period ending July 31 of the preceding year. All other terms and conditions as set out in the Original Lease remain the same.
- B) The Regional Municipality of Durham is responsible for all minor repairs to the building together with maintenance of all walkways and driveways with the Township of Brock responsible for all major repairs and capital replacements; and
- C) The Regional Chair and Clerk be authorized to execute all documents associated with the Extension of Lease agreement.

Report:**1. Purpose**

- 1.1 The purpose of this report is to obtain approval to extend the lease for the Sunderland Patrol Yard, occupied by the Works Department maintenance and operations division, located at S1015 Regional Road 10 in the Township of Brock (Township), as per the terms and conditions outlined herein. Dollar amounts followed by an asterisk (*) are before applicable taxes in all instances.

2. Background

- 2.1 The Regional Municipality of Durham (Region) has leased the Township's Sunderland Patrol Yard Building, next to the Sunderland Depot, for the past 20 years. The Works Department Maintenance Operations Division has utilized the garage building to provide additional inside storage for vehicles which would otherwise have to be stored outside due to insufficient space within the Region's depot. The space is also utilized as a wash bay for equipment and vehicles.

3. Discussions

- 3.1 The Township will continue to store their sidewalk maintenance machine in the garage during the winter months and will continue to use the sand dome. The Region will be responsible for minor repairs to the building together with the maintenance of all sidewalks and driveways with the Township responsible for all major repairs and capital replacements.

4. Financial Implications

- 4.1 Financing for this extension of lease will continue to be provided within the Works Department's Operating Budget.
- 4.2 Since approval of this extension of lease requires a long-term financial obligation for which payment is required beyond the term for which Regional Council was elected, the Regional Treasurer has updated the Region's financial debt and obligation limit. In accordance with Section 4 of the Ontario Regulation 403/02, the Region's Treasurer has calculated an updated long-term debt/financial limit and has determined that the limit has not been exceeded. Therefore, this lease does not require the approval of the Local Planning Appeal Tribunal.

- 4.3 The Region would agree to extend this lease for a further period of five years commencing January 14, 2019 and ending January 13, 2024, with either party having the right to terminate the leasing arrangement by providing three months prior written notice. The annual rental rate currently at \$3,856.23* for the first year with the rent adjusted in the subsequent four years in accordance with the annual Ontario Consumer Price Index based on the 12 month period ending July 31 of the preceding year. All other terms and conditions as set out in the Original Lease remain the same.
- 4.4 In addition to rent, the Region would continue to be responsible for the cost of all utilities for the garage and the sand dome. These costs were estimated at \$9,424 for 2018.

5. Conclusion

- 5.1 The Maintenance Operations Division of the Works Department have advised that they wish to extend the leasing arrangement with the Township of Brock for this facility to provide additional inside storage for vehicles and a wash bay. It is therefore recommended that the lease be extended on the above noted terms and conditions.
- 5.2 This report has been reviewed by the Finance Department and the Commissioner of Finance concurs with the recommendation.
- 5.3 For additional information, please contact Jeremy Harness, Manager, Administrative Services and Real Estate, at 905-668-7711, extension 3475.

Respectfully submitted,

Original signed by:

Susan Siopis, P.Eng.
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: [#2019-W-21](#)
Date: March 6, 2019

Subject:

Approval to Award a Sole Source Agreement for the Replacement of the Zebra Mussel Control Systems located at the Oshawa Water Supply Plant, in the City of Oshawa

Recommendations:

That Works Committee recommends to Regional Council:

- A) That a sole source agreement be executed with Dundee Marine for the replacement of the zebra mussel control systems at the Oshawa Water Supply Plant, in the City of Oshawa at an upset limit not to exceed \$600,000*, with financing provided from the approved project budget \$600,000; and
 - B) That the Commissioner of Finance be authorized to execute the necessary documents related to this sole source agreement.
-

Report:

1. Purpose

- 1.1 The purpose of this report is to seek Regional Council's authorization to execute a sole source agreement for the replacement of the zebra mussel control systems at the Oshawa WSP with Dundee Marine. Dollar amounts followed by an asterisk (*) are before applicable taxes.

2. Background

- 2.1 The Oshawa Water Supply Plant (WSP) has two intakes that extend into Lake Ontario to draw raw water for treatment, namely the west and east intakes. Zebra mussel formation within the intakes is typically controlled by releasing a low dose of chlorine at the intake cribs, which are located at the end of each intake.
- 2.2 Both intake cribs at the Oshawa WSP were inspected by the diving contractor, Dundee Marine in August 2018, and the divers noticed that zebra mussels were forming on the west intake crib. A subsequent dive by Dundee Marine in November 2018 to assess the zebra mussel control system confirmed that a break had occurred along the chlorine supply line within the west intake. The west intake was immediately isolated, and the Ministry of the Environment and Conservation Parks (MECP) was advised of the change in operating procedure.
- 2.3 Due to the approaching winter conditions, the zebra mussel control system could not be repaired in 2018. As a result, the Oshawa WSP is currently utilizing a single intake to draw raw water for treatment. Since water demand is relatively low over the winter season, the WSP is able to meet demand at this time using a single intake. However, the zebra mussel control system must be repaired as soon as the weather conditions improve so that the Oshawa WSP is able to operate at its full capacity prior to the peak summer demand period.
- 2.4 Since the zebra mussel control system in the remaining operational (east) intake is also nearing the end of its useful life, it is recommended that the zebra mussel control systems in both intakes at the Oshawa WSP be replaced in the spring of 2019 while a diving contractor has their equipment mobilized on site and in the water.

3. Justification for Sole Source

- 3.1 Since Dundee Marine undertook the original inspection of the west intake in August 2018, as well as the subsequent assessment of the zebra mussel control system in November 2018, they are thoroughly familiar with the repairs that need to be completed to the west intake zebra mussel control system.
- 3.2 Dundee Marine inspected the east intake as part of their scope of services in August 2018, and also completed a previous emergency replacement of the zebra mussel control system in the east intake in 2008. Therefore, they are also thoroughly familiar with the zebra mussel control system that needs to be replaced in the east intake.

- 3.3 Dundee Marine are experts in this type of difficult marine repair, and will be able to complete the replacements prior to the peak summer demand period. In addition to the previous replacement of the zebra mussel control system in the east intake at the Oshawa WSP, Dundee Marine have replaced the zebra mussel control systems in the intakes at the Newcastle WSP and the Bowmanville WSP, and the Region has been thoroughly satisfied with the work.
- 3.4 To ensure the replacement work is completed prior to summer and secure the Marine Logistics, Dundee Marine is recommended in order to avoid operational risks.

4. Financial Implications

- 4.1 The Regional Municipality of Durham's (Region) Purchasing By-law #68-2000 (Amended), Section 8, permits the acquisition of goods and services through sole source negotiations. The by-law also requires approval by the Committee of the Whole for the award of sole source contracts that exceed \$125,000 in value.
- 4.2 Financing for the contract with Dundee Marine at an upset limit of \$600,000* is available from the approved project budget of \$600,000 (Project D1853).

5. Conclusion

- 5.1 It is recommended that authorization be provided to execute a sole source agreement for the replacement of the zebra mussel control systems at the Oshawa Water Supply Plant with Dundee Marine at an upset limit of \$600,000*.
- 5.2 This report has been reviewed by the Finance Department and the Commissioner of Finance concurs with the financial recommendations.

5.3 For additional information, please contact Rich Tindall, Manager, Plant Operations, at 905-668-7711, extension 3547.

Respectfully submitted,

Original signed by: _____

Susan Siopis, P.Eng.
Commissioner of Works

Recommended for Presentation to Committee

Original signed by: _____

Elaine C. Baxter-Trahair
Chief Administrative Officer



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: [#2019-W-22](#)
Date: March 6, 2019

Subject:

Approval to Award a Sole Source Agreement to Continue the Provision of Bioxide and Associated Chemical Dosing System to Reduce Odour and Corrosion in the Trunk Sanitary Sewer located in Lord Elgin Park, in the Town of Ajax

Recommendations:

That Works Committee recommends to Regional Council:

- A) That a sole source agreement to continue the provision of Bioxide and the associated chemical dosing system be executed with Evoqua Water Technologies effective April 1, 2019 for a term not to exceed one year to reduce odour and corrosion in the trunk sanitary sewer located in Lord Elgin Park, in the Town of Ajax at an upset limit of \$300,000*, with financing provided from the approved 2019 Sanitary Sewerage Operating Budget; and
- B) That the Commissioner of Finance be authorized to execute the necessary documents related to this sole source agreement.

Report:**1. Purpose**

- 1.1 The purpose of this report is to seek Regional Council's authorization to execute a sole source agreement to continue the provision of Bioxide and the associated chemical dosing system with Evoqua Water Technologies effective April 1, 2019 for a term not to exceed one year to reduce odour and corrosion in the trunk sanitary sewer located in Lord Elgin Park, in the Town of Ajax (Ajax). Dollar amounts followed by an asterisk (*) are before applicable taxes.

2. Background

- 2.1 Following the collapse and replacement of a section of trunk sanitary sewer in Lord Elgin Park in the spring of 2017, numerous odour complaints were received from local residents and users of the park. A subsequent investigation identified the cause of both the sewer collapse and the odour complaints to be elevated levels of hydrogen sulfide in the sewer, which is an odourous and corrosive substance.
- 2.2 In the fall of 2017, Evoqua was engaged to pilot test the addition of Bioxide to the sanitary sewage upstream from Lord Elgin Park in order to evaluate its effectiveness at controlling hydrogen sulphide to reduce odour and corrosion in the trunk sanitary sewer. A sole source agreement was negotiated with Evoqua to ensure that Bioxide and the associated chemical dosing system could be provided for the pilot test (Attachment #1). The pilot test demonstrated that the addition of Bioxide is very effective at reducing odour and corrosion in the trunk sanitary sewer to acceptable levels, and Bioxide continues to be added to the sanitary sewage as required to address the issue. However, it is apparent that the required dosing levels would result in a high cost for the supply of Bioxide if adopted as a long-term solution.
- 2.3 In an effort to identify a more cost-effective solution, an additional pilot test is to be initiated in the spring of 2019 that will evaluate the effectiveness of adding Ferrous Chloride to the sanitary sewage upstream from Lord Elgin Park. Ferrous Chloride is currently used for other wastewater treatment applications, and a standing agreement exists to supply the chemical at a relatively low cost.

- 2.4 Weather permitting, the remaining supply of Bioxide on site should be sufficient to address odours and corrosion until such time that the Ferrous Chloride pilot test is initiated. However, if adverse weather conditions delay the Ferrous Chloride pilot test, and/or the Ferrous Chloride is not effective at reducing odour & corrosion, then the addition of Bioxide will need to be continued.
- 2.5 In order to ensure that Bioxide is readily available beyond the originally approved one-year term, it is recommended that an additional sole source agreement be executed with Evoqua Water Technologies to continue the provision of Bioxide and the associated chemical dosing system effective April 1, 2019 for a term not to exceed one year.

3. Justification for Sole Source

- 3.1 Since Evoqua has supplied the Bioxide and associated chemical dosing equipment for the pilot testing to date, their system is on-site and readily available for operation if required.
- 3.2 Evoqua is the only supplier that can provide a comprehensive service package for the provision of Bioxide and the associated chemical dosing system.
- 3.3 Evoqua is an experienced service provider in the water and wastewater industry, and they are thoroughly familiar with the scope and details of this initiative.

4. Financial Implications

- 4.1 The Region's Purchasing By-law #68-2000 (Amended), Section 8, permits the acquisition of goods and services through sole source negotiations. The by-law also requires approval by the the appropriate standing committee and Council for the award of sole source contracts that exceed \$125,000 in value.
- 4.2 Financing for the provision of Bioxide and the associated chemical dosing system at an upset limit of \$300,000* is available within the approved 2019 Sanitary Sewerage Operating budget for sanitary sewage pumping station chemicals.

5. Conclusion

- 5.1 It is recommended that authorization be provided to execute a sole source agreement to continue the provision of Bioxide and associated chemical dosing system with Evoqua Water Technologies effective April 1, 2019 for a term not to exceed one year to reduce odour and corrosion in the trunk sanitary sewer located in Lord Elgin Park, in the Town of Ajax at an upset limit of \$300,000*.
- 5.2 This report has been reviewed by the Finance Department and the Commissioner of Finance concurs with the financial recommendations.
- 5.3 For additional information, please contact Rich Tindall, Manager, Plant Operations, at 905-668-7711, extension 3547.

6. Attachments

Attachment #1: Committee of the Whole Report #2017-COW-277

Respectfully submitted,

Original signed by: _____

Susan Siopis, P.Eng.
Commissioner of Works

Recommended for Presentation to Committee

Original signed by: _____

Elaine C. Baxter-Trahair
Chief Administrative Officer

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 3540.



The Regional Municipality of Durham Report

To: The Committee of the Whole
From: Commissioner of Works
Report: #2017-COW-277
Date: December 6, 2017

Subject:

Sole Source Supply for the Odour and Corrosion Control System at the Carruthers Creek Sanitary Sewage Pumping Station, in the Town of Ajax

Recommendation:

That the Committee of the Whole recommends to Regional Council:

- A) That a sole source supply of bioxide, dosing pumps and technical services agreement to provide odour and corrosion control at the Carruthers Creek Sanitary Sewage Pumping Station (SSPS) be negotiated and awarded to Evoqua Water Technologies effective January 1, 2018 for a term not to exceed one year at an upset limit not to exceed \$400,000* subject to the approval of the proposed 2018 Sanitary Sewerage Operations Budget; and
 - B) That the Commissioner of Finance be authorized to execute any necessary agreements.
-

Report:

1. Purpose

- 1.1 The purpose of this report is to request approval for the Regional Municipality of Durham (Durham) to negotiate and award a sole source agreement with Evoqua Water Technologies (Evoqua) effective January 1, 2018 for a term not to exceed one year for the supply, provision of bioxide, dosing pumps and technical services to reduce odour and corrosion occurring in the trunk sanitary sewer located in Lord Elgin Park in the Town of Ajax (Ajax). Dollar amounts followed by an asterisk (*) are before applicable taxes.

2. Background

- 2.1 A section of a trunk sanitary sewer (750 millimetres in diameter) beneath Lord Elgin Park in Ajax collapsed on May 1, 2017 resulting in a large sink hole. The sink hole forced the closure of the park for several weeks until extensive repairs could be completed.
- 2.2 Following the re-construction of the trunk sanitary sewer, numerous odour complaints were received from the neighbours bordering the park. Elevated levels of hydrogen sulfide (an odourous and corrosive substance) were measured on site.
- 2.3 An examination of the adjoining sanitary sewer using a closed-circuit television camera (CCTV) showed degradation of the concrete, confirming the corrosion in that section of sewer.
- 2.4 Pilot testing using chemical dosing at the Carruthers Creek SSPS was initiated in an effort to considerably reduce both the odour and corrosion occurring in the trunk sanitary sewer system. Chemical dosing ensures the environment within the sanitary sewer remains safe and avoids the formation of these gases.
- 2.5 Daily evaluation and testing of the pilot confirmed that chemical dosing with bioxide at the Carruthers Creek SSPS to be highly effective in reducing the formation of compounds in the sanitary sewer.
- 2.6 An emergency was declared on October 5, 2017 to ensure the addition of chemicals continued to prevent a hazardous situation due to the presence of combustible compounds and the presence of foul odours. Testing revealed that the continuous chemical addition has been successful in preventing the formation of the compounds in the trunk sanitary sewer.
- 2.7 Extraordinary Maintenance funds have been used to ensure the continuity of the chemical addition at the Carruthers Creek SSPS under the declared emergency.
- 2.8 An engineering review of the operation of the Carruthers Creek SSPS and associated trunk sanitary sewer system is currently underway to review short term and long term solutions.

3. Sole Source Justification

- 3.1 Evoqua is an experienced service provider for solutions in the water and wastewater industry. Evoqua is familiar with the scope and details of the project. The chemicals and engineering needed to conduct the pilot test of the chemical dosing system and currently applied at Carruthers Creek SSPS were provided by Evoqua.
- 3.2 As Evoqua's system is currently operational, it would allow for a continual, uninterrupted chemical dosing treatment of the trunk sanitary sewer main.

3.3 Evoqua, uniquely offers a comprehensive engineering and service package for control of sewage generated gases which is not available from other chemical suppliers. The engineering services includes: the supply of chemicals, complete automation, maintenance and efficacy testing of the chemical dosing system, and the submission of quarterly service and performance reports.

4. Financial Implications

4.1 The Region's Purchasing By-Law 68-2000 (Amended), Section 8.1.1 permits that in cases where there is only one known source of supply, the acquisition of goods and services can be made through a negotiation process as is the case with Evoqua.

4.2 Funding for the supply of bioxide and services is anticipated to be provided through the proposed 2018 Sanitary Sewerage Operations Budget. The agreement with Evoqua will be in place for 2018 as the assessments noted in Section 2.8 take place.

5. Conclusion

5.1 It is recommended that a sole source services agreement be negotiated and awarded to Evoqua Water Technologies for the supply of bioxide, dosing pumps and technical services for the odour and corrosion control system at the Carruthers Creek Sanitary Sewerage Pumping Station in the Town of Ajax at an upset limit not to exceed \$400,000*.

5.2 This report has been reviewed by the Finance Department and the Commissioner of Finance concurs with the financial recommendations.

Respectfully submitted,

Original signed by

S. Siopis, P.Eng.
Commissioner of Works

Recommended for Presentation to Committee

Original signed by

G.H. Cubitt, MSW
Chief Administrative Officer



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: [#2019-W-23](#)
Date: March 6, 2019

Subject:

Amendments to Regional Roads By-law #22-2018

Recommendation:

That the Works Committee recommends to Regional Council:

That a By-law to amend By-Law #22-2018, the Regional Roads By-law, generally in the form included as Attachment #1 to this report, be approved.

Report:

1. Purpose

1.1 The purpose of this report is to seek Regional Council approval to amend the Regional Roads By-law #22-2018 (Attachment #1) to add a newly assumed road segment to the Regional road system, and to correct an oversight in the By-law's original version.

2. Background

2.1 The Regional Roads By-law #22-2018 was passed by Council on June 13, 2018. This By-law defines the linear limits of the roads comprising the Regional road system. This report proposes the first set of amendments to the By-law (Attachment #2).

3. Analysis

3.1 The following amendments to the Regional Roads By-law are proposed, for which authority is being sought pursuant to this report.

a. Liberty Street (Regional Road 14) – Municipality of Clarington

Prior to 1996, all of Liberty Street south of Baseline Road was owned and maintained by the Ministry of Transportation. In 1996, the portion of Liberty Street from Baseline Road southerly and westerly to Duke Street (save and except the width of the Highway 401 right-of-way) was transferred to the Region. This transferred section was inadvertently omitted during the preparation of By-law #22-2018.

The recommended revision separates Liberty Street into two entries: 1) from the south limit of Highway 401 southerly and westerly to Duke Street, and 2) from the north limit of Highway 401 northerly to Taunton Road to correct this omission.

b. Third Concession Road (Regional Road 28) – City of Pickering

On January 4, 2019, ownership of Property Identification Number (PIN) 263830655 was transferred from the City of Pickering to the Region. This PIN consists of the existing Third Concession Road from Brock Road (Regional Road 1) westerly to its west terminus. This transfer is associated with the development of the Seaton community. In accordance with Committee of the Whole Report #2017-COW-238, the land is to form part of Regional Road 28, and is to ultimately be renamed Peter Matthews Drive.

4. Conclusion

- 4.1 The proposed amendments to the Regional Roads By-law are required to add a newly assumed portion of road to the Regional road system, and to correct an oversight in the preparation of the By-law in 2018.
- 4.2 This report has been reviewed by the Legislative Services and Legal Services Divisions of the Corporate Services Department.
- 4.3 For additional information, contact Steve Mayhew, Manager of Transportation Infrastructure at 905-668-7711, extension 3484.

5. Attachments

Attachment #1: Draft By-law to Amend Regional Roads By-law #22-2018

Attachment #2: Map illustrating locations of proposed amendments

Respectfully submitted,

Original signed by:

Susan Siopis, P.Eng.
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer

By-law Number **-2019**of The Regional Municipality of Durham**

Being a by-law to amend By-law Number 22-2018, the Regional Roads By-law.

Now therefore, the Council of The Regional Municipality of Durham hereby enacts as follows:

1. That Schedule "A" be amended by **deleting** therefrom the following:

"BEING that portion of road or the deviations thereof in the Town of Whitby and the City of Oshawa known as Rossland Road:"

And replacing it with:

"BEING that portion of road or the deviations thereof in the City of Pickering, the Town of Whitby and the City of Oshawa known as Third Concession Road and Rossland Road:"

2. That Schedule "A" be further amended by **adding** thereto the following and revising the total length as appropriate:

Regional Road Number	From:	To:	Length of Section (metres)
28	Commencing in the City of Pickering on the road between Concessions 2 and 3 at the western limit of Brock Road (Regional Road 1).	Westerly for a distance of approximately 1,292 metres.	1,291.8

3. That Schedule "A" be further amended by **deleting** therefrom the following:

14	Commencing in the Broken Front Concession on the road between Lots 10 and 11 at the northern limit of King's Highway 401, which is also the northern limit of Baseline Road.	Northerly on the road between Lots 10 and 11 to the southern limit of the road between Concessions 4 and 5, being Taunton Road (Regional Road 4).	8,313.7
		Total lengths	8,313.7

And replacing it with:

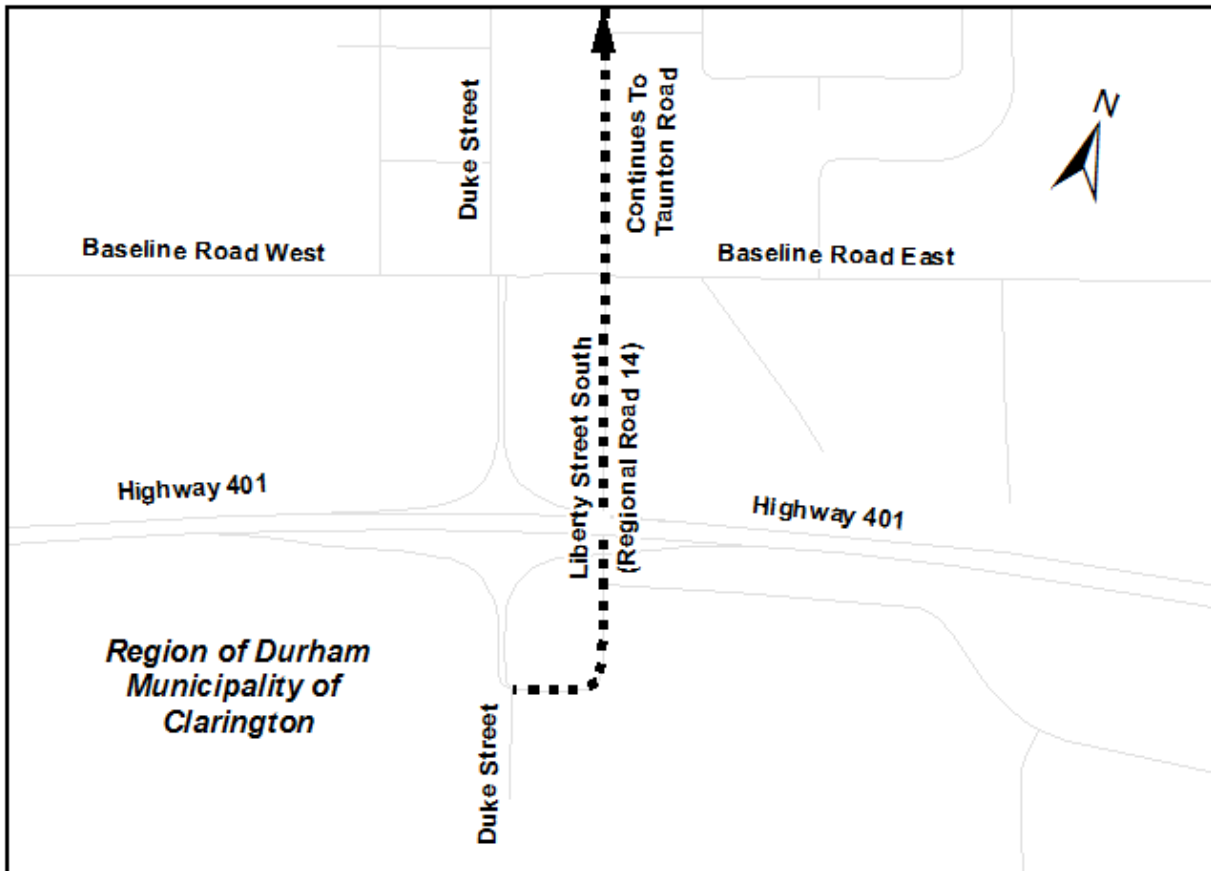
Regional Road Number	From:	To:	Length of Section (metres)
14	Commencing in the Broken Front Concession on the road between Lots 10 and 11 at the southern limit of King's Highway 401.	Southerly and westerly to the eastern limit of Duke Street.	208.0
14	Commencing in the Broken Front Concession on the road between Lots 10 and 11 at the northern limit of King's Highway 401.	Northerly on the road between Lots 10 and 11 to the southern limit of the road between Concessions 4 and 5, being Taunton Road (Regional Road 4).	8,543.0
		Total lengths	8,751.0

This By-law Read and Passed on the -----th day of -----, 2019.

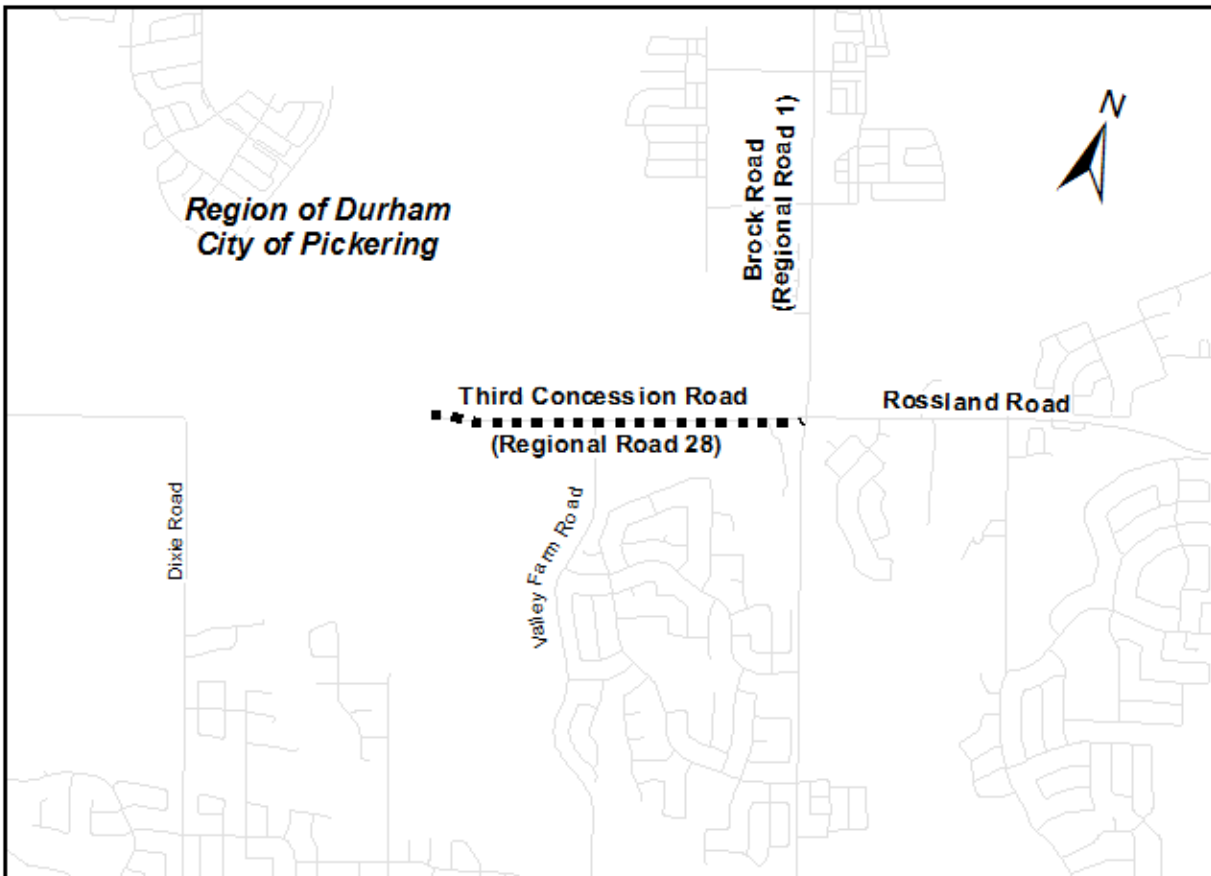
John Henry, Regional Chair and CEO

Ralph Walton, Regional Clerk

a) Liberty Street (Regional Road 14) - Municipality of Clarington



b) Third Concession Road (Regional Road 28) - City of Pickering





The Regional Municipality of Durham Report

To: Works Committee
From: Commissioners of Works
Report: [#2019-W-24](#)
Date: March 6, 2019

Subject:

Cemetery Connections to the Regional Water Supply System

Recommendations:

That the Works Committee recommends to Regional Council:

- A) That in conformance with the Region's Water Supply System By-Law Number 89-2003 (as amended), the Pine Grove Cemetery be required to pay frontage charges, be responsible for the cost of connecting to the Region's Water Supply System and all works on private property; and
 - B) That a copy of this report be provided to Mr. Alex Williamson, President, Pine Grove Cemetery Board.
-

Report:

1. Purpose

- 1.1 At the February 6, 2019 Works Committee meeting, a delegation from the Pine Grove Cemetery Board was heard regarding municipal water supply. As a result, staff were directed to investigate the request from the delegate to waive the levy fee and installation fee, and any previous situations, and report back to the Works Committee with a recommendation.

2. Background

- 2.1 The Regional Municipality of Durham (Region) has received two recent requests for cemeteries to connect to the Region's Water Supply System (Pine Grove in Scugog and Newtonville in Clarington).
- 2.2 In order to connect, a cemetery is responsible to provide a location and suitable plumbing for the installation of the Region's water meter and appurtenances. This requires a room that is continuously heated with full access for Regional staff to perform maintenance on the water meter. The Region has standard drawings that show minimum sizing and spacing requirements for such a room. Newtonville does not currently have such a room. Staff understand that Pine Grove is proposing to construct a new building including washroom facilities. This will require a building permit and potentially site plan approval at the local municipal level.
- 2.3 Watermain frontage fees are also the responsibility of a cemetery, as is the actual cost of the connection to the Region's Water Supply System, and all works on private property. For the Pine Grove cemetery, there are frontages off both Jeffrey Street and Barber Street. As Barber Street has the shorter frontage, this frontage would be used to calculate the frontage fees in accordance with the allowed reductions identified in the Region's Water Supply System By-Law.
- 2.4 Water Supply System By-Law Number 89-2003 (as amended) establishes the water rates and charges.
- a) Section 31 (1) of Part VI: FRONTAGE CHARGES states that frontage charges shall be applied to all lots where no previous direct contribution to the capital cost of the Watermain has been made in relation to the lot. The Region installed the watermains on both Jeffrey Street and Barber Street as part of a capital contract in 1980. The Pine Grove Cemetery has not contributed to the cost of these works, so frontage charges would apply.
- 2.5 Section 32 states that the frontage of a lot shall be the frontage as recorded in the Provincial Assessment Roll, and further that the Region may reduce the frontage of a lot for the purpose of calculating frontage charges for the following situations:
- a) Corner lots at the junction or intersection of streets or highways;
- b) Lots that are for any reason wholly or in part unfit for building purposes;

- c) Lots, other than corner lots that have two limits that abut on two or more streets, but which cannot make use or full use of extensions to the Regional Water Supply System installed in one or more of the said streets; and
 - d) Lots having frontage in excess of 38 metres that are used for agricultural purposes or residences in connection with such agricultural purposes.
- 2.6 The Region may reduce or increase the frontage of a lot for the purpose of calculating frontage charges for lots that are triangular or irregularly shaped. Any reductions or increases of frontage charges require approval by the Commissioners of Finance and Works.
- 2.7 Frontage charges are also subject to reduction in specified areas within the Region where grant funding or financial assistance has been provided by the Province. Staff are not aware of any funding or financial assistance from the Province for the Pine Grove Cemetery that would reduce the frontage charges further. However, the watermain servicing the Newtonville Cemetery was constructed through a combination of grant funding and developer contribution, and as such frontage charges would not apply should the Newtonville Cemetery wish to connect to the Region's Water Supply System. However, Newtonville Cemetery will be required to pay a water buy in rights charge for each new development.

3. Previous Situations

- 3.1 Staff have researched records to determine if there were any other similar examples or situations of this nature. Over the past 15 years, only two situations were found:
- In 2005, Memorial Gardens of Canada Limited (21 Garrard Road North in Whitby) completed an expansion on their lands. They connected to Regional services and paid the frontage and connection fees that were applicable at the time.
 - In 2017, the Mount Pleasant Group (1200 Thornton Road North in Oshawa) completed an expansion on their lands. The original service connections were installed in 1993 and they paid the frontage and connection fees that were applicable at the time. The recent works were completed in 2017 through a Servicing Agreement, where Mount Pleasant Group paid 100 per cent for the cost of the enlargement of the services to their site.

4. Conclusion

- 4.1 In conformance with the Regional Municipality of Durham's Water Supply System By-Law Number 89-2003 (as amended), the Pine Grove Cemetery is required to pay frontage charges, provide a water meter room, and is responsible for the cost of connecting to the Region's Water Supply System and also all works on private property.
- 4.2 For additional information, please contact John Presta, Director, Environmental Services, at 905-668-7711, extension 3520.

Respectfully submitted,

Original signed by:

Susan Siopis, P.Eng.
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine Baxter-Trahair
Chief Administrative Officer



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: [#2019-W-25](#)
Date: March 6, 2019

Subject:

2019 Works Department Business Plans and Budgets

Recommendation:

That the Works Committee recommends to the Finance and Administration Committee for subsequent recommendation to Regional Council that the 2019 Property Tax Supported Business Plans and Budgets for Works General Tax and Solid Waste Management divisions of the Works Department be approved.

Report:

1. Purpose

1.1 The purpose of this report is to obtain Works Committee concurrence of the 2019 Business Plans and Budgets for the Works General Tax (including roads, bridges and other general tax supported programs) and Solid Waste Management divisions of the Works Department. The Works Department 2019 Business Plans and Budgets will be referred to the Finance and Administration Committee for consideration during deliberations of the 2019 Property Tax Supported Business Plans and Budgets.

2. Overview

2.1 The recommended 2019 Works Department Business Plans and Budgets meet the Regional Council approved guideline for the 2019 Property Tax Supported Business Plans and Budgets.

2.2 The 2019 Business Plans and Budgets support the following key priorities:

- a. Innovate operations and administration;
- b. Respond to ongoing legislative and regulatory changes;
- c. Invest in infrastructure renewal; and,
- d. Manage the challenges of growth and affordability.

2.3 The recommended 2019 Works Department Property Tax Supported Business Plans and Budgets include:

- a. Works General Tax – gross expenditures to deliver programs supporting roads, bridges and other general tax programs totalling \$142.5 million, requiring \$41.7 million in property tax funding with the remaining expenditures funded by program fees, development charges, federal gas tax and reserve funds; and,
- b. Solid Waste Management - gross expenditures to deliver programs supporting solid waste management operating and planning activities totalling \$75.5 million, requiring \$48.5 million in property tax funding with the remaining funded by program fees, provincial investments, and reserve funds.

2.4 The recommended 2019 Works Department Business Plans and Budgets provide operating and capital funding for the following programs and services:

- a. Works General Tax
 - Maintenance Operations
 - Winter Control
 - Roadside Maintenance
 - Storm Sewers
 - Traffic Operations
 - Signals and Systems
 - Signs, Markings and Roadside Protection
 - Engineering and Central Control Systems
 - Engineering and Staff Support
 - Construction Management Services
 - Transportation Design
 - Transportation Infrastructure
 - Data System Management
 - Financial Services and Corporate Real Estate
 - Facilities Management

- Regional Forest
 - Depot Operations
 - Fleet Operations
 - Administration
- b. Solid Waste Management Operations:
- Waste Management Facilities
 - Collections, Processing and Disposal
 - Administration
 - Facilities Management
 - Regional Corporate Costs
 - Waste Management Centre
 - Community Outreach
 - Environmental Studies

2.5 The Works Department Business Plans and Budgets also provide funding for a share of the operation and maintenance of Regional Headquarters.

3. 2018 Accomplishments

3.1 In 2018, the Works Department:

- a. Planned, designed and constructed capital road projects, including completion of the Victoria Street road widening and multi-use path through the Lynde Marsh; this was a complex project resulting in a key major arterial link for vehicle capacity and safer cycling while enhancing the natural environment experience through the area;
- b. Expanded Bus Rapid Transit (BRT) lanes along Highway 2 to provide for transit priority through Westney Road (Ajax) and Whites Road (Pickering);
- c. Implemented a new on-line permit system for Road Occupancy and Oversize/Overweight loads;
- d. Finalized the Transportation Master Plan;
- e. Implemented a new Utility Coordination Process Manual;
- f. Completed implementation of a space optimization pilot within the Works Department. The pilot showcases proposed space standards, design principles and workstation options for future roll out at Regional Headquarters. Optimization of the Headquarters facility will defer expansion requirement for several years;
- g. Received the Intelligent Transportation Systems (ITS) Canada – Award of Excellence and the New Canadian Commercial/Industry/Academic ITS

- Technology Innovation/R&D Award for the ARIA Centralized Traffic Control System in partnership with the Regional Municipality of Waterloo and Fortran Traffic Systems Limited;
- h. Equipped 17 intersections with Accessible Pedestrian Signals required for Accessibility for Ontarians with Disabilities Act (AODA) compliance;
 - i. Installed nine Uninterruptable Power Supply (UPS) systems for traffic control signals;
 - j. Completed LED and signal head mounting hardware upgrades at approximately 80 intersections;
 - k. Restriped 3,800 kilometres of pavement markings;
 - l. Upgraded Global Positioning System (GPS)/Automatic Vehicle Location (AVL) technologies on Works fleet vehicles;
 - m. Completed Material Recovery Facility (MRF) upgrades to accommodate increased processing capacity of light-weight containers to increase processing throughput by 20 per cent;
 - n. Undertook work to complete a large-scale waste composition study with Canada Fibers Limited using their mixed waste processing facility for reporting in 2019;
 - o. Hosted approximately 6,000 participants at the Region's Special Environment Day Events and delivered Waste Education programming to approximately 5,000 students;
 - p. Commenced landfill mining activities at the Blackstock Landfill and undertook rehabilitation and remediation planning activities at the Oshawa Landfill;
 - q. Achieved ISO 14001 Environmental Management Systems (EMS) certification for the Durham York Energy Centre; and,
 - r. Commenced pilot programs for litter mitigation from the Blue Box program and participated in the Recycling Council of Ontario's food rescue pilot.

4. 2019 Priorities and Highlights

- 4.1 The Works Department 2019 Business Plans and Budgets propose significant investments for capital infrastructure, including:
 - a. Capital roads and bridge rehabilitation projects totaling \$43.5 million;
 - b. Growth related road infrastructure projects totaling \$42.1 million;
 - c. Continued investment in cycling, including approximately four kilometres of multi-use paths and new cycle lanes constructed as part of road construction projects;

- d. Optimization of the Regional facility located at 101 Consumers Road to accommodate the relocation of 20 staff from the 289 Water Street location. The total estimated cost of this project is \$2.6 million, requiring \$0.9 million in property tax contributions with the remaining funds provided through the 2018 Water Supply and Sanitary Sewerage budgets. The 289 Water Street location will be demolished in 2020 to facilitate the expansion of the Whitby Water Supply Plant;
 - e. Development of a new Long-Term Solid Waste Master Plan to guide the Region through to 2040, with funds totalling \$0.2 million proposed in 2019 to commence research and undertake public consultations; and
 - f. Addition of an inbound scale at the Oshawa Waste Management facility totalling \$0.1 million to accommodate the increasing number of visitors to this site and replacement of older inbound and outbound scales at the Scugog Waste Management facility totalling \$0.3 million.
- 4.2 In addition to these capital priorities, the 2019 proposed Works Department Business Plans and Budgets include investments for key operational initiatives, such as:
- a. Activities to support Vision Zero, including new pavement marking initiatives (e.g. edge lines), protected left turn only phases at selected traffic signal locations, and automated enforcement;
 - b. Addition of mobile road patrol software to automate the collection of information required to fulfill legislated record keeping and reporting requirements;
 - c. Increase in road and traffic maintenance costs in response to growth and demands;
 - d. Optimization study of the Oshawa Waste Management Facility to accommodate the Region's future needs; and
 - e. Investigation of alternate beneficial uses and markets for problematic blue box material such as glass, plastics and paper within the Region.

4.3 A total of 7.402 new full time equivalent employees (FTEs) are proposed in 2019 as follows:

a. Conversion of positions from temporary to permanent status:

- Clerk 3 in Traffic Operations 1.000 FTE
- Two (2) Technical Assistants in Facilities Management (costs are shared with Water Supply Sanitary Sewerage, Works General Tax and Solid Waste Management) 0.686 FTE
- Waste Disposal Clerk at the Scugog Waste Management Facility 1.000 FTE
- Clerk 2 in the Waste Management Facility 1.000 FTE

b. New permanent resources to support the delivery of capital projects and operating activities. The costs for these positions are allocated at varying levels to capital projects or maintenance activities:

- Senior Project Coordinator in Construction Management Services (costs are shared with Water Supply, Sanitary Sewerage and Works General Tax) 0.358 FTE
- Project Supervisor in Construction Management Services (costs are shared with Water Supply, Sanitary Sewerage and Works General Tax) 0.358 FTE
- Works Technician 2 in Transportation Design 1.000 FTE
- Project Manager in Transportation Design 1.000 FTE
- Skilled Maintenance Worker 1 at the Orono Depot 1.000 FTE

5. 2019 Risks and Uncertainties

5.1 Areas of potential risks that could impact the operating and capital budgets of the Works Department include:

a. Legislative and Regulatory changes to:

- Hours of Work and electronic log book requirements for equipment operators;
- Automated Speed Enforcement Program: Provincial Regulations still required prior to implementation; and

- Waste Free Ontario Act, 2016 and Extended Producer Responsibility implementation.
- b. Revenue/Funding pressures including:
- Impacts of the markets and unfavourable pricing present significant uncertainty to recycling commodity revenues; and,
 - Uncertainty surrounding the transition of provincial subsidy programs as per the Waste Free Ontario Act, 2016 (Tires, Electronics, Municipal Hazardous Special and Blue Box).
- c. Operating and Capital Pressures, such as:
- Growth across the Region and development of new communities in Seaton, West Whitby and North Oshawa will increase the demand for services to support residents and businesses as well as the operational and maintenance requirements for Regional infrastructure;
 - Ensuring sufficient staff resources to deliver a growing capital program and services to a growing community is necessary to avoid impacts to the delivery schedules of projects or delays in response times for reactive maintenance activities;
 - Changing and unpredictable weather patterns increase both preventative and reactive maintenance activities for the Regional road network;
 - Inflation and commodity price fluctuations may place increased pressure on operating programs, particularly those delivered with contracted services such as winter maintenance and waste collection, processing and disposal;
 - Continued efforts to enhance diversion of recyclables and organics from the waste stream require exploration of new technologies and approaches; and
 - Waste tonnages sent for disposal at the DYEC exceeded the current approved capacity by approximately 8,223 tonnes in 2018, resulting in higher disposal costs for by-pass waste that cannot be processed. Tonnages will continue to increase with the growing population.

6. Future Budget Pressures

6.1 Items proposed in the 2019 Works Department Business Plans and Budgets will result in impacts to the 2020 budget, including:

- a. Annualized cost of new positions proposed in 2019
 - Works – General Tax \$287,400
 - Solid Waste Management \$84,400

- b. Potential future revenue loss related to marketed recycling commodities and removal of stabilization funding provided in 2019. \$2.5 million

6.2 Looking forward over the next four years, the following significant budget pressures include:

- a. Growth Requirements:
 - Increased demands for road maintenance, traffic maintenance and solid waste management programs in growth areas;
 - Increased fleet and equipment requirements to service and maintain growing infrastructure; and,
 - Increased capital infrastructure including new and expanded facilities to accommodate and service growth and development.

- b. Asset Management and Infrastructure Requirements:
 - Refurbishment and expansion of existing Maintenance Operations Depots and Regional Waste Management Facilities,
 - Replacement of fuel dispensing and tank monitoring systems; and,
 - Capital road, traffic control and bridge expansion and rehabilitation needs.

- c. Legislative and Regulatory Requirements:
 - Ongoing environmental protection, compliance and rehabilitation requirements for closed landfills;
 - Solutions to implement an Organics Management Plan; and,

- Development and implementation of the Region's Long-Term Solid Waste Master Plan.

7. Conclusion

- 7.1 The recommended 2019 Works Department Business Plans and Budgets meet the Council approved guideline for the 2019 Property Tax Supported Business Plans and Budgets.
- 7.2 It is recommended that the Works Committee approve the 2019 Property Tax Supported Business Plans and Budgets for the Works Department including the Works General Tax and Solid Waste Management portions and forward this report to the Finance and Administration Committee for consideration during the budget deliberations for the 2019 Property Tax Supported Business Plans and Budgets.
- 7.3 This report has been reviewed by the Finance Department and the Commissioner of Finance concurs with the recommendation.

8. Attachments

- 8.1 Detailed 2019 Business Plans and Budgets for the Works Department are available on-line through the link provided on the March 6, 2019 Works Committee agenda or in hard copy by contacting Jenni Demanuele, at (905) 668-7711 ext. 3456.

Respectfully submitted,

Original signed by:

Susan Siopis, P. Eng
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine Baxter-Trahair
Chief Administrative Officer