



## The Regional Municipality of Durham

### Works Committee Agenda

Council Chambers  
Regional Headquarters Building  
605 Rossland Road East, Whitby

**Wednesday, March 3, 2021**

**9:30 AM**

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Please note: In an effort to help mitigate the spread of COVID-19, and to generally comply with the directions from the Government of Ontario, it is requested in the strongest terms that Members participate in the meeting electronically. Regional Headquarters is closed to the public, all members of the public may view the Committee meeting via live streaming, instead of attending the meeting in person. If you wish to register as a delegate regarding an agenda item, you may register in advance of the meeting by noon on the day prior to the meeting by emailing [delegations@durham.ca](mailto:delegations@durham.ca) and will be provided with the details to delegate electronically.

**1. Roll Call**

**2. Declarations of Interest**

**3. Adoption of Minutes**

A) Works Committee meeting – February 3, 2021

Pages 4 - 14

**4. Statutory Public Meetings**

There are no statutory public meetings

**5. Delegations**

There are no delegations

**6. Presentations**

There are no presentations

## 7. Waste

### 7.1 Correspondence

- A) Correspondence from Call2Recycle Canada, Inc. dated February 11, 2021, re: Leader in Sustainability Award – Durham Region 15

Recommendation: Receive for Information

- B) Correspondence from the Municipality of Clarington dated February 19, 2021, re: Correspondence from Wendy Bracken and Linda Gasser Regarding Durham Region's Plan to Potentially Use Bottom Ash from the Durham/York Incinerator in a Road Reconstruction Pilot Project in Clarington 16

Recommendation: Refer to staff for a response

- C) Correspondence from the Municipality of Clarington dated February 22, 2021, re: Air Quality Monitoring 17

Recommendation: Refer to staff for a response

### 7.2 Reports

- A) Municipality of Clarington Resolution #GG-029-21 Regarding Energy from Waste-Waste Management Advisory Committee (EFW-WMAC) Terms of Reference (2021-WR-4) 18 - 21

- B) Durham York Energy Centre Operations – Long-Term Sampling System Update (2021-WR-5) 22 - 26

## 8. Works

### 8.1 Correspondence

- A) Correspondence from the Town of Ajax dated February 24, 2021, re: Gas-Fired Electricity 27 - 28

Recommendation: Receive for Information

### 8.2 Reports

- A) The Regional Municipality of Durham's Drinking Water Systems 2020 Summary Report (2021-W-11) 29 - 82

## 9. Advisory Committee Resolutions

There are no advisory committee resolutions to be considered

**10. Confidential Matters**

## 10.1 Reports

- A) Confidential Report of the Commissioner of Works – Litigation or Potential Litigation, including matters before Administrative Tribunals, affecting the Regional Corporation, with respect to a s. 24 Settlement Agreement under the Expropriations Act, R.S.O. 1990, c. E.26, for Lands Acquired to Facilitate the Reconstruction of Regional Road 2 (Kingston Road), in the City of Pickering (2021-W-12)

Under Separate Cover

**11. Other Business**

- A) Memorandum from Ralph Walton, Regional Clerk/Director of Legislative Services dated February 25, 2021, re: Resolution adopted by Regional Council at its meeting held on February 24, 2021

83 - 84

Recommendation: Refer to staff for a response

**12. Date of Next Meeting**

Wednesday, April 7, 2021 at 9:30 AM

**13. Adjournment**

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# The Regional Municipality of Durham

## MINUTES

### WORKS COMMITTEE

Wednesday, February 3, 2021

A regular meeting of the Works Committee was held on Wednesday, February 3, 2021 in Council Chambers, Regional Headquarters Building, 605 Rossland Road East, Whitby, Ontario at 9:30 AM. Electronic participation was offered for this meeting.

#### 1. Roll Call

Present: Councillor Mitchell, Chair  
Councillor Marimpietri, Vice-Chair  
Councillor Barton  
Councillor Crawford  
Councillor McLean  
Councillor John Neal  
Councillor Smith  
Regional Chair Henry  
**\* all members of Committee participated electronically**

Also

Present: Councillor Ashe  
Councillor Collier  
Councillor Dies  
Councillor Drew  
Councillor Foster  
Councillor Highet  
Councillor Lee  
Councillor Joe Neal  
Councillor Pickles  
Councillor Wotten

Absent: None

Staff

Present: G. Anello, Director of Waste Management  
E. Baxter-Trahair, Chief Administrative Officer  
D. Beaton, Commissioner of Corporate Services  
B. Bridgeman, Commissioner of Planning & Economic Development  
J. Demanuele, Director of Business Services, Works Department  
J. Hunt, Regional Solicitor/Director of Legal Services, Corporate Services –  
Legal Services  
R. Jagannathan, Director of Transportation and Field Services  
J. Paquette, Manager (Works), Corporate Communications

- N. Pincombe, Director, Business Planning & Budgets
- J. Presta, Director of Environmental Services
- R. Inacio, Systems Support Specialist, Corporate Services – IT
- S. Siopis, Commissioner of Works
- S. Glover, Committee Clerk, Corporate Services – Legislative Services
- N. Taylor, Commissioner of Finance
- C. Tennesco, Committee Clerk, Corporate Services – Legislative Services
- R. Walton, Regional Clerk/Director of Legislative Services

**2. Declarations of Interest**

Councillor Marimpietri made a declaration of interest under the Municipal Conflict of Interest Act with respect to the following items:

- i) Item 7.2 B) Anaerobic Digestion and the Environmental Assessment Act (2021-WR-3); and
- ii) Item 8.2 B) 2021 Works Department Business Plans and Budgets (2021-W-6), specifically as it relates to roads projects and service of Employment Lands within the Northwood Business Park.

He indicated that he has family members whom own property and reside within an area potentially being considered for an Anaerobic Digestion facility.

**3. Adoption of Minutes**

Moved by Councillor McLean, Seconded by Councillor Smith,  
 (11) That the minutes of the regular Works Committee meeting held on  
 Wednesday, January 6, 2021, be adopted.

CARRIED

**4. Statutory Public Meetings**

There were no statutory public meetings.

**5. Delegations**

There were no delegations.

**6. Presentations**

- 6.1 G. Anello, Director of Waste Management Services, and R. Jagannathan, Director of Transportation Services, re: 2021 Works Department Business Plans and Budgets (2021-W-6) [Item 8.2B)]

G. Anello, Director of Waste Management Services, and R. Jagannathan, Director of Transportation Services provided a PowerPoint presentation on the 2021 Works Department Business Plans and Budgets. N. Taylor, Commissioner of Finance, provided an overview of the Strategic Priorities for the 2021 Budget.

Highlights from the presentation included:

#### Budget Overview – Roads and Infrastructure

- 2020 Accomplishments
  - Service Improvements
  - Vision Zero (Works Measures)
  - Customer Service
- 2021 Proposed Expenditures and Financing
- 2021 Proposed Capital Program
- 2021 Priorities and Highlights
  - Operating
  - Staffing
- Proposed 2021 Growth-Related Projects
- Proposed 2021 Road Rehabilitation Projects
- Anticipated Major Road Capital Works this year
- Proposed 2021 Structures Rehabilitation/Replacement Projects
- Proposed 2021 Traffic Programs
- 2021 Priorities and Highlights
  - Vision Zero (Works Measures)
- 2021 Risks and Uncertainties
- 2021 Initiatives to Modernize & Find Service Efficiencies
- Future Budget Pressures
- Road Projects in 10-year Forecast
  - Road Widening
  - New alignment, corridor modifications and curve reconfigurations
  - Intersection Modifications
  - Road Rehabilitation
  - Preparatory activities for projects for construction beyond the forecast timeframe

R. Jagannathan responded to questions from the Committee regarding the potential for the Region to become a control centre for the Vision Zero project; the road construction at the intersection of Bayly Street and Church Street near the Durham Live site and what amount of development would trigger a widening on Bayly Street; expanding the Automated Speed Enforcement (ASE) project; the minimum speed on Regional roads; signalization at major intersections and whether there will be protected left hand turn lanes during construction; whether consultants are needed if more staff are being hired; and, whether all road works projects are coordinated with water and sewer projects.

#### Budget Overview - Waste

- 2020 Accomplishments
  - Service Improvements
  - Customer Service

- 2021 Proposed Expenditures and Financing
- 2021 Priorities and Highlights
  - Operating
  - Staffing
  - Capital
- 2021 Risks and Uncertainties
- 2021 Initiatives to Modernize & Find Service Efficiencies
- Future Budget Pressures

G. Anello responded to questions from the Committee regarding what the Region’s option would be if the Ministry of the Environment denied the capacity increase from 140,000 tonnes to 160,000 tonnes at the Durham York Energy Centre (DYEC); the purpose and impact of the bio cover pilot at the Oshawa Landfill; the status of the recycling lid project for residential blue boxes; the transfer of waste from the Brock Waste Management Facility to the DYEC and how traffic will be impacted as a result of the transfer; ensuring that the Municipality of Clarington staff are kept informed of any updates/progress regarding the expansion of the Energy from Waste (EFW) facility; and whether an expansion of the EFW would lead to efficiencies and better overall emissions.

Moved by Councillor Smith, Seconded by Councillor Barton,

(12) That the agenda be altered in order to consider Report #2021-W-6: 2021 Works Department Business Plans and Budgets next.

CARRIED

## 8.2 Reports

### A) 2021 Works Department Business Plans and Budgets (2021-W-6)

Report #2021-W-6 from S. Siopis, Commissioner of Works, was received.

At this time, Councillor Marimpietri made a further declaration of interest under the Municipal Conflict of Interest Act with respect to Item 8.2 A): 2021 Works Department Business Plans and Budget, specifically as it relates to the service of employment lands within the Northwood Business Park. He indicated that he has family members whom own property and reside within an area potentially being considered for an Anaerobic Digestion facility. Councillor Marimpietri did not take part in the discussion or vote on items related to his declaration.

Staff responded to questions regarding what happens to the fly and bottom ash created at the Durham York Energy Centre (DYEC); and how many trucks would be entering/exiting the Brock Waste Management Facility to transfer waste to the DYEC.

Moved by Councillor Smith, Seconded by Councillor Barton,  
(13) That the Works Committee recommends to the Finance and Administration Committee for subsequent recommendation to Regional Council:

That the 2021 Property Tax Supported Business Plans and Budgets for the Works Department's General Tax and Solid Waste Management operations be approved.

CARRIED

**7. Waste**

7.1 Correspondence

- A) Correspondence from June Gallagher, Clerk, Municipality of Clarington dated January 19, 2021, re: Terms of Reference for the Energy From Waste – Waste Management Advisory Committee (EFW-WMAC)
- 

Moved by Councillor Marimpietri, Seconded by Councillor McLean,  
(14) That correspondence from June Gallagher, Clerk, Municipality of Clarington dated January 19, 2021, re: Terms of Reference for the Energy From Waste – Waste Management Advisory Committee (EFW-WMAC) be referred to staff for a response.

CARRIED

- B) Correspondence from Linda Gasser, Whitby Resident, dated February 2, 2021, re: Agenda Item 7.2 A), Durham staff proposed appointees to EFW-WMAC (2021-WR-2)
- 

Moved by Councillor Marimpietri, Seconded by Councillor Crawford,  
(15) That correspondence from Linda Gasser, Whitby Resident, dated February 2, 2021, re: Agenda Item 7.2 A), Durham staff proposed appointees to EFW-WMAC (2021-WR-2) be referred to consideration of Item 7.2 A) Energy from Waste – Waste Management Advisory Committee (Host Community Agreement Committee) Membership Appointments (2021-WR-2).

CARRIED

- C) Correspondence Linda Gasser, Whitby Resident, dated February 2, 2021, re: Report 2021 WR-3 – Anaerobic Digestion and the Environmental Assessment Act
- 

Moved by Councillor Marimpietri, Seconded by Councillor McLean,  
(16) That correspondence from Linda Gasser, Whitby Resident, dated February 2, 2021, re: Report 2021-WR-3 – Anaerobic Digestion and the Environmental Assessment Act be referred to consideration of Item 7.2 B) Anaerobic Digestion and the Environmental Assessment Act (2021-WR-3).



CARRIED

7.2 Reports

A) Energy from Waste-Waste Management Advisory Committee (Host Community Agreement Committee) Membership Appointments (2021-WR-2)

Report #2021-WR-2 from S. Siopis, Commissioner of Works, was received.

Moved by Councillor Marimpietri, Seconded by Councillor Smith,  
(17) 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 (2021-2022):

- George Rocoski (City of Oshawa)
- Venkata Daram (Town of Ajax)
- William Baszyk (Township of Brock)
- Rochelle Fleming (City of Pickering)
- Sarah Shields (Township of Scugog)

B) That a copy of Report #2021-WR-2 of the Commissioner of Works be forwarded to the Municipality of Clarington for information.

CARRIED

B) Anaerobic Digestion and the Environmental Assessment Act (2021-WR-3)

Report #2021-WR-3 from S. Siopis, Commissioner of Works, was received.

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

That the amending motion made at the December 16, 2020 Regional Council meeting, to amend Section 6.0.1 of the Environmental Assessment Act to include anaerobic digestion facilities in the list of facilities that require local municipal support not be approved.

CARRIED

**8. Works**

8.1 Correspondence

A) Confidential Memorandum from Susan Siopis, Commissioner of Works dated February 3, 2021 re: Tertiary Treatment at Duffin Creek Water Pollution Control Plant (WPCP), in the City of Pickering

Detailed discussion ensued regarding whether the memorandum from Susan Siopis, Commissioner of Works dated February 3, 2021 should be kept confidential or released in an open memorandum; and whether any information referenced the Non-Disclosure Agreement that Regional staff have signed.

Staff advised that this matter arose from a closed session discussion and that the prudent course of action was to retain it as a confidential matter, but that staff could bring forward a supplementary memorandum containing information that could be released in a public report.

Moved by Councillor Crawford, Seconded by Councillor McLean,

(19) That the confidential memorandum from Susan Siopis, Commissioner of Works dated February 1, 2021 re: Tertiary Treatment at Duffin Creek Water Pollution Control Plant (WPCP), in the City of Pickering be referred to the February 24, 2021 Regional Council meeting and that staff be directed to prepare a supplementary memorandum to be brought to the February 24, 2021 Regional Council meeting so that the cost components can be separated into an open session memorandum.

CARRIED

B) Correspondence from Linda Gasser, Whitby Resident, dated February 2, 2021, re: Municipal Benchmarking Canada Report (2019 data) Waste Management

In response to a question, S. Siopis advised that all correspondence submitted will be reviewed by staff, and where specific questions have been raised, staff will respond.

Moved by Councillor Barton, Seconded by Councillor John Neal,

(20) That correspondence from Linda Gasser, Whitby Resident, dated February 2, 2021, re: Municipal Benchmarking Canada Report (2019 data) Waste Management be referred to staff for a response.

CARRIED

## 8.2 Reports

A) Extension of the Standardization of Programmable Logic Controllers, Related Process Control Equipment and Control System Software and the Renewal of Agreements with GE Intelligent Platforms Canada, Gray Matter Systems Canada and Gescan and the implementation of an Agreement with Emerson Automation Solutions to Support the Supervisory Control and Data Acquisition Systems Controlling Regional Water Supply and Wastewater Facilities (2021-W-5)

Report #2021-W-5 from S. Siopis, Commissioner of Works, was received.

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

- A) That the standardization of Programmable Logic Controllers, Related Process Control Equipment and Control System Software to be used in the integration and upgrade of the Supervisory Control and Data Acquisition systems controlling Regional Water Supply and Wastewater facilities be extended for five (5) years from May of 2021 to April of 2026;
- B) That sole source agreements be negotiated with GE Intelligent Platforms Canada, Emerson Automation Solutions, Gray Matter Systems Canada and Gescan for software, support, training and hardware for five (5) years from May of 2021 to April of 2026; and
- C) That the Commissioner of Finance be authorized to execute the required agreements.

CARRIED

B) 2021 Works Department Business Plans and Budgets (2021-W-6)

This item was considered earlier in the meeting. See pages 4 and 5 of these minutes.

C) Project Update and Sole Source of Additional Engineering Services for Upgrades at the Bowmanville WSP, in the Municipality of Clarington (2021-W-8)

Report #2021-W-8 from S. Siopis, Commissioner of Works, was received.

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

- A) That a sole source contract amendment with R.V. Anderson Associates Ltd. be authorized for costs associated with additional engineering services for the Bowmanville Water Supply Plant Upgrades project in the amount of \$892,368\*, over and above the approved upset limit of \$288,598\* resulting in a revised upset limit not to exceed \$1,180,966\*; and
- B) That the Commissioner of Finance be authorized to execute the amendment to the existing engineering services agreement.  
(\* ) including disbursements and before applicable taxes

CARRIED

D) The Oak Ridges Moraine Groundwater Program (ORMGP), formerly known as York-Peel- Durham-Toronto (YPDT) and Conservation Authorities Moraine Coalition (CAMC) Groundwater Management Program, Status Update and Renewal of Memorandum of Understanding (2021-W-9)

Report #2021-W-9 from S. Siopis, Commissioner of Works, was received.

In response to a question from Councillor John Neal regarding whether there would be a discussion between the different levels of conservation authorities and staff regarding excess soil sites, staff clarified that Report #2021-W-9 of the Commissioner of Works was related to being able to access groundwater information in the Region of Durham with respect to wells. Staff advised that testing is the responsibility of the private well owner. Councillor John Neal advised that he would reach out to J. Presta directly for further information.

Moved by Councillor McLean, Seconded by Councillor Smith,

(23) That we recommend to Council:

- A) That the Regional Municipality of Durham renew the Memorandum of Understanding for the Oak Ridges Moraine Groundwater Program, as outlined in Attachment #1 of Report #2021-W-9 of the Commissioner of Works; and
- B) That the Regional Chair and Clerk be authorized to execute the Memorandum of Understanding to further support this initiative.

CARRIED

- E) Alignment of the Planned Connection Between the Proposed Highway 401 Crossing at Hopkins Street and Champlain Court, in the Town of Whitby (2021-W-10)
- 

Report #2021-W-10 from S. Siopis, Commissioner of Works, was received.

Moved by Councillor McLean, Seconded by Councillor Crawford,

(24) That we recommend to Council:

- A) That the Regional Municipality of Durham confirms that the planned alignment for the connection between the proposed Highway 401 Crossing at Hopkins Street and Champlain Court, included in the Highway 401 Crossing at Hopkins Street Environmental Assessment dated October 2013, will be deferred at this time and property acquisition will not be advanced until an Environmental Assessment addendum is completed; and
- B) That a copy of Report 2021-W-10 of the Commissioner of Works (exclusive of Confidential Attachment #2 to Report #2021-W-10), be forwarded to the Ministry of Transportation of Ontario, Town of Whitby and the landowners of 1100, 1130 and 1150 Champlain Court, in the Town of Whitby, for information.

CARRIED

**9. Advisory Committee Resolutions**

There were no advisory committee resolutions to be considered.

**10. Confidential Matters**

10.1 Reports

- A) Confidential Report of the Commissioner of Works –Proposed or Pending Acquisition or Disposition of Land for Regional Corporation Purposes as it relates to an Update on the Proposed Manning-Adelaide Connection Project, in the Town of Whitby/City of Oshawa (2021-W-7)
- 

Confidential Report #2021-W-7 from S. Siopis, Commissioner of Works, was received.

Moved by Councillor McLean, Seconded by Councillor Barton,  
(25) That we recommend to Council:

That Confidential Report #2021-W-7 of the Commissioner of Works be received for information.

CARRIED

**11. Other Business**

- A) Recycling Lids Project for Residential Blue Boxes
- 

In response to a question from the Committee regarding when a report would be brought to Council regarding the recycling lids project for residential blue boxes, staff advised that they anticipate a report later this year once advertising and procurement matters have been finalized.

**12. Date of Next Meeting**

The next regularly scheduled Works Committee meeting will be held on Wednesday, March 3, 2021 at 9:30 AM in Council Chambers, Regional Headquarters Building, 605 Rossland Road East, Whitby.

**13. Adjournment**

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

CARRIED

The meeting adjourned at 11:40 AM

Respectfully submitted,

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D. Mitchell, Chair

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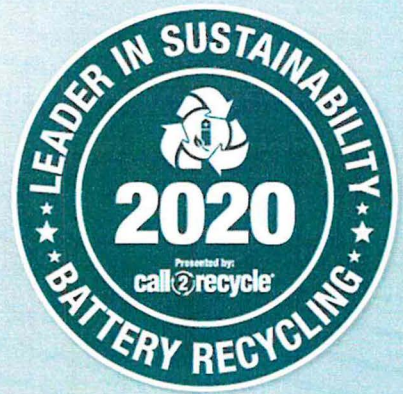
S. Glover, Committee Clerk

# Call2Recycle Canada, Inc.

Changing habits. Inspiring action.™

Carol Slaughter  
Regional Municipality of Durham  
605 Rossland Rd E  
Whitby, ON, L1N 6A3

February 11, 2021



Dear Carol,

Congratulations!

I am delighted to inform you that Call2Recycle® has selected Regional Municipality of Durham to receive our Leader in Sustainability Award recognizing your impressive collection of 5,662 kilograms of used batteries in 2020. The batteries you collected and shipped helped us ensure safe and responsible recycling for a total of 4.1 million kilograms of batteries in 2020 – an increase of one million kilograms over 2019!

To celebrate your award, we are enclosing your Leader in Sustainability plaque made from sustainable bamboo wood using energy-saving and ecological ink. You may also download the Call2Recycle Leader in Sustainability digital badge to be used with your email signature, and the template news release to announce your award on your website and social media. Both are available at [call2recycle.ca/LIS2020](http://call2recycle.ca/LIS2020).

As we move into 2021, we continue closely monitoring provincial restrictions imposed due to COVID-19 and are mindful of the continued impacts on your operations. We recognize how challenging it has been to manage the pandemic's business disruptions and challenges, and we truly appreciate our partnership and your continued program support.

Through 2021, our collection and recycling program operations will continue to adhere to the highest industry standards to protect our collection partners' safety while ensuring proper downstream management of our battery collections.

To date, the Call2Recycle program has collected and recycled more than 26 million kilograms of batteries from across Canada! This achievement would not be possible without the ongoing participation of collection partners like you. We value every one of our partners and thank you for helping us advance our mission of diverting greater volumes of batteries from landfills.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jon McQuaid'.

Jon McQuaid  
Vice President, Marketing and Account Management  
Call2Recycle Canada, Inc.

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

February 19, 2021

Susan Siopis, Commissioner of Works  
Via Email: [susan.siopis@durham.ca](mailto:susan.siopis@durham.ca)

Gioseph Anello, Director – Waste Management Services  
Via Email: [Gioseph.anello@durham.ca](mailto:Gioseph.anello@durham.ca)

Ramesh Jagannathan, Director, Transportation and Field Services – Works Department  
Via Email: [Ramesh.jagannathan@durham.ca](mailto:Ramesh.jagannathan@durham.ca)

Dear Ms. Siopis, Mr. Anello, and Mr. Jagannathan:

**Re:** Correspondence from Wendy Bracken and Linda Gasser,  
Regarding Durham Region's Plan to Potentially Use Bottom Ash  
from the Durham/York Incinerator in a Road Reconstruction Pilot  
Project in Clarington

**File Number:** PG.25.06

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At a meeting held on February 16, 2021, the Council of the Municipality of Clarington passed the following Resolution #GG-177-21:

That Communication Item 10.3 from Wendy Bracken, Regarding Durham Region's Plan to Potentially Use Bottom Ash from the Durham/York Incinerator in a Road Reconstruction Pilot Project, be referred to the Region of Durham for an explanation for the testing of any recycling materials proposed for this project.

Accordingly, please follow this [link](#) to view Communication Item 10.3.

Yours truly,



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John Paul Newman  
Deputy Clerk

JPN/lp

c: S. Brake, Director of Public Works  
F. Langmaid, Manager of Special Projects



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

February 22, 2021

Susan Siopis, Commissioner of Works  
Regional Municipality of Durham  
Via Email: [susan.siopis@durham.ca](mailto:susan.siopis@durham.ca)

Dear Ms. Siopis:

**Re:** Air Quality Monitoring

**File Number:** PG.25.06

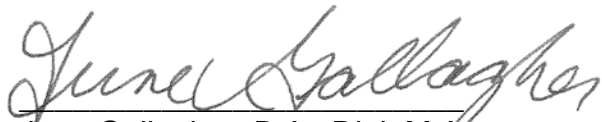
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At a meeting held on February 11, 2021, the Council of the Municipality of Clarington passed Resolution #C-066-21, which reads, in part:

That the Region of Durham be asked to pay 50% of the \$20,000 for the “extension of air quality advisor services for additional environmental projects including the DYEC expansion”.

Should you have any questions, please contact Faye Langmaid, Manager of Special Projects at 905-623-3379 x 2407 or [flangmaid@clarington.net](mailto:flangmaid@clarington.net).

Yours truly,



June Gallagher, B.A., Dipl. M.A.  
Municipal Clerk

JG/cm

c: A. Allison, CAO  
F. Langmaid, Manager of Special Projects  
T. Pinn, Director of Financial Services/Treasurer  
R. Windle, Director of Planning and Development Services

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



# The Regional Municipality of Durham Report

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To: Works Committee  
From: Commissioner of Works  
Report: #2021-WR-4  
Date: March 3, 2021

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**Subject:**

Municipality of Clarington Resolution #GG-029-21 Regarding Energy from Waste-Waste Management Advisory Committee (EFW-WMAC) Terms of Reference

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**Recommendations:**

That the Works Committee recommends to Regional Council:

- A) That the motion (#GG-029-21) from the Municipality of Clarington to amend the Terms of Reference for the Energy from Waste-Waste Management Advisory Committee such that the Committee's recommendations go to Regional Council instead of the Regional Municipality of Durham's Works Committee not be approved; and
  - B) That the Municipality of Clarington be notified of Regional Council's decision.
- 

**Report:**

**1. Purpose**

- 1.1 The purpose of this report is to provide a staff response to the Municipality of Clarington (Clarington) motion to amend the Energy from Waste-Waste Management Advisory Committee (EFW-WMAC) Terms of Reference to change the reporting structure from the Works Committee directly to Regional Council.

## **2. Background**

- 2.1 The Regional Municipality of Durham (Region) received correspondence from Clarington dated December 17, 2020, regarding the EFW-WMAC Annual Update, requesting that "...Council of the Municipality of Clarington encourages the Regional Public Works Committee to ensure that full consideration is given to motions brought forward by the EFW-WMAC." A memorandum regarding the consideration of motions brought forward by the EFW-WMAC to Works Committee and the action taken on each motion was presented to Works Committee on January 6, 2021.
- 2.2 In response to comments made during the Works Committee meeting, the Works Committee Chair and staff met with the Chair of EFW-WMAC, George Rocoski. The Chair of the EFW-WMAC indicated that the EFW-WMAC motions were addressed as listed by staff and that there was no other follow-up required. Clarington was also provided the memo which responded to their concern that the EFW-WMAC motions were not receiving due consideration.
- 2.3 A similar memo was provided to Regional Council members dated, January 29, 2021, staff responded to concerns raised by Municipality of Clarington (Clarington) Council regarding the consideration being given to Energy from Waste-Waste Management Advisory Committee (EFW-WMAC) motions by Works Committee. The memo demonstrated that the EFW-WMAC motions from the past term were all considered, and the majority were accepted and implemented.
- 2.4 On January 18, 2021, Clarington Council passed another resolution, included on the February 3, 2021 Works Committee agenda, which read as follows:

"That the Municipality of Clarington request the Region of Durham amend the Terms of Reference for the Energy From Waste - Waste Management Advisory Committee, such that the Committees recommendations go to Regional Council instead of the Region of Durham's Public Works Committee."

## **3. Reporting Structure for the EFW-WMAC**

- 3.1 The EFW-WMAC was formed in response to a condition within the Host Community Agreement between the Region and Clarington and also in accordance with Regional Council directives. The Terms of Reference for this committee were approved by both Durham and Clarington Councils. The Terms of Reference for the EFW-WMAC reflect the Region's By-law #47-2010 which

governs the proceedings of Council and its Committees, the conduct of its members and the calling of meetings.

- 3.2 It is noted that all Regional Advisory Committees report first to the appropriate Standing Committee. The Standing Committee then makes recommendations to Regional Council regarding actionable items coming from Regional Advisory Committees.
- 3.3 For the past term of the EFW-WMAC, Works Committee considered all the motions put forward by the EFW-WMAC.

#### **4. Relationship to Strategic Plan**

- 4.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
  - a. Environmental Sustainability: Increase waste diversion and resource recovery

#### **5. Conclusion**

- 5.1 While there is no specific Council directive, Council has followed a broad principle where Council deemed it appropriate that Advisory Committee resolutions and/or recommendations are vetted through the appropriate Standing Committee before going to Council.
- 5.2 Motions from the Energy from Waste-Waste Management Advisory Committee have all been reviewed and addressed through Works Committee as noted both in this report and the previous detailed memo referenced. Works Committee provides a knowledgeable forum for review and direction on recommendations. By-passing Works Committee has the potential to reduce that opportunity for detailed discussion and expert subject matter inputs while adding to the Council agenda without the benefit of dialogue at the Standing Committee.
- 5.3 This report has been reviewed by the Legislative Services Division of the Corporate Services Department.

5.4 For additional information, contact: Gioseph Anello, Director, Waste Management Services, at 905-668-7711, extension 3445.

Respectfully submitted,

**Original signed by:**

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Susan Siopis, P.Eng.  
Commissioner of Works

Recommended for Presentation to Committee

**Original signed by:**

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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

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To: Works Committee  
From: Commissioner of Works  
Report: #2021-WR-5  
Date: March 3, 2021

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**Subject:**

Durham York Energy Centre Operations – Long-Term Sampling System Update

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**Recommendation:**

That the Works Committee recommends to Regional Council:

That this report be received for information.

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**Report:**

**1. Purpose**

1.1 This information report provides an update and additional details with respect to the operations and reporting of the Long-Term Sampling System at the Durham York Energy Centre (DYEC).

**2. Background**

2.1 The DYEC as part of the Environmental Compliance Approval (the ECA) section 7(3), is required to operate a Long-Term Sampling System (LTSS) for the monitoring for dioxins and furans.

2.2 The Adsorption Method for Sampling Dioxins and Furans (AMESA) LTSS is installed on each of the two boiler units at the DYEC and is a dioxin and furan continuous sampling system designed to meet the requirements of the ECA. The operation of the AMESA was initiated in 2015 and has been maintained in

accordance with current guidance from the AMESA manufacturer, Environment S.A. Deutschland (ESAD, the European manufacturer of the AMESA system), the North American vendor ENVEA and the AMESA Technical Manual (June 2010).

- 2.3 The AMESA system is used only for the purpose stated in ECA Condition 7(3) as included below, which relates to Dioxins and Furans emissions trend analysis and evaluation of Air Pollution Control equipment performance.

ECA Condition 7. (3). Testing, Monitoring and Auditing Long-Term Sampling for Dioxins and Furans:

- (3) (a) The Owner shall develop, install, maintain and update as necessary a long-term sampling system, with a minimum monthly sampling frequency, to measure the concentration of Dioxins and Furans in the Undiluted Gases leaving the (Air Pollution Control) APC Equipment associated with each Boiler. The performance of this sampling system will be evaluated during the annual Source Testing programs in accordance with the principles outlined by 40 CFR 60, Appendix B, Specification 4.
- (b) The Owner shall evaluate the performance of the long-term sampling system in determining Dioxins and Furans emission trends and/or fluctuations as well as demonstrating the ongoing performance of the APC Equipment associated with the Boilers.

- 2.4 The AMESA results themselves do not constitute a compliance point for the facility operations.

- 2.5 Following the 2016 facility Abatement plan, several workplans for continued AMESA system improvements have been completed at the facility. These workplans identified data concerns with the accuracy of the monthly evaluation data. Prior to the implementation of the 2018 strategy, inconsistent monthly AMESA data prevented the determination of dioxins and furans trends and presented challenges in achieving correlation between Method 23 sampling, which reviews samples collected from stationary monitoring locations, and the AMESA system results.

- 2.6 As such the objective of the 2018 AMESA Work Plan was to set forth an outline of a revised strategy to improve the consistency of monthly data while continuing

the performance evaluation of the LTSS. The 2018 AMESA Work Plan was provided to the Ministry of the Environment, Conservation and Parks (MECP) in November 2018 with activities identified within the workplan continuing until late 2020. Activities within the 2018 Work Plan included review and improvements to both plant equipment and laboratory processes and procedures in an effort to identify and resolve the cause of the inconsistencies.

### **3. Continued System Operations and Reporting**

- 3.1 With the completion of the 2018 program a greater level of consistency regarding monthly AMESA results was achieved, as well as improved correlation between the AMESA results and the Method 23 results obtained during the voluntary and compliance source testing programs at the DYEC.
- 3.2 The 2018 program actions and recent dataset along with corresponding actions for program continuation were reviewed with the MECP. This has resulted in key outcomes for the continuation of the program as follows:
  - a. The Long-Term Sampling for dioxins and furans will continue to be operated at the DYEC with the continuation of AMESA Program and Record Retention.
  - b. LTSS data validation will continue in conformance with the AMESA investigation checklist.
  - c. Validated LTSS data shall be utilized to evaluate trends in the performance of the facility's APC Equipment.
  - d. Annual AMESA correlation tests will be discontinued following the November 2020 Source Test. Correlation testing will be re-implemented if the AMESA results exhibit an erratic trend.
  - e. All AMESA records required by ECA conditions 14(3) through 14(8) will be held at the Facility and will be available for MECP inspection. Monthly data shall be summarized and presented in the annual ECA report.
  - f. AMESA results for the previous year will be reported as part of the Annual Report as required by ECA Condition 15, commencing with data collected during the 2020 calendar year. AMESA trends of validated data will be presented as a 12-month rolling average together with analysis to demonstrate the ongoing performance of the APC Equipment. A summary of non-routine maintenance completed on the AMESA system will be presented as part of the Annual Report.



3.3 The Annual Report as required by ECA Condition 15, which includes details on the AMESA results, is due to the MECP March 31 of each calendar year.

#### **4. Relationship to Strategic Plan**

4.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:

a. Goal 1: Environmental Sustainability

- 1.3 Protect, preserve and restore the natural environment, including greenspaces, waterways, parks, trails, and farmlands

b. Goal 5: Service Excellence

- 5.3 Demonstrate commitment to continuous quality improvement and communicating results

#### **5. Conclusion**

5.1 The Durham York Energy Centre continues to operate the Adsorption Method for Sampling Dioxins and Furans system in keeping with the requirements of ECA Condition 7. (3). regarding a Long-Term Sampling System.

5.2 Long-Term Sampling System data validation will continue in conformance with the Adsorption Method for Sampling Dioxins and Furans system investigation checklist. Validated Long-Term Sampling System data shall be utilized to evaluate trends in the performance of the facility's Air Pollution Control Equipment.

5.3 Annual Adsorption Method for Sampling Dioxins and Furans system correlation tests will be discontinued following the November 2020 Source Test. Correlation testing will be re-implemented if the Adsorption Method for Sampling Dioxins and Furans system results exhibit an erratic trend.

5.4 Annual Adsorption Method for Sampling Dioxins and Furans system results for the previous year will be reported as part of the Annual Report as required by Environmental Compliance Approval Condition 15, commencing with data collected during the 2020 calendar year.

5.5 For additional information, please contact Gioseph Anello, Director, Waste Management Services, at 905-668-7711, extension 3445.

Respectfully submitted,

**Original signed by:**

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Susan Siopis, P.Eng.  
Commissioner of Works

Recommended for Presentation to Committee

**Original signed by:**

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Elaine C. Baxter-Trahair  
Chief Administrative Officer



The Honorable Doug Ford  
Premier of Ontario  
Legislative Building Queen's Park  
Toronto ON M7A 1A1  
[premier@ontario.ca](mailto:premier@ontario.ca)

**Sent by E-Mail**

February 24, 2021

Re: **Gas-Fired Electricity**

The following resolution was passed by Ajax Town Council at its meeting held February 22, 2021:

**WHEREAS** the Government of Ontario is planning to increase electricity generation and greenhouse gas pollution from Ontario's gas-fired power plants by more than 300% by 2025 and by more than 400% by 2040, reversing more than a third of the greenhouse gas pollution reductions achieved by phasing out our coal-fired power plants;

**AND WHEREAS** greenhouse gas pollution is causing temperatures in Canada to rise at more than double the rate of the rest of the world, causing impacts to the operations and residents of the Town of Ajax;

**AND WHEREAS** the Town of Ajax is taking measures to mitigate and adapt to the climate impacts caused by increasing greenhouse gas pollution, which includes having climate adaptation and mitigation plans in place;

**AND WHEREAS** the planned increase in electricity-related greenhouse gas pollution will reduce the effectiveness of the Town's greenhouse gas reduction efforts;

**AND WHEREAS** there are feasible, cost-effective alternatives to increasing gas-fired electricity generation without increasing greenhouse gas pollution at costs well below the current price for Ontario's nuclear energy (9.5 cents/kWh), including:

- energy efficiency investments;
- low-cost, distributed, renewable energy; providing employment in Ontario communities and restoring our leadership in this industry;
- the purchase of low-cost power offered by the Province of Quebec from its existing hydroelectric generating stations; and
- using Quebec's system of reservoirs as a battery to back-up made-in-Ontario renewable power, eliminating the need to use gas-fired power plants for this purpose;

**NOW THEREFORE BE IT RESOLVED THAT:**

1. The Town of Ajax requests the Government of Ontario to place an interim cap of 2.5 megatonnes per year on the greenhouse gas pollution from Ontario's gas-fired power plants and develop and implement a plan to phase-out all gas-fired electricity generation by 2030 to help Ontario and the Town of Ajax meet their climate targets; and
2. This resolution be sent to the Premier of Ontario, the Hon. Greg Rickford, Minister of Energy, Northern Development and Mines, the Hon. Jeff Yurek, Minister of the Environment, Conservation and Parks, MPP Rod Phillips, the Association of Municipalities of Ontario, Chair John Henry, Durham Region Climate Roundtable Committee and Durham Region Works Committee.

If you require further information please contact me at 905-619-2529 ext. 3342 or [alexander.harras@ajax.ca](mailto:alexander.harras@ajax.ca).

Sincerely,



Alexander Harras  
Manager of Legislative Services/Deputy Clerk

Copy: Regional Councillor M. Crawford  
Regional Councillor S. Lee  
Hon. Greg Rickford, Minister of Energy, Northern Development and Mines  
Hon. Jeff Yurek, Minister of the Environment, Conservation and Parks  
MPP Rod Phillips  
Association of Municipalities of Ontario  
Chair John Henry  
Durham Region Climate Roundtable Committee  
Durham Region Works Committee

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



# The Regional Municipality of Durham Report

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To: The Works Committee  
From: Commissioner of Works  
Report: #2021-W-11  
Date: March 3, 2021

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**Subject:**

The Regional Municipality of Durham's Drinking Water Systems 2020 Summary Report

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**Recommendation:**

That the Works Committee recommends to Regional Council:

- A) That the 2020 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 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 license, 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 license, 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 Table 1 below provides a list of all Drinking Water Systems (DWS) and their Municipal Drinking Water Licenses for the period from January 1, 2020 to December 31, 2020.

Table 1

| <b>Drinking Water System</b> | <b>Municipal Drinking Water License #</b> | <b>Issue Number</b> | <b>Issue Date</b> | <b>Revised Issue Number</b> | <b>Revised Issue Date</b> |
|------------------------------|---|---------------------|-------------------|-----------------------------|---------------------------|
| Oshawa *                     | 003-111                                   | 6                   | November 15, 2019 | 7                           | September 23, 2020        |
| Whitby *                     | 003-111                                   | 6                   | November 15, 2019 | 7                           | September 23, 2020        |
| Ajax *                       | 003-111                                   | 6                   | November 15, 2019 | 7                           | September 23, 2020        |
| Beaverton                    | 003-107                                   | 4                   | November 15, 2019 | 4                           | Not Applicable            |
| Blackstock                   | 003-101                                   | 4                   | November 15, 2019 | 4                           | Not Applicable            |
| Bowmanville                  | 003-103                                   | 4                   | November 15, 2019 | 5                           | September 23, 2020        |
| Cannington                   | 003-106                                   | 4                   | November 15, 2019 | 4                           | Not Applicable            |
| Greenbank                    | 003-104                                   | 4                   | November 15, 2019 | 4                           | Not Applicable            |
| Newcastle                    | 003-109                                   | 6                   | November 15, 2019 | 7                           | September 23, 2020        |
| Orono                        | 003-108                                   | 5                   | November 15, 2019 | 5                           | Not Applicable            |
| Port Perry                   | 003-102                                   | 4                   | November 15, 2019 | 4                           | Not Applicable            |
| Sunderland                   | 003-110                                   | 4                   | November 15, 2019 | 4                           | Not Applicable            |
| Uxbridge                     | 003-105                                   | 7                   | November 15, 2019 | 7                           | Not Applicable            |

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

2.3 Table 2 below provides the Compliance Requirements and Water Taking Conditions.



**Table 2**

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

\*Oshawa, Whitby and Ajax are licensed 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 License (MDWL),

Drinking Water Works Permit (DWWP), Ministry of the Environment, Conservation and Parks (MECP) inspections and orders including to provide an explanation of any non-compliance issues that were identified during the reporting period.

- 3.1 Water quality monitoring data is available in the Annual Water Quality Report. Hard copies of this report are available at the Regional Municipality of Durham Headquarters building located at 605 Rossland Road East, Whitby on level five or on the [Region of Durham's website](http://www.durham.ca) at www.durham.ca.
- 3.2 A requirement of the Drinking Water Quality Management Standard (DWQMS) Element 20, is that the results of the annual management review meeting, the identified deficiencies, decisions and action items are reported to the Owner. The annual DWQMS Management Review meeting was held on June 9, 2020. Attending the meeting were staff that are identified in the Operational Plan as being part of the top management team. The meeting reviewed the agenda items that are listed in the DWQMS 2.0, Element 20. There were some action items identified during the meeting including to ensure that inoperable valves are identified in Geographical Information System (GIS), to complete the Standard Operating Procedure (SOP) for the Groundwater Summary Report follow up and to review the updated Watermain Disinfection Procedure and implement changes. There was one internal audit completed in 2020 (September 17-18, October 1-2). The results were satisfactory.
- 3.3 The Region is also required, as part of accreditation to the DWQMS, to have an external audit of the management system done by an approved registrar. The 2020 external audit was completed on November 9, 2020. This audit found no non-conformances to the DWQMS and five opportunities for improvement which will be responded to by the drinking water system staff.
- 3.4 The full minutes of the management review meeting and the final audit reports for both the internal and external audits are available from the IMS Coordinator. Please contact Janine.deboer@durham.ca for more information.

#### **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:

##### **Oshawa-Whitby-Ajax DWS**

Municipal Drinking Water License Schedule C, Condition 6.0

- The owner was required to have in place a Harmful Algal Bloom (HAB) monitoring, reporting and sampling plan before May 30<sup>th</sup>, 2020 that complied with Condition 6.0 of Schedule C of the MDWL. A HAB plan was in place, however it did not meet all requirements outlined in Condition 6.0 of the MDWL.
- During this time there were no negative impacts to operations due to the required revisions to the original HAB plan. All required samples were collected and analyzed as per Condition 6.0 of the MDWL.
- The HAB monitoring, reporting and sampling plan was updated with a revision date of June 15<sup>th</sup>, 2020. This revision met all requirements of Condition 6.0 Schedule C of the MDWL.

### **Beaverton DWS**

- O. Reg. 170/03 section 16-4 of Schedule 16 - Reporting Adverse Test Results and Other Problems: Duty to report other observations and;
- O. Reg. 170/03 section 17-2 of Schedule 17 - Corrective Action: Improper disinfection
- On September 6, 2019 the Beaverton standpipe was inspected by a third-party contractor. The Region was not made aware until a draft copy of the inspection report was received on January 2, 2020 that a screen was missing from an obsolete vent at the top of the standpipe.
- On January 7, 2020 a meeting was held between the Region and the contractor and determined that appropriate corrective actions would include a Remotely Operated Vehicle (ROV) inspection and permanent capping of the vent. The capping of the vent occurred on January 10, 2020, however the ROV inspection could not be completed due to ice build-up at the top of tank. No impacts were noted on the ice surface. Additional water sampling and monitoring were conducted as per the MECP and Health Department. No water quality issues were identified.
- As a result of the incident, the Region has included in all water storage inspection contracts that any deficiencies noted on inspection with the screen or vent including other potential risk items must be immediately reported to the Region's Project Manager. An ROV inspection will follow immediately to rule out any impacts to water quality and any conditions that

do not meet the *Procedure for Disinfection of Drinking Water in Ontario*. Any required adverse reporting and corrective actions will be initiated immediately as per Schedule 16 and Schedule 17 of O. Reg 170/03.

### **Sunderland DWS**

#### Municipal Drinking Water License Schedule E, Condition 1.0

- Schedule E, Condition 1.0 of the MDWL outlines the Primary Disinfection requirements for Municipal Well Number 1 and 2 pumphouse, which includes the requirement for both UV disinfection and chlorination to treat the water from Municipal Well 1 and 2.
- As noted in the MECP inspection report dated November 24, 2020, Section 4.2 of the Operations Manual for Municipal Wells 1 and 2 stated that the water can be bypassed around the UV treatment system, disinfected with sodium hypochlorite, and discharged to the distribution system.
- In accordance with the recommendations from the MECP inspection report, the Operations Manual for Sunderland Municipal Well 1 and 2 was updated to reflect that when the UV bypass line is utilized the water is properly disinfected. If this water is not disinfected and directed to the distribution system this results in an adverse water quality incident and proper reporting and corrective actions must be performed. The Operations Manual updates were completed on November 27<sup>th</sup>, 2020. Further updates were also completed on January 6, 2021.

### **Sunderland DWS**

#### Best Management Practice

- Form 20-113 MDWL-DWWP Renewal Checklist has been created in accordance with the recommendations received during the MECP inspection report dated November 24, 2020. This SOP instructs the Region to undertake a review of all Operations Manuals after each license renewal and re-issuance to ensure they meet the requirements of Schedule B, Condition 16.
- The Region will routinely review all Operation and Maintenance Manuals, including upon receipt of any MDWL renewals or re-issuances, to ensure they are current and reflect any changes in the DWS.

## **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 indicated in the chart headings.

## **6. Public Notification and Information**

6.1 The Summary Report is available to the public through the Region's 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.

7.2 For additional information, contact: Greg Lymer. Manager, Technical Support Division, at 905-668-7711, extension 3500.

## **8. Attachments**

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

Respectfully submitted,

### **Original signed by:**

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Susan Siopis, P.Eng.  
Commissioner of Works

Recommended for Presentation to Committee

### **Original signed by:**

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Elaine C. Baxter-Trahair  
Chief Administrative Officer

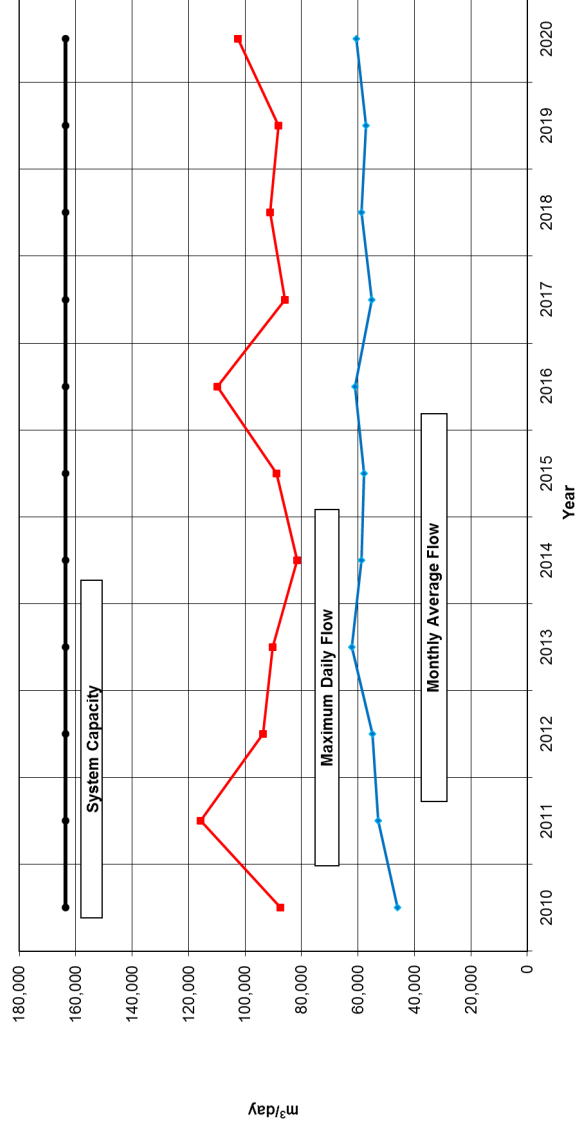
**The Regional Municipality of Durham  
Ajax Drinking Water System  
2020 Flow Data – Raw and Treated Water**

| Month   | Raw Water Monthly Average Flow Cubic metres per day (m <sup>3</sup> /day) | Raw Water Maximum Daily Flow (m <sup>3</sup> /day) | Total Raw Water Flow (m <sup>3</sup> ) | Treated Water Monthly Average Flow (m <sup>3</sup> /day) | Treated Water Maximum Daily Flow (m <sup>3</sup> /day) | Total Treated Water Flow (m <sup>3</sup> ) |
|---|---|--|--|--|--|--|
| January                                       | 54,192  | 69,624   | 1,679,949                              | 52,074   | 67,178   | 1,614,305                                  |
| February                                      | 53,534  | 61,758   | 1,552,482                              | 51,584   | 60,688   | 1,495,934                                  |
| March   | 53,151  | 61,459   | 1,647,692                              | 51,238   | 58,823   | 1,588,368                                  |
| April   | 52,045  | 64,596   | 1,561,357                              | 51,925   | 65,517   | 1,557,757                                  |
| May   | 61,344  | 83,145   | 1,901,671                              | 60,966   | 81,972   | 1,889,932                                  |
| June  | 76,312  | 98,059   | 2,289,374                              | 75,580   | 97,251   | 2,267,412                                  |
| July  | 83,967  | 105,771  | 2,602,964                              | 83,907   | 102,507  | 2,601,124                                  |
| August  | 72,702  | 88,863   | 2,253,758                              | 70,295   | 86,362   | 2,179,135                                  |
| September                                     | 63,368  | 80,302   | 1,901,037                              | 63,677   | 80,584   | 1,910,323                                  |
| October                                       | 56,852  | 66,949   | 1,762,399                              | 56,120   | 65,830   | 1,739,729                                  |
| November                                      | 56,022  | 78,684   | 1,680,651                              | 55,281   | 76,836   | 1,658,441                                  |
| December                                      | 55,322  | 64,611   | 1,714,967                              | 55,542   | 64,867   | 1,721,800                                  |
| <b>Annual Total</b>                           |   |  | 22,548,302                             |  |  | 22,224,260                                 |
| <b>Maximum</b>                                |   | 105,771  |  |  | 102,507  |  |
| <b>Average</b>                                | 61,567  |  |  | 60,682   |  |  |
| <b>% Capacity</b>                             |   | 62   |  |  | 63   |  |
| <b>Permit to Take Water Limit</b>             |   | 170,000  |  |  |  |  |
| <b>Municipal Drinking Water Licence Limit</b> |   |  |  |  | 163,500  |  |

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

| Year | Monthly Average Flow<br>cubic metres per day<br>(m <sup>3</sup> /day) | Maximum Daily<br>Flow (m <sup>3</sup> /day) | System Capacity (m <sup>3</sup> /day) |
|------|---|---|---------------------------------------|
| 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                               |
| 2019 | 57,175  | 88,253                                      | 163,500                               |
| 2020 | 60,682  | 102,507                                     | 163,500                               |

Ajax Drinking Water System Capacity and Treated Water Flow Graph



**The Regional Municipality of Durham  
Beaverton Drinking Water System  
2020 Flow Data – Raw and Treated Water**

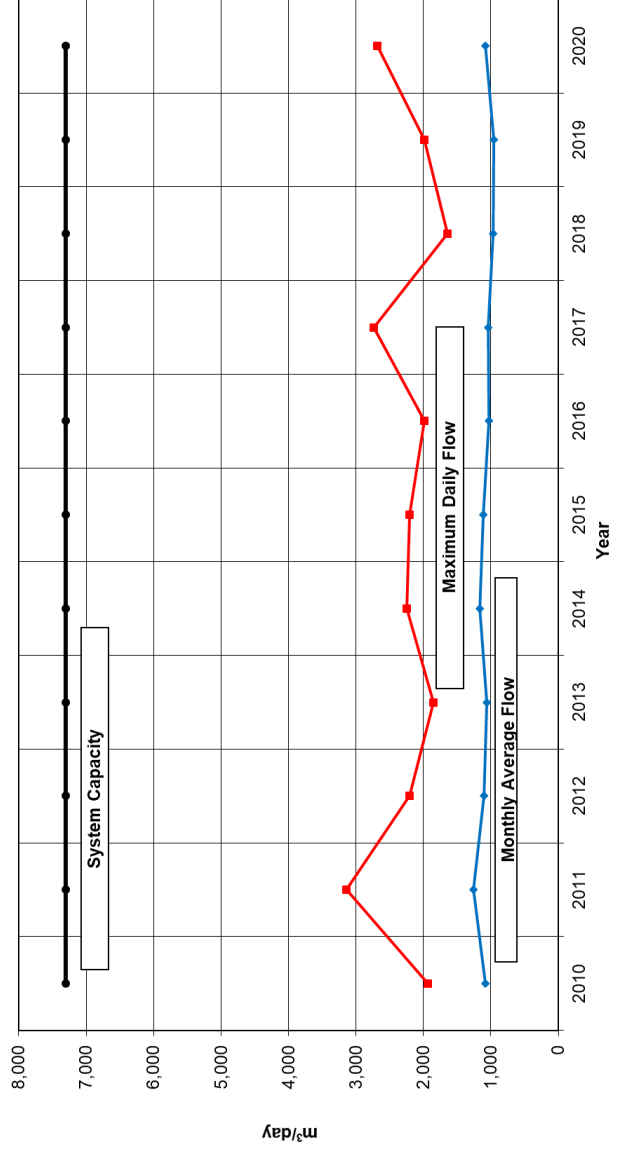
| Month                                  | Raw Water Monthly Average Flow Cubic metres per day (m <sup>3</sup> /day) Pro-rated | Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Total Raw Water Flow (m <sup>3</sup> ) | Treated Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Total Treated Water Flow (m <sup>3</sup> ) |
|--|---|--|--|--|--|--|
| January                                | 1,115   | 1,781  | 34,691                                 | 987  | 1,573  | 30,635                                     |
| February                               | 1,011   | 1,353  | 29,512                                 | 910  | 1,244  | 26,596                                     |
| March                                  | 1,003   | 1,298  | 31,041                                 | 913  | 1,169  | 28,142                                     |
| April                                  | 1,040   | 1,313  | 31,147                                 | 952  | 1,596  | 28,420                                     |
| May                                    | 1,308   | 2,794  | 40,683                                 | 1,201  | 2,679  | 37,370                                     |
| June                                   | 1,404   | 1,679  | 42,106                                 | 1,272  | 1,593  | 37,966                                     |
| July                                   | 1,761   | 2,162  | 54,831                                 | 1,553  | 2,060  | 48,273                                     |
| August                                 | 1,312   | 1,672  | 40,606                                 | 1,171  | 1,510  | 36,195                                     |
| September                              | 1,243   | 1,563  | 37,599                                 |  | 1,223  | 32,347                                     |
| October                                | 1,068   | 1,542  | 33,346                                 | 935  | 1,102  | 29,035                                     |
| November                               | 1,087   | 1,391  | 32,564                                 | 977  | 1,149  | 29,238                                     |
| December                               | 1,151   | 1,449  | 35,825                                 | 1,039  | 1,180  | 32,257                                     |
| Annual Total                           |   |  | 443,950                                |  |  | 396,474                                    |
| Maximum                                |   | 2,794  |  |  | 2,679  |  |
| Average                                | 1,208   |  |  | 1,082  |  |  |
| % Capacity                             |   | 38   |  |  | 37   |  |
| Permit to Take Water Limit             |   | 7,300  |  |  |  |  |
| 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<br>cubic metres per day<br>(m <sup>3</sup> /day) Pro-rated | Maximum Daily<br>Flow (m <sup>3</sup> /day)<br>Pro-rated | System Capacity (m <sup>3</sup> /day) |
|------|---|--|---------------------------------------|
| 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                                 |
| 2019 | 953   | 1,990  | 7,300                                 |
| 2020 | 1,082   | 2,679  | 7,300                                 |

41 Beaverton Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham  
Blackstock Drinking Water System

2020 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 <sup>3</sup> /day) Pro-rated | Well # 7 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 7 Total Raw Water Flow (m <sup>3</sup> ) | Well # 8 Raw Water Maximum Taken per Minute (litres) | Well # 8 Raw Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well # 8 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 8 Total Raw Water Flow (m <sup>3</sup> ) |
|----------------------------|--|--|---|---|--|---|---|---|
| January                    | 0  | 0  | 0   | 0   | 588  | 107   | 216   | 3,283   |
| February                   | 0  | 0  | 0   | 0   | 585  | 118   | 266   | 3,381   |
| March                      | 0  | 0  | 0   | 0   | 588  | 117   | 150   | 3,605   |
| April                      | 0  | 0  | 0   | 0   | 594  | 108   | 154   | 3,213   |
| May                        | 0  | 0  | 0   | 0   | 576  | 134   | 224   | 4,098   |
| June                       | 0  | 0  | 0   | 0   | 612  | 150   | 261   | 4,504   |
| July                       | 0  | 0  | 0   | 0   | 538  | 165   | 230   | 5,101   |
| August                     | 0  | 0  | 0   | 0   | 558  | 136   | 197   | 4,145   |
| September                  | 0  | 0  | 0   | 0   | 675  | 139   | 221   | 4,135   |
| October                    | 0  | 0  | 0   | 0   | 552  | 127   | 178   | 3,923   |
| November                   | 0  | 0  | 0   | 0   | 588  | 119   | 172   | 3,500   |
| December                   | 0  | 0  | 0   | 0   | 558  | 116   | 179   | 3,530   |
| Annual Total               |  |  |   |   |  |   |   | 46,418  |
| Maximum                    |  |  |   |   | 675  |   | 266   |   |
| Average                    |  |  |   |   |  | 128   |   |   |
| % Capacity                 |  |  |   |   | 99   |   | 27  |   |
| Permit to Take Water Limit | 684  |  | 985   |   | 684  |   | 985   |   |

\*Well 7, not in service in 2020.

**The Regional Municipality of Durham  
Blackstock Drinking Water System**

Attachment #1 to Report #2021-W-11

**2020 Flow Data - Reservoir/System Total Treated Water**

| <b>Month</b>                                  | <b>Treated Water Monthly Average Flow cubic metres per day (m<sup>3</sup>/day) Pro-rated</b> | <b>Treated Water Maximum Daily Flow (m<sup>3</sup>/day) Pro-rated</b> | <b>Total Treated Water Flow (m<sup>3</sup>)</b> |
|---|--|---|---|
| <b>January</b>                                | 88   | 177   | 2,692   |
| <b>February</b>                               | 95   | 218   | 2,772   |
| <b>March</b>                                  | 96   | 123   | 2,956   |
| <b>April</b>                                  | 88   | 127   | 2,635   |
| <b>May</b>                                    | 109  | 183   | 3,360   |
| <b>June</b>                                   | 126  | 238   | 3,787   |
| <b>July</b>                                   | 139  | 211   | 4,317   |
| <b>August</b>                                 | 113  | 168   | 3,467   |
| <b>September</b>                              | 118  | 202   | 3,503   |
| <b>October</b>                                | 102  | 136   | 3,139   |
| <b>November</b>                               | 94   | 120   | 2,774   |
| <b>December</b>                               | 89   | 132   | 2,754   |
| <b>Total</b>                                  |  |   | <b>38,155</b>                                   |
| <b>Maximum</b>                                |  | 238   |   |
| <b>Average</b>                                | 105  |   |   |
| <b>% Capacity</b>                             |  | 24  |   |
| <b>Municipal Drinking Water Licence Limit</b> |  | 994   |   |

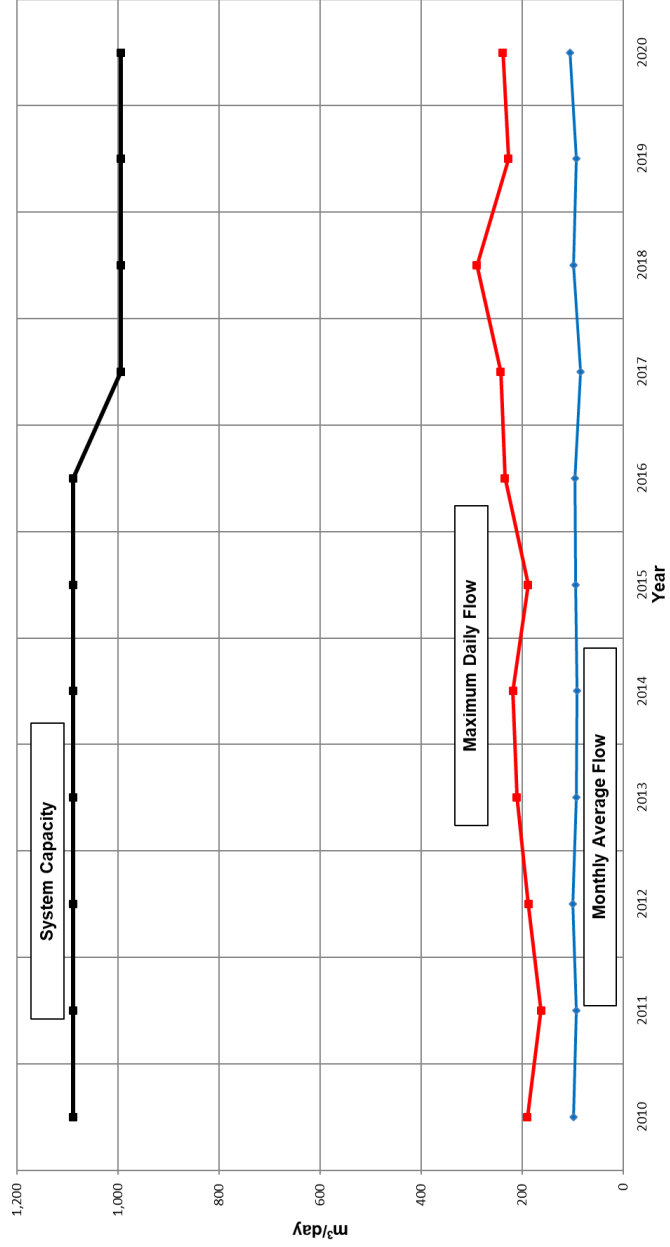
# The Regional Municipality of Durham Blackstock Drinking Water System Capacity and Treated Water Flow Data

Attachment #1 to Report #2021-W-11

| Year | Monthly Average Flow<br>cubic metres per day<br>(m <sup>3</sup> /day) Pro-rated | Maximum Daily Flow<br>(m <sup>3</sup> /day) Pro-rated | System Capacity<br>(m <sup>3</sup> /day) |
|------|---|---|--|
| 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*                                     |
| 2019 | 93  | 227   | 994*                                     |
| 2020 | 105   | 238   | 994*                                     |

\*Well 7, not in service.

4 Blackstock Drinking Water System Capacity and Treated Water Flow Graph



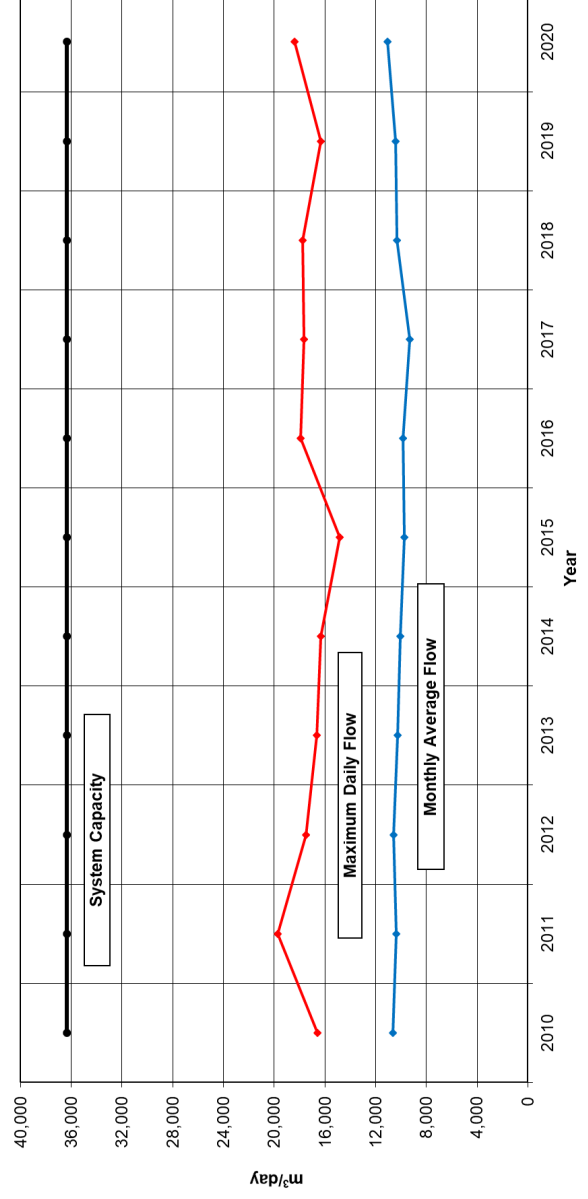
The Regional Municipality of Durham  
Bowmanville Drinking Water System  
2020 Flow Data – Raw and Treated Water Raw Water

| Month                                  | Raw Water Monthly Average Flow Cubic metres per day (m <sup>3</sup> /day) | Raw Water Maximum Daily Flow (m <sup>3</sup> /day) | Total Raw Water Flow (m <sup>3</sup> ) | Treated Water Monthly Average Flow (m <sup>3</sup> /day) | Treated Water Maximum Daily Flow (m <sup>3</sup> /day) | Total Treated Water Flow (m <sup>3</sup> ) |
|--|---|--|--|--|--|--|
| January                                | 10,301  | 13,433   | 319,345                                | 9,633  | 12,071   | 298,626                                    |
| February                               | 10,260  | 11,940   | 297,535                                | 9,532  | 11,542   | 276,418                                    |
| March                                  | 10,245  | 11,704   | 317,610                                | 9,575  | 10,766   | 296,813                                    |
| April                                  | 10,642  | 12,983   | 319,269                                | 9,915  | 12,164   | 297,449                                    |
| May                                    | 11,686  | 14,696   | 362,258                                | 11,008   | 14,129   | 341,248                                    |
| June                                   | 14,347  | 19,634   | 430,403                                | 13,580   | 18,409   | 407,392                                    |
| July                                   | 16,036  | 20,000   | 497,103                                | 14,759   | 14,759   | 457,538                                    |
| August                                 | 13,722  | 16,144   | 425,380                                | 12,460   | 14,844   | 386,248                                    |
| September                              | 12,470  | 13,909   | 374,114                                | 11,434   | 12,614   | 343,005                                    |
| October                                | 11,281  | 14,106   | 349,706                                | 10,365   | 13,055   | 321,311                                    |
| November                               | 11,152  | 15,292   | 334,569                                | 10,186   | 13,476   | 305,584                                    |
| December                               | 11,422  | 13,375   | 354,097                                | 10,498   | 12,184   | 325,451                                    |
| Annual Total                           |   |  | 4,381,389                              |  |  | 4,057,083                                  |
| Maximum                                |   | 20,000   |  |  | 18,409   |  |
| Average                                | 11,964  |  |  | 11,079   |  |  |
| % Capacity                             |   | 42   |  |  | 51   |  |
| Permit to Take Water Limit             |   | 47,700   |  |  |  |  |
| 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<br>cubic metres per day<br>(m <sup>3</sup> /day) | Maximum Daily<br>Flow (m <sup>3</sup> /day) | System Capacity (m <sup>3</sup> /day) |
|------|---|---|---------------------------------------|
| 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                                |
| 2019 | 10,423  | 16,354                                      | 36,368                                |
| 2020 | 11,079  | 18,409                                      | 36,368                                |

## Bowmanville Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham  
Cannington Drinking Water System

2020 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 <sup>3</sup> /day) Pro-rated | Well # 2 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 2 Total Raw Water Flow (m <sup>3</sup> ) | Well # 2 Treated Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well # 2 Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 2 Total Treated Water Flow (m <sup>3</sup> ) Pro-rated |
|--|--|--|---|---|---|---|---|
| January                                | 75   | 39   | 51  | 1,233   | 39  | 51  | 1,222   |
| February                               | 75   | 33   | 38  | 974   | 33  | 38  | 969   |
| March                                  | 80   | 34   | 41  | 1,056   | 34  | 41  | 1,051   |
| April                                  | 80   | 36   | 45  | 1,073   | 36  | 45  | 1,067   |
| May                                    | 80   | 40   | 50  | 1,242   | 40  | 50  | 1,235   |
| June                                   | 80   | 46   | 56  | 1,364   | 46  | 56  | 1,367   |
| July                                   | 80   | 46   | 46  | 1,442   | 63  | 63  | 1,438   |
| August                                 | 80   | 39   | 48  | 1,199   | 39  | 48  | 1,195   |
| September                              | 80   | 34   | 42  | 1,024   | 34  | 42  | 1,020   |
| October                                | 80   | 34   | 39  | 1,059   | 34  | 39  | 1,053   |
| November                               | 70   | 32   | 40  | 956   | 32  | 40  | 955   |
| December                               | 70   | 31   | 36  | 960   | 31  | 36  | 966   |
| Annual Total                           |  |  |   | 13,582  |   |   |   |
| Maximum                                | 80   |  | 56  |   |   | 63  |   |
| Average                                |  | 37   |   |   | 38  |   |   |
| % Capacity                             | 95   |  | 46  |   |   | 12  |   |
| Permit to take water limit             | 84   |  | 121   |   |   |   |   |
| Municipal Drinking Water License 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**

**Attachment #1 to Report #2021-W-11**

**2020 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 <sup>3</sup> /day) Pro-rated | Well # 7 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 7 Total Raw Water Flow (m <sup>3</sup> ) | Well # 7 Treated Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well # 7 Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 7 Total Treated Water Flow (m <sup>3</sup> ) Pro-rated |
|---|--|--|---|---|---|---|---|
| January                                       | 260  | 157  | 199   | 4,916   | 157   | 199   | 4,873   |
| February                                      | 260  | 130  | 147   | 3,792   | 130   | 147   | 3,777   |
| March   | 260  | 129  | 159   | 4,025   | 129   | 159   | 4,005   |
| April   | 260  | 133  | 172   | 4,018   | 133   | 172   | 4,004   |
| May   | 260  | 147  | 183   | 4,594   | 147   | 183   | 4,565   |
| June  | 265  | 172  | 222   | 5,147   | 172   | 222   | 5,157   |
| July  | 260  | 178  | 178   | 5,519   | 246   | 246   | 5,503   |
| August  | 260  | 146  | 183   | 4,536   | 146   | 183   | 4,521   |
| September                                     | 260  | 129  | 154   | 3,884   | 129   | 154   | 3,867   |
| October                                       | 260  | 130  | 150   | 4,052   | 130   | 150   | 4,032   |
| November                                      | 260  | 127  | 154   | 3,826   | 127   | 154   | 3,821   |
| December                                      | 260  | 124  | 143   | 3,838   | 124   | 143   | 3,856   |
| <b>Annual Total</b>                           |  |  |   | 52,147  |   |   |   |
| <b>Maximum</b>                                | 265  | 142  | 222   |   | 148   | 246   |   |
| <b>Average</b>                                |  |  |   |   |   |   |   |
| <b>% Capacity</b>                             | 98   |  | 57  |   |   | 48  |   |
| <b>Permit to take water limit</b>             | 270  |  | 389   |   |   |   |   |
| <b>Municipal Drinking Water License Limit</b> |  |  |   |   |   | 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

2020 Flow Data - \* Well Numbers (#) 2 and 7 \*Treated Water

| Month  | Well # 2 and 7<br>Treated Water<br>Monthly Average<br>Flow Cubic metres<br>per day (m <sup>3</sup> /day)<br>Pro-rated | Well # 2 and<br>7 Treated<br>Water<br>Maximum<br>Daily Flow<br>(m <sup>3</sup> /day)<br>Pro-rated | Well # 2 and 7<br>Total Treated<br>Water Flow (m <sup>3</sup> )<br>Pro-rated |
|--|---|---|--|
| January                                      | 197   | 250   | 6,094  |
| February                                     | 164   | 185   | 4,746  |
| March  | 163   | 200   | 5,056  |
| April  | 169   | 218   | 5,071  |
| May  | 187   | 233   | 5,800  |
| June   | 217   | 277   | 6,524  |
| July   | 309   | 309   | 6,941  |
| August                                       | 184   | 231   | 5,716  |
| September                                    | 163   | 196   | 4,887  |
| October                                      | 164   | 189   | 5,085  |
| November                                     | 159   | 194   | 4,775  |
| December                                     | 156   | 179   | 4,822  |
| Maximum                                      |   | 309   |  |
| Average                                      | 186   |   |  |
| % Capacity                                   |   | 61  |  |
| Municipal<br>Drinking Water<br>Licence Limit |   | 510   |  |

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

**The Regional Municipality of Durham  
Cannington Drinking Water System**

Attachment #1 to Report #2021-W-11

**2020 Flow Data – Well Number (#) 3 Raw Water and \*Treated Water**

| Month   | Well # 3 Raw Water Maximum Taken per Minute (litres) | Well # 3 Raw Water Monthly Average Flow Cubic metres per day (m <sup>3</sup> /day) Pro-rated | Well # 3 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 3 Total Raw Water Flow (m <sup>3</sup> ) | Well # 3 Treated Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well # 3 Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 3 Total Treated Water Flow (m <sup>3</sup> ) Pro-rated |
|---|--|--|---|---|---|---|---|
| January                                       | 175  | 99   | 127   | 3,091   | 99  | 127   | 3,075   |
| February                                      | 170  | 83   | 95  | 2,421   | 83  | 95  | 2,415   |
| March   | 170  | 83   | 100   | 2,583   | 83  | 100   | 2,585   |
| April   | 170  | 87   | 106   | 2,633   | 87  | 106   | 2,609   |
| May   | 170  | 95   | 113   | 2,948   | 95  | 113   | 2,950   |
| June  | 170  | 110  | 137   | 3,286   | 110   | 137   | 3,298   |
| July  | 170  | 111  | 155   | 3,448   | 111   | 155   | 3,439   |
| August  | 170  | 95   | 119   | 2,967   | 95  | 119   | 2,950   |
| September                                     | 170  | 85   | 102   | 2,543   | 85  | 102   | 2,545   |
| October                                       | 170  | 86   | 102   | 2,681   | 86  | 102   | 2,668   |
| November                                      | 170  | 82   | 91  | 2,451   | 82  | 91  | 2,456   |
| December                                      | 170  | 81   | 94  | 2,489   | 81  | 94  | 2,503   |
| <b>Annual Total</b>                           |  |  |   | 33,541  |   |   |   |
| <b>Maximum</b>                                | 175  |  | 155   |   |   | 155   |   |
| <b>Average</b>                                |  | 91   |   |   | 91  |   |   |
| <b>% Capacity</b>                             | 97   |  | 60  |   |   | 60  |   |
| <b>Permit to take water limit</b>             | 180  |  | 259   |   |   |   |   |
| <b>Municipal Drinking Water License Limit</b> |  |  |   |   |   | 259   |   |

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

**The Regional Municipality of Durham  
Cannington Drinking Water System**

**Attachment #1 to Report #2021-W-11**

**2020 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 <sup>3</sup> /day) Pro-rated | Well # 4 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 4 Total Raw Water Flow (m <sup>3</sup> ) | Well # 4 Treated Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well # 4 Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 4 Total Treated Water Flow (m <sup>3</sup> ) Pro-rated |
|---|--|--|---|---|---|---|---|
| January                                       | 185  | 109  | 129   | 3,392   | 109   | 129   | 3,383   |
| February                                      | 190  | 89   | 102   | 2,584   | 89  | 102   | 2,586   |
| March   | 190  | 87   | 108   | 2,714   | 87  | 108   | 2,704   |
| April   | 175  | 85   | 101   | 2,566   | 85  | 101   | 2,560   |
| May   | 175  | 91   | 109   | 2,846   | 91  | 109   | 2,830   |
| June  | 175  | 105  | 128   | 3,155   | 105   | 128   | 3,159   |
| July  | 180  | 108  | 108   | 3,389   | 152   | 152   | 3,355   |
| August  | 180  | 94   | 115   | 2,907   | 94  | 115   | 2,901   |
| September                                     | 180  | 89   | 108   | 2,673   | 89  | 108   | 2,671   |
| October                                       | 190  | 90   | 108   | 2,817   | 90  | 108   | 2,788   |
| November                                      | 190  | 91   | 103   | 2,718   | 91  | 103   | 2,729   |
| December                                      | 190  | 90   | 109   | 2,789   | 90  | 109   | 2,793   |
| <b>Annual Total</b>                           |  |  |   | <b>34,550</b>                                   |   |   |   |
| <b>Maximum</b>                                | 190  |  | 129   |   |   | 152   |   |
| <b>Average</b>                                |  | 94   |   |   | 98  |   |   |
| <b>% Capacity</b>                             | 99   |  | 47  |   |   | 55  |   |
| <b>Permit to take water limit</b>             | 192  |  | 277   |   |   |   |   |
| <b>Municipal Drinking Water License Limit</b> |  |  |   |   |   | 276   |   |

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

**The Regional Municipality of Durham  
Cannington Drinking Water System**

**Attachment #1 to Report #2021-W-11**

**2020 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 <sup>3</sup> /day) Pro-rated | Well # 8 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 8 Total Raw Water Flow (m <sup>3</sup> ) | Well # 8 Treated Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well # 8 Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 8 Total Treated Water Flow (m <sup>3</sup> ) Pro-rated |
|---|--|--|---|---|---|---|---|
| January                                       | 360  | 203  | 240   | 6,299   | 203   | 240   | 6,321   |
| February                                      | 360  | 166  | 189   | 4,819   | 166   | 189   | 4,813   |
| March   | 360  | 167  | 210   | 5,193   | 167   | 210   | 5,171   |
| April   | 360  | 168  | 202   | 5,040   | 168   | 202   | 5,040   |
| May   | 360  | 187  | 233   | 5,823   | 187   | 233   | 5,788   |
| June  | 360  | 210  | 252   | 6,271   | 210   | 252   | 6,288   |
| July  | 360  | 216  | 216   | 6,771   | 321   | 321   | 6,688   |
| August  | 360  | 182  | 228   | 5,658   | 182   | 228   | 5,644   |
| September                                     | 360  | 166  | 197   | 4,966   | 166   | 197   | 4,970   |
| October                                       | 360  | 165  | 195   | 5,172   | 165   | 195   | 5,126   |
| November                                      | 370  | 167  | 196   | 4,990   | 167   | 196   | 4,997   |
| December                                      | 370  | 165  | 209   | 5,116   | 165   | 209   | 5,129   |
| <b>Annual Total</b>                           |  |  |   | 66,118  |   |   |   |
| <b>Maximum</b>                                | 370  | 180  | 252   |   | 189   | 321   |   |
| <b>Average</b>                                |  |  |   |   |   |   |   |
| <b>% Capacity</b>                             | 65   |  | 31  |   |   | 39  |   |
| <b>Permit to take water limit</b>             | 568  |  | 818   |   |   |   |   |
| <b>Municipal Drinking Water License Limit</b> |  |  |   |   |   | 818   |   |

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

**The Regional Municipality of Durham  
Cannington Drinking Water System**

**Attachment #1 to Report #2021-W-11**

**2020 Flow Data – Total System Raw and \*Treated Water**

| Month   | Raw Water Monthly Average Flow Cubic metres per day (m <sup>3</sup> /day) Pro-rated | Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Total Raw Water Flow (m <sup>3</sup> ) | Treated Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Total Treated Water Flow (m <sup>3</sup> ) Pro-rated |
|---|---|--|--|--|--|--|
| January                                       | 608   | 744  | 18,953                                 | 608  | 744  | 18,851   |
| February                                      | 502   | 558  | 14,589                                 | 502  | 558  | 14,560   |
| March   | 501   | 618  | 15,572                                 | 501  | 618  | 15,516   |
| April   | 509   | 597  | 15,330                                 | 509  | 597  | 15,280   |
| May   | 560   | 678  | 17,454                                 | 560  | 678  | 17,369   |
| June  | 642   | 795  | 19,222                                 | 642  | 795  | 19,270   |
| July  | 659   | 938  | 20,569                                 | 659  | 938  | 20,424   |
| August  | 555   | 663  | 17,267                                 | 555  | 663  | 17,211   |
| September                                     | 502   | 502  | 15,090                                 | 567  | 567  | 15,072   |
| October                                       | 505   | 578  | 15,781                                 | 505  | 578  | 15,667   |
| November                                      | 499   | 569  | 14,942                                 | 499  | 569  | 14,958   |
| December                                      | 492   | 583  | 15,192                                 | 492  | 583  | 15,246   |
| <b>Annual Total</b>                           |   |  | 199,960                                |  |  |  |
| <b>Maximum</b>                                |   | 938  |  |  | 938  |  |
| <b>Average</b>                                | 545   |  |  | 550  |  |  |
| <b>% Capacity</b>                             |   | 50   |  |  | 50   |  |
| <b>Permit to take water limit</b>             |   | 1863   |  |  |  |  |
| <b>Municipal Drinking Water License Limit</b> |   |  |  |  | 1863   |  |

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

# The Regional Municipality of Durham

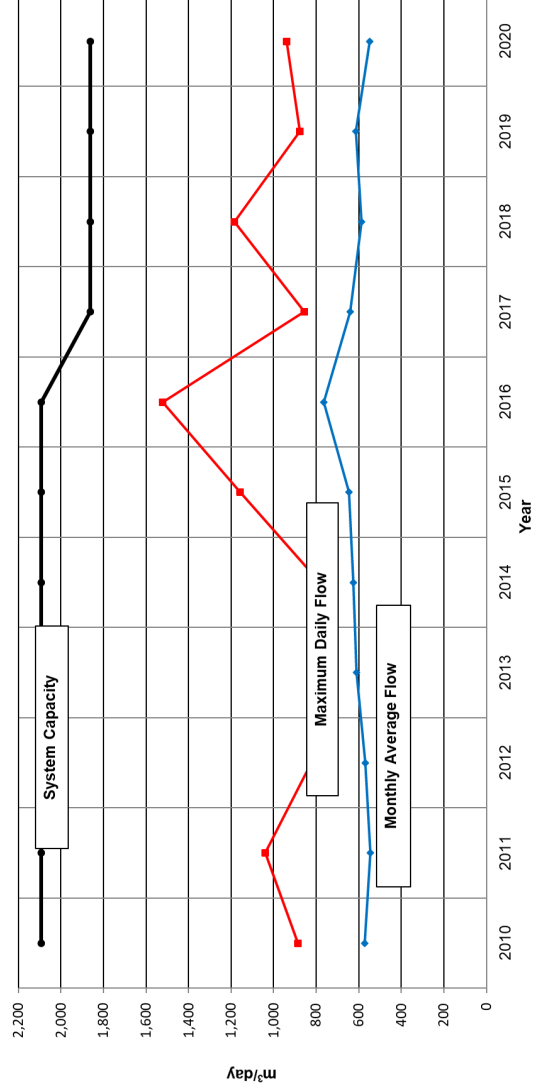
## Cannington Drinking Water System Capacity and Treated Water Flow Data

Attachment #1 to Report #2021-W-11

| Year | Monthly Average Flow<br>cubic metres per day<br>(m <sup>3</sup> /day) Pro-rated | Maximum Daily<br>Flow (m <sup>3</sup> /day)<br>Pro-rated | System Capacity (m <sup>3</sup> /day) |
|------|---|--|---------------------------------------|
| 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                                 |
| 2019 | 614   | 876  | 1,863                                 |
| 2020 | 550   | 938  | 1,863                                 |

\*Capacity changed due to decommissioning of Well 6.

## Cannington Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham  
Greenbank Drinking Water System  
2020 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 <sup>3</sup> /day) Pro-rated | Well # 1 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 1 Total Raw Water Flow (m <sup>3</sup> ) | Well # 3 Raw Water Maximum Taken per Minute (litres) | Well # 3 Raw Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well # 3 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 3 Total Raw Water Flow (m <sup>3</sup> ) |
|----------------------------|--|--|---|---|--|---|---|---|
| January                    | 50   | 20   | 24  | 626   | 77   | 29  | 35  | 909   |
| February                   | 55   | 23   | 38  | 654   | 85   | 34  | 61  | 906   |
| March                      | 55   | 20   | 27  | 627   | 88   | 33  | 46  | 1,026   |
| April                      | 50   | 22   | 28  | 663   | 88   | 33  | 43  | 986   |
| May                        | 69   | 21   | 34  | 456   | 84   | 40  | 58  | 1,115   |
| June                       | 60   | 39   | 71  | 1,164   | 87   | 68  | 97  | 2,014   |
| July                       | 60   | 33   | 53  | 1,024   | 88   | 59  | 103   | 1,836   |
| August                     | 60   | 25   | 31  | 780   | 88   | 42  | 53  | 1,300   |
| September                  | 60   | 28   | 34  | 848   | 88   | 41  | 49  | 1,226   |
| October                    | 60   | 28   | 39  | 871   | 88   | 41  | 59  | 1,269   |
| November                   | 65   | 26   | 34  | 676   | 88   | 43  | 68  | 1,302   |
| December                   | 65   | 25   | 33  | 785   | 87   | 42  | 56  | 1,296   |
| Annual Total               |  |  |   | 9,172   |  |   |   | 15,186  |
| Maximum                    | 69   |  | 71  |   | 88   |   | 103   |   |
| Average                    |  | 26   |   |   |  | 42  |   |   |
| % Capacity                 | 99   |  | 71  |   | 97   |   | 79  |   |
| Permit to take water limit | 70   |  | 101   |   | 91   |   | 130   |   |

The Regional Municipality of Durham  
Greenbank Drinking Water System

2020 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 <sup>3</sup> /day) Pro-rated | Well # 4 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 4 Total Raw Water Flow (m <sup>3</sup> ) | Well # 5 Raw Water Maximum Taken per Minute (litres) | Well # 5 Raw Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well # 5 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 5 Total Raw Water Flow (m <sup>3</sup> ) |
|----------------------------|--|--|---|---|--|---|---|---|
| January                    | 58   | 21   | 25  | 661   | 63   | 21  | 26  | 671   |
| February                   | 68   | 22   | 51  | 587   | 68   | 23  | 42  | 645   |
| March                      | 67   | 24   | 33  | 742   | 68   | 21  | 32  | 664   |
| April                      | 67   | 26   | 33  | 780   | 68   | 19  | 25  | 526   |
| May                        | 65   | 37   | 56  | 1,148   | 55   | 26  | 41  | 822   |
| June                       | 66   | 41   | 64  | 1,099   | 64   | 36  | 53  | 1,067   |
| July                       | 63   | 41   | 70  | 1,274   | 60   | 28  | 55  | 824   |
| August                     | 63   | 29   | 36  | 891   | 55   | 21  | 26  | 656   |
| September                  | 63   | 28   | 34  | 842   | 57   | 21  | 26  | 580   |
| October                    | 63   | 28   | 43  | 869   | 55   | 20  | 32  | 637   |
| November                   | 63   | 29   | 46  | 878   | 60   | 23  | 35  | 684   |
| December                   | 63   | 28   | 36  | 867   | 55   | 23  | 28  | 700   |
| Annual Total               |  |  |   | 10,638  |  |   |   | 8,475   |
| Maximum                    | 68   |  | 70  |   | 68   |   | 55  |   |
| Average                    |  | 29   |   |   |  | 24  |   |   |
| % Capacity                 | 100  |  | 71  |   | 100  |   | 56  |   |
| Permit to take water limit | 68   |  | 99  |   | 68   |   | 99  |   |



The Regional Municipality of Durham  
Greenbank Drinking Water System

Attachment #1 to Report #2021-W-11

2020 Flow Data - Well Number (#) 6 Raw Water

| Month                                 | Well # 6 Raw Water<br>Maximum Taken per<br>Minute (litres) | Well # 6 Raw Water<br>Monthly Average<br>Flow cubic metres<br>per day (m <sup>3</sup> /day)<br>Pro-rated | Well # 6 Raw<br>Water Maximum<br>Daily Flow<br>(m <sup>3</sup> /day)<br>Pro-rated | Well # 6 Total<br>Raw Water Flow<br>(m <sup>3</sup> ) |
|---------------------------------------|--|--|---|---|
| January                               | 82   | 31   | 37  | 971   |
| February                              | 88   | 32   | 67  | 854   |
| March                                 | 88   | 33   | 46  | 1,017   |
| April                                 | 88   | 37   | 45  | 1,095   |
| May                                   | 88   | 51   | 78  | 1,593   |
| June                                  | 85   | 34   | 57  | 470   |
| July                                  | 83   | 33   | 54  | 858   |
| August                                | 82   | 35   | 47  | 1,092   |
| September                             | 82   | 38   | 46  | 1,137   |
| October                               | 85   | 36   | 53  | 1,130   |
| November                              | 85   | 35   | 67  | 1,052   |
| December                              | 85   | 41   | 54  | 1,276   |
| <b>Annual Total</b>                   |  |  |   | 12,542  |
| <b>Maximum</b>                        | 88   |  | 78  |   |
| <b>Average</b>                        |  | 36   |   |   |
| <b>% Capacity</b>                     | 97   |  | 60  |   |
| <b>Permit to take<br/>water limit</b> | 91   |  | 130   |   |

The Regional Municipality of Durham  
Greenbank Drinking Water System

2020 Flow Data - Reservoir/System Total Treated Water

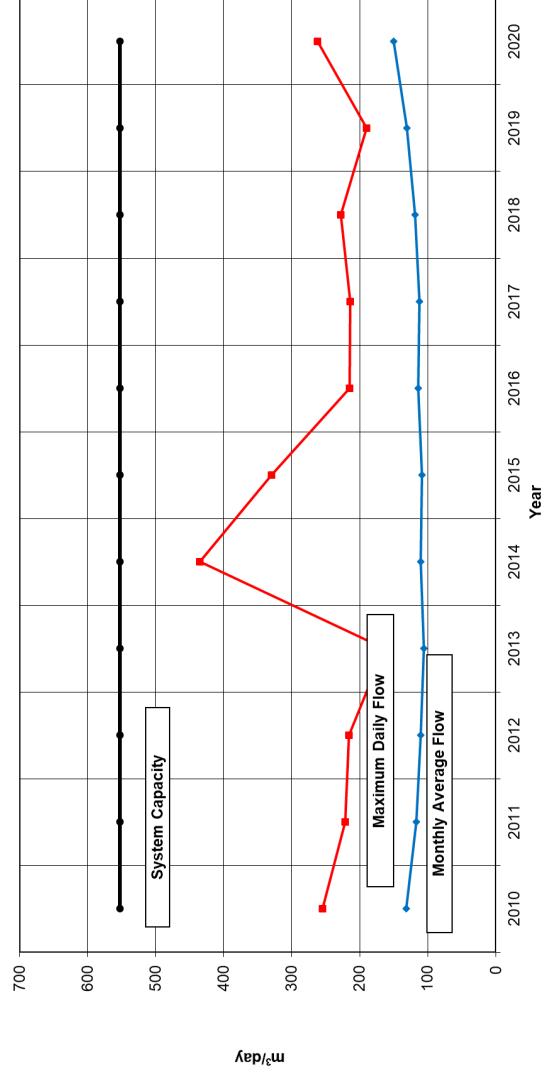
| Month                                  | Treated Water Monthly Average Flow cubic metres per day (m <sup>3</sup> /day) Pro-rated | Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Total Treated Water Flow (m <sup>3</sup> ) |
|--|---|--|--|
| January                                | 122   | 131  | 3,806                                      |
| February                               | 124   | 136  | 3,587                                      |
| March                                  | 129   | 143  | 3,977                                      |
| April                                  | 134   | 144  | 4,033                                      |
| May                                    | 162   | 236  | 5,036                                      |
| June                                   | 189   | 262  | 5,638                                      |
| July                                   | 186   | 259  | 5,782                                      |
| August                                 | 151   | 169  | 4,677                                      |
| September                              | 153   | 173  | 4,583                                      |
| October                                | 147   | 160  | 4,577                                      |
| November                               | 147   | 161  | 4,406                                      |
| December                               | 154   | 176  | 4,786                                      |
| Annual Total                           |   |  | 54,887                                     |
| Maximum                                |   | 262  |  |
| Average                                | 50  |  |  |
| % Capacity                             |   | 47   |  |
| 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<br>cubic metres per day<br>(m <sup>3</sup> /day) Pro-rated | Maximum Daily Flow<br>(m <sup>3</sup> /day) Pro-rated | System Capacity<br>(m <sup>3</sup> /day) |
|------|---|---|--|
| 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                                      |
| 2019 | 131   | 190   | 553                                      |
| 2020 | 150   | 262   | 553                                      |

Greenbank Drinking Water System Capacity and Treated Water Flow Graph



**The Regional Municipality of Durham  
Newcastle Drinking Water System  
2020 Flow Data - Raw Water and Treated Water**

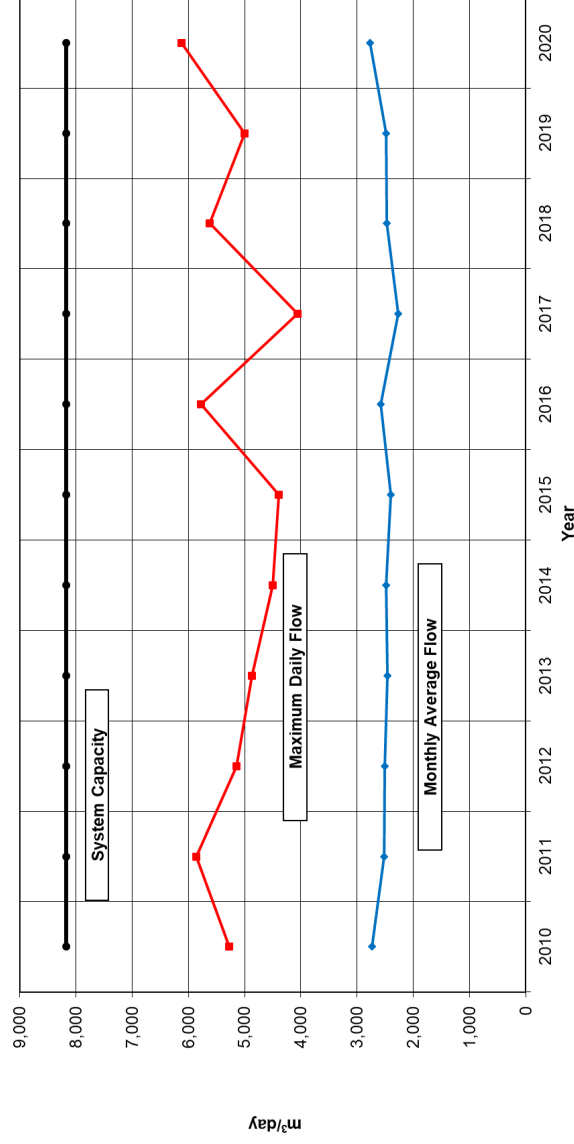
| Month                                  | Raw Water Monthly Average Flow Cubic metres per day (m <sup>3</sup> /day) | Raw Water Maximum Daily Flow (m <sup>3</sup> /day) | Total Raw Water Flow (m <sup>3</sup> ) | Treated Water Monthly Average Flow (m <sup>3</sup> /day) | Treated Water Maximum Daily Flow (m <sup>3</sup> /day) | Total Treated Water Flow (m <sup>3</sup> ) |
|--|---|--|--|--|--|--|
| January                                | 2,353   | 3,555  | 72,938                                 | 2,227  | 3,306  | 69,043                                     |
| February                               | 2,560   | 3,756  | 74,238                                 | 2,433  | 3,553  | 70,548                                     |
| March                                  | 2,425   | 3,501  | 75,175                                 | 2,281  | 3,256  | 70,719                                     |
| April                                  | 2,521   | 3,414  | 75,627                                 | 2,382  | 3,203  | 71,473                                     |
| May                                    | 2,911   | 4,548  | 90,251                                 | 2,753  | 4,378  | 85,350                                     |
| June                                   | 3,864   | 5,292  | 115,907                                | 3,674  | 5,046  | 110,222                                    |
| July                                   | 4,048   | 6,363  | 125,490                                | 3,868  | 6,125  | 119,902                                    |
| August                                 | 3,516   | 4,747  | 108,986                                | 3,287  | 4,440  | 101,888                                    |
| September                              | 3,156   | 4,343  | 94,693                                 | 2,970  | 4,037  | 89,102                                     |
| October                                | 2,712   | 3,525  | 84,079                                 | 2,529  | 3,307  | 78,397                                     |
| November                               | 2,597   | 3,496  | 77,896                                 | 2,441  | 3,151  | 73,219                                     |
| December                               | 2,474   | 3,066  | 76,706                                 | 2,363  | 2,937  | 73,258                                     |
| Annual Total                           |   |  | 1,071,985                              |  |  | 1,013,121                                  |
| Maximum                                |   | 6,363  |  |  | 6,125  |  |
| Average                                | 2,928   |  |  | 2,767  |  |  |
| % Capacity                             |   | 35   |  |  | 75   |  |
| Permit to Take Water Limit             |   | 18,100   |  |  |  |  |
| 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<br>cubic metres per day<br>(m <sup>3</sup> /day) | Maximum Daily<br>Flow (m <sup>3</sup> /day) | System Capacity (m <sup>3</sup> /day) |
|------|---|---|---------------------------------------|
| 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                                 |
| 2019 | 2,489   | 5,004                                       | 8,173                                 |
| 2020 | 2,767   | 6,125                                       | 8,173                                 |

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## Newcastle Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham  
Orono Drinking Water System

Attachment #1 to Report #2021-W-11

2020 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 <sup>3</sup> /day) Pro-rated | Well # 3 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 3 Total Raw Water Flow (m <sup>3</sup> ) | Well # 4 Raw Water Maximum Taken per Minute (litres) | Well # 4 Raw Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well # 4 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 4 Total Raw Water Flow (m <sup>3</sup> ) |
|----------------------------|--|--|---|---|--|---|---|---|
| January                    | 768  | 274  | 371   | 6,281   | 720  | 246   | 288   | 1,982   |
| February                   | 732  | 252  | 317   | 5,901   | 708  | 202   | 288   | 1,454   |
| March                      | 732  | 252  | 328   | 5,795   | 732  | 253   | 292   | 2,035   |
| April                      | 756  | 261  | 317   | 5,441   | 726  | 269   | 301   | 2,435   |
| May                        | 768  | 351  | 603   | 8,349   | 720  | 334   | 419   | 2,371   |
| June                       | 744  | 391  | 527   | 8,511   | 732  | 369   | 537   | 2,980   |
| July                       | 792  | 445  | 764   | 9,223   | 720  | 447   | 696   | 4,598   |
| August                     | 744  | 341  | 505   | 8,012   | 744  | 346   | 378   | 2,470   |
| September                  | 720  | 318  | 470   | 6,432   | 720  | 359   | 559   | 3,452   |
| October                    | 720  | 250  | 342   | 5,713   | 708  | 222   | 289   | 2,028   |
| November                   | 720  | 253  | 324   | 5,377   | 720  | 243   | 284   | 2,014   |
| December                   | 720  | 285  | 356   | 6,268   | 708  | 273   | 341   | 2,469   |
| Annual Total               |  |  |   | 81,303  |  |   |   | 30,288  |
| Maximum                    | 792  | 306  | 764   |   | 744  | 297   | 696   |   |
| Average                    |  |  |   |   |  |   |   |   |
| % Capacity                 | 87   |  | 88  |   | 82   |   | 80  |   |
| Permit to Take Water Limit | 909  |  | 873   |   | 909  |   | 873   |   |

\*Well cannot be run for more than sixteen hours per day as indicated in the Permit to Take Water.

The Regional Municipality of Durham  
Orono Drinking Water System

2020 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 <sup>3</sup> /day) Pro-rated | Well # 5 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 5 Total Raw Water Flow (m <sup>3</sup> ) | System Total Treated Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | System Total Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | System Total Treated Water Flow (m <sup>3</sup> ) |
|--|--|---|---|---|---|---|
| January                                | 0  | 0   | 0   | 262   | 371   | 8,101   |
| February                               | 0  | 0   | 0   | 251   | 326   | 7,215   |
| March                                  | 0  | 0   | 0   | 240   | 316   | 7,439   |
| April                                  | 0  | 0   | 0   | 250   | 317   | 7,712   |
| May                                    | 0  | 0   | 0   | 343   | 603   | 10,558  |
| June                                   | 0  | 0   | 0   | 360   | 537   | 11,072  |
| July                                   | 0  | 0   | 0   | 440   | 764   | 13,641  |
| August                                 | 0  | 0   | 0   | 327   | 505   | 10,065  |
| September                              | 0  | 0   | 0   | 314   | 559   | 9,702   |
| October                                | 0  | 0   | 0   | 245   | 325   | 7,558   |
| November                               | 0  | 0   | 0   | 238   | 324   | 7,224   |
| December                               | 0  | 0   | 0   | 277   | 356   | 8,557   |
| Annual Total                           |  |   |   |   |   | 108,844   |
| Maximum                                |  |   |   | 296   | 764   |   |
| Average                                |  |   |   |   |   |   |
| % Capacity                             |  |   |   |   | 88/44   |   |
| Permit to Take Water Limit             |  | 873   |   |   |   |   |
| 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 m<sup>3</sup>/day for up to 90 days per calendar year

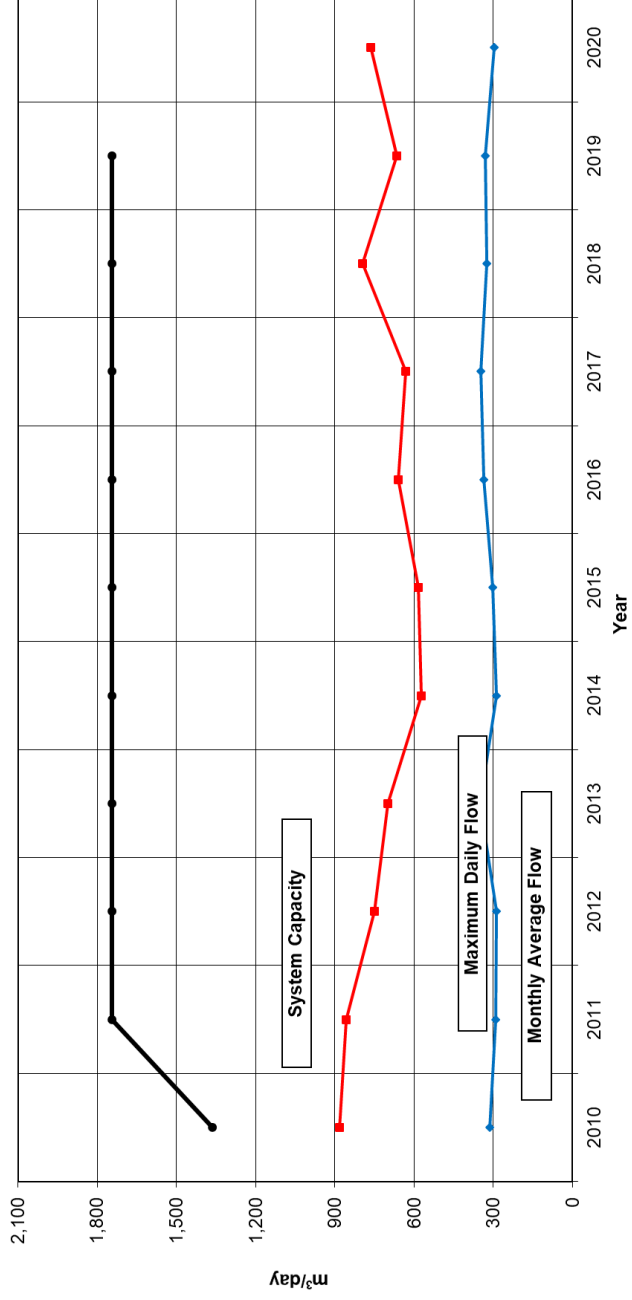
# The Regional Municipality of Durham

## Orono Drinking Water System Capacity and Treated Water Flow Data

| Year | Monthly Average Flow<br>cubic metres per day<br>(m <sup>3</sup> /day) Pro-rated | Maximum Daily Flow<br>(m <sup>3</sup> /day) Pro-rated | System Capacity<br>(m <sup>3</sup> /day) |
|------|---|---|--|
| 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*                                   |
| 2019 | 330   | 666   | 1,745*                                   |
| 2020 | 296   | 764   | 1,745*                                   |

\*The rated capacity can be increased to 1,745 m<sup>3</sup>/day not exceeding 90 days per calendar year.

## Orono Drinking Water System Capacity and Treated Water Flow Graph





The Regional Municipality of Durham  
Oshawa Drinking Water System

2020 Flow Data – West Intake Raw Water and East Intake Raw Water

| Month                      | West Intake Raw Water Monthly Average Flow Cubic metres per day (m <sup>3</sup> /day) | West Intake Raw Water Maximum Daily Flow (m <sup>3</sup> /day) | West Intake Total Raw Water Flow (m <sup>3</sup> ) | East Intake Raw Water Monthly Average Flow (m <sup>3</sup> /day) | East Intake Raw Water Maximum Daily Flow (m <sup>3</sup> /day) | East Intake Total Raw Water Flow (m <sup>3</sup> ) |
|----------------------------|---|--|--|--|--|--|
| January                    | 11,194  | 13,077   | 347,011  | 35,334   | 41,570   | 1,095,358  |
| February                   | 12,861  | 14,179   | 372,983  | 34,307   | 36,657   | 994,917  |
| March                      | 11,725  | 14,543   | 363,483  | 34,664   | 35,821   | 1,074,587  |
| April                      | 12,919  | 14,318   | 387,559  | 34,460   | 35,715   | 1,033,791  |
| May                        | 14,697  | 17,117   | 455,615  | 38,318   | 46,688   | 1,187,844  |
| June                       | 14,667  | 17,223   | 440,024  | 50,525   | 58,725   | 1,515,737  |
| July                       | 15,037  | 19,281   | 466,161  | 52,155   | 64,673   | 1,616,809  |
| August                     | 12,989  | 15,836   | 402,652  | 45,690   | 56,428   | 1,416,390  |
| September                  | 12,265  | 14,602   | 367,956  | 43,029   | 53,025   | 1,290,876  |
| October                    | 10,887  | 13,298   | 337,483  | 35,498   | 45,919   | 1,100,440  |
| November                   | 10,807  | 12,654   | 324,196  | 37,220   | 43,504   | 1,116,591  |
| December                   | 11,024  | 12,065   | 341,758  | 37,547   | 42,105   | 1,163,942  |
| Annual Total               |   |  | 4,606,882  |  |  | 14,607,282   |
| Maximum                    |   | 19,281   |  |  | 64,673   |  |
| Average                    | 12,589  |  |  | 39,896   |  |  |
| % Capacity                 |   | 44   |  |  | 72   |  |
| Permit to Take Water Limit |   | 44,000   |  |  | 90,000   |  |

The Regional Municipality of Durham  
Oshawa Drinking Water System

2020 Flow Data - Total Raw Water and Treated Water

| Month   | Total Raw Water Monthly Average Flow Cubic metres per day (m <sup>3</sup> /day) | Total Raw Water Maximum Daily Flow (m <sup>3</sup> /day) | Total Raw Water Flow (m <sup>3</sup> ) | Total Treated Water Monthly Average Flow (m <sup>3</sup> /day) | Total Treated Water Maximum Daily Flow (m <sup>3</sup> /day) | Total Treated Water Flow (m <sup>3</sup> ) |
|---|---|--|--|--|--|--|
| January                                       | 46,528  | 52,591   | 1,442,369                              | 42,499   | 49,597   | 1,317,463                                  |
| February                                      | 47,169  | 49,185   | 1,367,900                              | 42,955   | 45,850   | 1,245,683                                  |
| March   | 46,389  | 49,325   | 1,438,070                              | 43,263   | 44,969   | 1,341,143                                  |
| April   | 47,378  | 49,910   | 1,421,350                              | 42,984   | 45,010   | 1,289,533                                  |
| May   | 53,015  | 63,805   | 1,777,458                              | 47,914   | 57,115   | 1,485,343                                  |
| June  | 65,192  | 75,818   | 1,955,761                              | 56,217   | 64,279   | 1,686,521                                  |
| July  | 67,193  | 83,954   | 2,216,970                              | 59,080   | 71,764   | 1,831,469                                  |
| August  | 58,679  | 72,264   | 1,819,042                              | 52,867   | 64,143   | 1,638,869                                  |
| September                                     | 55,294  | 67,628   | 1,658,832                              | 50,240   | 59,495   | 1,507,214                                  |
| October                                       | 46,385  | 59,062   | 1,571,924                              | 42,994   | 52,273   | 1,332,824                                  |
| November                                      | 48,026  | 55,631   | 1,440,788                              | 43,268   | 51,045   | 1,298,040                                  |
| December                                      | 48,571  | 54,170   | 1,505,701                              | 43,452   | 47,707   | 1,347,023                                  |
| <b>Annual Total</b>                           |   |  | 19,616,165                             |  |  | 17,321,125                                 |
| <b>Maximum</b>                                |   | 83,954   |  |  | 71,764   |  |
| <b>Average</b>                                | 52,485  |  |  | 47,311   |  |  |
| <b>% Capacity</b>                             |   | 63   |  |  | 67   |  |
| <b>Permit to Take Water Limit</b>             |   | 134,000*   |  |  |  |  |
| <b>Municipal Drinking Water Licence Limit</b> |   |  |  |  | 107,000/<br>134,000**  |  |

\*PTTW Limit is a system total of 134,000 m<sup>3</sup>/day.

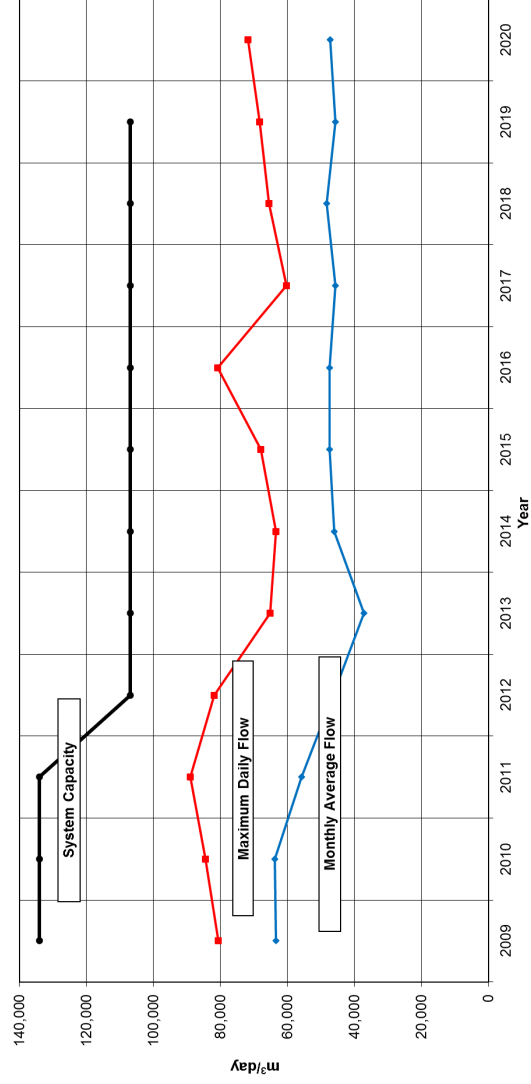
\*\* Oshawa Plant #1 has a capacity of 27,000 m<sup>3</sup>/day. Plant # 2 has a capacity of 107,000 m<sup>3</sup>/day. Plant # 3 has a capacity of 107,000 m<sup>3</sup>/day. Plant 1 was out of service from 2010 for upgrades. Plant 1 came back online November 3<sup>rd</sup>, 2020 at which time the system capacity increased from 107,000 m<sup>3</sup>/day to 134,000 m<sup>3</sup>/day.

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

| Year | Monthly Average Flow<br>cubic metres per day<br>(m <sup>3</sup> /day) | Maximum Daily<br>Flow (m <sup>3</sup> /day) | System Capacity (m <sup>3</sup> /day) |
|------|---|---|---------------------------------------|
| 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                               |
| 2019 | 45,707  | 68,374                                      | 107,000                               |
| 2020 | 47,311  | 71,764                                      | 107,000/134,000*                      |

\*Oshawa Plant #1 has a capacity of 27,000 m<sup>3</sup>/day. Plant #2 has a capacity of 107,000 m<sup>3</sup>/day. Plant 1 was out of service from 2010 to 2011 for upgrades. Plant 1 came back online November 3<sup>rd</sup>, 2020 at which time the system capacity increased from 107,000 m<sup>3</sup>/day to 134,000 m<sup>3</sup>/day.

### Oshawa Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham  
Port Perry Drinking Water System

2020 Flow Data - Well Number (#) 3 Raw and Treated Water and Well # 5 Raw and Treated Water

| Month   | Well # 3<br>Maximum<br>Taken per<br>Minute<br>(litres) | Well # 3<br>Monthly<br>Average<br>Flow cubic<br>metres per<br>day (m <sup>3</sup> /day)<br>Pro-rated | Well # 3<br>Maximum<br>Daily Flow<br>(m <sup>3</sup> /day)<br>Pro-rated | Well # 3<br>Total Water<br>Flow (m <sup>3</sup> ) | Well # 5<br>Maximum<br>Taken per<br>Minute<br>(litres) | Well # 5<br>Monthly<br>Average<br>Flow<br>(m <sup>3</sup> /day)<br>Pro-rated | Well # 5<br>Maximum<br>Daily Flow<br>(m <sup>3</sup> /day)<br>Pro-rated | Well # 5<br>Total Water<br>Flow (days) |
|---|--|--|---|---|--|--|---|--|
| January   | 1,700  | 185  | 267   | 5,737   | 1,700  | 191  | 283   | 5,916                                  |
| February  | 1,725  | 219  | 343   | 6,357   | 1,750  | 226  | 350   | 6,551                                  |
| March   | 1,700  | 182  | 349   | 4,979   | 1,700  | 175  | 347   | 5,135                                  |
| April   | 1,700  | 186  | 296   | 5,492   | 1,700  | 191  | 307   | 5,659                                  |
| May   | 1,700  | 190  | 307   | 5,813   | 1,700  | 195  | 323   | 5,977                                  |
| June  | 1,700  | 209  | 326   | 6,219   | 1,700  | 215  | 324   | 6,383                                  |
| July  | 1,700  | 222  | 355   | 6,940   | 1,700  | 228  | 367   | 7,134                                  |
| August  | 1,700  | 192  | 307   | 5,910   | 1,700  | 196  | 306   | 6,056                                  |
| September                                       | 1,700  | 535  | 969   | 15,808  | 1,700  | 540  | 975   | 15,960                                 |
| October   | 1,700  | 182  | 594   | 5,522   | 1,700  | 183  | 584   | 5,579                                  |
| November  | 1,700  | 189  | 291   | 5,465   | 1,700  | 191  | 294   | 5,522                                  |
| December  | 1,700  | 206  | 319   | 6,343   | 1,700  | 206  | 309   | 6,351                                  |
| Annual Total                                    |  |  |   | 80,585  |  |  |   | 82,223                                 |
| Maximum   | 1,725  |  | 969   |   | 1,750  |  | 975   |  |
| Average   |  | 225  |   |   |  | 228  |   |  |
| % Capacity                                      | 95   |  | 37  |   | 96   |  | 37  |  |
| Permit to take<br>water limit                   | 1,817  |  | 2,617   |   | 1,817  |  | 2,617   |  |
| Municipal<br>Drinking<br>Water License<br>Limit |  |  | 2,618   |   |  |  | 2,618   |  |

The Regional Municipality of Durham  
Port Perry Drinking Water System

2020 Flow Data - Well Number (#) 6 Raw and Treated Water and System Total Treated Water

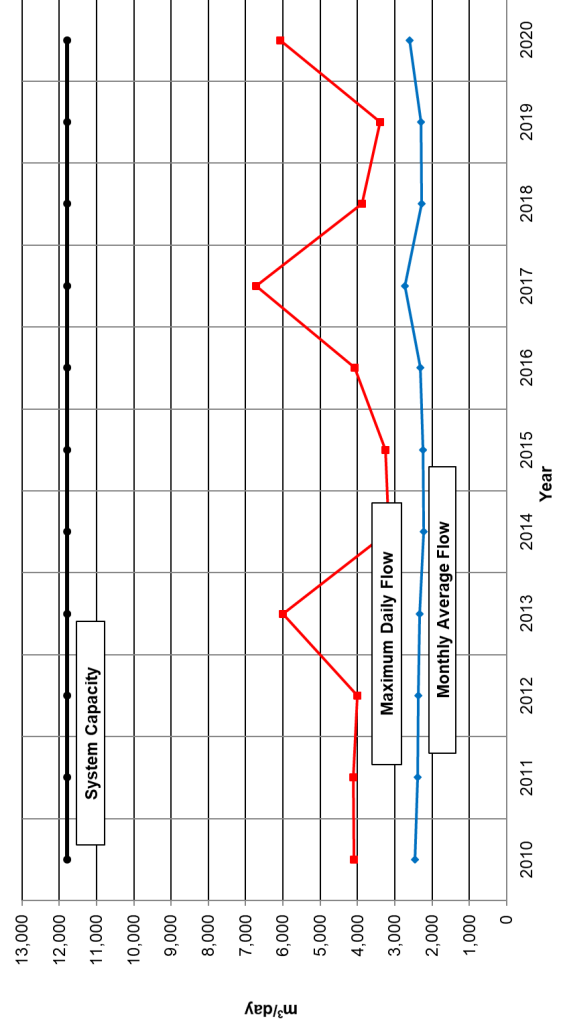
| Month   | Well # 6<br>Maximum<br>Taken per<br>Minute (litres) | Well # 6<br>Monthly<br>Average Flow<br>cubic metres<br>per day<br>(m <sup>3</sup> /day)<br>Pro-rated | Well # 6<br>Maximum<br>Daily Flow<br>(m <sup>3</sup> /day)<br>Pro-rated | Well # 6 Total<br>Water Flow<br>(m <sup>3</sup> ) | Treated<br>Water<br>Monthly<br>Average<br>Flow<br>(m <sup>3</sup> /day)<br>Pro-rated | Treated<br>Water<br>Maximum<br>Daily Flow<br>(m <sup>3</sup> /day)<br>Pro-rated | Total Treated<br>Water Flow (m <sup>3</sup> ) |
|---|---|--|---|---|--|---|---|
| January   | 4,000   | 1,738  | 2,113   | 54,131  | 2,114  | 2,464   | 65,784  |
| February  | 4,000   | 1,845  | 2,295   | 54,058  | 2,290  | 2,613   | 66,967  |
| March   | 4,000   | 1,773  | 2,320   | 54,803  | 2,107  | 2,479   | 64,916  |
| April   | 4,000   | 1,711  | 2,159   | 51,659  | 2,087  | 2,503   | 62,810  |
| May   | 4,000   | 2,015  | 2,603   | 62,775  | 2,400  | 3,016   | 74,564  |
| June  | 4,200   | 2,553  | 3,673   | 76,446  | 2,977  | 4,149   | 89,049  |
| July  | 4,200   | 2,890  | 3,851   | 90,599  | 3,340  | 4,377   | 104,673                                       |
| August  | 4,200   | 2,214  | 2,880   | 68,601  | 2,602  | 3,225   | 80,567  |
| September                                       | 4,200   | 3,564  | 4,519   | 106,786   | 4,639  | 6,070   | 138,554                                       |
| October   | 4,380   | 1,984  | 4,277   | 62,047  | 2,337  | 5,455   | 73,147  |
| November  | 4,320   | 1,861  | 2,262   | 56,035  | 2,229  | 2,548   | 67,023  |
| December  | 4,320   | 1,824  | 2,317   | 56,876  | 2,236  | 2,704   | 69,570  |
| Annual Total                                    |   |  |   | 794,816   |  |   | 957,624                                       |
| Maximum   | 4,380   |  | 4,519   |   |  | 6,070   |   |
| Average   |   | 2,164  |   |   | 2,613  |   |   |
| % Capacity                                      | 95  |  | 69  |   |  | 52  |   |
| Permit to take<br>water limit                   | 4,543   |  | 6,542   |   |  |   |   |
| Municipal<br>Drinking<br>Water<br>License Limit |   |  | 6,545   |   |  | 11,781  |   |

## The Regional Municipality of Durham

### Port Perry Drinking Water System Capacity and Treated Water Flow Data

| Year | Monthly Average Flow<br>cubic metres per day<br>(m <sup>3</sup> /day) Pro-rated | Maximum Daily Flow<br>(m <sup>3</sup> /day) Pro-rated | System Capacity<br>(m <sup>3</sup> /day) |
|------|---|---|--|
| 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                                   |
| 2019 | 2,292   | 3,403   | 11,781                                   |
| 2020 | 2,613   | 6,070   | 11,781                                   |

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



**The Regional Municipality of Durham  
Sunderland Drinking Water System  
2020 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 <sup>3</sup> /day) Pro-rated | Well # 1 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 1 Total Raw Water Flow (m <sup>3</sup> ) | Well #1 Treated Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well #1 Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 1 Total Treated Water Flow (m <sup>3</sup> ) Pro-rated |
|---|--|--|---|---|--|--|---|
| January                                       | 450  | 158  | 427   | 4,384   | 158  | 427  | 4,422   |
| February                                      | 450  | 203  | 405   | 5,937   | 203  | 405  | 5,894   |
| March   | 438  | 176  | 327   | 5,459   | 176  | 327  | 5,451   |
| April   | 438  | 149  | 332   | 4,550   | 149  | 332  | 4,461   |
| May   | 438  | 215  | 385   | 6,672   | 215  | 385  | 6,668   |
| June  | 438  | 254  | 444   | 7,433   | 254  | 444  | 7,378   |
| July  | 450  | 218  | 344   | 6,722   | 218  | 344  | 6,748   |
| August  | 450  | 186  | 349   | 5,765   | 186  | 349  | 5,756   |
| September                                     | 450  | 184  | 377   | 5,535   | 184  | 377  | 5,521   |
| October                                       | 450  | 135  | 211   | 4,164   | 135  | 211  | 4,174   |
| November                                      | 450  | 155  | 241   | 4,680   | 155  | 241  | 4,656   |
| December                                      | 468  | 192  | 378   | 5,993   | 192  | 378  | 5,942   |
| <b>Annual Total</b>                           |  |  |   | 67,294  |  |  |   |
| <b>Maximum</b>                                | 468  |  | 444   |   |  | 444  |   |
| <b>Average</b>                                |  | 185  |   |   | 185  |  |   |
| <b>% Capacity</b>                             | 46   |  | 32  |   |  | 32   |   |
| <b>Permit to Take Water Limit</b>             | 1,023  |  | 1,373   |   |  |  |   |
| <b>Municipal Drinking Water Licence Limit</b> |  |  |   |   |  | 1,374  |   |

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

The Regional Municipality of Durham  
Sunderland Drinking Water System

Attachment #1 to Report #2021-W-11

2020 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 <sup>3</sup> /day) Pro-rated | Well # 2 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 2 Raw Water Flow (m <sup>3</sup> ) | Well # 2 Treated Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well # 2 Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 2 Total Treated Water Pro-rated |
|--|--|--|---|---|---|---|--|
| January                                | -  | 3  | 4.1   | 12  | 0   | 0   | 0                                      |
| February                               | -  | 2.8  | 4.1   | 11  | 0   | 0   | 0                                      |
| March                                  | -  | 4.9  | 9.2   | 24  | 0   | 0   | 0                                      |
| April                                  | -  | 2.7  | 5.1   | 11  | 0   | 0   | 0                                      |
| May                                    | -  | 4.9  | 10.2  | 19  | 0   | 0   | 0                                      |
| June                                   | -  | 3.9  | 6.1   | 19  | 0   | 0   | 0                                      |
| July                                   | -  | 2.8  | 4.1   | 11  | 0   | 0   | 0                                      |
| August                                 | -  | 2.9  | 5.1   | 14  | 0   | 0   | 0                                      |
| September                              | -  | 3.8  | 5.1   | 15  | 0   | 0   | 0                                      |
| October                                | -  | 3.2  | 7.1   | 16  | 0   | 0   | 0                                      |
| November                               | -  | 6.0  | 9.4   | 23  | 0   | 0   | 0                                      |
| December                               | -  | 3.4  | 4.1   | 17  | 0   | 0   | 0                                      |
| Annual Total                           |  |  |   | 192                                       |   |   |  |
| Maximum                                |  |  | 10  |   |   |   |  |
| Average                                |  | 4  |   |   |   |   |  |
| % Capacity                             |  |  | 1   |   |   |   |  |
| Permit to Take Water Limit             | 1,023  |  | 1,373   |   |   |   |  |
| Municipal Drinking Water Licence Limit |  |  |   |   |   | 1,374   |  |

\*Well 2 was offline in 2020.



The Regional Municipality of Durham  
Sunderland Drinking Water System

Attachment #1 to Report #2021-W-11

2020 Flow Data - Well Number (#) 3 Raw Water and \*Treated Water

| Month                                  | Well # 3 Raw Water Maximum Taken per Minute (litres) | Well # 3 Raw Water Monthly Average Flow Cubic metres per day (m <sup>3</sup> /day) Pro-rated | Well # 3 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 3 Raw Water Flow (m <sup>3</sup> ) | Well # 3 Treated Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well # 3 Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 3 Total Treated Water Flow (m <sup>3</sup> ) Pro-rated |
|--|--|--|---|---|---|---|---|
| January                                | 588  | 222.1  | 370.4   | 6870                                      | 222.1   | 370.4   | 6883.8  |
| February                               | 588  | 202.7  | 361   | 5424.6                                    | 202.7   | 361   | 5472.1  |
| March                                  | 588  | 200.3  | 293.7   | 5828.4                                    | 200.3   | 293.7   | 5807.4  |
| April                                  | 588  | 180.6  | 244.1   | 5386                                      | 180.6   | 244.1   | 5417.8  |
| May                                    | 588  | 192.4  | 301.1   | 5027                                      | 192.4   | 301.1   | 5002.8  |
| June                                   | 588  | 211.1  | 422.5   | 5688                                      | 211.1   | 422.5   | 5699.8  |
| July                                   | 588  | 221  | 410.6   | 6770                                      | 221   | 410.6   | 6850  |
| August                                 | 528  | 180.5  | 250.5   | 5319                                      | 180.5   | 250.5   | 5234.5  |
| September                              | 528  | 215  | 426   | 6,410                                     | 215   | 426   | 6,436   |
| October                                | 588  | 191  | 236   | 5,880                                     | 191   | 236   | 5,905   |
| November                               | 528  | 244  | 294   | 7,369                                     | 244   | 294   | 7,332   |
| December                               | 528  | 295  | 363   | 9,163                                     | 295   | 363   | 9,137   |
| Annual Total                           |  |  |   | 75,134                                    |   |   |   |
| Maximum                                | 588  |  | 426   |   |   | 426   |   |
| Average                                |  | 213  |   |   | 213   |   |   |
| % Capacity                             | 98   |  | 49  |   |   | 49  |   |
| Permit to Take Water Limit             | 600  |  | 864   |   |   |   |   |
| Municipal Drinking Water Licence Limit |  |  |   |   |   | 864   |   |

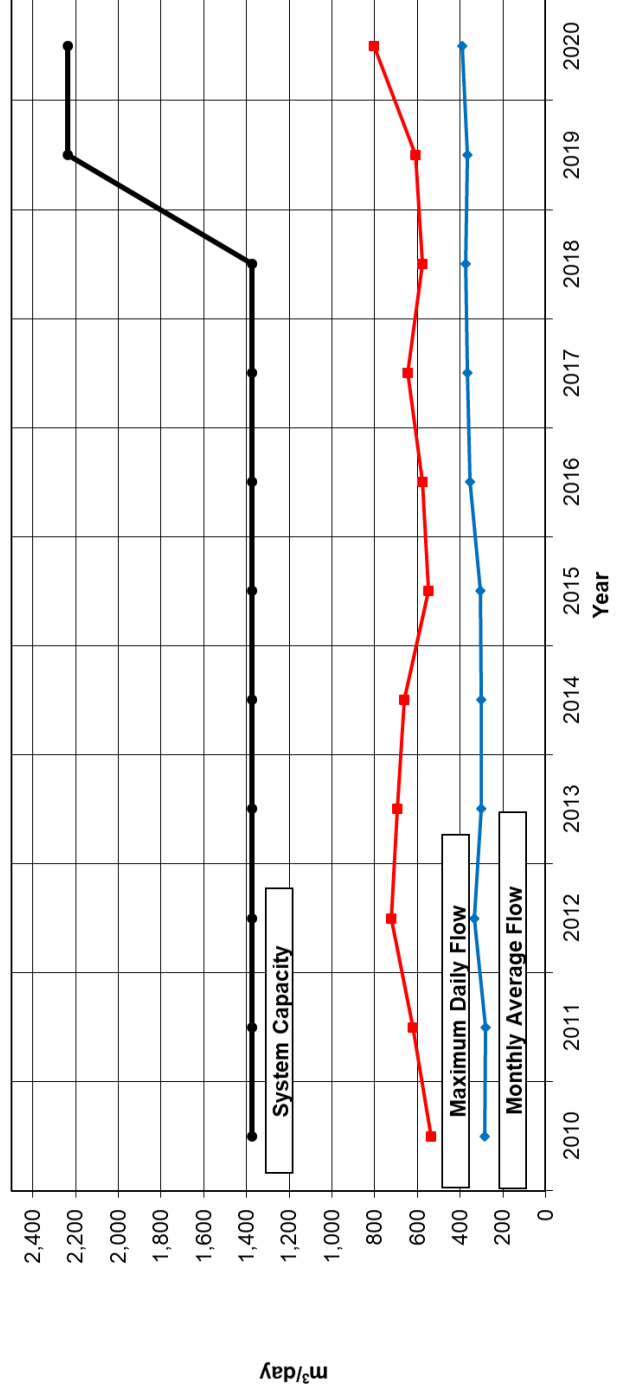
\*Treated water volumes calculated by subtracting waste from raw water volumes

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

| Year | Monthly Average Flow<br>cubic metres per day<br>(m <sup>3</sup> /day) Pro-rated | Maximum Daily<br>Flow (m <sup>3</sup> /day)<br>Pro-rated | *System Capacity (m <sup>3</sup> /day) |
|------|---|--|--|
| 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                                  |
| 2019 | 368   | 608  | 2,238                                  |
| 2020 | 389   | 803  | 2,238                                  |

\*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  
2020 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 <sup>3</sup> /day) Pro-rated | Well # 5 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 5 Total Raw Water Flow (m <sup>3</sup> ) | Well # 5 Treated Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well # 5 Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 5 Total Treated Water Flow (m <sup>3</sup> ) Pro-rated |
|--|--|--|---|---|---|---|---|
| January                                | 2,700  | 999  | 1,214   | 17,900  | 997   | 1,214   | 17,949  |
| February                               | 2,700  | 1,010  | 1,213   | 15,176  | 1,008   | 1,213   | 15,121  |
| March                                  | 2,700  | 1,025  | 1,236   | 16,352  | 1,023   | 1,236   | 16,373  |
| April                                  | 2,700  | 953  | 1,358   | 16,220  | 951   | 1,358   | 16,166  |
| May                                    | 2,700  | 1,387  | 1,809   | 30,470  | 1,387   | 1,809   | 30,503  |
| June                                   | 2,700  | 1,647  | 2,352   | 44,672  | 1,647   | 2,352   | 44,458  |
| July                                   | 2,700  | 1,544  | 2,604   | 45,689  | 1,644   | 2,604   | 46,033  |
| August                                 | 2,700  | 1,251  | 1,914   | 36,047  | 1,249   | 1,914   | 36,227  |
| September                              | 2,700  | 1,162  | 1,166   | 27,904  | 1,160   | 1,666   | 27,849  |
| October                                | 2,700  | 1,044  | 1,352   | 17,773  | 1,043   | 1,352   | 17,724  |
| November                               | 2,700  | 1,019  | 1,241   | 17,355  | 1,017   | 1,241   | 17,294  |
| December                               | 2,700  | 970  | 1,315   | 16,465  | 967   | 1,315   | 16,437  |
| Annual Total                           |  |  |   | 302,023   |   |   |   |
| Maximum                                | 2,700  |  | 2,604   |   |   | 2,604   |   |
| Average                                |  | 1,168  |   |   | 1,174   |   |   |
| % Capacity                             | 90   |  | 60  |   |   | 32  |   |
| Permit to take water limit             | 3,000  |  | 4,320   |   |   |   |   |
| Municipal Drinking Water License Limit |  |  |   |   |   | 8,251*  |   |

\*Limit is combined for Wells 5 and 7.

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

**The Regional Municipality of Durham  
Uxbridge Drinking Water System  
2020 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 <sup>3</sup> /day) Pro-rated | Well # 7 Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 7 Total Raw Water Flow (m <sup>3</sup> ) | Well # 7 Treated Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well # 7 Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 7 Total Treated Water Flow (m <sup>3</sup> ) Pro-rated |
|---|--|--|---|---|---|---|---|
| January                                       | 1,500  | 714  | 884   | 12,913  | 700   | 884   | 12,595  |
| February                                      | 1,600  | 766  | 939   | 13,750  | 765   | 939   | 13,765  |
| March   | 1,500  | 784  | 931   | 14,965  | 782   | 931   | 14,862  |
| April   | 1,500  | 782  | 1,000   | 14,024  | 781   | 1,000   | 14,053  |
| May   | 1,650  | 761  | 1,138   | 9,939   | 808   | 1,138   | 9,699   |
| June  | 1,500  | 904  | 1,655   | 9,056   | 901   | 1,655   | 9,006   |
| July  | 1,500  | 714  | 1,492   | 9,962   | 710   | 1,492   | 9,232   |
| August  | 1,560  | 693  | 1,309   | 7,044   | 687   | 1,309   | 6,866   |
| September                                     | 1,600  | 708  | 1,229   | 9,757   | 757   | 1,229   | 9,845   |
| October                                       | 1,560  | 793  | 933   | 14,276  | 792   | 933   | 14,248  |
| November                                      | 1,560  | 753  | 934   | 12,815  | 751   | 934   | 12,767  |
| December                                      | 1,560  | 785  | 996   | 14,997  | 783   | 996   | 14,885  |
| <b>Annual Total</b>                           |  |  |   | 143,498   |   |   |   |
| <b>Maximum</b>                                | 1,650  |  | 1,655   |   |   | 1,655   |   |
| <b>Average</b>                                |  | 763  |   |   | 768   |   |   |
| <b>% Capacity</b>                             | 55   |  | 38  |   |   | 20  |   |
| <b>Permit to Take Water Limit</b>             | 3,000  |  | 4,320   |   |   |   |   |
| <b>Municipal Drinking Water Licence Limit</b> |  |  |   |   |   | 8,251*  |   |

\*Limit is combined for Wells 5 and 7.

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

**The Regional Municipality of Durham  
Uxbridge Drinking Water System  
2020 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 per day (m <sup>3</sup> /day) Pro-rated | Well # 5 and 7 Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 5 and 7 Total Treated Water Flow (m <sup>3</sup> ) Pro-rated | Well # 6 Raw and Treated Water Maximum Taken per Minute (litres) | Well # 6 Raw and Treated Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Well # 6 Raw and Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Well # 6 Total Raw and Treated Water Flow (m <sup>3</sup> ) |
|--|--|---|---|--|---|---|---|
| January                                | 985  | 1,214   | 30,544  | 2,520  | 1,326   | 1,778   | 41,197  |
| February                               | 996  | 1,213   | 28,886  | 2,520  | 1,336   | 1,552   | 38,603  |
| March                                  | 1,008  | 1,236   | 31,235  | 2,520  | 1,317   | 1,495   | 41,049  |
| April                                  | 1,007  | 1,358   | 30,218  | 2,520  | 1,308   | 1,589   | 39,194  |
| May                                    | 1,297  | 1,809   | 40,202  | 2,520  | 1,496   | 1,974   | 46,404  |
| June                                   | 1,782  | 2,352   | 53,464  | 2,520  | 1,899   | 2,509   | 57,273  |
| July                                   | 1,783  | 2,604   | 55,265  | 2,520  | 1,996   | 3,149   | 61,667  |
| August                                 | 1,390  | 1,914   | 43,093  | 2,520  | 1,650   | 2,306   | 51,420  |
| September                              | 1,257  | 1,666   | 37,694  | 2,520  | 1,567   | 2,034   | 46,955  |
| October                                | 1,031  | 1,352   | 31,972  | 2,520  | 1,380   | 1,649   | 42,620  |
| November                               | 1,002  | 1,241   | 30,061  | 2,520  | 1,337   | 1,573   | 40,159  |
| December                               | 1,010  | 1,315   | 31,322  | 2,520  | 1,376   | 1,637   | 42,867  |
| Annual Total                           |  |   |   |  |   |   |   |
| Maximum                                |  | 2,604   |   | 2,520  |   | 3,149   |   |
| Average                                | 1,212  |   |   |  |   |   |   |
| % Capacity                             |  | 32  |   | 92   |   | 80  |   |
| 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.

\*\*Treated water volumes for Wells 5 and 7 calculated by subtracting waste from raw water volumes

The Regional Municipality of Durham  
Uxbridge Drinking Water System

Attachment #1 to Report #2021-W-11

2020 Flow Data – System Total Raw Water and Treated Water

| Month   | Raw Water Monthly Average Flow Cubic metres per day (m <sup>3</sup> /day) Pro-rated | Raw Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Total Raw Water Flow (m <sup>3</sup> ) | Treated Water Monthly Average Flow (m <sup>3</sup> /day) Pro-rated | Treated Water Maximum Daily Flow (m <sup>3</sup> /day) Pro-rated | Total Treated Water Flow (m <sup>3</sup> ) Pro-rated |
|---|---|--|--|--|--|--|
| January                                       | 2,320   | 2,612  | 72,010                                 | 2,311  | 2,493  | 71,637   |
| February                                      | 2,334   | 2,478  | 67,530                                 | 2,332  | 2,478  | 67,616   |
| March   | 2,327   | 2,440  | 72,365                                 | 2,325  | 2,440  | 72,070   |
| April   | 2,317   | 2,709  | 69,438                                 | 2,315  | 2,709  | 69,451   |
| May   | 2,800   | 3,783  | 86,813                                 | 2,793  | 3,783  | 86,591   |
| June  | 3,682   | 4,591  | 111,001                                | 3,681  | 4,591  | 110,426  |
| July  | 3,790   | 5,109  | 117,318                                | 3,779  | 5,109  | 117,151  |
| August  | 3,044   | 3,783  | 94,511                                 | 3,040  | 3,783  | 94,253   |
| September                                     | 2,827   | 3,366  | 84,616                                 | 2,823  | 3,366  | 84,689   |
| October                                       | 2,414   | 2,600  | 74,669                                 | 2,412  | 2,596  | 74,760   |
| November                                      | 2,341   | 2,507  | 70,329                                 | 2,339  | 2,507  | 70,183   |
| December                                      | 2,389   | 2,620  | 74,329                                 | 2,386  | 2,620  | 73,974   |
| <b>Annual Total</b>                           |   |  | 994,929                                |  |  |  |
| <b>Maximum</b>                                |   | 5,109  |  |  | 5,109  |  |
| <b>Average</b>                                | 2,715   |  |  | 2,711  |  |  |
| <b>% Capacity</b>                             |   | 62   |  |  |  |  |
| <b>Permit to Take Water Limit</b>             |   | 8,251*   |  |  |  |  |
| <b>Municipal Drinking Water Licence Limit</b> |   |  |  |  | 8,251**<br>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 m<sup>3</sup>/day.

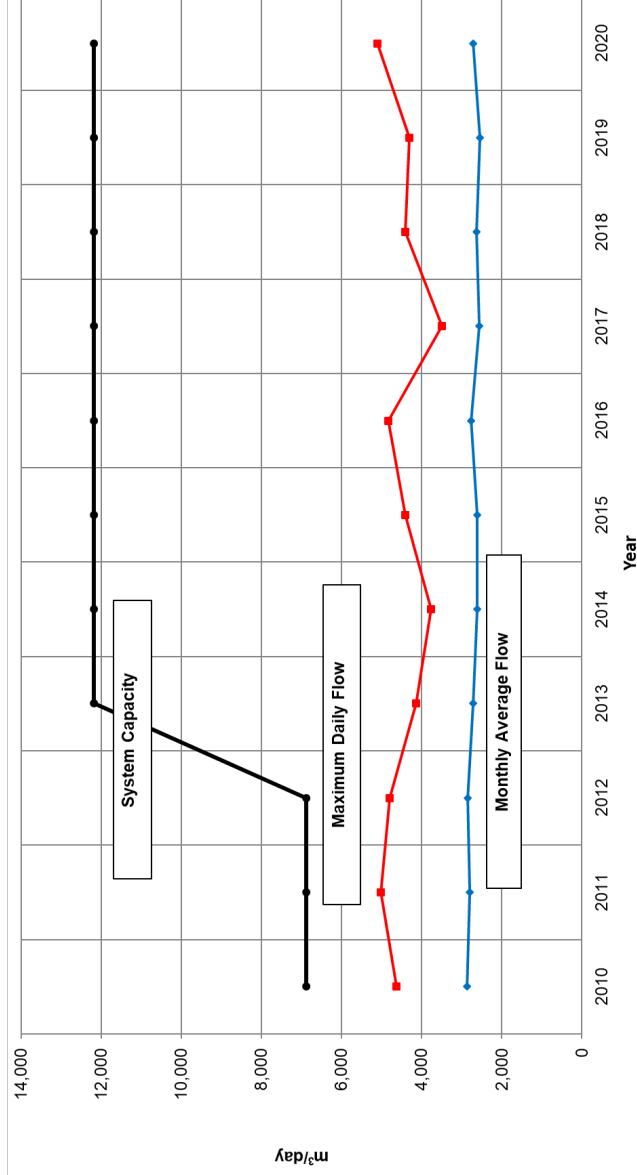
\*\*8,251 m<sup>3</sup>/day is the rated capacity for Wells 5 and 7.

\*\*\*3,931 m<sup>3</sup>/day is the rated capacity for Well 6

Uxbridge Drinking Water System Capacity and Treated Water Flow Data

| Year | Monthly Average Flow<br>cubic metres per day<br>(m <sup>3</sup> /day) Pro-rated | Maximum Daily<br>Flow (m <sup>3</sup> /day)<br>Pro-rated | System Capacity (m <sup>3</sup> /day) |
|------|---|--|---------------------------------------|
| 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                                |
| 2019 | 2,538   | 4,310  | 12,182                                |
| 2020 | 2,711   | 5,109  | 12,182                                |

Uxbridge Drinking Water System Capacity and Treated Water Flow Graph



The Regional Municipality of Durham  
Whitby Drinking Water System

2020 Flow Data - Raw Process Water and Raw Industrial Water

| Month        | Raw Process Water Monthly Average Flow Cubic metres per day (m <sup>3</sup> /day) | Raw Process Water Maximum Daily Flow (m <sup>3</sup> /day) | Total Raw Process Water Flow (m <sup>3</sup> ) | Raw Industrial Water Monthly Average Flow (m <sup>3</sup> /day) | Raw Industrial Water Maximum Daily Flow (m <sup>3</sup> /day) | Total Raw Industrial Water Flow (m <sup>3</sup> ) |
|--------------|---|--|--|---|---|---|
| January      | 53,272  | 56,712   | 1,651,420                                      | 4,713   | 6,808   | 146,116   |
| February     | 53,527  | 57,594   | 1,552,275                                      | 4,584   | 6,066   | 132,949   |
| March        | 52,612  | 54,083   | 1,630,979                                      | 5,034   | 6,280   | 156,056   |
| April        | 53,444  | 54,319   | 1,603,317                                      | 5,051   | 7,349   | 151,532   |
| May          | 56,529  | 72,561   | 1,752,394                                      | 4,758   | 6,864   | 147,494   |
| June         | 65,105  | 84,308   | 1,953,139                                      | 6,096   | 8,149   | 182,877   |
| July         | 68,388  | 87,528   | 2,120,039                                      | 6,932   | 10,629  | 214,888   |
| August       | 60,390  | 70,844   | 1,872,086                                      | 4,393   | 10,670  | 136,177   |
| September    | 61,300  | 73,304   | 1,839,013                                      | 5,165   | 6,415   | 154,949   |
| October      | 54,789  | 58,252   | 1,698,453                                      | 4,873   | 6,188   | 151,069   |
| November     | 54,753  | 70,142   | 1,642,590                                      | 5,060   | 8,718   | 151,811   |
| December     | 53,528  | 54,707   | 1,659,361                                      | 4,463   | 5,709   | 138,357   |
| Annual Total |   |  | 20,975,066                                     |   |   | 1,864,275   |
| Maximum      |   | 87,528   |  |   | 10,670  |   |
| Average      | 57,303  |  |  | 5,094   |   |   |



The Regional Municipality of Durham  
Whitby Drinking Water System

Attachment #1 to Report #2021-W-11

2020 Flow Data - Total Raw Water and Treated Water

| Month                                  | Raw Water Monthly Average Flow Cubic metres per day (m <sup>3</sup> /day) | Raw Water Maximum Daily Flow (m <sup>3</sup> /day) | Total Raw Water Flow (m <sup>3</sup> ) | Treated Water Monthly Average Flow (m <sup>3</sup> /day) | Treated Water Maximum Daily Flow (m <sup>3</sup> /day) | Total Treated Water Flow (m <sup>3</sup> ) |
|--|---|--|--|--|--|--|
| January                                | 58,236  | 61,780   | 1,805,305                              | 48,984   | 52,808   | 1,518,501                                  |
| February                               | 58,381  | 61,834   | 1,693,062                              | 49,619   | 53,855   | 1,438,947                                  |
| March                                  | 57,928  | 60,173   | 1,795,769                              | 48,725   | 50,039   | 1,510,463                                  |
| April                                  | 58,764  | 61,365   | 1,762,922                              | 49,315   | 49,932   | 1,479,446                                  |
| May                                    | 61,591  | 78,903   | 1,909,314                              | 51,723   | 66,324   | 1,603,416                                  |
| June                                   | 71,573  | 90,397   | 2,147,191                              | 60,416   | 78,351   | 1,812,477                                  |
| July                                   | 75,689  | 92,713   | 2,346,364                              | 62,000   | 81,583   | 1,922,007                                  |
| August                                 | 65,091  | 79,620   | 2,017,813                              | 54,938   | 64,601   | 1,703,064                                  |
| September                              | 66,806  | 78,701   | 2,004,173                              | 61,300   | 68,136   | 1,691,020                                  |
| October                                | 59,958  | 64,808   | 1,858,709                              | 51,751   | 58,252   | 1,604,274                                  |
| November                               | 60,017  | 79,280   | 1,800,504                              | 52,106   | 66,715   | 1,563,193                                  |
| December                               | 58,326  | 60,269   | 1,808,108                              | 50,781   | 52,188   | 1,574,214                                  |
| Annual Total                           |   |  | 22,949,233                             |  |  | 19,421,022                                 |
| Maximum                                |   | 92,713   |  |  | 81,583   |  |
| Average                                | 62,697  |  |  | 53,472   |  |  |
| % Capacity                             |   | 64   |  |  | 69   |  |
| Permit to Take Water Limit             |   | 144,000  |  |  |  |  |
| Municipal Drinking Water Licence Limit |   |  |  |  | 118,000  |  |

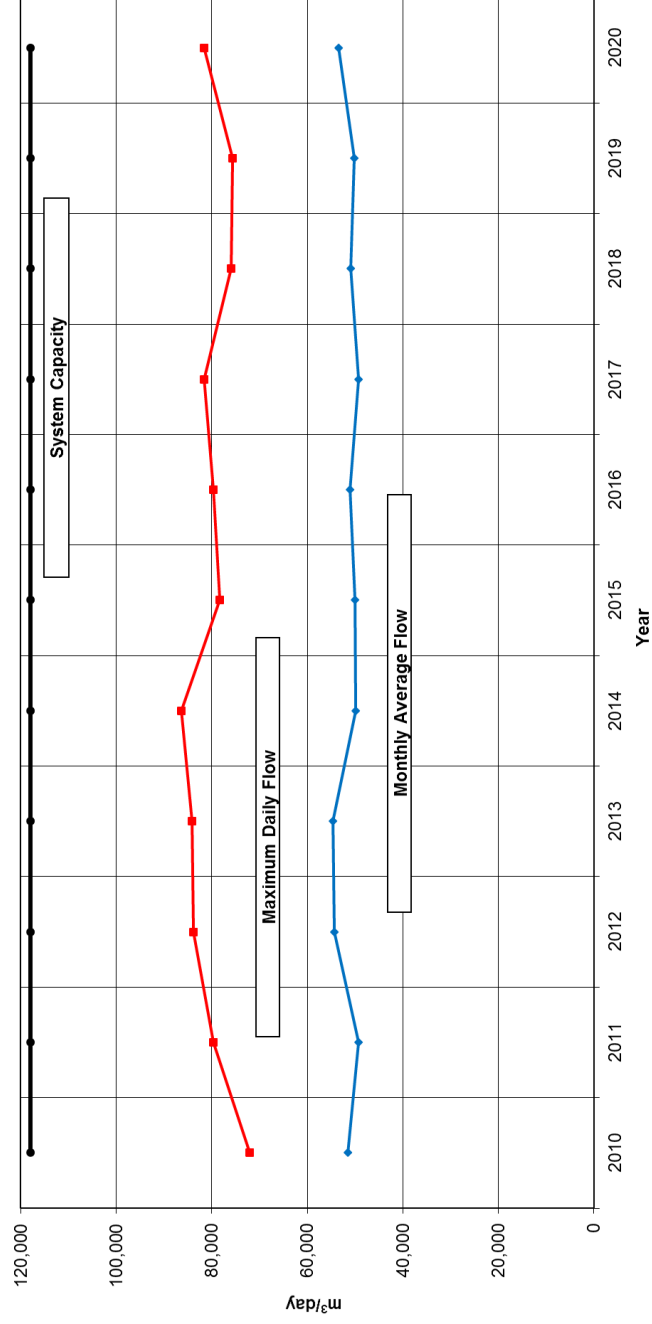
# The Regional Municipality of Durham

## Whitby Drinking Water System Capacity and Treated Water Flow Data

Attachment #1 to Report #2021-W-11

| Year | Monthly Average Flow<br>cubic metres per day<br>(m <sup>3</sup> /day) | Maximum Daily<br>Flow (m <sup>3</sup> /day) | System Capacity (m <sup>3</sup> /day) |
|------|---|---|---------------------------------------|
| 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                               |
| 2019 | 50,169  | 75,591                                      | 118,000                               |
| 2020 | 53,472  | 81,583                                      | 118,000                               |

Whitby Drinking Water System Capacity and Treated Water Flow Graph





# Direction Memorandum

**TO:** Chair and Members of the Works Committee

**FROM:** Ralph Walton, Regional Clerk/Director of Legislative Services

**DATE:** February 25, 2021

**RE:** Resolution adopted by Regional Council at its meeting held on February 24, 2021 regarding Item 3 of the 2<sup>nd</sup> Report of the Works Committee, **headed:**

**Confidential Memorandum from Susan Siopis, Commissioner of Works dated February 3, 2021 re: Tertiary Treatment at Duffin Creek Water Pollution Control Plant (WPCP), in the City of Pickering**

Corporate Services  
Department –  
Legislative  
Services

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At the Regional Council meeting held on February 24, 2021, Council referred the following motion to the Works Committee for discussion and for Works Committee to give direction to staff on how to investigate and move this forward:

“It is further recommended:

That notwithstanding the current Durham Regional Council position supporting the Lake Simcoe option, the Council of the Regional Municipality of Durham requests that, if the Lake Ontario solution is selected in lieu of the Lake Simcoe option, that the Minister of the Environment, Conservation and Parks order that all environmental benefits and conditions proposed for the Upper York Sewage Solution related to the Lake Simcoe option, including tertiary treatment, including consultations with First Nations, be required at the Duffin Creek Water Pollution Control Plant; and

That taxpayers and users in Durham must be protected from any financial implications of this decision.”

**Background:**

**At the February 3, 2021 Works Committee meeting the Confidential Memorandum from Susan Siopis, Commissioner of Works dated February 3, 2021 re: Tertiary Treatment at Duffin Creek Water Pollution Control Plant (WPCP), in the City of Pickering was considered. Direction was given to staff to provide a supplementary open memorandum to Council.**

The supplementary memorandum was included on the February 24, 2021 Regional Council agenda as Council Correspondence #CC 04 entitled: Staff Comment on Draft Motion – Tertiary Treatment at Duffin Creek Water Pollution Control Plant (WPCP), in the City of Pickering.

Council considered the memorandum with Item #3 of the 2<sup>nd</sup> Works Report to Council, Confidential Memorandum from Susan Siopis, Commissioner of Works dated February 3, 2021 re: Tertiary Treatment at Duffin Creek Water Pollution Control Plant (WPCP), in the City of Pickering.

*Ralph Walton*

R. Walton  
Regional Clerk/Director of Legislative Services