



The Regional Municipality of Durham
COUNCIL INFORMATION PACKAGE
December 1, 2017

Information Reports

- [2017-INFO-140](#) Director of Corporate Policy & Strategic Initiatives – re: Durham Region Roundtable on Climate Change 2017 Annual Report
- [2017-INFO-141](#) Commissioner of Works – re: Durham York Energy Centre Compliance Source Test Update
- [2017-INFO-142](#) Commissioner of Planning and Economic Development – re: Lake Simcoe Region Conservation Authority Lake Simcoe Phosphorus Offset Program
- [2017-INFO-143](#) Commissioner of Corporate Services – re: Automating Legislative Process Elements

Early Release Reports

There are no Early Release Reports

Staff Correspondence

1. [Durham York Energy from Waste Project Correspondence](#) regarding: Ambient Air Monitoring 2017, Third Quarterly Report (Environmental Assessment Condition 11)
2. [Durham York Energy from Waste Project Correspondence](#) regarding: Submission of the 2017 Soil Testing Report
3. [Durham York Energy from Waste Project Correspondence](#) regarding: Submission of the 2017 Odour Management and Mitigation Monitoring Report
4. [Memorandum from Dr. R. Kyle, Commissioner and Medical Officer of Health](#) – re: Release of the Chief Public Health Officer's Report on the State of Public Health in Canada 2017: Designing Healthy Living

Durham Municipalities Correspondence

1. [Town of Ajax](#) – re: Resolution passed at their Council meeting held on November 20, 2017 in regards to Zero Tolerance Against Racism

2. [Town of Whitby](#) – re: Resolution passed at their Council meeting held on November 20, 2017 in regards to Comments on the Draft 2018 Region of Durham Road Program and 9-year Forecast

Other Municipalities Correspondence/Resolutions

1. [Town of Ingersoll](#) – re: Resolution passed at their Council meeting held on November 13, 2017, calling on the Province of Ontario to formally grant municipalities the authority to approve landfill projects in or adjacent to their communities, prior to June 2018

Miscellaneous Correspondence

1. [Central Lake Ontario Conservation Authority \(CLOCA\)](#) – re: CLOCA Board of Director Meeting minutes of November 12, 2017
2. [Association of Municipalities of Ontario \(AMO\)](#) – AMO Policy Update – Federal Releases National Housing Strategy
3. [Toronto and Region Conservation Authority](#) – re: Resolution #A207/17 was approved at their meeting held on November 17, 2017 in regard to Meeting Schedule 2018-2019
4. [Ontario Clean Air Alliance](#) – re: Correspondence regarding the purchase of power from Hydro Quebec

Advisory Committee Minutes

5. Durham Region Roundtable on Climate Change (DRRCC) minutes – [November 10, 2017](#)

Members of Council – Please advise the Regional Clerk at clerks@durham.ca by 9:00 AM on the Monday one week prior to the next regular Committee of the Whole meeting, if you wish to add an item from this CIP to the Committee of the Whole agenda.



The Regional Municipality of Durham Information Report

From: Director of Corporate Policy and Strategic Initiatives
Report: #2017-INFO-140
Date: December 1, 2017

Subject:

Durham Region Roundtable on Climate Change 2017 Annual Report

Recommendation:

Receive for information

Report:

1. Purpose

1.1 The Durham Region Roundtable on Climate Change (DRRCC) Terms of Reference (2015) requires the preparation of an annual report summarizing the activities undertaken during the previous year. This Information Report outlines the achievements of the DRRCC for 2017.

1. Background

1.2 This information report outlines the achievements of the Durham Region Roundtable on Climate Change (DRRCC) for 2017. The DRRCC was established in 2009 with the mission “to work with our community to develop and advocate innovative policies, strategies and actions that address the threat of climate change.” The goal of the DRRCC is to undertake a comprehensive strategy with detailed actions to address climate change. These actions include outreach with stakeholders, advocacy with other levels of government and agencies, and education to the community.

2. Overview of 2017 Achievements

2.1 In the 9 meetings held, DRRCC received presentations on the following topics:

- Renewable natural gas
 - Presentation by Rob Dysiewicz, Enbridge Gas Distribution, “Gas utilities delivering low carbon solutions”.
 - Presentation by Tim Short, Enbridge Gas Distribution, “Clean and

- renewable: Energy Hub of the Future”.
- Climate change adaptation
 - Presentation by Lapo Calamai, Insurance Bureau of Canada, “Climate change partnerships”.
- Climate change mitigation
 - Presentation by Martin Vroegh, Ontario Centres of Excellence, “Ontario Centres of Excellence and the TargetGHG Program”.
 - Presentation by Zowie Vonkalckreuth and Celina Desbiens, UOIT, “Carbon-Neutral UOIT”.
- Observed climate changes in Canada
 - Presentation by Todd Hall, DRRCC, “Observations on Climate Change from two different fronts”.
- Durham Community Climate Change Local Action Plan
 - Presentation by Terry Green, Durham Sustain Ability, “2015 Greenhouse Gas Inventory Update”.
 - Presentation by Rob Keene, Forests Ontario, “Durham 5 Million Trees”.
- Durham Community Climate Adaptation Plan
- Durham Community Energy Plan
 - Presentation by Helen Break, Monarch Park Group, “Stakeholder Engagement Consultation”.
 - Presentation by Terry Green, Durham Sustain Ability, “Baseline Energy Study for 2015”.
- New and emerging issues
 - Presentation by Mirka Januszkiewicz, Durham Region, “Climate change, blue box transition and waste management”.
 - Presentation by Al Douglas, Ontario Centre for Climate Impacts and Adaptation, “Agriculture and rural resilience”.

2.2 As the project sponsor for three regional plans: Durham Community Climate Change Local Action Plan (2012), Durham Community Climate Adaptation Plan (2016) and the Durham Community Energy Plan (currently under development), the DRRCC was able to oversee the following:

a. Durham Community Climate Change Local Action Plan (LAP)

Implementation of the LAP has been limited. The LAP included 18 programs, of which, only six are underway. Table 1 shows the status of the programs in the LAP.

Table 1: Implementation Status of Durham Community Climate Change Local Action Plan Programs

Program	Underway	Under Development	On Hold
Durham Partners in Project Green	X		
Comprehensive Residential Retrofit			X
Green Affordable Housing	X		
Durham Green Building Guideline		X	
Smart Grid Initiative			X
Offshore Wind Power Generation			X
Durham Mini-Deep Lake Water Cooling			X
Durham Biofuels Program		X	
Bio-Methane Production and Use		X	
Local Food Hub			X
Urban Agriculture Program		X	
Farm Friendly Regulations			X
Durham Five Million Trees	X		
Active Transportation and Transit (Durham Transportation Master Plan, draft 2017)	X		
Durham Freecycle Program (Reuse days)	X		
Durham Green Procurement Guide			X
Community Climate Fund			X
Climate Education Program	X		

Actions undertaken in 2017 include:

- Greenhouse gas emissions inventory update for 2015.
- Development of community outreach materials surrounding energy use and greenhouse gas emissions from households and vehicles.

- Durham Five Million Trees Program –The program’s delivery agent, Forests Ontario, has been working with residents to support the planting of approximately 55,950 trees in 2017, well below the goal of 500,000 per year. In 2017, there was a considerable decrease in corporate sponsorship of the program which limited the amount of subsidy offered to residents. Table 2 shows the progress of the annual tree program.

Table 2: Annual Trees Planted by Forests Ontario 2012-2017

Year	Number of trees planted
2012	22,250
2013	81,999
2014	55,074
2015	88,830
2016	83,440
2017	55,950

- Climate Education Program – Staff revised the teacher resources to ensure that the documents conformed to the Accessibility for Ontarians with Disabilities Act (AODA).
- Durham Partners in Project Green (DPPG) – Durham Region was a sponsor and member of this business program operated by Durham Sustain Ability (DSA). Durham staff participated in two ‘Energy and Innovation’ events. Durham Region headquarters was also used as a pilot organization for Sustainability CoLab greenhouse gas benchmarking project (Verisae).

b. Durham Community Energy Plan (DCEP)

DRRCC provided input to the DCEP plan by participating in the stakeholder engagement sessions and reviewing the Stakeholder Engagement Report and Baseline Energy Study Report. With input from the Steering Committee, the project team identified four scenarios to model and compiled and calibrated data from various sources. The DCEP is anticipated to clearly identify programs that can achieve economic, employment, environmental and climate benefits. The DCEP will inform an update to the LAP.

c. Durham Community Climate Adaptation Plan (DCCAP)

The DCCAP was approved in principle by Regional Council in December 2016. A celebratory luncheon was held in May, 2017 to launch Phase 3 of the plan and identify staff delegates from each of the responsible agencies. The DCCAP was submitted and approved in principle by all 8 local municipalities and 5 conservation authorities in Durham.

Working Groups were formed for the Building Sector, Electrical Sector, Flooding Sector, Roads Sector, Human Health Sector and Natural Environment Sector. A Steering Committee was established consisting of representatives from Durham Region, local municipalities and conservation authorities. Durham will continue to seek the appointment of representatives from the electrical sector in 2018.

A reporting framework was developed in consultation with the responsible agencies for joint tracking of progress on programs identified in the DCCAP. The reporting framework enables all agencies to easily report their progress towards developing, approving and implementing the programs identified in the DCCAP. The results of the reporting process would be compiled by the Region into an annual progress report on behalf of those agencies participating in programs.

In addition to the progress above, Regional staff initiated next steps for several sectors as shown in Table 3.

Table 3: Summary of Projects Initiated by Sector in 2017

DCCAP Sector	Activities
Cross-sectoral	<ul style="list-style-type: none"> • Memorandum to Corporate Health and Safety Officer recommending corporate policies and directives related to climate change. Response from Human Resources department that it will be pursued during 2018 work plan.
Building Sector	<ul style="list-style-type: none"> • Development of the Durham Climate Resilience Standard for New Houses (Institute for Catastrophic Loss Reduction). • Research reports on reflective roofs and roofing materials and reflective pavement and materials (LURA Consulting).
Electrical Sector	<ul style="list-style-type: none"> • No projects initiated in 2017.
Flooding Sector	<ul style="list-style-type: none"> • Trent University capstone course on Stormwater Fee and Credit Programs (course commenced September 2017). • Outreach documents modelled on Public Safety

DCCAP Sector	Activities
	Canada's Flood Ready campaign were developed for Durham Region.
Roads Sector	<ul style="list-style-type: none"> An assessment of Region-owned storm structures (culverts and bridges) was initiated (Ontario Climate Consortium).
Human Health Sector	<ul style="list-style-type: none"> Urban heat island mapping based on surface temperature data from Landsat satellite imagery. Research Report on the maximum allowable temperature in rental units (LURA Consulting).
Natural Environment Sector	<ul style="list-style-type: none"> Durham Environmental Coordinators Committee evolved to include Conservation Authority Staff (Stewardship and Outreach working group identified in DCCAP). Initiated planning for a 2-day workshop.
Food Security/Agriculture	<ul style="list-style-type: none"> On hold in 2017.

The DRRCC continued to show leadership in outreach and advocacy by sponsoring the following public events:

- "Time to Choose" video and presentations the Regent Theatre in conjunction with the City of Oshawa.
- Durham Envirothon.
- Pollinator Gardens for Durham Schools.

Respectfully submitted,

Angela Gibson
Director of Corporate Policy and Strategic Initiatives

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



The Regional Municipality of Durham Information Report

From: Commissioner of Works
Report: #2017-INFO-141
Date: December 1, 2017

Subject:

Durham York Energy Centre Compliance Source Test Update

Recommendation:

Receive for information

Report:

1. Purpose

1.1 The purpose of this report is to provide an update on the Regional Municipalities of Durham and York's (Owners) Compliance Source Test results at the Durham York Energy Centre (DYEC).

2. Background

2.1 The Environmental Compliance Approval (ECA) requires the Owners to perform annual Source Testing (Compliance Source Test) in accordance with the procedures and schedule outlined in Schedule "E" of the ECA. The Source Test is to determine the rate of emission of the test contaminants from the stack.

2.2 The Long Term Sampling System (AMESA) evaluation continues to be discussed with the Ministry of the Environment and Climate Change (MOECC). The evaluation of the results has not yet been completed.

3. Compliance Source Test

3.1 The Compliance Source Test was conducted from October 10 to October 13, 2017, for all test contaminants on both Boiler #1 and Boiler #2.

3.2 The results of the Compliance Source Test demonstrated that all emissions were within the limits detailed in the ECA (Attachment #1).

3.3 The final Compliance Source Test Report will be sent to the MOECC and

subsequently posted to the project website.

Distribution Modeling

- 3.4 The DYEC emissions dispersion was modeled utilizing the Compliance Source Test data and the MOECC approved CALPUFF model. The results of the contaminant concentrations at the maximum point of impingement are then compared to the limits within the Ontario Regulation (O.Reg.) 419/05 Air Pollution - Local Air Quality. O.Reg. 419/05 - Local Air Quality limits are set to be protective of human health and the environment.
- 3.5 All of the calculated impingement concentrations were well below the regulatory limits. Of particular interest is the evaluation of Dioxins and Furans. These values, once modeled for the maximum point of impingement, show that concentrations of 0.000349 PicoGrams (pg) Total Toxic Equivalency Concentration per Reference Cubic Metre (TEQ/Rm³) can be attributed to the DYEC emissions. O.Reg. 419/05 Air Pollution – Local Air Quality regulatory standard is 0.1 pg TEQ/Rm³.

4. The Owners' Consultants' Reviews

- 4.1 Airzone One Ltd., the Source Test peer reviewer, provided a memo on their preliminary findings on the Compliance Source Test sampling (Attachment #2), which concludes that:

“Based on the observations made during collection of samples, we are satisfied that Ortech collected all dioxin and furan samples according to standard operating procedures and approved methods, with the deviations from the methods/protocols already noted. Final comments concerning the results of all of the testing and compliance of the facility will be made upon review of the final stack testing report to be issued by Ortech.”

- 4.2 HDR was also present during the Source Tests. In Attachment #3, HDR reported that:

“HDR has completed our initial review of the preliminary results from the DYEC Compliance Tests that were performed during the period between October 10 and October 13, 2017. Representatives from HDR were present throughout the majority of the Compliance Test period to observe the testing procedures and Covanta's operation of the DYEC. Overall, Covanta's plant personnel operated the DYEC under normal operating conditions and in accordance with acceptable industry operating standards. In addition, ORTECH appeared to follow good stack sampling procedures in accordance with the accepted test procedures and the Amended ECA. Based on our review of the preliminary test results, the 2017 Emission Compliance Testing Program demonstrated that the DYEC is operating below the Amended ECA's Schedule “C” limits.”

5. Conclusion

- 5.1 The Owners' technical consultants and peer reviewers have confirmed that the Compliance Source Test was conducted in accordance with the Ministry of the Environment and Climate Change's guidelines, and that the sample preparation and analysis was accurately completed.
- 5.2 All the results of the diagnostic and compliance Source Tests were in compliance with the Environmental Compliance Approval limits.

6. Attachments

- Attachment #1: Summary of Compliance Source Test Results
- Attachment #2: AirZone One Ltd. Source Tests: Preliminary Findings Memo
- Attachment #3: HDR Inc. Source Test Assessment Memo

Respectfully submitted,

Original signed by:

S. Siopis, P.Eng.
Commissioner of Works

Summary of Compliance Source Test Results

Parameter	Units	Environmental Compliance Approval Limit	Boiler #1 Result	Boiler #1 Percentage of Limit (%)	Boiler #2 Result	Boiler #2 Percentage of Limit (%)
Particulate Matter (PM) ⁽¹⁾	mg/Rm ³	9	1.4	15.6	0.66	7.3
Mercury (Hg) ⁽¹⁾	µg/Rm ³	15	0.22	1.5	0.18	1.2
Cadmium (Cd) ⁽¹⁾	µg/Rm ³	7	0.053	0.8	0.031	0.4
Lead (Pb) ⁽¹⁾	µg/Rm ³	50	0.34	0.7	0.48	1.0
Hydrochloric Acid (HCl) ^{(2) (3)}	mg/Rm ³	9	2.0	22.2	5.1	56.7
Sulphur Dioxide (SO ₂) ^{(2) (3)}	mg/Rm ³	35	2.4	6.9	1.7	4.9
Nitrogen Oxides (NO _x) ^{(2) (3)}	mg/Rm ³	121	112	92.6	111	91.7
Carbon Monoxide (CO) ^{(2) (4)}	mg/Rm ³	40	11.5	28.8	12.2	30.5
Total Hydrocarbons (THC) ⁽⁵⁾	ppm	50	0.3	0.6	0.03	0.1
Dixons and Furans ⁽⁶⁾	pg TEQ/Rm ³	60	5.94	9.9	10.1	16.8

(1) dry at 25 degree Celsius and one atmosphere, adjusted to 11 per cent oxygen by volume

(2) based on process data or Continuous Emissions Monitoring (CEM) data provided by Covanta

(3) maximum calculated rolling arithmetic average of 24 hours of data measured by the Durham York Energy Centre (DYEC) Continuous Emissions Monitors (CEMS), dry at 25 degrees Celsius and one atmosphere, adjusted to 11 per cent oxygen by volume

(4) maximum calculated rolling arithmetic average of 4 hours of data measured by the DYEC CEMS, dry at 25 degrees Celsius and one atmosphere, adjusted to 11 per cent oxygen by volume

(5) average of three one-hour tests measured at an undiluted location, reported on a dry basis expressed as equivalent methane

(6) calculated using the North Atlantic Treaty Organization (NATO)/ Committee on the Challenges of Modern Society (CCMS) (1989) toxicity equivalence factors and the full detection limit for those isomers below the analytical detection limit, dry at 25 degrees Celsius and one atmosphere, adjusted to 11 per cent oxygen by volume

Gioseph Anello, MEng, PEng, PMP
Manager of Waste Planning & Technical Services

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Email: Gioseph.Anello@Durham.ca

November 20th, 2017
Job/reference #: J17083

RE: Audit of Fall 2017 Compliance Source Testing - Preliminary Findings

Dear Mr. Anello,

At this time, we are providing our preliminary findings of the sample collection for the Fall 2017 Compliance Source Testing of the Durham York Energy Centre (DYEC). This preliminary review will provide a general overview of our findings. A more detailed review of the testing campaign will be provided once the final source testing report has been issued. The field sampling audits were undertaken by Adomait Environmental Solutions Inc. (Adomait).

Source Sampling Audit

Adomait observed the sampling of two stack trains at the Durham York Energy Centre, focusing specifically on the sampling of semi-volatile organic compounds (SVOC) conducted on October 12th & 13th, 2017. Mr. Martin Adomait of Adomait was responsible for observing the stack samplers throughout the process. Mr. Adomait's observations focused primarily on the stack sampling methods and implementation procedures. Ms. Janice Tessman observed the instrumentation in the process control room during the sample collection periods.

In the Process Operations Center, observations were made on one minute readings as they appeared on the system monitors. Readings were manually recorded every 10 minutes, although deviations were identified when they occurred.

1. Oxygen concentrations were maintained > 6% at all times and were generally 6.9 - 9.5%. The ECA compliance limit is > 6%.
2. CO spikes occurred very infrequently with no spikes lasting more than 10 minutes. At times, there may have been one minute readings that exceeded the 40 mg/m³ number set by the MOECC for a 4-hour average; however, these were not frequent. When readings greater than 40 mg/m³ only occur occasionally, the chance of exceeding the criteria is low. As observed on previous audit visits, minimization of the CO spikes was achieved through the use of improved process logic control and attentiveness from the operators.
3. The quench tower inlet and outlet temperatures were consistent throughout both monitoring days. The inlet temperatures remained consistent at 151 - 153°C. Previously, evaporator inlet temperatures could be expected to increase during the day; however, this time this did not occur. The outlet temperatures remained steady regardless of the inlet temperatures. This is a design feature of the system, which was observed.
4. As a result of consistent outlet temperatures from the Quench tower, the baghouse inlet temperatures remained at ~ 144°C. The ECA performance requirement is 120 - 185°C. These readings were consistent with other stack tests of 138 - 140°C (September 2016), and 142 - 145°C (November 2016).

Consistent temperatures in the baghouse allow for comparison between data sets at different times. It is also important when considering the volatilization of various dioxins and furans that may exist in particulate form in the baghouse. Increased temperatures would likely lead to volatilization of the captured dioxins within the baghouse, especially the lighter molecular weight compounds.

5. Production at the plant is often evaluated in terms of steam flow. Steam flow was in the range of 30,000 m³/hour. This was similar to levels observed during other stack testing campaigns at this plant. Similar production also makes the comparison between different stack tests possible.
6. Carbon and lime dosage were consistent with the previous testing campaigns. Carbon doses of ~5 kg/hour were necessary to keep the dioxins in check.
7. Occasional anomalies in the one minute data were observed in the flowrate and moisture numbers. The calculated moisture at times would reduce to zero. Similar to other testing campaigns when this was observed, it is speculated that this is related to the problems that occur during the reading of dry versus wet oxygen monitors. Typically this anomaly would only last for one minute.

Observations of the stack testing procedures were undertaken during the SVOC sampling part of the program. General observations are presented here, and will be presented in greater detail in the final report.

1. Where possible, leak checks were observed at both the start and conclusion of all SVOC tests. Leak checks were always performed at the conclusion of tests. When the leak checks were successful, the source sampling tests are valid. Leak checks were always performed in a systematic and non-rushed manner to ensure good QA/QC.
2. Stack temperatures reported by the stack testing crew were checked with the auditor in the control room to verify that the temperature was consistent with the in-stack readings. In all cases, temperatures varied by +/- 2°C. This level of variance is consistent with expected bias between different temperature probes.
3. Quench inlet/outlet temperatures were also verified with the control room numbers.
4. Impinger/XAD temperatures were checked periodically at each sampling train. Ortech supplied plenty of ice to the crews. The temperatures were maintained in the 45 - 55°F. These temperatures are critical as it improves adsorption of dioxins/furans on the sampling media.
5. Adomait recorded dry gas meter correction and pitot factors for comparison with the final report to be issued by Ortech.
6. All trains operating at the baghouse outlet locations were inserted into the stack while the sampling train was running. Given the high negative pressure at these locations, it was important to ensure that the filter was not displaced prior to the start of sampling. This also limits loss of any sample from the train.

SVOC samples were collected following the procedures in EPS 1/RM/3 and US EPA Method 23. During the source testing, Ortech followed the sampling and recovery procedures as specified by the methods to maintain the integrity of the samples. Ortech had adequate staff on site to collect samples and transfer the sampling media to the on-site lab for recovery and clean-up. Communications with the control room were maintained at an excellent level to ensure samples were collected during representative operating conditions.

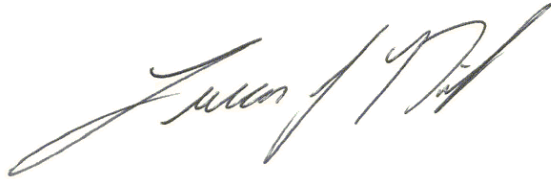
Laboratory Processing Audit

At the request of the Regional Municipality of Durham, Airzone One Ltd. (Airzone) did not audit the laboratory processing of samples for the testing program. Airzone will review the laboratory data provided with Ortech's final report, with specific focus on the dioxin/furan and particulate matter results.

Conclusion

Based on the observations made during collection of samples, we are satisfied that Ortech collected all dioxin and furan samples according to standard operating procedures and approved methods, with the deviations from the methods/protocols already noted. Final comments concerning the results of all of the testing and compliance of the facility will be made upon review of the final stack testing report to be issued by Ortech.

Sincerely,



Lucas Neil, PhD
Air Quality Scientist
Airzone One Ltd.
lneil@airzoneone.com



Technical Memorandum

To: Gioseph Anello, P.Eng, Region of Durham

Cc: Mirka Januszkiewicz, P.Eng (Region of Durham)
Tara Wilcox, P.Eng (Region of Durham)

Laura McDowell, P.Eng (Region of York)
Ron Gordon; Seth Dittman, P.Eng (Region of York)

John Clark, PE; Shawn Worster; Kirk Dunbar (HDR)

From: Bruce Howie, PE

Date: November 15, 2017

Re: **Durham York Energy Centre:**
HDR Observations During 2017 Compliance Emission Testing

Introduction

During the period from Oct 10 through Oct 13, 2017, ORTECH Consulting, Inc. (ORTECH) conducted Compliance Emission Testing at the Durham York Energy Center (DYEC). This testing is required annually as per Section 7(1) of the Amended Environmental Compliance Approval (ECA) No. 7306-8FDKNX, originally issued by the Ontario Ministry of Environment and Climate Change (MOECC) on June 29, 2011. HDR personnel were on-site to observe DYEC operations and procedures during the tests that were performed on October 10, 12 and 13. The purpose of this technical memorandum is to summarize the observations made by HDR personnel during the testing, and to review and summarize the preliminary results for the Compliance Test provided by ORTECH, dated November 3, 2017.

HDR Observations During the Compliance Test

DYEC Operation Observations:

HDR personnel were on-site to observe DYEC operations and the activities related to the stack emission tests that occurred on October 10, 12 and 13, 2017. Attachment A summarizes the schedule of the emission testing completed during the four day period. HDR's primary role on-site was to observe Covanta's operation of the DYEC during the tests as well as and observe the conduct of ORTECH, the stack test firm hired to conduct the testing and sampling. A complete day-by-day summary of HDR's observations of operations and the testing during the Compliance Test is included in Attachment B. Attachment C provides a summary of the DYEC operating data during the Compliance Testing period, and including a summary specifically for the Dioxin/Furan tests on both boilers. Figures 1 and 2 shows the steam flow in boilers 1 and 2, respectively, during the testing periods versus the Maximum Continuous Rating (MCR) of each boiler.

Figure 1 - Boiler 1 operations during testing as a percentage of Maximum Continuous Rating (MCR)

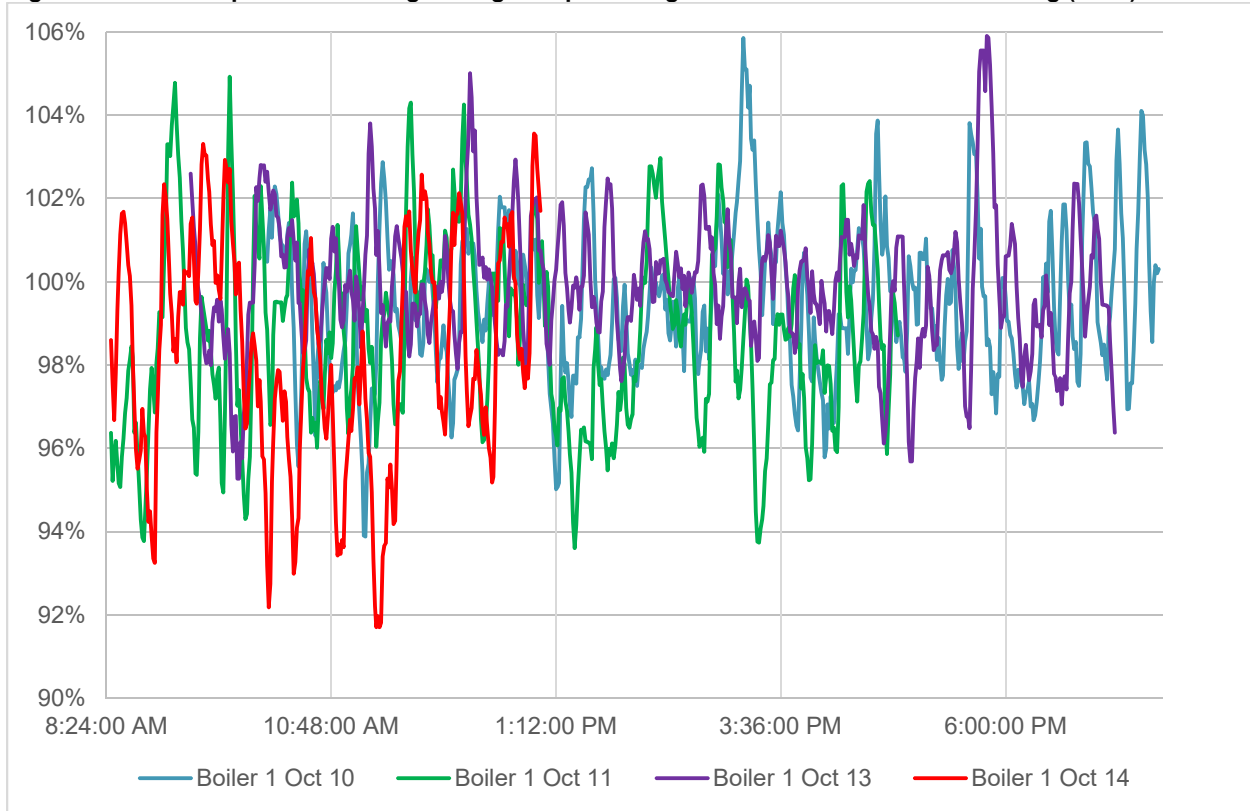
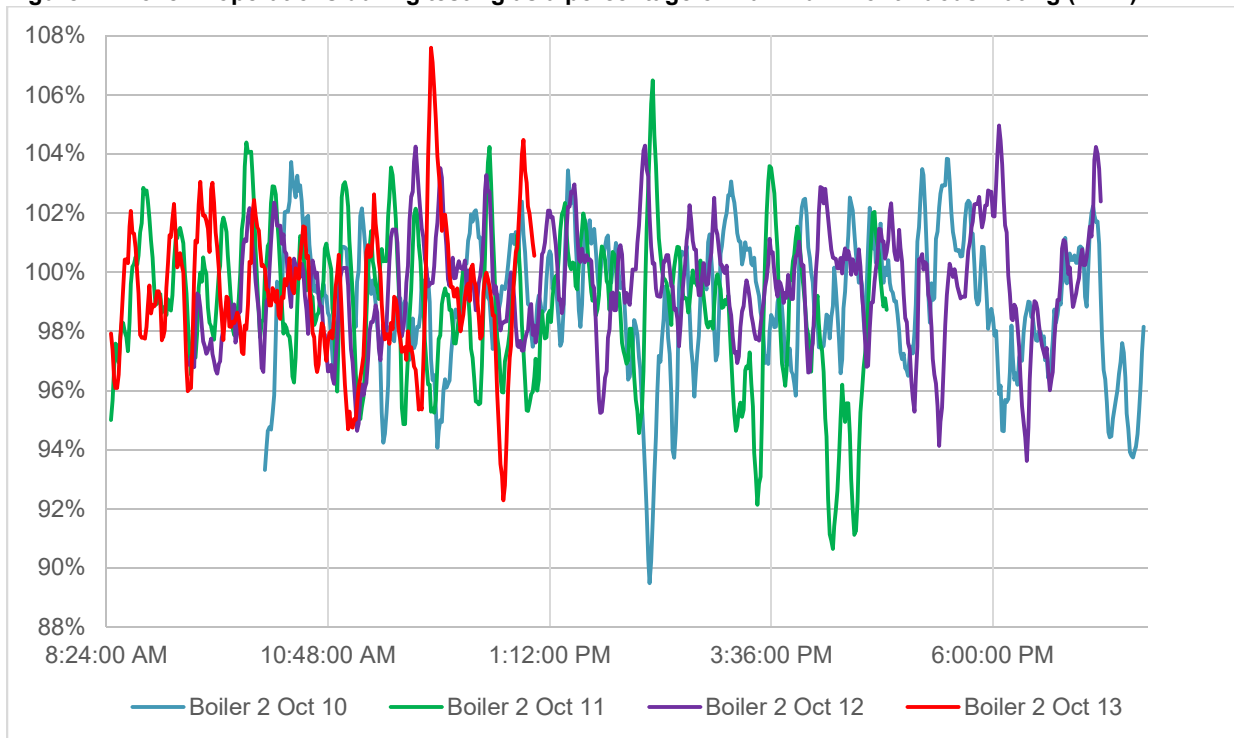


Figure 2 - Boiler 2 operations during testing as a percentage of Maximum Continuous Rating (MCR)



Based on our observations of the operation of the DYEC and our review of the data provided by Covanta, it is HDR's opinion that Covanta operated the DYEC under normal conditions and at or near MCR during the sampling periods identified in the schedule included in Attachment A. While some dips in steam flow/quality did occur during testing the units averaged outputs >98% of MCR. There were some minor issues identified during the test that are summarized below, but these issues were considered minor and did not affect the outcome of the tests performed.

- One of the computers for the distributed control system (or DCS) temporarily "froze" preceding the testing on Test Day 4 (October 13). The computer was reset prior to testing commencing, which addressed the issue.
- During the overnight period between Test Days 2 and 3 (October 11 and 12), a sampling port was left open by ORTECH, and blocked with a towel. During routine sootblowing of the boiler passes prior to the start of testing on Day 3, the induced draft fan speed change resulted in the towel being pulled partially into the duct for one of the units, which disturbed the flow and partially blocked the sensor on the continuous opacity monitor system (COMS). This blockage resulted in the COMS reading erratically until the problem was resolved. Although using a towel to temporarily block an open test port during the short time intervals between test runs, the permanent steel port caps should have been replaced overnight. Covanta corrected this issue with ORTECH.

No other significant process upsets and no sampling issues occurred during the testing that resulted in tests being aborted.

Stack Testing Observations:

It was observed by HDR that most of the ORTECH personnel on-site during the Fall 2017 testing were part of the same testing crews that conducted the May 2017 stack tests at the DYEC. HDR observed that ORTECH was careful during each port change to ensure that the probe was not scraped inside the port during insertion and removal of the probe. Sample box ice was replenished in a timely manner, sampling equipment was assembled properly, and all required leak checks were conducted. After each completed test, the sampling trains were transported to a trailer located outside the boiler building for recovery and clean up to avoid potential contamination of the samples at the test location.

Overall, no deviations from the approved test protocol or applicable stack test procedures were observed by HDR personnel during the testing period. It should be noted that the actual clock times associated with each run are slightly longer than the run lengths indicated in the test plan. This difference in time is due to the fact that it typically takes between 5 and 15 minutes for ORTECH to pull the probe out of the first port, leak check the sampling equipment, and insert the probe into the second port to properly traverse the duct. While rare, leak check failures and equipment issues do occur during stack testing programs. During the third dioxin test on Unit 2

on October 13, the leak test conducted prior to insertion for the second traverse was elevated compared to the start of the run. Although the leak check test results were within the allowable limits, ORTECH opted to recheck the connections to reduce any leakage before initiating the second traverse. These leak checks are not required under EPS 1/RM/3 and US EPA Method 23, but are advantageous in situations where corrective action can avoid the potential for a corrupted sample. In HDR's opinion, ORTECH took a conservative approach to addressing this potential issue, and their actions were appropriate.

Additional auditing of the stack sampling and laboratory procedures was completed by the Regions' third party consultant (Airzone One LTD) who had representatives on site during testing. The results of Airzone's audit will be provided to the Regions in a separate report.

Summary of Preliminary Results

HDR was provided with the Executive Summary from ORTECH's report on the results of the Emission Compliance Testing, dated November 3, 2017. The preliminary emission test results are summarized in Table 1 and Figures 3 and 4. As shown, emissions of all pollutants are corrected to 11% oxygen and were below the Amended ECA's Schedule "C" limits.

As of the date of this technical memorandum, HDR has not received the complete test report from ORETCH and therefore has not performed a detailed review of the supporting analytical results.

Table 1 – Summary of Preliminary Test Results

Parameter	Units	ECA Limit	Unit 1		Unit 2	
			Result	% of Limit	Result	% of Limit
Particulate Matter (PM) ⁽¹⁾	mg/Rm ³	9	1.4	15.6%	0.66	7.3%
Mercury (Hg) ⁽¹⁾	µg/Rm ³	15	0.22	1.5%	0.18	1.2%
Cadmium (Cd) ⁽¹⁾	µg/Rm ³	7	0.053	0.8%	0.031	0.4%
Lead (Pb) ⁽¹⁾	µg/Rm ³	50	0.34	0.7%	0.48	1.0%
Hydrochloric Acid (HCl) ⁽²⁾⁽³⁾	mg/Rm ³	9	2.0	22.2%	5.1	56.7%
Sulphur Dioxide (SO ₂) ⁽²⁾⁽³⁾	mg/Rm ³	35	2.4	6.9%	1.7	4.9%
Nitrogen Oxides (NO _x) ⁽²⁾⁽³⁾	mg/Rm ³	121	112	92.6%	111	91.7%
Carbon Monoxide (CO) ⁽²⁾⁽⁴⁾	mg/Rm ³	40	11.5	28.8%	12.2	30.5%
Total Hydrocarbons (THC) ⁽⁵⁾	ppm	50	0.3	0.6%	0.03	0.1%
Dioxin and Furans ⁽⁶⁾	pg TEQ/Rm ³	60	5.94	9.9%	10.1	16.8%

(1) dry at 25°C and 1 atmosphere, adjusted to 11% oxygen by volume

(2) based on process data or CEM data provided by Covanta

(3) maximum calculated rolling arithmetic average of 24 hours of data measured by the DYEC CEMS, dry at 25°C and 1 atmosphere, adjusted to 11% oxygen by volume

(4) maximum calculated rolling arithmetic average of 4 hours of data measured by the DYEC CEMS, dry at 25°C and 1 atmosphere, adjusted to 11% oxygen by volume

(5) average of three one hour tests measured at an undiluted location, reported on a dry basis expressed as equivalent methane

(6) calculated using the NATO/CCMS (1989) toxicity equivalence factors and the full detection limit for those isomers below the analytical detection limit, dry at 25°C and 1 atmosphere, adjusted to 11% oxygen by volume

Figure 3 - DYEC Preliminary Test Results as a Percent of ECA Limit

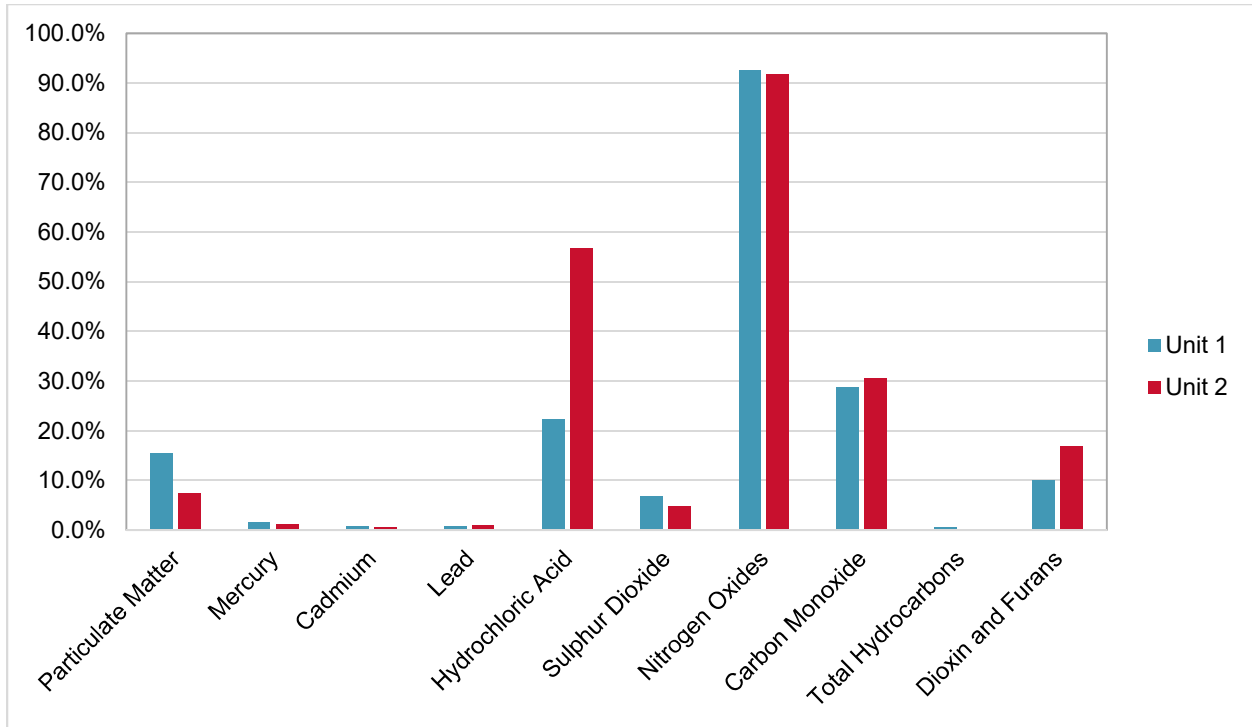
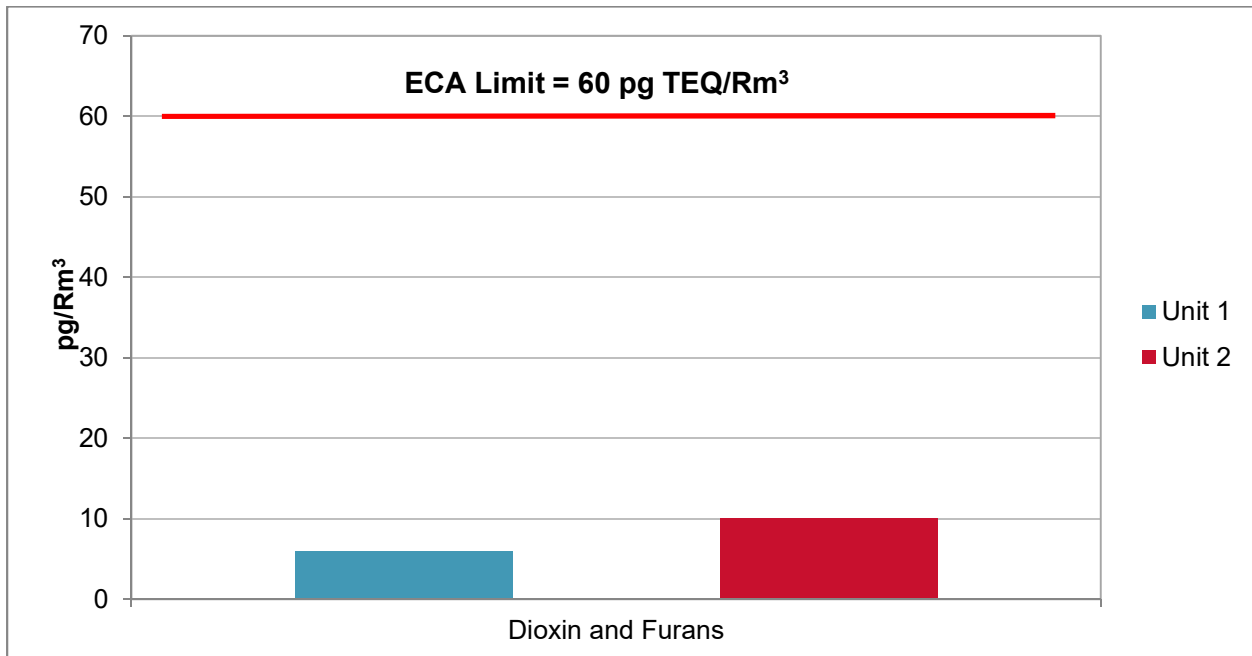


Figure 4 - Test Results for Dioxins and Furans



Conclusions and Recommendations

HDR has completed our initial review of the preliminary results from the DYEC Compliance Tests that were performed during the period between October 10 and October 13, 2017. Representatives from HDR were present throughout the majority of the Compliance Test period to observe the testing procedures and Covanta's operation of the DYEC. Overall, Covanta's plant personnel operated the DYEC under normal operating conditions and in accordance with acceptable industry operating standards. In addition, ORTECH appeared to follow good stack sampling procedures in accordance with the accepted test procedures and the Amended ECA. Based on our review of the preliminary test results, the 2017 Emission Compliance Testing Program demonstrated that the DYEC is operating below the Amended ECA's Schedule "C" limits.

Attachments:

Attachment A – Summary of Testing Schedule

Attachment B – Summary of Field Notes for the Compliance Test Period

Attachment C – Summary of Operating Data During Compliance Emission Testing

Attachment A: Summary of Testing Schedule

Table 2 - Fall 2017 Testing Schedule

Day/Location	Parameter	Method	Run No.	Duration	Start Time	End Time
Tuesday Oct 10, 2017						
# 1 APC Outlet	Particulate/Metals	Ontario 5/EPA 29	1	180	10:07	13:08
			2	180	14:04	17:30
	Hydrogen Fluoride	EPA M26A	1	60	10:06	11:06
# 2 APC Outlet	PM10, PM2.5 Cond	EPA M201A/202	2	60	11:41	12:41
			3	60	14:06	15:06
			1	120	10:49	12:54
			2	120	14:30	16:32
			3	120	17:35	19:38
Wednesday Oct 11, 2017						
# 1 APC Outlet	PM10, PM2.5 Cond	EPA M201A/202	1	120	8:29	10:32
			2	120	11:39	13:41
			3	120	14:50	16:51
# 2 APC Outlet	Particulate/Metals	Ontario 5/EPA 29	1	180	8:27	11:40
			2	180	12:32	15:40
	Hydrogen Fluoride	EPA M26A	1	60	8:30	9:30
			2	60	10:26	11:26
			3	60	12:34	13:34
Thursday Oct 12, 2017						
# 1 APC Outlet	Particulate/Metals	Ontario 5/EPA 29	3	180	9:20	13:13
			1	240	9:19	13:42
	Dioxins and Furans	EPS 23	2	240	14:53	19:04
	VOST	SW846-0030	1	80	9:22	11:09
			2	80	11:19	13:16
	Aldehydes	CARB Method 430	1	60	14:56	15:56
			2	60	16:22	17:22
#1 Quench Inlet	Dioxins and Furans	EPS 1/RM/2	1	180	9:38	13:18
			2	180	15:01	18:40
# 2 APC Outlet	Particulate/Metals	Ontario 5/EPA 29	3	180	14:53	18:38
			1	240	9:18	13:39
	Dioxins and Furans	EPS 1/RM/2	2	240	14:52	19:10
	VOST	SW846-0030	1	80	9:18	10:58
			2	80	11:06	12:44
	Aldehydes	CARB Method 430	1	60	13:25	14:25
			2	60	15:13	16:13
#2 Quench Inlet	Dioxins and Furans	EPS 1/RM/2	1	180	9:19	13:14
			2	180	14:54	18:42
Friday Oct 13, 2017						
# 1 APC Outlet	Dioxins and Furans	EPS 1/RM/2	3	240	8:38	12:50
	VOST	SW846-0030	3	80	10:49	12:28
	Aldehydes	CARB Method 430	3	60	8:42	9:42
#1 Quench Inlet	Dioxins and Furans	EPS 1/RM/2	3	180	8:33	12:23
# 2 APC Outlet	Dioxins and Furans	EPS 1/RM/2	3	240	8:36	13:02
	VOST	SW846-0030	3	80	10:24	12:09
	Aldehydes	CARB Method 430	3	60	8:27	9:27
#2 Quench Inlet	Dioxins and Furans	EPS 1/RM/2	3	180	8:36	12:34

Attachment B:
Summary of HDR Field Notes
For the Compliance Test Period

Day #1, Oct 10 Recap:

Testing start time: 10:07, end time: 19:38.

- HDR (Bruce Howie) was on-site yesterday at the DYEC to observe the start of the Compliance Test on boilers 1 and 2.
- During our observations, both boilers were operating normally at full load or ~33,000-34,000 kg/hr.
- Operations and testing activities all appeared to be going smoothly,
- All tests planned were completed successfully.
- HDR (Andrew Evans) will be back on-site for Days 3 and 4 to monitor the Dioxins/Furans testing on both units.

A summary of the tests and start/stop times is provided below.

Unit	Test Parameter	Test Method	Run No.	Test Start	Test Stop
Unit 1	Particulates/Metals	US EPA 29	1	10:07	13:08
	Particulates/Metals	US EPA 29	2	14:04	17:30
	Hydrogen Fluoride	US EPA 26A	1	10:06	11:06
	Hydrogen Fluoride	US EPA 26A	2	11:41	12:41
	Hydrogen Fluoride	US EPA 26A	3	14:06	15:06
Unit 2	PM10/PM2.5/Condensable	US EPA M201A/202	1	10:49	12:54
	PM10/PM2.5/Condensable	US EPA M201A/202	2	14:30	16:32
	PM10/PM2.5/Condensable	US EPA M201A/202	3	17:35	19:38

Day #2, Oct 11 Recap:

Testing started at 08:27, and ended at 16:51. HDR was not on site during this day of testing, and has provided the following information based on our discussions with Covanta (Amanda Huxter) after the completion of Day 2 of testing:

- During this test the boilers were run normally at an average steam rate of 33.7, tonnes/hour.
- Hydrated lime and carbon feed rates for both units were set at 175 kg/hour and 5.2 kg/hour, respectively.

The table below that summarizes the tests that were completed on Day 2 (October 11) of the Compliance Test (as received from Amanda Huxter of Covanta via email).

Unit	Test Parameter	Test Method	Run No.	Test Start	Test Stop
Unit 1	PM10/PM2.5/Condensable	US EPA M201A/202	1	8:29	10:32
	PM10/PM2.5/Condensable	US EPA M201A/202	2	11:39	13:41
	PM10/PM2.5/Condensable	US EPA M201A/202	3	14:50	16:51
Unit 2	Particulates/Metals	US EPA 29	1	8:27	11:40
	Particulates/Metals	US EPA 29	2	12:32	15:40
	Hydrogen Fluoride	US EPA 26A	1	8:30	9:30
	Hydrogen Fluoride	US EPA 26A	2	10:26	11:26
	Hydrogen Fluoride	US EPA 26A	3	12:34	13:34

Day #3, Oct 12 Recap:

Start time was 09:18, and end time was 19:10.

- HDR (Andrew Evans) was on-site at the DYEC to observe the Compliance Test on Units 1 and 2.
- During our observations, both boilers were operating normally at full load or ~32,000-35,000 kg/hour.
- Operations and testing activities all appeared to going smoothly.
- All tests planned for yesterday were completed successfully, and included the completion of the particulate/metals test originally scheduled for Day 4 (Friday, Oct 13).
- Martin Adomait from Adomait Environmental Solutions Inc. and representing Airzone One Ltd. (Airzone) was also on site conducting auditing on the testing.
- It was reported that overnight between Day 2 and Day 3 a sampling port was left open, but blocked with a towel. During sootblowing the fan speed change resulted in the towel being pulled partially into the stack. This resulted in the dust level sensors reading erratically until the problem was resolved.
- Rick Koehler is on site as Covanta's Test Coordinator.
- Unit 2 is operating with a dry (i.e. no water fill) feed chute jacket due to a previously identified water leak.

A summary of the tests and start/stop times is provided below.

Unit	Test Parameter	Run No.	Test Start	Test Stop
Unit 1	Inlet Dioxin/Furan	1	9:38	13:18
	Inlet Dioxin/Furan	2	15:01	18:40
	Outlet SVOC	1	9:19	13:42
	Outlet SVOC	2	14:53	19:04
	Particulate/Metals	3	9:20	13:13
	VOST	1	9:22	11:09
	VOST	2	11:19	13:16
	Aldehydes	1	14:56	15:56
	Aldehydes	2	16:22	17:22
Unit 2	Inlet Dioxin/Furan	1	9:19	13:14
	Inlet Dioxin/Furan	2	14:54	18:42
	Outlet SVOC	1	9:18	13:39
	Outlet SVOC	2	14:52	19:10
	Particulate/Metals	3	14:53	18:38
	VOST	1	9:18	10:58
	VOST	2	11:06	12:44
	Aldehydes	1	13:25	14:25
	Aldehydes	2	15:13	16:13

Day #4, Oct 13 Recap:

Start time was 08:27, and end time was 13:02.

Observations from Andrew Evans for Oct 13:

- HDR was on-site to observe the start of the Compliance Test on boilers 1 and 2.
- ORTECH ran one (1) dioxin test on each unit. Testing was conducted simultaneously at the inlet and outlet port locations.
- During our observations, both boilers were operating normally at or near full load or ~32,000-35,000 kg/hour.
- Operations and testing activities all appeared to going smoothly, and all tests planned were completed successfully.
- The DCS computer temporarily froze prior to the test start. Covanta re-booted the computer and that addressed the issue.
- Unit 2 leak checks between traverses were higher than expected (but within acceptable limits). ORTECH checked all connection points to limit any potential leakage prior to beginning traverse #2.
- Covanta Corporate test support on site, as well as Airzone during testing.

A summary of the tests and start/stop times is provided below.

Unit	Test Parameter	Run No.	Test Start	Test Stop
Unit 1	Inlet Dioxin/Furan	3	8:33	12:23
	Outlet SVOC	3	8:38	12:50
	VOST	3	10:49	12:28
	Aldehydes	3	8:42	9:42
Unit 2	Inlet Dioxin/Furan	3	8:36	12:34
	Outlet SVOC	3	8:36	13:02
	VOST	3	10:24	12:09
	Aldehydes	3	8:27	9:27

Attachment C:
Summary of Operating Data
During the Compliance
Emission Testing

**2017 Compliance Emission Testing
Operations Data During Testing Period**

Operating Parameter	Boiler 1				Boiler 2			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
	10-Oct	11-Oct	12-Oct	13-Oct	10-Oct	11-Oct	12-Oct	13-Oct
Steam (kg/hr)	33,545	33,313	33,618	33,154	33,391	33,370	33,515	33,469
Steam temp	502	495	497	499	494	501	502	498
Primary Air Flow	34,936	33,794	33,015	34,061	36,575	35,497	35,334	35,216
Overfire Air Flow	5,745	5,740	5,838	5,685	6,367	6,019	5,990	5,906
Tertiary Air (Fresh LN Air)	10,326	10,139	10,336	10,169	9,666	9,580	10,352	10,457
Tertiary air temperature °C	39.1	32.8	34.0	36.6	36.1	32.9	30.9	30.7
Lime Injection (kg/day)	174.9	174.6	174.6	174.0	174.7	178.0	179.3	175.7
Ammonia Injection Rate (liters/m)	0.6	0.4	0.5	0.5	0.4	0.5	0.5	0.4
Carbon Injection (kg/hr)	5.2	5.3	5.3	5.2	5.2	5.2	5.2	5.3
Combustion air preheat temp	117.0	126.0	111.8	110.9	106.7	90.7	95.0	94.4
Average Combustion Zone Temp °C	1,081	1,059	1,105	1,074	1,130	1,132	1,131	1,092
Superheater #3 Flue gas inlet Temp °C	622	608	602	611	617	626	629	618
Economizer Inlet Temp °C	342	340	342	340	342	343	344	342
Economizer Outlet Temp °C	167	166	166	167	166	166	166	165
Quench Outlet Temp °C	153	153	153	153	152	151	151	152
Reactor Outlet (BH Inlet) Temp °C	144	144	144	144	144	143	143	144
Baghouse Outlet Temp °C	141	141	141	141	140	140	140	141
Tertiary Air Header Pressure mbar	60	60	60	60	60	57	60	60
Tertiary Air Left mbar	45	43	45	44	35	36	40	41
Tertiary air Right mbar	45	43	45	44	35	36	40	41
Baghouse Differential Pressure mbar	14	14	15	13	12	12	12	12
Oxygen (%) - Boiler Outlet	8.3	8.2	8.5	8.4	8.1	7.8	7.9	7.9
Oxygen (%) - Baghouse Outlet	8.8	8.8	9.2	9.4	8.6	8.5	8.5	8.3
CO -Boiler Outlet	10.8	17.8	14.7	15.9	18.9	11.5	11.8	21.5
CO - Baghouse Outlet	8.5	11.5	9.6	10.3	15.0	8.0	8.1	17.6
NOx - mg/Rm3	110.4	110.2	106.8	110.1	109.6	110.7	109.8	109.6
NH3 mg/Rm3	9.2	9.3	10.3	8.9	12.6	12.7	12.5	12.6
Flue gas moisture	18%	19%	18%	18%	13%	15%	15%	16%

2017 Compliance Emission Testing
Dioxin/Furan Testing Operations Data and Results

Operating Parameter	Boiler 1			Boiler 2		
	Run 1 12-Oct	Run 2 12-Oct	Run 3 13-Oct	Run 1 12-Oct	Run 2 12-Oct	Run 3 13-Oct
Steam (kg/hr)	33,613	33,602	33,099	33,456	33,561	33,490
Steam temp	498	496	499	503	502	498
Primary Air Flow	33,312	32,707	34,058	35,495	35,101	35,186
Overfire Air Flow	5,952	5,745	5,688	6,109	5,899	5,907
Tertiary Air (Fresh LN Air)	10,237	10,411	10,174	10,236	10,442	10,460
Tertiary air temperature °C	32.9	35.0	36.6	31.1	30.8	30.7
Lime Injection (kg/day)	174.6	174.8	173.7	176.7	182.1	175.7
Ammonia Injection Rate (liters/m)	0.5	0.4	0.5	0.6	0.5	0.4
Carbon Injection (kg/hr)	5.2	5.3	5.2	5.1	5.2	5.3
Combustion air preheat temp	111.0	112.6	110.9	95.0	95.0	94.2
Average Combustion Zone Temp °C	1,111	1,100	1,075	1,127	1,129	1,092
Superheater #3 Flue gas inlet Temp °C	600	603	611	629	630	618
Economizer Inlet Temp °C	341	342	340	344	344	342
Economizer Outlet Temp °C	166	166	167	165	166	165
Quench Outlet Temp °C	152	152	153	151	152	152
Reactor Outlet (BH Inlet) Temp °C	144	144	144	144	143	144
Baghouse Outlet Temp °C	141	141	141	140	140	141
Tertiary Air Header Pressure mbar	60	60	60	60	60	60
Tertiary Air Left mbar	45	45	44	39	41	41
Tertiary air Right mbar	45	45	44	39	41	41
Baghouse Differential Pressure mbar	15	15	13	12	12	12
Oxygen (%) - Boiler Outlet	8.5	8.7	8.4	7.9	8.0	7.9
Oxygen (%) - Baghouse Outlet	9.0	9.1	9.4	8.5	8.2	8.1
CO -Boiler Outlet	12.9	16.7	16.2	10.8	12.6	21.4
CO - Baghouse Outlet	8.1	11.7	10.5	7.5	8.5	17.4
NOx - mg/Rm ³	107.9	105.4	110.1	111.1	108.7	109.2
NH ₃ mg/Rm ³	10.4	10.2	8.9	12.4	12.5	12.6
Flue gas moisture	17%	17%	18%	14%	15%	16%
Inlet Dioxin - NATO - (pg TEQ/Rm ³)	1,018	1,149	1,242	1,052	871	1,457
APC System Dioxin Removal efficiency	99.45%	99.43%	99.55%	98.98%	98.92%	99.30%
Outlet/Stack Dioxin - NATO - (pg TEQ/Rm³)	5.6	6.6	5.6	10.7	9.4	10.2



The Regional Municipality of Durham Information Report

From: Commissioner of Planning and Economic Development
Report: #2017-INFO-142
Date: November 23, 2017

Subject:

Lake Simcoe Region Conservation Authority Lake Simcoe Phosphorus Offset Program

Lake Simcoe Region Conservation Authority Phosphorus Offsetting Policy: File DO-445

Recommendation:

Receive for information.

Report:

1. Purpose

1.1 The purpose of this report is to provide Committee with an update on the Lake Simcoe Phosphorus Offset Program (LSPOP) and Phosphorus Offsetting Policy, developed by the Lake Simcoe Region Conservation Authority (LSRCA).

2. Background

2.1 In 2008, the Lake Simcoe Protection Act received Royal Assent and the Lake Simcoe Protection Plan (LSPP) was adopted. Approximately one-third of the Region's geographic area lies within the Lake Simcoe watershed and is impacted by the LSPP.

2.2 In 2010, the LSPP gave rise to the Province's Phosphorus Reduction Strategy (PRS) which outlined a long-term approach for phosphorus reduction within the Lake Simcoe watershed. Phosphorus reduction is critical in order to achieve a key goal of the LSPP, restoring a self-sustaining coldwater fish community in Lake Simcoe.

2.3 In March 2010, the Region provided comments on the PRS in Report #2010-J-8 and a subsequent update in Report #2010-J-41. The PRS highlighted that urban runoff and stormwater accounted for 31 percent of phosphorus loading, which would likely increase with further development, while water pollution control plants contributed 7 percent. At the time, the Region noted that despite these numbers, the overwhelming focus of the PRS was on achieving further phosphorus reductions from water pollution control plants.

3. Lake Simcoe Phosphorus Offset Program

3.1 Filling the gap in programming related to phosphorus loading from urban runoff and stormwater, the LSRCA has developed the [Lake Simcoe Phosphorus Offset Program \(LSPOP\)](#).

3.2 The LSPOP is based on initial work that was completed through a Provincial Feasibility Study of water quality trading. The Feasibility Study identified three primary opportunities for offset trading: urban runoff, wastewater treatment plants, and polder water (water from a low-lying area that is enclosed by dykes). A Steering Committee, that included Regional representation, was established by the LSRCA in 2012 to further explore these opportunities. The Committee met eight times over a two year period and identified urban runoff as the key opportunity for offset trading in the Lake Simcoe watershed.

3.3 The LSPOP requires that all new development within the Lake Simcoe watershed controls 100 percent of phosphorus from leaving their property, achieving a “Zero Export Target.” Any phosphorus loads, after the best available control technology is applied within the development itself, must be offset.

3.4 Offsets can be realized through improvements to existing stormwater management facilities in built-up urban areas, the retrofit of new treatment facilities, or low-impact development (LID) practices.

3.5 The LSPOP is based on a 2.5:1 offset ratio. For every kilogram of phosphorus created by a site, 2.5 kilograms of phosphorus offset would be required, after accounting for onsite controls.

3.6 Load offset purchases would cost approximately \$32,200 per hectare of greenfield area or about \$1,820 per residential unit. These costs would to be borne by the developer and represent capital costs, program administration, and a two-year monitoring program. It is expected that these costs may need to be adjusted as the LSPOP proceeds.

- 3.7 As the proposed LSPOP Administrator, offset fees would be collected by the LSRCA. In addition to private landowners, upper and lower tier municipalities within the watershed would have the opportunity to apply for funding to complete retrofit projects. These projects may include stormwater management infrastructure retrofits and/or LID projects. LID projects may include rain gardens and green roofs, permeable pavement, vegetated filler strips, enhanced grass swales, etc.
- 3.8 Project applications would be referred to a Review Panel comprised of representatives from the LSRCA, municipalities and outside experts for authorization. If authorized, funding would be provided for first/next stage of development. Final payment would be made upon project completion and acceptance.
- 3.9 It is the intent of the program that the urban stormwater retrofit and LID projects remain in place and be properly operated and maintained in perpetuity. Ongoing, long-term operation and maintenance, including replacement and renewal of the infrastructure will be required. With the exception of potential LID projects on Regional property, these retrofit projects would be under the ownership and operational control of the area municipality, becoming part of their existing storm drainage and stormwater management infrastructure. Costs for ongoing operation and maintenance of these projects will be borne by the area municipality. Additionally, the area municipality would be responsible for addressing failure of these retrofits to continue to provide the agreed-upon phosphorus reductions.
- 3.10 The LSPOP expects that area municipalities will obtain necessary revenue through revenue streams that are currently in place to fund stormwater system maintenance. In addition, municipalities may choose to develop new revenue streams such as system user fees for stormwater management.
- 3.11 In 2007, the LSRCA developed an inventory of “end of pipe” stormwater retrofit opportunities through its report “Lake Simcoe Basin Stormwater Management and Retrofit Opportunities”. Additionally, a review of opportunities to implement low-impact development measures in existing built-up areas within the Lake Simcoe watershed was undertaken by researchers at Ryerson University. The results of this review have yet to be released. The LSRCA would like to target projects on municipal property first, followed by private landowners.
- 3.12 As mentioned, the proposed Administrator of the LSPOP is the LSRCA. Administration of the LSPOP includes:

- Finalizing operational protocols and training for participants (i.e. developers and municipalities);
- Review of applications for offset-generating projects;
- Review of applications for offset purchases;
- Ongoing tracking of offsets;
- Managing third party verification by external consultants; and
- Annual program reporting.

3.13 The LSPOP framework was developed as a participatory process, involving consultation with stakeholders from the community, participating municipalities, and the Province. A Project Steering Committee, that included Regional representation, was formed at the outset of LSPOP development.

4. Phosphorus Offsetting Policy

4.1 In late 2016, the LSRCA established a Working Committee to develop a process/methodology for implementing the LSPOP. Regional staff were invited to sit on that Committee and attended the first meeting. This Working Committee ultimately developed the [Phosphorus Offsetting Policy](#).

4.2 On September 22, 2017 the LSRCA Board of Directors adopted the Phosphorus Offsetting Policy. This policy will take effect on January 1, 2018. The policy outlines the steps needed to facilitate an offset with the development industry and is intended to aid in operationalizing the LSPOP.

4.3 Through the policy, phosphorus offsetting will form part of future agreements and approval for the following applications under the *Planning Act* and *Condominium Act*:

- Plans of subdivision;
- Plans of condominium;
- Site plans involving major development; and
- Consent applications resulting in the creation of four or more new lots.

4.4 The following would be exempt from this policy:

- Applications that facilitate permitted agricultural uses;
- Applications that facilitate the construction of an accessory structure or a single family dwelling on an existing lot of record; and
- Applications requiring approval under Ontario Regulation 179/06

(LSRCA: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses).

5. Conclusion

5.1 The Region will continue to monitor the LSPOP and other phosphorus reduction initiatives and report to Committee accordingly.

5.2 This report was prepared in consultation with Works Department staff.

Respectfully submitted,

Original signed by

B.E. Bridgeman, MCIP, RPP
Commissioner of Planning and
Economic Development



The Regional Municipality of Durham Information Report

From: Commissioner of Corporate Services
Report: #2017-INFO-143
Date: December 1, 2017

Subject:

Automating Legislative Process Elements

Recommendation:

Receive for information

Report:

1. Purpose

1.1 The purpose of this report is to provide an update on the E-Agenda project/automating legislative process elements.

2. Background

2.1 In 2016, the Region of Durham issued RFP 1038-2016 to obtain a software-as-a-service (SaaS) solution for an Electronic Agenda Meeting Management System (E-Agenda). In June of 2016 Regional Council authorized the award of the contract and the contract was executed on August 15, 2016.

2.2 The contract with the selected provider was terminated in January 2017 as they could not meet certain requirements of the E-Agenda project in a timely way (Report #2017-INFO-10).

2.3 Over several months staff re-evaluated the project requirements and re-designed the RFP to scale back the project scope including removing the workflow component, and to clarify the *Accessibility for Ontarians with Disabilities Act* accessibility requirements, and the training, support and security expectations.

2.4 On July 27, 2017 RFP 1121-2017 was issued. During the question period, a number of questions were received from vendors and the Region responded via addenda to the RFP. A pre-bid meeting was also held to allow vendors the chance to ask questions regarding the RFP.

- 2.5 The RFP closed on September 12, 2017 and no proposals were received.
- 2.6 Following the close of the RFP, staff conducted an evaluation to consider possibilities moving forward and reviewed a range of potential options including:
- Pre-qualifying vendors for ability to meet accessibility requirements and then soliciting bids from those who met the pre-qualification criteria;
 - Re-issuing the RFP as a negotiated RFP to allow room for negotiations with vendors;
 - Maintaining the status quo and continuing with a largely paper-based agenda distribution process and the ability to access agendas on-line with reports accessed from a document repository;
 - Researching various products already installed within existing agencies/organizations where the solution is of a similar scope to our requirements, and determining whether one vendor could meet the Region's expectations and contracting with that vendor as a sole source provider; and
 - Developing an in-house pdf approach to provide an integrated Agenda document using existing resources.

3. Discussion

- 3.1 After reviewing the options, it would appear that an in-house pdf approach is the preferred route for a number of reasons including:
- a. Council's desire to have an automated process for viewing agenda material in the near term and the desire to find the most expedient and cost efficient solution.
 - b. The ability to leverage the new durham.ca website which has the capacity to store agenda material, renders pages so that they will display on a mobile device, and allows for notifications to be sent to calendar subscribers' when agenda material is posted.
 - c. Limited or no resource availability to pursue and implement a complete agenda management workflow project at this time.
 - d. Leverage the existing skillsets of internal staff in managing the Agenda process and accessibility requirements. As a result of extensive training in accessible document creation, the level of accessibility in which current documents are prepared allows for a fairly streamlined conversion to a full pdf agenda.
 - e. The cost savings that can be realized by not purchasing a separate E-Agenda software solution.
 - f. The current pilot Committee of the Whole system which has centralized agenda preparation within the Corporate Services - Legislative Services division.
 - g. Challenges around finding vendors who offer a solution that meets all of the Region's expectations.
 - h. A recent evaluation of the current infrastructure in Council Chambers has

identified the potential for electronic voting (E-Voting) which would further enhance the automation of the Region's processes.

- 3.2 The introduction of the new durham.ca website, the new E-Agenda pdf file format, and the introduction of E-voting automation for recorded votes are part of the Corporate Services - Legislative Services strategy to transform the user experience.
- 3.3 An in-house integrated agenda document would be created using Adobe Acrobat as a pdf document, and would leverage the new durham.ca website to simplify the user experience. It is expected that the agenda package including all attachments (correspondence, reports) would be made available as one pdf document. Bookmarks would be added to the document which makes it easy to navigate between the Agenda cover pages and the item being considered. There is the ability within Adobe pdf documents to highlight, or make annotations which members of Council or staff could use to record their own notes and mark-up documents. Agenda packages could be downloaded, thereby negating the need for internet access to view agenda material after the initial download while connected to a network.
- 3.4 None of the above considerations precludes consideration of a future agenda management workflow project.

4. Next Steps

- 4.1 Staff is currently testing the production of an integrated agenda document and presenting it for use through the new durham.ca services. It is expected that it will be made available to members of Council and the public within the first quarter of 2018.
- 4.2 Mobile technology considerations to enhance the user experience will be offered to members of Council to use with the new system and training will be made available for those who require it.
- 4.3 The current process of distributing paper agendas will continue for the remainder of this term of council to complement the new integrated agenda approach, and the option to move to a fully electronic process will be explored for the new term of council beginning in December 2018.
- 4.4 Staff is currently assessing the best method for distribution of confidential agenda material including continuing with a paper based distribution, or utilizing a password protected email approach.
- 4.5 An Audio Visual Technician is being retained to make programming modifications to the current technology infrastructure within the Council Chambers to allow for electronic voting that meets the Region's criteria. Changes are required to the existing technology which has already been installed, funds for which were available in the 2017 budget. It is expected that E-Voting will be rolled out during

the second half of 2018.

5. Financial Implications

- 5.1 Funds have been found within the 2017 budget for the E-Voting initiative. For the integrated agenda document, existing staff resources will be used so there are no additional costs involved.

6. Conclusion

- 6.1 In order to transform the user experience by automating the agenda process and providing for greater efficiencies for Council and members of the public, it has been determined that an in-house integrated agenda document approach, combined with the ability for electronic voting, and leveraging the new durham.ca website, is the preferred option at this time.
- 6.2 Any questions regarding this report may be directed to Ralph Walton, Regional Clerk/Director of Legislative Services, 905-668-7711 extension 2100.

Respectfully submitted,

Original signed by:

D. Beaton
Commissioner of Corporate Services

If you require this information in an accessible format, please contact The Regional Municipality of Durham at 1-800-372-1102 ext. 3560.



November 24, 2017

Celeste Dugas, Manager, York Durham District Office
Ministry of the Environment and Climate Change
230 Westney Road South, Floor 5
Ajax, ON L1S 7J5

Dear Ms. Dugas:

RE: Durham/York Energy from Waste Project
Submission of the 2017 Soil Testing Report for the Durham York Energy Centre
Environmental Compliance Approval: #7306-8FDKNX

In accordance with Environmental Compliance Approval Number 7306-8FDKNX, Condition 15(4), the Regional Municipality of Durham and the Regional Municipality of York (Regions) are pleased to submit to the Ministry of the Environment and Climate Change (MOECC) the enclosed Durham York Energy Centre (DYEC) Soil Testing Report for the third year of facility operation of the DYEC. A qualified, independent consultant, RWDI, was retained to conduct soils testing in accordance with the DYEC Soils Testing Plan. Sampling was conducted on August 23, 2017, and submitted to a certified laboratory for analysis.

Initial laboratory results were provided to the consultant on October 5, 2017. Upon review of the results, an exceedance of benzo(a)pyrene was discovered at the downwind sampling location. In accordance with Section 7 of the DYEC Soils Testing Plan, a resample was collected from the downwind location on October 18, 2017. The results from the resample for benzo(a)pyrene were received by RWDI from the laboratory on October 26, 2017, and were found to satisfy the MOECC Table 1 Standards for Soil.

The Regions trust that the DYEC Soil Testing Report meets the requirements of Environmental Compliance Approval Number 7306-8FDKNX, Condition 15(4). In accordance with Section 3.2 of the DYEC Soils Testing Plan, the next soil sampling event is scheduled to occur in August 2020.

Sincerely,



Mirka Januszkiewicz, P.Eng.
Director, Waste Management Services

The Regional Municipality of Durham
905-668-7711 extension 3464
Mirka.Januszkiewicz@durham.ca



Laura McDowell, P.Eng.
Director, Environmental Promotion
and Protection

The Regional Municipality of York
905-830-4444 extension 75077
Laura.McDowell@york.ca

- c. L. Trevisan, Director, Central Region, MOECC
- K. O'Neill, Director, Environmental Approval Branch, MOECC
- S. Thomas, Issues Project Coordinator, MOECC
- P. Dunn, Senior Environmental Officer, MOECC
- P. Martin, Supervisor, Air, Pesticides and Environmental Planning, MOECC
- E. O'Leary, Environmental Resource Planner and EA Coordinator, Air, Pesticides
and Environmental Planning, MOECC
- G. Battarino, Special Project Officer (Acting), Project Coordination, MOECC
- A. Huxter, Environmental Specialist, Covanta
Energy from Waste Advisory Committee (EFWAC)
- C. Raynor, Regional Clerk, The Regional Municipality of York
- R. Walton, Regional Clerk, The Regional Municipality of Durham

Encl.

If this information is required in an accessible format, please contact The Regional Municipality of Durham at 1-800-372-1102 ext. 3560.



November 14, 2017

Lisa Trevisan, Director, Central Region
Ministry of the Environment and Climate Change
Place Nouveau
5775 Yonge Street, Floor 8
North York, ON M2M 4J1

Dear Ms. Trevisan:

**RE: Durham/York Energy from Waste Project
Ambient Air Monitoring 2017, 3rd Quarterly Report
(Environmental Assessment Condition 11) - MOECC File #: EA-08-02**

In accordance with the approved Ambient Air Monitoring and Reporting Plan and the Ministry of the Environment and Climate Change (MOECC) Ambient Air Monitoring Guideline, the Regional Municipalities of Durham and York (Regions) submit the 3rd Quarterly Ambient Air Monitoring Report for calendar year 2017, covering the period from July to September 2017.

The report has been prepared by Stantec Consulting Ltd. who was awarded the ambient air monitoring and reporting contract for the Regions. The Regions are available to discuss the report at your convenience.

Sincerely,

Handwritten signature of Mirka Januszkiewicz.

Mirka Januszkiewicz, P.Eng.
Director, Waste Management Services

The Regional Municipality of Durham
905-668-7711 extension 3464
Mirka.Januszkiewicz@durham.ca

Handwritten signature of Laura McDowell.

Laura McDowell, P.Eng.
Director, Environmental Promotion
and Protection
The Regional Municipality of York
905-830-4444 extension 75077
Laura.McDowell@york.ca

- c. K. O'Neill, Director, Environmental Approvals Branch, MOECC
C. Hyde, Manager, York Durham District Office, MOECC
S. Thomas, Issues Project Coordinator, York Durham District Office, MOECC
P. Dunn, Senior Environmental Officer, York Durham District Office, MOECC
P. Martin, Supervisor (Acting), Air, Pesticides, and Environmental Planning, MOECC
E. O'Leary, Environmental Resource Planner & EA Coordinator, Air, Pesticides, and Environmental Planning, MOECC
G. Battarino, Project Officer, Project Coordination, MOECC
A. Huxter, Environmental Specialist, Covanta
Energy from Waste Advisory Committee (EFWAC)
C. Raynor, Regional Clerk, The Regional Municipality of York
R. Walton, Regional Clerk, The Regional Municipality of Durham

Encl.

If you require this information in an accessible format, please contact The Regional Municipality of Durham at 1-800-372-1102 ext. 3560.



November 24, 2017

Kathleen O'Neill, Director,
Environmental Approvals Branch
Ministry of the Environment and Climate Change
135 St. Clair Avenue West, Floor 1
Toronto, ON M4V 1P5

Dear Ms. O'Neill:

RE: Durham/York Energy from Waste Project
Submission of the 2017 Odour Management and Mitigation Monitoring Report
Environmental Assessment Condition 18
MOECC File #: EA-08-02

In accordance with Condition 18.5 of the Environmental Assessment (EA) Notice of Approval for the Durham York Energy Centre, we are pleased to submit the enclosed Durham York Energy Centre 2017 Odour Management and Mitigation Monitoring Report covering the period from November 2016 through October 2017.

In accordance with the Notice of Approval 8.8(j), this submission will be forwarded to the Energy from Waste Advisory Committee for information. It will also be posted to the Durham York Energy Centre website in accordance with Environmental Compliance Approval Condition 7(14)(c).

We trust that this report meets the expectations of the Ministry of the Environment and Climate Change (MOECC) as outlined in the EA Notice of Approval. If you require additional information, please contact the undersigned.

Sincerely,



So, Mirka Januszkiewicz, P.Eng.
Director, Waste Management Services

The Regional Municipality of Durham
905-668-7711 extension 3464
Mirka.Januszkiewicz@durham.ca



Laura McDowell, P.Eng.
Director, Environmental Promotion
and Protection

The Regional Municipality of York
905-830-4444 extension 75077
Laura.McDowell@york.ca

- c. L. Trevisan, Director, Central Region, MOECC
C. Dugas, Manager, York Durham District Office, MOECC
S. Thomas, Issues Project Coordinator, MOECC
P. Dunn, Senior Environmental Officer, MOECC
P. Martin, Supervisor, Air, Pesticides and Environmental Planning, MOECC
G. Battarino, Special Project Officer (Acting), Project Coordination, MOECC
E. O'Leary, Environmental Resource Planner and EA Coordinator, Air, Pesticides
and Environmental Planning, MOECC
A. Huxter, Environmental Specialist, Covanta
Energy from Waste Advisory Committee (EFWAC)
C. Raynor, Regional Clerk, The Regional Municipality of York
R. Walton, Regional Clerk, The Regional Municipality of Durham

Encl.



Interoffice Memorandum

Date: December 1, 2017

To: Committee of the Whole

From: Dr. Robert Kyle

Subject: Release of the Chief Public Health Officer's Report on the State of Public Health in Canada 2017: Designing Healthy Living

Health
Department

On October 26, 2017, Dr. Theresa Tam, Chief Public Health Officer of Canada released her [Report of the State of Public Health in Canada, 2017: Designing Healthy Living](#).

The report raises awareness about how the built environment provides a foundation for healthy living and overall health. For the purposes of the report, the built environment is defined as the external physical environment where people live, work, study and play, including buildings, roads, public transit systems, parks and other types of infrastructure.

The report describes the health status of those living in urban, suburban and rural areas across the country to provide the context for the recommendations that follow. The report highlights how communities can be designed to: promote physical activity and encourage active transportation; promote healthy eating and improve access to healthy food; promote mental wellness; and impact healthy living in specific populations such as children, youth and older adults.

The report provides an overview of international initiatives related to the built environment, federal programs, and highlights Canadian initiatives from Vancouver, Toronto, Montreal as well as those from Indigenous Communities.

Finally, the report concludes with a call to action for all levels of government, political decision makers, community planners and entrepreneurs to take action in six ways:

*"Service Excellence
for our Communities"*

1. Consider the health of populations when designing and re-designing communities and developing and implementing major infrastructure projects;
2. Avoid worsening health inequity when designing and re-designing communities;
3. Evaluate the health impacts of community design features by enlisting public health expertise;
4. Strengthen existing approaches, share lessons learned and best practices;
5. Collaborate to collect standardized data and engage citizens; and
6. Innovate so that the healthy choices are the easy choices.

Respectfully submitted,

Original signed by

R.J. Kyle, BSc, MD, MHSc, CCFP, FRCPC, FACPM
Commissioner & Medical Officer of Health



TOWN OF AJAX
65 Harwood Avenue South
Ajax ON L1S 3S9
www.ajax.ca

Mark Holland MP Ajax
100 Old Kingston Rd,
Ajax, ON
L1T 2Z5

November 22, 2017

Re: Zero Tolerance Against Racism

Please be advised that the following resolution was passed by Ajax Town Council at its meeting held November 20, 2017:

WHEREAS there has been a dramatic rise in the number of horrific, racially motivated acts of violence both locally and abroad, including the recent incident in Charlottesville, Virginia;

AND WHEREAS the Town of Ajax has set a clear objective of total inclusion for all residents through recognition, programs, services and initiatives such as the Ajax for All campaign and Sanctuary City designation;

AND WHEREAS we must join together as a community, province, and nation to condemn hatred and racism, and to promote diversity and inclusion;

THEREFORE BE IT RESOLVED that Ajax Council supports zero tolerance for racism of any kind, and denounces all acts of terrorism and racially motivated violence;

AND FURTHER THAT Ajax Council encourages all Ontario Municipalities to pass a resolution to support zero tolerance against racism and condemn all racially motivated acts of violence;

AND FURTHER THAT a copy of this resolution be sent to Mark Holland, MP, Ajax, Joe Dickson, MPP, Ajax-Pickering, the Federation of Canadian Municipalities, the Association of Municipalities of Ontario, the Region of Durham, and all Durham Region local municipalities.

If you require further information please contact me at 905-619-2529 ext 3342 or alexander.harras@ajax.ca

Sincerely,

Alexander Harras
Manager of Legislative Services/ Deputy Clerk

Copy J. Dickson, MPP Ajax/Pickering
Federation of Canadian Municipalities
Association of Municipalities of Ontario
Region of Durham
Durham Region Local Municipalities.



Town of Whitby
Office of the Town Clerk

575 Rossland Road East, Whitby, ON L1N 2M8
 www.whitby.ca

C.S. - LEGISLATIVE SERVICES

Original
To: CIP
Copy
To: S Siopis J Clapp
C.C. S.C.C. File
Take Appr. Action

November 23, 2017

Ralph Walton, Regional Clerk
 Regional Municipality of Durham
 605 Rossland Road East
 Whitby, ON L1N 6A3

Re: Public Works Department Report, PW 30-17
 Town Comments on Draft 2018 Region of Durham Road Program and 9-Year
 Forecast

Please be advised that at a meeting held on November 20, 2017 the Council of the
 Town of Whitby adopted the following recommendation:

1. That the Clerk circulate Report PW 30-17 to the Region of Durham;
2. That the Region be requested to include sufficient funds in their 2018 and 9-Year
 Capital Roads Program to complete the following projects in 2018 to complete the
 last remaining barrier along the north-south priority cycling network connecting
 the Waterfront Trail and Greenbelt Cycling Route:
 - a. Cochrane Street rehabilitation from Ferguson Street to Vernon Street for
 construction in 2019 (advanced from 2020); and,
 - b. Rossland Road intersection improvements at Cochrane Street for
 construction in 2019 (advanced from 2021).
3. That the Region be requested to include sufficient funds in their 2018 and 9-Year
 Capital Roads Program to advance:
 - a. Hopkins Street Overpass at Highway 401 for construction in 2023
 (advanced from 2024) to improve cycling and pedestrian accommodation
 and support development of the Port Whitby area;
 - b. Hopkins Street Widening between Consumers and Dundas in 2021
 (advanced from 2027) to accommodate economic development in the area
 and to improve cycling and pedestrian accommodation;
 - c. Taunton Road and Anderson Street intersection improvements for
 construction in 2019 (from 2020) to address existing traffic capacity and
 cycling deficiencies; and,
 - d. Victoria Street Intersection improvements at Brock Street in 2020 (from
 2023) to address existing traffic capacity constraints.

4. That the Region consider deferring funds in their 2018 and 9-Year Capital Roads Program for the following project, save and except the Manning Road/Adelaide Street Interconnection which shall remain in 2021, in order to accommodate the advancement request of the above noted projects:
 - a. Thickson Road widening from Wentworth Street to CN Rail (construction in 2024 from 2020).
5. That the Region be requested to establish a 10-Year watermain and sanitary sewer replacement and relining program, to allow coordination with municipal road projects and consider preventative infrastructure maintenance needs;
6. That the Region be requested to establish a 10-Year cycling facility implementation program to allow coordination with municipal projects;
7. That the Town partner with the Region of Durham to review and improve cycling opportunities to cross Regional Roads;
8. That the Town and Region Staff continue to meet regularly to discuss coordination matters (Thickson Road widening, IT infrastructure, etc.);
9. That the Town initiate discussions with the Region of Durham regarding road rationalization/transfer of the following road segments:
 - a. Rossland Road from Lake Ridge Road to Cochrane Street;
 - b. Cochrane Street from Dundas Street to Rossland Road;
 - c. Brock Street from Water Street to South Limit of Highway 401; and,
 - d. Old Lake Ridge Road from Almond Avenue to Cresser Avenue.
10. That the Region be advised that the Town as of January 1, 2018 will require compensation for the operational and energy costs incurred by the Town for maintaining Regional streetlights on Regional roadways; and,
11. That the Region establish an asset management plan for their streetlights on Regional roadways.

Should you require further information, please do not hesitate to contact the Public Works Department at 905-430-4307.



Christopher Harris
Town Clerk

Copy: S. Beale, Commissioner of Public Works

Attach. PW 30-17



Town of Whitby Report

Report to: Operations Committee
Date of meeting: November 13, 2017
Department: Public Works Department

Report Number: PW 30-17
File Number(s): RMD-RO-1

Report Title: Town Comments on Draft 2018 Region of Durham Road Program and 9-Year Forecast

1. Recommendation:

- 1. That the Clerk circulate Report PW 30-17 to the Region of Durham.**
- 2. That the Region be requested to include sufficient funds in their 2018 and 9-Year Capital Roads Program to complete the following projects in 2018 to complete the last remaining barrier along the north-south priority cycling network connecting the Waterfront Trail and Greenbelt Cycling Route.**
 - a. Cochrane Street rehabilitation from Ferguson Street to Vernon Street for construction in 2019 (advanced from 2020).**
 - b. Rossland Road intersection improvements at Cochrane Street for construction in 2019 (advanced from 2021).**
- 3. That the Region be requested to include sufficient funds in their 2018 and 9-Year Capital Roads Program to advance:**
 - a. Hopkins Street Overpass at Highway 401 for construction in 2023 (advanced from 2024) to improve cycling and pedestrian accommodation and support development of the Port Whitby area.**
 - b. Hopkins Street Widening between Consumers and Dundas in 2021 (advanced from 2027) to accommodate economic development in the area and to improve cycling and pedestrian accommodation.**

Report to: Operations Committee
Report number: PW 30-17

- c. Taunton Road and Anderson Street intersection improvements for construction in 2019 (from 2020) to address existing traffic capacity and cycling deficiencies.
 - d. Victoria Street Intersection improvements at Brock Street in 2020 (from 2023) to address existing traffic capacity constraints.
- 4. That the Region consider deferring funds in their 2018 and 9-Year Capital Roads Program for the following projects in order to accommodate the advancement request of the above noted projects;
 - a. Thickson Road widening from Wentworth Street to CN Rail (construction in 2024 from 2020).
 - b. Manning Road/Adelaide Street Interconnection (construction 2024 from 2021).
- 5. That the Region be requested to establish a 10-Year watermain and sanitary sewer replacement and relining program, to allow coordination with municipal road projects and consider preventative infrastructure maintenance needs.

- 6. That the Region be requested to establish a 10-Year cycling facility implementation program to allow coordination with municipal projects.
- 7. That the Town partner with the Region of Durham to review and improve cycling opportunities to cross Regional Roads.
- 8. That the Town and Region Staff continue to meet regularly to discuss coordination matters (Thickson Road widening, IT infrastructure, etc.)
- 9. That the Town initiate discussions with the Region of Durham regarding road rationalization/transfer of the following road segments:
 - a. Rossland Road from Lake Ridge Road to Cochrane Street
 - b. Cochrane Street from Dundas Street to Rossland Road
 - c. Brock Street from Water Street to South Limit of Highway 401
 - d. Old Lake Ridge Road from Almond Avenue to Cresser Avenue
- 10. That the Region be advised that the Town as of January 1, 2018 will require compensation for the operational and energy costs incurred by the Town for maintaining Regional streetlights on Regional roadways.
- 11. That the Region establish an asset management plan for their streetlights on Regional roadways.

2. Executive Summary:

N/A

3. Origin:

Public Works Report PW 30-17 originates from a request from the Region of Durham Works Department to provide comment on their Regional Road Program for consideration during their 2018 budget process.

4. Background:

Each year the Region of Durham requests Town staff to provide input into their capital road program. The information provided to Town staff as the basis for comment, is the Draft 2018 Transportation Servicing and Financing Study (see **Attachment 1**). Highlighted in this report is a summary of staff comments pertaining to the Region's forecasted 2018-2027 road construction program.

In addition, this report also includes recommendations pertaining to the need for the development of a similar 10-year program for watermain, sanitary sewer and polybutylene water service replacements and a 10-year program for cycling facility implementation projects. These requested forecast programs will allow for better coordination with the Town's long-term planning and asset management program and improve active transportation opportunities within Durham Region.

The report also addresses the Town's future compensation requirements regarding current maintenance of Regional streetlights on Regional roads. In addition, the report makes recommendations on proceeding with discussions on Road rationalization.

Town and Regional Staff continue to meet regularly to best coordinate infrastructure projects.

5. Discussion/Options:

5.1 Regional Road Program

Provided in **Attachment 2** is a summary of the Region's Draft 2018 Transportation and Financing Study for roads within Whitby along with Town staff recommendations and comments.

While Town staff are appreciative of the Region's commitment to road works within the Town and are in general agreement with the timing, there remain a few critical locations where adjustments in the schedule or commitments to a time frame are recommended. The rationale for these recommendations is primarily based on the following factors:

- The opening of the Highway 401 interchange at Lake Ridge Road (Fall 2016), Highway 407 and 412 in July 2016 and resultant traffic flows to the surrounding road network.
- Existing area wide congestion levels.
- Recognition that Highway 401 will not likely be widened in the near term.

- Areas where near term development is anticipated/planned.
- To eliminate barriers in the primary north-south cycling route connecting two Provincial cycling facilities: Waterfront Trail and Greenbelt Route.
- To improve coordination and efficiencies of infrastructure projects, transportation planning, and asset management and maintenance between the two levels of government.

Recommendations for timing changes include the following:

- The need to coordinate and advance the below projects with appropriate staging to reduce construction impacts and delays to users, and to address existing operational, capacity and safety concerns.

Region Project	Draft 2018 Budget Construction Year	Town Requested Construction Year	Notes
Taunton Road Intersection Improvements at Anderson Street	2020	2019	<ul style="list-style-type: none"> • Advance timing to complete in conjunction with Town projects. • Cycling improvements required, dedicated bike lane across Taunton. • Intersection improvements to facilitate the safe egress/ingress from Fawcett Ave, Solmar Ave, Sinclair H.S., and Durham EMS
Victoria Street Intersection Improvements at Brock Street	2023	2020	<ul style="list-style-type: none"> • Advance timing for capacity and safety improvements including upgrades to Brock Street intersection. • Complete following reconstruction of Henry (2017) and Brock (2018) overpasses at 401 by MTO
Rossland Road Intersection Improvements at Cochrane Street	2021	2019	<ul style="list-style-type: none"> • Advance timing and coordinate with Cochrane rehabilitation from Ferguson to Vernon, including construction of cycling lanes to complete north-south priority route between Waterfront Trail and Greenbelt Cycling Route.

Region Project	Draft 2018 Budget Construction Year	Town Requested Construction Year	Notes
Hopkins Street Widening from Consumers Drive to Dundas Street	2027	2021	<ul style="list-style-type: none"> • Include CP Rail grade separation. • To accommodate economic development in the area. • Advance timing and coordinate with new Hwy 401 grade separation. • Include cycling and pedestrian amenities throughout corridor.
Hopkins Overpass at Highway 401	2024	2023	<ul style="list-style-type: none"> • To accommodate economic development in the area. • Advance timing and coordinate with Hopkins Street widening between Consumers Drive and Dundas Street. • Include cycling and pedestrian amenities throughout corridor.
Cochrane Street Rehabilitation (Ferguson Street to Vernon Street)	2020	2019	<ul style="list-style-type: none"> • Advance timing and coordinate with Cochrane Street rehabilitation from Ferguson Street to Vernon Street, including construction of cycling lanes to complete north-south priority route between Waterfront Trail and Greenbelt Cycling Route.

5.2 Region of Durham Capital Watermain and Sanitary Sewer Replacement Program

While Town staff appreciate the financing challenges associated with undertaking significant infrastructure improvements and deciding priorities, there remains the desire to enhance coordination of Town road resurfacing projects with Regional watermain and sanitary sewer repairs and replacements.

Generally there are sufficient Regional water and sanitary sewer funds being allocated to Town roads that require full reconstruction, however there are minimal funds being allocated to Town roads with resurfacing needs. In addition, it is our understanding that the Region's current water and sanitary sewer maintenance program is mainly based on the number of reported breaks alone. As such, preventive maintenance opportunities in coordination with the Town's road program have on occasion been missed.

It should be noted that over the past few years, concentrated efforts by both the Region and Town have been undertaken to focus on coordination of the Region's polybutylene water service replacement/relining program and the Town's resurfacing program. The Region's development of a 10-year polybutylene water service replacement program is much appreciated and has allowed successful coordination. As such, it is requested that the Region establish a similar 10-year watermain and sanitary sewer replacement and relining programs. This will allow the Region and Town staff to optimize coordination of road resurfacing and underground works more effectively thereby saving tax dollars, and reducing inconveniences to agencies, utility companies and the public.

5.3 Region of Durham Capital Cycling Facility Implementation Program

Durham Region Council approved an updated plan focusing on the development of a broader Region-wide cycling network, providing links between the Region's urban and rural communities. Within this approved plan, Network Phasing was provided in two ranges: 2012 to 2016 and 2017 to 2032. There remains concern regarding the existing challenges of coordinating Town cycling facility implementation projects with planned Regional cycling projects.

As such, it is requested that the Region establish a 10-year detailed cycling facility implementation program. This will allow Region and area municipal staff to coordinate cycling projects to provide Region-wide cycling opportunities, and reduce inconveniences to agencies, utility companies and the public.

In addition, as the cycling infrastructure within Whitby continues to mature – it is recommended that the Town partner with the Region of Durham to review and improve cycling opportunities to cross Regional Roads.

5.4 Region of Durham Capital Streetlight Implementation Program

Roadway lighting, when properly designed, installed, and maintained reduces vehicle collisions, improves safety for cyclists and pedestrians, and enhances personal security. For these reasons, streetlights are installed adjacent to roadways throughout the Town and the road authority owner typically has control of what street lighting is in place and/or required on their right-of-way.

Currently, the Town of Whitby performs operational maintenance and pays for the energy on 1,555 streetlights on Regional roads, this is in addition to the Town owned and maintained 10,293 streetlights. The total streetlight

inventory consists of a variety of types and styles of poles, lamps and bulbs with an estimated value of approximately \$25 million. The Town collects DC monies for streetlight related road expansion for the Region, but does not budget for capital maintenance (above ground/underground plant), relocations or upgrades to the infrastructure.

In the past, the Town has undertaken the operational maintenance for the streetlights on Regional roads as part of the assumption process for new developments and paid the full costs of energy consumption. Although there was never a formal agreement between the Town and the Region on streetlights, the Town like other lower tier municipalities within Durham Region has undertaken the operational maintenance responsibilities and contributed in various forms of cost sharing of capital expenditures associated with streetlights within Regional right-of-ways since the formation of the Region.

The Town has a limited role in the planning, design and programming for Regional street lighting on Regional Roads. Staff have been challenged to establish meaningful cost estimates and budgets for streetlights without the full knowledge of the projects and their scope. In addition, whenever there are project scope/construction timing changes relating to the Regional road program, it makes it more difficult for the Town to track and coordinate appropriately. This can also create a challenge from a risk management perspective. In general, the Town's role has been limited to operational maintenance and collection of DC monies for Regional streetlights on Regional road widening projects.

In consideration of the above, Town staff have recommended and made Regional staff aware that future compensation for Town costs incurred (approximately \$200,000 per year) will be required beginning January 1, 2018. Staff have also identified the need to the Region that it would be advised they develop a long term capital asset management plan for their above and underground street lighting infrastructure and develop the appropriate design standards.

5.5 Road Rationalization

Annually, the Region of Durham also requests input from the Town for possible Road Rationalization/transfer opportunities. The following is the most recent list of Town and Regional Roads that were identified by the Region in 2016 as potential candidates for road rationalization/transfer:

Town to Region Candidate

- Rossland Road from Lake Ridge Road to Cochrane Street
- Dundas Street from Fothergill Court to Cochrane Street
- Dundas Street from Garden Street to Oshawa

Region to Town Candidate

- Old Victoria Street (after realignment between South Blair and Thicksen)
- Cochrane Street from Dundas Street to Rossland Road
- Henry Street from Victoria Street to Burns Street

- Henry Street from Burns Street to Dundas Street
- Brock Street from Water Street to South Limit of Highway 401
- Old Lake Ridge Road from Almond Ave to Cresser Ave
- Old Lake Ridge Road south of Highway 401

Town and Region staff have agreed to focus on road segments that can be mutually agreed upon to be transferred with minimal compensation to either party. As such it is recommended that Town staff initiate conversations with the Region of Durham to discuss the potential of Road rationalization/transfer of the following roads:

- Rossland Road from Lake Ridge Road to Cochrane Street
- Cochrane Street from Dundas Street to Rossland Road (subject to the Region completing rehabilitation works already included in their capital program)
- Brock Street from Water Street to South Limit of Highway 401 (subject to the Region replacing the Pringle Creek bridge as already included in their capital program)
- Old Lake Ridge Road from Almond Ave to Cresser Ave

The proposed lane-kms being transferred to each party would be approximately 11-13 km. However, further asset management analysis will need to be undertaken to ensure that the values of infrastructure being transferred is reasonably comparable.

5.6 Coordination of Projects

The Town and Region meet regularly to attempt to co-ordinate infrastructure projects to minimize the impact to residents. Staff will continue to meet to

- Discuss opportunities to piggy-back on Regional Road projects (e.g. Town IT infrastructure needs)
- Co-ordinate Road projects to minimize impacts to road users (e.g. Thickson Road widening)
- Co-ordinate underground infrastructure work to minimize impacts to residents (as discussed in Section 5.2)

Public Communications/Plan:

The Town's staff will continue to discuss and coordinate infrastructure projects.

6. Considerations:

6.1. Public

N/A

6.2. Financial

Based on the Town's suggested modifications to the Draft 2018 Region of Durham Road Program and 9-Year Forecast, the below is a summary of financial impact (construction only) on an annual basis. Refer to **Attachment 2** for more details related to the construction cost for each project.

Budget Year (Construction)	Financial Impact (Construction Only) Based on Town Recommendations to the Draft 2018 Region Road Program
2018	No Change
2019	Increase by \$5.0 million
2020	Decrease by \$0.4 million
2021	Increase by \$0.7 million
2022	No Change
2023	Increase by \$7.3 million
2024	Increase by \$2.7 million
2025	No Change
2026	No Change
2027	Decrease by \$15.3M
TOTAL	No Change

6.3. Impact on and input from other Departments/Sources

N/A

6.4. Corporate and/or Department Strategic Priorities

Town of Whitby Council Goals 2014-2018:

To ensure Whitby is clearly seen by all stakeholders to be business- and investment-friendly and supportive; and to strive to continuously improve the effectiveness and efficiency of service delivery.

7. Summary and Conclusion:

The proposed Region of Durham 10-Year Road Program will provide greatly needed road infrastructure improvements for our community. The Town appreciates the opportunity to provide input on the draft road program.

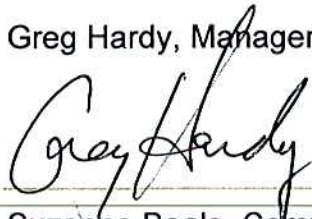
8. Attachments:

Attachment 1: Region of Durham Draft 2018 Capital Budget and 9-Year Forecast

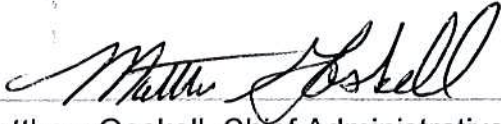
Attachment 2: Summary of Region Road Program within Whitby

For further information contact:

Greg Hardy, Manager of Engineering and Infrastructure Services, x2259



for Suzanne Beale, Commissioner of Public Works, 4311



Matthew Gaskell, Chief Administrative Officer, x2211

Attachment 1

Proposed 2018 Roads Capital Program

2018 Road Program	D.C. Item No.	EA/Design Property Utility Const.	Area Municipality	Gross Cost \$	Development Charge Financing \$	Assoc. Cycle Facility
Bridges (Rehabilitation and Replacement):						
Reg. Hwy 47, Uxbridge Brook Culvert Replacement	O.11	C	Uxbridge	2,500,000		
Reg. Rd. 51, Gamebridge Bridge Replacement	O.12	D,C	Brock	2,700,000		
Reg. Rd. 6, Saintfield Rd. Bridge Replacement	O.11	P	Scugog	50,000		
Reg. Rd. 23, White's Creek Bridge	O.12	C	Brock	550,000		
Reg. Rd. 57, Burketon Overpass Bridge Interim Repairs	O.11	EA,C	Clarington	300,000		
Reg. Rd. 28, Rossland Road Over Oshawa Creek	O.12	D	Oshawa	200,000		
Reg. Rd. 2, Simcoe St. / Oshawa Creek Bridge	O.12	P,U	Oshawa	150,000		
Reg. Rd. 50, Trent Canal Overpass	O.12	D	Brock	100,000		
Reg. Rd. 8, Nonquon Bridge	O.11	D	Scugog	75,000		
Reg. Rd. 11, Smith Bridge	O.11	D	Uxbridge	75,000		
Reg. Rd. 13, Laurie Bridge	O.11	D	Uxbridge	75,000		
Reg. Rd. 15, Beaverton River Bridge	O.12	D	Brock	75,000		
Reg. Rd. 59, Gibb St. over Oshawa Creek Bridge	O.12	U	Oshawa	75,000		
Bridge Deck Repairs Program	O.12	C	Various	150,000		
Culvert Repairs Program	O.12	C	Various	75,000		
Structure Investigation Program	O.12	C	Various	75,000		
Expansion Joint Replacement Program	O.12	C	Various	60,000		
Subtotal				7,360,000		
Road Rehabilitation/Reconstruction Projects (Non-Growth):						
Base Rehabilitation Line Items						
Grandview St. N. (Hwy 407 to Columbus Rd. E.) and Columbus Rd. E. (Grandview St. N. to Townline Rd. N.)	O.10	D,P	Oshawa	\$250,000		
Columbus Rd. (Townline Rd. N. to Enfield Rd. (RR34))	O.10	D	Clarington	\$50,000		
Taunton Rd. (0.4km W. of Solina Rd. to 0.2 km W. of Reg. Rd. 57)	O.10	D,P,U	Clarington	\$320,000		
Reg. Rd. 8, (Mill Run Gate to 0.4 km west of Conc. Rd. 4)	O.10	D	Scugog	\$100,000		
Farewell St. (Harbour Rd. to Bloor St.)	O.10	U	Oshawa	\$150,000		
Region Rd. 57 (Taunton Rd. to Hwy 407)	O.10	D	Clarington	\$150,000		
Resurfacing / Rehabilitation Preparatory Activities Allowance	O.10	D,P,U	Various	\$150,000		
Road Resurfacing and Rehabilitation Program	O.10	D,C	Various	\$350,000		
Road Rehabilitation Levy						
Conc. Rd. 7 (Foster Dr. to S. limit of Leaskdale)	O.10	D,P,U	Uxbridge	\$350,000		
Centre St. (King St. to Brock St. West) and Simcoe St. (Brock St. West to Elgin St. East)	O.10	D,U,C	Oshawa	\$500,000		
Simcoe St. (Beech St. to Reach St. (RR8))	O.10	C	Scugog	\$2,400,000		
Taunton Rd. (E. of Townline Rd. to W. of Enfield Rd.)	O.10	P,U	Clarington	\$240,000		
Zephyr Rd. (Scott Conc. 3 (Reg. Rd. 39) to Conc. 4)	O.10	D,U	Uxbridge	\$200,000		
Reg. Rd. 13, (Lake Ridge Rd. - 1.5 km east of Conc. 5)	O.10	U	Uxbridge	\$175,000		
Lake Ridge Rd. (1.6km N. of Hwy. 7 to S. of Conc. 9 (Reg. Rd. 5))	O.9	C	Brock	\$685,000		
Lake Ridge Rd. from N. of Reg. Rd. 5 to S. of Chalk Lake Rd.	O.10	C	Pickering/Whitby	\$9,000,000		
Lake Ridge Rd. from Chalk Lake Rd. to 1.5km N. of Chalk Lake Rd.	O.10	P	Pickering/Whitby/ Uxbridge/Scugog	\$150,000		
Reg. Rd. 30 York Durham Line (Wagg Rd. 8 to Aurora Rd.)	O.10	D,U	Scugog/Uxbridge	\$250,000		
Reg. Rd. 30 York Durham Line (Reg. Rd. 8 to Vivian Rd.)	O.10	D	Uxbridge	\$100,000		
Cochrane St. (Ferguson St. to 0.4km N. of Vernon St.)	O.10	P,U	Uxbridge	\$300,000		
Townline Rd. (Beatrice Rd. to Taunton Rd.)	O.10	D,P	Whitby	\$250,000		
Region Rd. 57 (S. of Conc. Rd. 3 to 0.13 km N. of Conc. Rd. 4)	O.10	EA,D	Oshawa/Clarington	\$100,000		
Subtotal				\$8,400,000		
					\$ 91,800	
					\$ 48,875	

Table continued on next page.

2018 Road Program	D.C. Item No.	E/A Design Property Utility Const.	Area Municipality	Gross Cost \$	Development Charge Financing \$	Assoc. Cycle Facility	
Wentworth St. (Simcoe St. to Farewell St.) Road Resurfacing/Rehabilitation Other Locations Crack Sealing Program Rejuvenator Sealing Program Additional Location and Engineering Allowance	O.10 O.10	D C	Oshawa Various Various Various	\$100,000 \$450,000	\$		
- Subtotal				\$ 26,031,000	\$	\$ 140,675	
Road Expansion Projects: Harmony Rd. (Rossland Rd. - Taunton Rd.) Reg. Rd. 12 / Lake Ridge Rd. Intersection Future Road Expansion Locations Townline Rd. / Pebblestone Rd. Intersection Victoria St. (South Blair St. - W. of Thickson Rd.) (advanced construction works) Brook Rd. (Taunton Rd. - 5th Concession Rd.) (advanced construction works) Westney Rd. (N. of Rossland Rd. - Taunton Rd.) (advanced construction works) Rossland Rd. / Brock St. (Reg. Hwy. 12) Intersection (advanced construction works) Manning Rd. / Brock St. Intersection (advanced construction works)	33.3 1.21 1.5 1.41 22.4 1.4 31.4 112.1 1.52	C C C U,C P,U,C U,C P,C C	Oshawa Brook Various Oshawa/Clarington Whitby Pickering Ajax Whitby Whitby	8,800,000 3,000,000 3,000,000 1,250,000 1,200,000 540,000 300,000 270,000 200,000	\$ \$ \$ \$ \$ \$ \$ \$ \$	5,624,960 1,836,000 1,795,200 765,000 693,600 341,496 195,840 159,732 122,400	
- Subtotal				\$ 18,560,000	\$ 11,534,228	\$	
Highway 407 Related Road Construction: Simcoe St. (N. of Conlin Rd. - Winchester Rd.) Reg. Hwy. 12 (Taunton Rd. - Garden St.) Reg. Rd. 3 (Concession 8) / Reg. Rd. 57 Intersection Lake Ridge Rd. (Bayly St. - Kingston Rd.) Taunton Rd. / Courtice Rd. Intersection	2.1 112.2 1.45 23.1 1.12	D,U,C D U D P	Oshawa Whitby Clarington Ajax/Whitby Clarington	10,000,000 500,000 300,000 300,000 100,000	\$ \$ \$ \$ \$	5,848,000 299,200 183,600 136,880 61,200	\$ 432,000
- Subtotal				\$ 11,200,000	\$ 6,528,680	\$ 432,000	
BRT PTIF Phase 2 Related Preparatory Activities: Reg. Hwy. 2 (Delta Blvd. to Merritt Rd. and Dixie Rd. to Liverpool Rd.) Reg. Hwy. 2 (Salem Rd. to Galea Dr.)	102.3 102.4	P P	Pickering Ajax	3,250,000 1,800,000	\$ \$	2,055,300 1,113,840	
- Subtotal				\$ 5,050,000	\$ 3,169,140	\$	
Preparatory Activities (EA, design, utility relocation, land acquisitions): Gibb St. (E. of Stevenson Rd. - Simcoe St.) Manning Rd./Adelaide Ave. Interconnection (Garrard Rd. - Thornton Rd.) Victoria St. (E. of Thickson Rd. - W. of Stevenson Rd.) Taunton Rd. / Region Rd. 57 Intersection Ritson Rd. (N. of Taunton Rd. - Conlin Rd.) Rossland Rd. (Ritson Rd. - Harmony Rd.) Stevenson Rd. (CPR Belleville to Bond St.) Martin Rd. (Baseline Rd. to S. of Reg. Hwy 2) Bayly St. / Church St. Intersection Durham Rd. 57. (S. of Reg. Hwy 2 to N. of Stevens Rd.) Liberty St. / Concession Rd. 3 Intersection Lake Ridge Rd. (Kingston Rd. - Rossland Rd.) Liverpool Rd. (South of Kingston Rd. - South of Pickering Parkway) Stevenson Rd. (Bond St. to Rossland Rd.) Thickson Rd. (Wentworth St. - CNR Kingston) Winchester (Baldwin St. - Garrard Rd.) PH II: Baldwin St. to Anderson St. Rossland Rd. / Garden St. Intersection	59.1 58.1 22.5 1.13 16.1 28.1 53.1 57.1 1.88 57.1 1.99 23.2 29.1 53.2 26.1 3.1 1.25	D,P P U D,P,U EA EA EA U D,P P,U D,P EA EA EA P,U U	Oshawa Whitby/Oshawa Whitby/Oshawa Clarington Oshawa Oshawa Oshawa Oshawa Clarington Ajax Clarington Clarington Clarington Ajax/Whitby Pickering Oshawa Whitby Whitby	2,850,000 1,000,000 900,000 600,000 500,000 500,000 400,000 400,000 350,000 330,000 300,000 300,000 300,000 300,000 300,000 200,000 150,000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1,589,160 673,200 501,840 367,200 224,400 326,400 250,240 217,600 214,200 179,520 183,600 173,400 191,760 132,600 114,240 130,560 91,800	

Table continued on next page.

Attachment 1

2018 Road Program	D.C. Item No.	EA/ Design Property Utility Const.	Area Municipality	Gross Cost \$	Development Charge Financing \$	Assoc. Cycle Facility
Taunton Rd. / Anderson St. Intersection	I.9	D	Whitby	\$ 100,000	\$ 61,200	
Thickson Rd. / Burns St. Intersection	I.88	D	Whitby	\$ 50,000	\$ 30,600	
Traffic Control Programs:				\$ 9,730,000	\$ 5,653,520	
Signal Installation Program						
Signal Modernization Program	I.99	C	Various	\$ 1,600,000	\$ 979,200	
Intelligent Transportation System Projects	O.13	C	Various	\$ 1,270,000	\$ -	
Road Safety Protection Program	O.6	D,C	Various	\$ 735,000	\$ 449,820	
Accessible Pedestrian Signals Program	O.14	C	Various	\$ 600,000	\$ -	
Uninterruptible Power Supply (UPS) Signal Install Program	O.13	C	Various	\$ 500,000	\$ -	
ATMS Upgrades	O.13	D,C	Various	\$ 150,000	\$ -	
	O.13	C	Various	\$ 100,000	\$ -	
Other Programs:				\$ 4,955,000	\$ 1,429,020	
Contingencies - Development Related						
Miscellaneous Engineering Activities	O.4		Various	\$ 1,000,000	\$ 612,000	
Miscellaneous Road and Storm Sewer Reconstruction Projects	O.1	E,A,D	Various	\$ 450,000	\$ 275,400	
Region's Share - Dev. Related Projects	O.9	C	Various	\$ 350,000	\$ -	
Bridge and Pavement Management Program	O.8	C	Various	\$ 300,000	\$ -	
Misc. Landscaping Projects	O.1	C	Various	\$ 250,000	\$ 204,000	
Transportation Master Plan Studies	O.3	C	Various	\$ 150,000	\$ 153,000	
Miscellaneous Property Acquisition	O.5	D	Various	\$ 150,000	\$ 91,800	
Contingencies - Non-Development Related	O.2	P	Various	\$ 100,000	\$ 102,000	
	O.9		Various	\$ 100,000	\$ 61,200	
Total				\$ 2,850,000	\$ 1,499,400	
				\$ 85,736,000	\$ 29,813,988	\$ 572,675

Capital Projects	Area Municipality	Total Cost (€)	Proposed Year of Construction	Estimated Cycle Facility Costs					
				Length (km)	Multi-Cycle Truck BASE ONLY (100% Region)	Multi-Cycle Truck ASPHALT ONLY (100% Area Municipality)	Structure Costs (Additional width) (100% Region)	Paved Shoulders (100% Region)	On Road Cycling Lane (ORCL) (100% Region on Region Roads)
Brock Road (Major Projects) Brock Rd. (Taunton Rd. - 5th Concession Rd.) incl Brock Rd. / Taunton Rd. Intersection Brock Rd. (Finch Ave - Taunton Rd.)	Pickering	\$13,540,000	2019	1.7			na	\$195,500	
Sub-Total		\$40,000,000	2027	1.7	\$0	\$0	\$0	\$195,500	\$0
Brock Road (Minor Projects) Brock Rd. / Goodwood Rd. Intersection Brock Rd. / 7th Concession Rd. Intersection	Uxbridge Pickering	\$3,000,000 \$2,700,000 \$5,700,000	2021 2022	0.2 0.2	\$0	\$0	\$0	\$23,000 \$23,000	\$0
Bayly/Victoria/Bloor Corridor (Major Projects) Victoria St. (South Blair St. - W. of Thicketon Rd.) Victoria St. (E. of Thicketon Rd. - W. of Stevenson Rd.) Bayly St. / Church St. Intersection Bayly St. (Westney Rd. - Harwood Ave.) Victoria St. / Brock St. Intersection Bloor St. (Harmony Rd. - Grandview St.) Bloor St. (Prestonvale Rd. - Courtice Rd.) Bayly St. (Brock Rd. - Westney Rd.) Bayly St. (Harwood Ave. - Salem Rd.) Bloor St. (Ritson Rd. - Farewell St.)	Whitby Whitby/Oshawa Pickering Ajax Whitby Oshawa Clarington Pickering/Ajax Ajax Oshawa	\$13,394,000 \$11,750,000 \$7,250,000 \$14,450,000 \$4,320,000 \$24,200,000 \$13,200,000 \$2,500,000 \$500,000 \$500,000 \$92,064,000	2019 2020 2021 2023 2023 2025 2026 Beyond 2027 Beyond 2027 Beyond 2027	1.6 1.8 0.4 1.4 0.4 1 2.7 1	\$259,200 \$291,600 \$64,800 \$226,800 \$64,800 \$162,000 \$437,400 \$162,000	\$172,800 \$194,400 \$43,200 \$151,200 \$43,200 \$108,000 \$291,600 \$108,000	\$35,268 \$38,268	\$0	\$0
Sub-Total		\$92,064,000		10.3	\$1,668,600	\$1,112,400	\$76,536	\$0	\$0
Bayly/Victoria/Bloor Corridor (Minor Projects) Bayly St. / Sandy Beach Rd. Intersection	Pickering	\$1,050,000	2023	0.0	\$0	\$0	\$0	\$0	\$0
Harmony Road Harmony Rd. (north of Coldstream Dr. - south of Conlin Rd.) PH II (widen 2/3 - 5 lanes)	Oshawa	\$5,590,000	2019	0.0	\$0	\$0	\$0	\$0	\$0
Other Growth-Related Projects Simcoe St. (King St. -400m south of Greenway Blvd.) Winchester (Baldwin St. to Garrard Rd.) PH II; Baldwin St. to Anderson St. Reg. Rd. 3 (Concession 8) / Reg. Rd. 57 Intersection (Roundabout) Taunton Rd. / Anderson St. Intersection Taunton Rd. / Region Rd.57 Intersection, incl. bridge replacement & widening Taunton Rd. / Courtice Rd. Intersection Taunton Rd. / Region Rd.42 Darlington/Clarke Townline Intersection Taunton Rd. (York Durham Line to West of Twelvetrees Bridge.) Taunton Rd. (Rossland Rd. to Brock Rd.) Taunton Rd. (Brock Rd. to Brock St./Reg Hwy 12) Central St. Reg. Rd. 5 (Casino Dr.-Brock Rd.) Liberty Reg. Rd. 14 (Baseline Rd. - King St) Ritson Rd (N. of Taunton Rd. to Conlin Rd.) Ritson Rd. / Bearice St. Intersection	Scugog Whitby Clarington Whitby Clarington Clarington Clarington Pickering Pickering/Ajax/Whitby Pickering Clarington Clarington Oshawa Oshawa	\$4,200,000 \$19,346,000 \$2,600,000 \$1,000,000 \$10,770,000 \$4,740,000 \$2,160,000 \$21,000,000 \$18,500,000 \$1,000,000 \$3,800,000 \$4,200,000 \$7,756,000 \$14,000,000 \$1,100,000	2027 2020 2019 2020 2021 2021 2023 2027 2027 Beyond 2027 2027 2020 2022 2022 2023	11.5 1.1	\$1,863,000 \$1,242,000	\$0	\$0	\$0	\$11,000

Table continued on next page.

Capital Projects	Area Municipality	Total Cost (€)	Proposed Year of Construction	Estimated Cycle Facility Costs					
				Length (km)	Multi-Use Cycle Track BAZE ONLY (100% Region)	Multi-Use Cycle Track ASPHALT ONLY (100% Area Municipality)	Structure Costs (Additional width) (100% Region)	Preed Shoulders (100% Region)	On Road Cycling Lane (ORCL) (100% Region on Region Roads)
Region Rd. 17 (CPR - Concession Rd. 3)	Clarrington	\$500,000	Beyond 2027 ***	2.0	\$324,000	\$216,000	na	\$0	
Lake Ridge Rd. (Bayly St. - Highway 2)	Ajax/Whitby	\$3,860,000	2021						
Lake Ridge Rd. (Kingston Rd. - Rossland Rd.)	Ajax/Whitby	\$8,800,000	2022						
Thickson Rd. (Wentworth St. - CNR Kingston)	Whitby	\$3,900,000	2020						
Thickson Rd. / Burns St. Intersection	Whitby	\$700,000	2020						
Thickson Rd. / Rossland Rd. Intersection	Whitby	\$3,900,000	2022						
Thickson Rd. (Taunton Rd. to Hwy 407)	Whitby	\$21,300,000	2023						
Thickson Rd. (Consumers Dr. - Dundas St.)	Whitby	\$22,600,000	2026						
Altona Rd. (N. of Strouds Lane - Finch Ave.)	Pickering	\$500,000	Beyond 2027 ***	1.5	\$243,000	\$162,000			
Rossland Rd. / Brock St. (Reg. Hwy. 12) Intersection	Whitby	\$7,850,000	2019	0.4	\$64,800	\$43,200			
Rossland Rd. / Garden St. Intersection	Whitby	\$2,500,000	2020	0.2	\$32,400	\$21,600			
Rossland Rd. / Cochrane St. Intersection	Whitby	\$275,000	2021						
Rossland Rd. (Ritson Rd. - Harmony Rd.)	Whitby	\$12,900,000	2022	0.8	\$129,600	\$86,400			
Rossland Rd. (Harmony Rd. - East of Townline Rd.)	Oshawa	\$26,600,000	2028	1.5	\$243,000	\$162,000	\$412,500		
Liverpool Rd. (South of Kingston Rd. - South of Pickering Parkway)	Oshawa	\$3,400,000	2022	0.25	\$40,500	\$27,000			
York Durham Line / Region Rd. 8 Intersection	Pickering	\$300,000	2019						
York Durham Line / Vivian Rd. Intersection	Uxbridge	\$100,000	2019						
Westney Rd. (N. of Rossland - Taunton)	Ajax	\$12,800,000	2020	2	\$324,000	\$216,000			
Westney Rd. / (Harwood Ave., Monarch Ave., Finley Ave.) Intersections	Ajax	\$2,950,000	2022						
Westney Rd. (Highway 401 - Kingston Rd.)	Ajax	\$5,750,000	2023	0.9	\$145,800	\$97,200			
Westney Rd. (Bayly St. - Highway 401)	Ajax	\$7,700,000	2025	1	\$162,000	\$108,000			
Westney Rd. (South to North of Greenwood)	Ajax	\$13,050,000	2026						
Hopkins St Overpass	Pickering	\$15,485,000	2024	1.7	\$810,000	\$540,000			\$940,000
Hopkins St. (Consumers Dr. - Dundas St.)	Whitby	\$15,300,000	2027						
Finch Ave. (Altona Rd. - Brock Rd.)	Whitby	\$26,500,000	2025	5.8	\$388,800	\$259,200			
Whites Rd. (Kingston Rd. - Finch Ave.)	Pickering	\$20,800,000	2024	2.4	\$500,000	\$333,333			
Salem Rd. / Rossland Rd. Intersection	Pickering	\$500,000	Beyond 2027 ***						
Thornion Rd. (Consumers Dr. extension - N. of Gibb St.)	Ajax	\$1,800,000	2022						
Stevenson Rd. (CPR Belleville - Bond St.)	Oshawa	\$9,800,000	2023	1.4	\$226,800	\$151,200			
Stevenson Rd. / Phillip Murray Ave. Intersection	Oshawa	\$8,800,000	2022						
Stevenson Rd. (Bond St. to Rossland Rd.)	Oshawa	\$520,000	2023						
Durham Rd. 57 (Hwy 2 & Stevens Rd. Intersections)	Oshawa	\$14,300,000	2024						
Martin Rd. (Baseline Rd. - south of Reg. Hwy. 2) (Widen to 4 lanes)	Clarrington	\$7,180,000	2019						
Durham Rd. / Concession 7 Intersection	Clarrington	\$16,700,000	2020						
Durham Rd. 57. (north of Stevens Rd. to Nash Rd.)	Clarrington	\$2,060,000	2023						
Manning Rd./ Brock St. Intersection	Clarrington	\$9,100,000	2024						
Manning Rd./ Adelaide Ave. Interconnection (Garrard Rd. to Thornton Rd.)	Whitby/Oshawa	\$3,250,000	2019						
Adelaide Ave. (Townline Rd. - Trulls Rd.)	Whitby/Oshawa	\$14,360,000	2021	0.5					\$5,000
Gibb St. (E. of Stevenson Rd. to Simcoe St.)	Clarrington	\$28,350,000	2025	2	\$226,800	\$151,200	\$50,250		\$400,000
Gibb St./Olive Ave. Interconnection (Simcoe St. - Ritson Rd.)	Oshawa	\$22,000,000	2019/2021	1.4	\$162,000	\$108,000	\$225,000		
King St. / Lambis Rd. Intersection	Oshawa	\$20,486,000	2024	1					
Reg. Hwy. 2 (Townline Rd. - Courtoice Rd.)	Clarrington	\$1,400,000	2023						
Reg. Hwy. 12 (Taunton Rd. - Garden St.)	Clarrington	\$4,300,000	2026						
Region Hwy 47 / Concession 6 Intersection	Whitby	\$15,900,000	2021						
Region Hwy. 47 (York/Durham Line Reg Rd 30 - Goodwood Rd.)	Uxbridge	\$1,450,000	2022						
	Uxbridge	\$12,500,000	2026						
Sub-Total		\$551,248,000		39.4	\$5,386,500	\$3,591,000	\$687,750	\$92,000	\$756,000

Table continued on next page.

Capital Projects	Area Municipality	Total Cost (€)	Proposed Year of Construction	Estimated Cycle Facility Costs						
				Length (km)	Multi-Use Cycle Track BASE ONLY (100% Region)	Multi-Use Cycle Track / Shared Use ONLY (100% Municipality)	Structure Costs (Additional width) (100% Region)	Paved Shoulders (100% Region)	On Road Cycling Lane (ORCL) (100% Region on Region Roads)	
Road Rehabilitation Projects										
Conc. Rd. 7 (Reg. Rd. 11 to 0.4 km N. of Ashworth Rd.)	Uxbridge	\$4,700,000	2019							
Conc. Rd. 7 (Foster Dr. to S. limit of Leaskdale East)	Uxbridge	\$5,350,000	2020							
Columbus Rd. E. (Grandview St. N. to Townline Rd. N.)	Oshawa	\$5,400,000	2019							
Columbus Rd. (Townline Rd. N. to Enfield Rd. (RR34))	Oshawa	\$3,250,000	2020							
Taunton Rd. (E. of Townline Rd. to W. of Enfield Rd.)	Clarington	\$4,400,000	2021							
Taunton Rd. (0.4km W. of Solina Rd. to 0.2 km W. of Reg. Rd. 57)	Clarington	\$4,740,000	2020							
Reg. Rd. 8. (Mill Run Gate to 0.4 km west of Conc. Rd. 4)	Clarington	\$10,770,000	2021							
Reg. Rd. 8. (E. of Conc. 5 to Conc. 6)	Uxbridge	\$3,600,000	2019							
Ganaraska Rd. (2km E. of Maynard Rd. to 0.4km E. of Reg. Rd. 18)	Uxbridge	\$1,500,000	2021							
Zephyr Rd. (Scott Conc. 3 (Reg. Rd. 39) to Conc. 4)	Clarington	\$1,100,000	2020							
Reg. Rd. 13. (Lake Ridge Rd. - 1.5 km west of Highway 12) PH I	Uxbridge	\$1,650,000	2020							
Liberty St. from Longworth Ave. to Concession Rd. 3	Uxbridge	\$1,500,000	2019							
Main St. (Winter St. to Station St.)	Brock	\$22,820,000	2020							
Shirley Rd. (0.5km E. of Graham Rd. to Old Scugog Rd.)	Clarington	\$1,500,000	2020							
Bayly St. from 0.2 km east of Church St. to John Mills Bridge	Clarington	\$2,500,000	2024							
Lake Ridge Rd. from N. of Reg. Rd. 5 to S. of Chalk Lake Rd.	Scugog	\$7,000,000	2027							
Lake Ridge Rd. from Chalk Lake Rd. to 1.5km N. of Chalk Lake Rd.	Pickering/Whitby/ Uxbridge/Scugog	\$450,000	2021							
Reg. Rd. 30 York Durham Line (Wagg Rd. 8 to Aurora Rd.)	Uxbridge	\$4,900,000	2020							
Reg. Rd. 30 York Durham Line (Reg. Rd. 8 to Vivian Rd.)	Uxbridge	\$3,250,000	2019							
Westney Rd. (Finley Ave. to Harwood Ave.)	Uxbridge	\$700,000	2019							
Cochrane St. (Ferguson St. to 0.4km N. of Vernon St.)	Ajax	\$2,500,000	2022							
Townline Rd. (Beatrice Rd. to Taunton Rd.)	Whitby	\$2,550,000	2020							
Farwell St. (Harbour Rd. to Bloor St.)	Oshawa/Clarington	\$3,650,000	2020							
Region Rd. 57 (Taunton Rd. to Hwy 407)	Oshawa	\$700,000	2020							
Wentworth St. (Simcoe St. to Farewell St.)	Oshawa	\$3,800,000	2019							
Other Road Rehabilitation Projects**	Clarington	\$1,750,000	2020							
	Oshawa	\$2,600,000	2020							
Sub-Total		\$251,341,000	2019-2027	1.2	\$0	\$0	\$0	\$0	\$0	\$240,000
		\$359,981,000		1.2	\$0	\$0	\$0	\$0	\$0	\$240,000
Bridge Rehabilitation and Replacement										
Saintfield Rd. Structure Replacement (Reg. Rd. 6)	Scugog	\$2,450,000	2020							
Burketon Overpass Bridge Replacement (Reg. Rd. 57)	Clarington	\$3,500,000	2022							
Henry Street CNR Overpass Replacement (Reg. Rd. 45)	Whitby	\$350,000	Beyond 2027							
Siloam Bridge Rehabilitation (Reg. Rd. 8)	Uxbridge	\$1,300,000	2019							
Nonquon Bridge Rehabilitation (Reg. Rd. 8)	Scugog	\$825,000	2019							
Smith Bridge Rehabilitation (Reg. Rd. 11)	Uxbridge	\$575,000	2019							
Laurie Bridge Rehabilitation (Reg. Rd. 13)	Uxbridge	\$825,000	2019							
Ritson Rd. / CP Overpass Rehabilitation (Reg. Rd. 16)	Oshawa	\$2,500,000	2019							
Trent Canal Overpass Rehabilitation (Reg. Rd. 50)	Brock	\$1,700,000	2019							
Cobb St. over Oshawa Creek Bridge Rehabilitation (Reg. Rd. 59)	Oshawa	\$2,275,000	2019							
Simcoe St. / Oshawa Creek Bridge Rehabilitation (Reg. Rd. 2)	Oshawa	\$2,000,000	2020							
W.A. Twelvetrees Bridge Rehabilitation (Reg. Rd. 4)	Pickering	\$1,220,000	2020							
Beaverton River Bridge Rehabilitation (Reg. Rd. 15)	Brock	\$2,275,000	2020							
Beaverton Bridge Rehabilitation (Reg. Rd. 23)	Brock	\$1,700,000	2020							
Robins Bridge Rehabilitation (Reg. Rd. 57)	Clarington	\$550,000	2020							
								\$370,000		
								\$144,000		
								\$117,000		
								\$360,000		

Capital Projects	Area Municipality	Total Cost (€)	Proposed Year of Construction	Estimated Cycle Facility Costs					
				Length (km)	Multi-Use Cycle Track BASE ONLY (100% Region)	Multi-Use Cycle Track ASPHALT ONLY (100% Area Municipality)	Structure Costs (Additional width) (100% Region)	Paved Shoulders (100% Region)	On Road Cycling Lane (ORCL) (100% Region on Region Roads)
Rossland Road Over Oshawa Creek Rehabilitation (Reg. Rd. 28)	Oshawa	\$2,200,000	2021				\$59,450		
Kingston Road Over Duffins Creek (Durham Highway 2)	Ajax	\$2,200,000	2021				\$243,750		
Seagrave Bridge Rehabilitation (Reg. Rd. 2)	Scugog	\$1,650,000	2021						
Hampton Bridge Rehabilitation (Reg. Rd. 4)	Clarington	\$820,000	2021						
Winchester Rd. Culvert, 0.3 km West of Given Rd.	Oshawa	\$550,000	2022						
Soper Creek Bridge Rehabilitation (Reg. Rd. 4)	Clarington	\$1,100,000	2022						
Ritson Rd. / CNR Overhead Rehabilitation (Reg. Rd. 16)	Oshawa	\$2,240,000	2022						
Reg. Rd. 16, Ritson Rd. Lot 8/9, Conc. 4 Culvert	Oshawa	\$550,000	2022						
Manning Road Culvert East of Thickson Road Rehabilitation (Reg. Rd. 58)	Whitby	\$575,000	2022						
Taunton Rd. Culvert, 0.9 km East of Courtice Rd.	Clarington	\$550,000	2023						
Newtonville Rd. Culvert, 2.5 km South of Concession Rd. 4	Clarington	\$550,000	2023						
Newtonville Rd. Culvert, 2.2 km South of Concession Rd. 5	Clarington	\$550,000	2023						
Bowmanville Creek Bridge Rehabilitation (Reg. Rd. 57)	Clarington	\$550,000	2023						
Adelaide Rd. W. Over Oshawa Creek Bridge Rehabilitation (Reg. Rd. 58)	Clarington	\$2,050,000	2023						
Ennisville Bridge Rehabilitation (Reg. Rd. 3)	Oshawa	\$1,680,000	2023						
Floor Street West Over Oshawa Creek Rehabilitation (Reg. Rd. 22)	Clarington	\$1,700,000	2024				\$50,250		
Bloor St. E. Over Farewell Creek Bridge Rehabilitation (Reg. Rd. 22)	Oshawa	\$1,900,000	2024						
Westney Road Over Canadian Pacific Bridge Rehabilitation (Reg. Rd. 22)	Oshawa	\$1,700,000	2024						
Bickle Bridge Rehabilitation (Reg. Rd. 31)	Oshawa	\$1,980,000	2024				\$97,875		
Dobson Bridge Rehabilitation (Reg. Rd. 3)	Ajax	\$1,980,000	2024						
Bayles Bridge Rehabilitation (Reg. Rd. 12)	Whitby	\$1,625,000	2025						
Harmony Road South CPR Overhead Bridge Rehabilitation (Reg. Rd. 31)	Brook	\$1,150,000	2025						
Brook Rd over Duffin Creek Bridge Rehabilitation (Reg. Rd. 33)	Brook	\$1,690,000	2025						
Wilnot Creek Bridge Rehabilitation, (Reg. Rd. 1)	Clarington	\$2,200,000	2025						
McRae Bridge Rehabilitation, (Reg. Rd. 4)	Pickering	\$2,125,000	2026						
Brook Street CNR Overpass Bridge Rehabilitation (Reg. Rd. 46)	Clarington	\$1,600,000	2026				\$147,300		
Morgan Bridge Rehab (Reg. Rd. 50)	Brook	\$1,600,000	2026						
Reach St. Culvert, 0.4 km East of Lake Ridge Rd.	Whitby	\$1,900,000	2026						
Kendal Bridge Rehabilitation (Reg. Rd. 18)	Brook	\$1,700,000	2026						
Wilson Road North Pedestrian Underpass Rehabilitation (Reg. Rd. 35)	Scugog	\$550,000	2027						
Stevenson Rd. Over CPR Overpass Rehabilitation (Reg. Rd. 53)	Clarington	\$1,600,000	2027						
Adelaide Ave. Culvert, 0.05 km West of Wilson Rd.	Oshawa	\$1,050,000	2027						
Liverpool Rd. over CNR Bridge Rehabilitation (Reg. Rd. 29)	Oshawa	\$2,200,000	2027						
Hoskin Bridge Rehabilitation (Reg. Rd. 33)	Oshawa	\$550,000	2027						
Stevenson Rd. Over CPR Overpass Rehabilitation (Reg. Rd. 53)	Pickering	\$250,000	Beyond 2027						
Park Road CPR Overpass Rehabilitation (Reg. Rd. 54)	Oshawa	\$100,000	Beyond 2027						
Structure Investigation Program	Oshawa	\$200,000	Beyond 2027						
Bridge Deck Repairs Program	Oshawa	\$150,000	Beyond 2027						
Expansion Joint Replacement Program	Various	\$900,000	2019-2027						
Culvert Repairs Program	Various	\$1,800,000	2019-2027						
	Various	\$540,000	2019-2027						
	Various	\$1,350,000	2019-2027						
Sub-Total		\$75,380,000		0.0	\$0	\$0	\$1,629,625	\$0	\$0
Total Major Projects Forecast Program and Beyond		\$1,145,553,000		52.8	\$7,055,100	\$4,703,400	\$2,395,911	\$310,500	\$996,000

* Total costs shown include provision costs associated with Cycling Facilities and prior financing.
 ** Other Roads Rehabilitation Projects includes all Road Rehabilitation Programs and Normal Roads Resurfacing and Rehabilitation not listed above.
 *** Costs within forecast period only include preparatory work (Environmental Assessment/Design/Property Acquisition/Utility Relocation)
 Multi-Use Base Only assumes 100% Cost by the Region for platform for construction of multi-use boulevard path in urban cross sections. Costs are also borne 100% by the Region
 Multi-Use Asphalt Only assumes 100% Cost by Area Municipality for costs such as signage, asphalt, granular and markings.
 Pave Shoulder costs (rural cross section) assumes 100% Cost by the Region.
 On Road Cycling Lane assumes 100% Cost by the Region.

Capital Financing Over Forecast Period (\$ 000's)

Capital Expenditures and Financing	APPROVED				PROPOSED								FORECAST				Total	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2018-2027	2018-2027		
CAPITAL COSTS																		
Roads Capital Budget																		
Growth Related	38,965	28,290	42,850	58,530	44,345	65,750	47,700	73,650	84,100	84,100	84,100	93,000	93,000	622,315	63,060			
Road Expansions	5,725	11,200	8,300	2,360	19,600	1,100	20,500	0	0	0	0	0	0	0	0			
Highway 407 Related	0	5,050	0	0	0	0	0	0	0	0	0	0	0	0	0			
BRT Related	44,690	44,540	51,150	60,890	63,945	66,850	68,200	73,650	84,100	84,100	84,100	93,000	93,000	5,050	5,050			
Subtotal	2,250	2,335	2,560	2,460	2,460	2,480	2,565	2,455	2,455	2,455	2,385	2,385	2,385	24,520	24,520			
Traffic Control	1,411	2,400	1,700	1,700	1,700	1,700	1,700	1,700	2,050	1,700	1,700	1,700	1,700	18,050	18,050			
Other	46,940	49,275	55,410	65,050	68,105	71,030	72,465	77,805	88,605	88,185	88,605	97,065	97,065	732,995	732,995			
Subtotal Growth Related Capital	23,484	26,031	35,000	41,630	35,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000	366,661	366,661			
Non Growth Related Capital	6,110	7,360	9,630	9,910	7,160	8,020	6,110	7,435	7,335	9,210	6,660	6,660	6,660	78,830	78,830			
Road Rehabilitation	2,770	2,620	2,990	3,080	3,980	2,870	2,920	2,920	3,050	2,870	2,910	2,910	2,910	30,210	30,210			
Replacement/Rehabilitation Structures	450	450	550	500	500	500	500	500	500	500	500	500	500	5,000	5,000			
Traffic Control	32,814	36,461	43,170	56,120	46,640	49,390	47,530	48,855	48,885	60,680	48,070	48,070	48,070	479,701	479,701			
Other	81,165	85,736	103,580	120,170	114,745	120,420	119,995	126,660	137,490	138,765	145,135	145,135	145,135	1,212,696	1,212,696			
Subtotal Non Growth Related Capital																		
TOTAL CAPITAL EXPENDITURE																		
FINANCING																		
Growth Related Capital Financing																		
Development Charges	35,475	36,358	39,815	46,012	48,714	48,337	52,376	55,435	61,851	62,126	66,843	66,843	66,843	517,868	517,868			
Special Roads Levy	12,566	12,598	12,600	12,600	12,600	12,600	12,600	12,600	12,600	12,600	12,600	12,600	12,600	125,998	125,998			
Existing Property Tax	310	319	286	270	241	274	290	262	277	269	286	286	286	2,754	2,754			
Additional Financing Required	0	0	2,709	6,168	6,550	9,818	7,199	9,508	13,878	13,190	17,356	17,356	17,356	86,375	86,375			
Subtotal Growth Related Financing	48,351	49,275	55,410	65,050	68,105	71,030	72,465	77,805	88,605	88,185	97,065	97,065	97,065	732,995	732,995			
Non Growth Related Capital Financing																		
Roads Rehabilitation Levy	21,245	23,650	23,650	23,650	23,650	23,650	23,650	23,650	23,650	23,650	23,650	23,650	23,650	236,500	236,500			
Bridge Rehabilitation Levy	5,525	5,525	5,525	5,525	5,525	5,525	5,525	5,525	5,525	5,525	5,525	5,525	5,525	55,250	55,250			
Recoveries from Others	194	1,400	750	0	0	1,000	0	0	100	750	0	0	0	4,000	4,000			
Existing Property Tax	5,850	5,886	5,918	5,934	5,963	5,930	5,915	5,943	5,928	5,935	5,938	5,938	5,938	59,291	59,291			
Additional Property Tax Financing Required	0	0	12,327	20,011	11,502	13,285	12,440	13,737	13,682	14,720	12,957	12,957	12,957	124,860	124,860			
Subtotal Non Growth Related Financing	32,814	36,461	43,170	56,120	46,640	49,390	47,530	48,855	48,885	60,680	48,070	48,070	48,070	479,701	479,701			
TOTAL CAPITAL FINANCING PROGRAM	81,165	85,736	103,580	120,170	114,745	120,420	119,995	126,660	137,490	138,765	145,135	145,135	145,135	1,212,696	1,212,696			

Region of Durham Road Program: 2018 Draft Capital Budget and Nine Year Forecast (Roads within the Town of Whitby)

Region Road	Road Name	From	To	Draft 2018 Budget Const. Year	2020	Town Requested Const. Year	2020	Town of Whitby Comments
3	Winchester Widening	Baldwin	Thickson	2020 (\$19.3m)	2020	2020		<ul style="list-style-type: none"> Complete additional traffic analysis following completion and opening of Highway 407 to determine impact on Winchester Road and reaffirm improvement requirements and any applicable EA amendments. Review opportunities for modern roundabouts along corridor, including at the St. Thomas/Queen St. junctions. Include cycling and pedestrian amenities throughout corridor.
4	Taunton Intersection Improvements	Anderson		2020 (\$1.0m)	2020	2019		<ul style="list-style-type: none"> Advance timing to complete in conjunction with Town projects. Cycling improvements required, dedicated bike lane across Taunton. Intersection improvements to facilitate the safe egress/ingress from Fawcett Ave, Solmar Ave, Sinclair H.S., and Durham EMS

Region Road	Road Name	From	To	Draft 2018 Budget Const. Year	Town Requested Const. Year	Town of Whitby Comments
22	Victoria Intersection Improvements	Brock St.	Thickson	2023 (\$4.3m)	2020	<ul style="list-style-type: none"> • Advance timing for capacity and safety improvements including upgrades to Brock Street intersection. • Complete following reconstruction of Henry (2017) and Brock (2018) overpasses at Hwy 401 by MTO.
22	Victoria 5 lane Realign	South Blair	Thickson	2019 (\$13.4m)	2019	<ul style="list-style-type: none"> • Include cycling and pedestrian amenities throughout corridor.
22	Victoria 5 lane widen	East of Thickson	Oshawa	2020 (\$11.7m)	2020	<ul style="list-style-type: none"> • Include cycling and pedestrian amenities throughout corridor.
23	Lake Ridge 4/5 lane widen	Victoria	Dundas	2021 (\$3.9m)	2021	<ul style="list-style-type: none"> • Complete an update on the traffic analysis following opening of Hwy 401 interchange, and Hwy 407/412. EA required between Victoria and Hwy 401 interchange that was not included as part of the Hwy 407 EA.
23	Lake Ridge Widen	Dundas	Rossland	2022 (\$8.8m)	2022	<ul style="list-style-type: none"> • Initiate EA for operational/capacity upgrades – following opening of Hwy 401 interchange, and Hwy 407/412. • Complete construction in

Region	Road Name	From	To	Draft 2018 Budget Const. Year	Town Requested Const. Year	Town of Whitby Comments
23	Lake Ridge Rehab	Myrtle (RR#5)	Chalk Lake	2020 (\$4.9m)	2020	combination with above, Victoria to Dundas project.
25	Consumers 4 lane widen	Thickson	Thornton	Ongoing (\$9.7m)	Ongoing	<ul style="list-style-type: none"> To accommodate economic development in the area Include cycling and pedestrian amenities throughout corridor.
25	Champlain Rehab	Consumers	Thornton	Ongoing (\$4.8m)	Ongoing	<ul style="list-style-type: none"> Delay timing. Completion of other projects within Whitby are of higher priority in order to provide required traffic capacity and to facilitate growth and economic development.
26	Thickson 4 lane widen	Wentworth	CN Rail	2020 (\$3.9m)	2024	<ul style="list-style-type: none"> Delay timing. Completion of other projects within Whitby are of higher priority in order to provide required traffic capacity and to facilitate growth and economic development. Include cycling and pedestrian amenities throughout corridor.

Region Road	Road Name	From	To	Draft 2018 Budget Const. Year	Town Requested Const. Year	Town of Whitby Comments
26	Thickson Intersection Improvements	Burns		2020 (\$0.7m)	2020	<ul style="list-style-type: none"> Do not preclude future Burns Street extension to the west, review utilities, etc. Include cycling and pedestrian amenities throughout project.
26	Thickson Intersection Improvements	Rossland		2022 (\$3.9m)	2022	<ul style="list-style-type: none"> Include cycling and pedestrian amenities throughout project.
26	Thickson 4 lane widen	Taunton	Winchester	2023 (\$21.3m)	2023	<ul style="list-style-type: none"> Initiate EA for operational/capacity upgrades – following opening of Hwy 407/412. Include cycling and pedestrian amenities throughout corridor.
28	Rossland Intersection Improvements	Brock		2019 (\$7.8m)	2019	<ul style="list-style-type: none"> Coordinate with projects in the vicinity to minimize impacts and delays.
28	Rossland Intersection Improvements	Garden		2020 (\$2.5m)	2020	<ul style="list-style-type: none"> Include cycling and pedestrian amenities throughout project.
28	Rossland Intersection Improvements	Cochrane		2021 (\$0.3m)	2019	<ul style="list-style-type: none"> Advance timing and coordinate with Cochrane rehabilitation from Ferguson to Vernon, including construction of cycling lanes to

Region	Road Name	From	To	Draft 2018 Budget Const. Year	Town Requested Const. Year	Town of Whitby Comments
36	Hopkins 4/5 lane widen	Consumers	Dundas	2027 (\$15.3m)	2021	<p>complete north-south priority route between Waterfront Trail and Greenbelt Cycling Route.</p> <ul style="list-style-type: none"> • Include CP Rail grade separation. • To accommodate economic development in the area. • Advance timing and coordinate with new Hwy 401 grade separation. • Include cycling and pedestrian amenities throughout corridor.
36	Hopkins Overpass at Highway 401	Hwy 401		2024 (\$15.5m)	2023	<ul style="list-style-type: none"> • To accommodate economic development in the area. • Advance timing and coordinate with Hopkins widening between Consumers and Dundas. • Include cycling and pedestrian amenities throughout corridor.
43	Cochrane Rehabilitation	Ferguson	Vernon	2020 (\$3.7m)	2019	<ul style="list-style-type: none"> • Advance timing and coordinate with Cochrane rehabilitation from Ferguson to Vernon, including construction of cycling lanes to complete north-south priority route between Waterfront Trail and Greenbelt Cycling Route.

Region Road	Road Name	From	To	Draft 2018 Budget Const. Year	Town Requested Const. Year	Town of Whitby Comments
58	Manning Intersection Improvements	Brock	Brock	2019 (\$3.2m)	2019	<ul style="list-style-type: none"> Coordinate with projects in the vicinity to minimize impacts and delays. (Brock/Rossland intersection improvements)
58	Manning/ Adelaide interconnection	Garrard	Oshawa	2021 (\$14.3m)	2024	<ul style="list-style-type: none"> Include cycling and pedestrian amenities throughout corridor.
Hwy 12	Brock 5 lane widen	Rossland	Taunton	2017/2018 (\$11.9m)	2017/2018	<ul style="list-style-type: none"> Include cycling and pedestrian amenities throughout corridor.
Hwy12	Baldwin 4 lane widen	Taunton	Hwy 407	2021 (\$15.9m)	2021	<ul style="list-style-type: none"> Provide construction stages that allow for lanes to remain open during construction.



**Town of Ingersoll
Resolution of Council
Regular Meeting of Council
November 13, 2017**

Moved by *W. Bowman*

Seconded by *K. Wankat*

WHEREAS municipal governments in Ontario do not have the right to approve landfill projects in their communities, but have authority for making decisions on all other types of development;

AND WHEREAS this out-dated policy allows private landfill operators to consult with local residents and municipal Councils, but essentially ignore them;

AND WHEREAS proposed Ontario legislation (Bill 139) will grant municipalities additional authority and autonomy to make decisions for their communities;

AND WHEREAS municipalities already have exclusive rights for approving casinos and nuclear waste facilities within their communities, **AND FURTHER** that the province has recognized the value of municipal approval for the siting of power generation facilities;

AND WHEREAS the recent report from Ontario's Environmental Commissioner has found that Ontario has a garbage problem, particularly from Industrial, Commercial and Institutional (ICI) waste generated within the City of Toronto, where diversion rates are as low as 15%;

AND UNLESS significant efforts are made to increase recycling and diversion rates, a new home for this Toronto garbage will need to be found, as landfill space is filling up quickly;

AND WHEREAS municipalities across Ontario are quietly being identified and targeted as potential landfill sites for future Toronto garbage by private landfill operators;

AND WHEREAS other communities should not be forced to take Toronto waste, as landfills can contaminate local watersheds, air quality, dramatically increase heavy truck traffic on community roads, and reduce the quality of life for local residents;

AND WHEREAS municipalities should be considered experts in waste management, as they are responsible for this within their own communities, and often have decades' worth of in-house expertise in managing waste, recycling, and diversion programs;

AND WHEREAS municipalities should have the exclusive right to approve or reject these projects, and assess whether the potential economic benefits are of sufficient value to offset any negative impacts and environmental concerns;

THEREFORE BE IT RESOLVED THAT the Town of Ingersoll calls upon the Government of Ontario, and all political parties, to formally grant municipalities the authority to approve landfill projects in or adjacent to their communities, prior to June 2018;

AND THAT in the case of a two-tier municipality, the approval be required at both the upper-tier and affected lower-tier municipalities;

AND FURTHER THAT the Town of Ingersoll encourage all other municipalities in Ontario to consider this motion calling for immediate provincial action.

Lost by _____

Carried by 

YEAS	RECORDED VOTE 2017	NAYS
✓	Councillor Kristy Van Kooten-Bossence	
✓	Councillor Michael Bowman	
✓	Councillor Reagan Franklin	
✓	Councillor Gordon Lesser	
✓	Councillor Brian Petrie	
AB	Deputy Mayor Fred Freeman	
✓	Mayor Ted Comiskey	
	TOTALS	

CENTRAL LAKE ONTARIO CONSERVATION AUTHORITY

**MINUTES NO. 8
AUTHORITY MEETING**

Tuesday, November 21, 2017 - 5:00 P.M.

MEETING LOCATION: 100 WHITING AVENUE, OSHAWA
AUTHORITY'S ADMINISTRATIVE OFFICE, BOARDROOM

Present: Bob Chapman, Vice Chair
John Aker
Shaun Collier
Joe Drumm
Adrian Foster
Derrick Gleed
Ron Hooper
Joe Neal
John Neal
Gerri Lynn O'Connor
David Pickles
Nester Pidwerbecki
Tom Rowett

C. Darling, Chief Administrative Officer
H. Brooks, Director, Watershed Planning & Natural Heritage
R. Catulli, Director, Corporate Services
G. Geissberger, Marketing & Communications Coordinator
D. Hope, Land Management & Operations Supervisor
C. Jones, Director, Planning & Regulations
P. Lowe, Director, Community Engagement
P. Sisson, Director, Engineering & Field Operations
M. Stauffer, Administrative Assistant/Recording Secretary

Absent: Elizabeth Roy
Excused: Don Mitchell

The Vice-Chair called the meeting to order at 5:00 p.m.

DECLARATIONS of interest by members on any matters herein contained - Councillor John Neal noted a conflict with Staff Report #5554-17, 2018 Preliminary Budget, with discussions regarding hydro and solar panels as his spouse is an employee of Oshawa PUC Networks. Councillor Neal neither took part in discussion nor voted on the matter.

ADOPTION OF MINUTES

Res. #78 Moved by R. Hooper
Seconded by A. Foster

THAT the Authority minutes of October 17, 2017 be adopted as circulated.
CARRIED

DIRECTOR, DEVELOPMENT REVIEW & REGULATION

(1) Staff Report #5549-17 (Agenda pg. 1)
Re: Permits Issued for Development, Interference with Wetlands and Alteration to Shorelines and Watercourses – October 1 to 31, 2017

Res. #79 Moved by D. Pickles
Seconded by N. Pidwerbecki

THAT Staff Report #5549-17 be received for information.
CARRIED

Cont'd

DIRECTOR, COMMUNITY ENGAGEMENT

- (1) Staff Report #5550-17 (Agenda pg. 3)
Re: 2017 Durham Children's Watershed Festival Summary

Res. #80 Moved by T. Rowett
Seconded by N. Pidwerbecki

THAT Staff Report #5550-17 be received for information.
CARRIED

DIRECTOR, WATERSHED PLANNING & NATURAL HERITAGE

- (1) Staff Report #5546-17 (Agenda pg. 7)
Re: CLOCA's Integrated Watershed Monitoring Program – 2017 the Inaugural Year

Res. #81 Moved by G.L. O'Connor
Seconded by A. Foster

THAT Staff Report #5546-17 be received for information.
CARRIED

- (2) Staff Report #5547-17 (Agenda pg. 8 & report attached separately)
Re: Riparian Restoration Action Plan – Watershed Action Plan #2

Councillor Drumm arrived at 5:11 p.m.

Res. #82 Moved by G.L. O'Connor
Seconded by A. Foster

THAT Staff Report #5547-17 be received; and,
THAT the Riparian Restoration Action Plan be approved.
CARRIED

DIRECTOR, ENGINEERING & FIELD OPERATIONS

- (1) Staff Report #5552-17 (Agenda pg. 9)
Re: Storoshchuk Restoration Project – Enniskillen Conservation Area

Res. #83 Moved by R. Hooper
Seconded by S. Collier

THAT Staff Report #5552-17 be received for information;
THAT the Board of Directors endorse the rehabilitation of the Storoshchuk pit and direct staff to proceed with Requests for Proposals for the fill placement, grading, and seeding of the rehabilitation project for the Storoshchuk pit; and,
THAT staff report to the Board prior to entering into agreements for the restoration operation.
CARRIED

- (2) Staff Report #5553-17 (Agenda pg. 15)
Re: Summer/Fall 2017 – Conservation Areas Update

Res. #84 Moved by R. Hooper
Seconded by S. Collier

THAT Staff Report #5553-17 be received for information.
CARRIED

DIRECTOR, CORPORATE SERVICES

(1) Staff Report #5551-17 (Agenda pg. 25)

Re: 2018 Proposed Fees for Authority Services & Programs; Plan Review Services & Regulation Administration

Res. #85 Moved by D. Pickles
Seconded by A. Foster

***THAT Staff Report #5551-17 be received; and,
THAT the 2018 Proposed Fees for Authority Services and Programs and Planning Services and Regulation Services be adopted, effective January 1, 2018 and May 1, 2018 for Conservation Area/Facilities Fees.***

Councillor Joe Neal noted that he did not support raising the parking fees. Discussion ensued.

AMENDMENT Moved by Joe Neal
Seconded by John Neal

***THAT the Vehicle Parking Fee be \$2.10 per hour;
THAT the Vehicle Parking Fee be \$5.50 per day; and,
THAT the Durham Children’s Watershed Festival Fee be \$10.00/student.***

Res. #86 Moved by S. Collier
Seconded by Joe Neal

***THAT the Amendment be divided and voted on separately.
CARRIED***

***THAT the Vehicle Parking Fee be \$2.10 per hour;
AMENDMENT LOST***

***THAT the Vehicle Parking Fee be \$5.50 per day; and,
AMENDMENT LOST***

***THAT the Durham Children’s Watershed Festival Fee be \$10.00/student.
AMENDMENT LOST***

Councillor Joe Neal requested a recorded vote.

MEMBER	YEA	NAY	CONFLICT	ABSENT
J. Aker	X			
B. Chapman	X			
S. Collier	X			
J. Drumm		X		
A.Foster	X			
D. Gleed	X			
R. Hooper	X			
D. Mitchell				X
Joe Neal		X		
John Neal		X		
G. O’Connor	X			
D. Pickles	X			
N. Pidwerbecki	X			
T. Rowett	X			
E. Roy				X
TOTAL	10	3		2

Res. #85 CARRIED

AUTHORITY MEETING MINUTES NO. 8 – NOVEMBER 21, 2017 – PAGE 4

- (1) Staff Report #5554-17 (Agenda pg. 31)
Re: 2018 Preliminary Budget

Councillor John Neal noted a conflict, with discussions regarding hydro and solar panels, as his spouse is an employee of Oshawa PUC Networks. Councillor Neal neither took part in discussion nor voted on the matter.

T. Rowett was excused at 5:52 p.m.

- Res. #87 Moved by D. Pickles
Seconded by A. Foster

***THAT Staff Report #5554-17 be received for information; and,
THAT the 2018 Preliminary Budget, including Special Capital Requests of:***
1. \$200,000 for Watershed Plan 5 year Update
2. \$100,000 for Lynde Shores Conservation Area Parking
3. \$50,000 for Shoreline Management Plan Update
4. \$10,000 for Conservation Areas Master Plan
5. \$50,000 for Corporate Climate Change Plan
be approved for circulation to the Region of Durham.
CARRIED

CHIEF ADMINISTRATIVE OFFICER

- (1) Staff Report #5545-17 (Agenda pg. 37)
Re: 2018 Meeting Schedule – Board of Directors

- Res. #88 Moved by A. Foster
Seconded by N. Pidwerbecki

***THAT Staff Report #5545-17 be received for information; and,
THAT the 2018 Meeting Schedule for Board of Directors be adopted.***
CARRIED

- (2) Staff Report #5548-17 (Agenda pg. 38)
Re: Summary of September 25/17 Conservation Ontario Council Meeting

- Res. #89 Moved by A. Foster
Seconded by N. Pidwerbecki

THAT Staff Report #5548-17 be received for information.
CARRIED

- (3) CLOCA's 60th Anniversary Celebration (Verbal Report)

C. Darling noted that 2018 is CLOCA's 60th Anniversary and staff have a few preliminary ideas for events throughout the year. These may include Free Parking in all Conservation Areas on Family Day 2018, and six signature events to be held in our major Conservation Areas. These events may be combined with existing planned events such as our Family Snowshoe, Firefly Hike, etc., and we may include new events such as a Family Film Night. Staff will report to the Board in January 2018 with more details on 60th Anniversary Events.

MUNICIPAL AND OTHER BUSINESS

B. Chapman noted that there is a *tentative* Board meeting, scheduled for December 19, 2017. The CAO will email members if the meeting is cancelled.

ADJOURNMENT

- Res. #90 Moved by N. Pidwerbecki
Seconded by J. Aker

THAT the meeting adjourn.
CARRIED

The meeting adjourned at 6:03 p.m.

From: AMO Communications
To: [Clerks](#)
Subject: AMO Policy Update - Federal Government Releases National Housing Strategy
Date: November-22-17 5:31:54 PM

November 22, 2017

Federal Government Releases National Housing Strategy

Today, the federal government announced its much anticipated National Housing Strategy. AMO welcomes the announcement and the government funding commitments of \$40 billion over ten years.

An overarching national strategy presents the opportunity for all orders of government to proactively work towards supporting Ontarians, and all people living in Canada, to meet their immediate needs and future housing aspirations.

It is especially important for Ontario's municipal governments, as housing is a municipal responsibility unlike in other provinces and territories. Federal actions and long-term investments should support municipal governments and District Social Service Administration Boards to address housing and homelessness in their communities. The plan includes investments to both expand affordable housing and as well to repair and renew existing social housing. AMO advocated that both priorities be addressed in the strategy.

Key highlights of the strategy are:

- Focus on the needs of the most vulnerable through a human-rights-based approach to housing;
- Introducing legislation within the next year obligating the federal government to maintain a National Housing Strategy and a report to Parliament on housing targets and outcomes;
- Establishing goals to:
 - decrease chronic homelessness by 50%
 - remove 530,000 families from housing need
 - invest in construction of 100,000 new affordable homes
- Investments will include:
 - \$15.9 billion for a new National Housing Co-investment Fund

- \$8.6 billion for a new Canada Community Housing Initiative
- \$4 billion for Canada Housing Benefit, working with provinces and territories
- \$2.2 billion to reduce homelessness
- \$300 in additional funding to address the needs in Canada's north
- \$241 million for research, data and demonstrations
- \$200 million in land transfers to housing providers
- Committing that at least 25% of funds go to projects for women, girls and their families; and,
- Working with Indigenous leaders to co-develop distinctions-based housing strategies.

AMO will analyze the impact of the strategy with its Affordable Housing and Homelessness Task Force, providing members with relevant updates. Further information and clarification is needed on the particulars and next steps, especially how municipal governments in Ontario will be engaged. AMO looks forward to working with both the federal and provincial governments to provide advice on the final details and implementation of the strategy; a vitally important initiative to ensure housing stability and prosperity for the residents and communities in Ontario.

For more information, see the National Housing Strategy, [A Place to Call Home](#), on the Government of Canada website and the [news release](#) by the Canada and Mortgage Housing Corporation (CMHC). See also the Government of Ontario's [statement](#).

AMO's full [submission](#) to the federal government during the consultations in 2016 is found on the AMO website.

AMO Contact: Michael Jacek, Senior Advisor, mjacek@amo.on.ca, 416.971.9856 ext. 329.

PLEASE NOTE: AMO Breaking News will be broadcast to the member municipality's council, administrator, and clerk. Recipients of the AMO broadcasts are free to redistribute the AMO broadcasts to other municipal staff as required. We have decided to not add other staff to these broadcast lists in order to ensure accuracy and efficiency in the management of our various broadcast lists.

DISCLAIMER: Any documents attached are final versions. AMO assumes no responsibility for any discrepancies that may have been transmitted with this electronic version. The printed versions of the documents stand as the official record.

November 24, 2017

Sent via email

SEE DISTRIBUTION LIST

At Authority Meeting #9/17, of Toronto and Region Conservation Authority (TRCA), held on November 17, 2017, Resolution #A207/17 in regard to Meeting Schedule 2018-2019 was approved as follows:

THAT Meeting Schedule 2018-2019, dated October 20, 2017, be approved;

THAT Meeting Schedule 2017-2018 be amended such that the February 2, 2018 Executive Committee meeting be changed to February 9, 2018;

THAT the Executive Committee be delegated the powers of the Authority during the month of August, 2018, as defined in Section 2.10 of the Rules of Conduct;

AND FURTHER THAT the CEO's Office distribute this schedule at the earliest opportunity to Toronto and Region Conservation Authority's (TRCA) watershed municipalities and the Ministry of Natural Resources and Forestry.

Enclosed for your information and any action deemed necessary is the report as approved by the Authority. If you have any questions or require additional information, please contact Kathy Stranks at 416-661-6600 extension 5264, kstranks@trca.on.ca.

Sincerely



Kathy Stranks
Senior Manager, Corporate Secretariat
CEO's Office

/Encl.

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Ralph Walton, Regional Clerk / Director, Legislative Services, Regional Municipality of Durham

Ulli S. Watkiss, City Clerk, City Clerk's Office, City of Toronto

RES.#A207/17 - MEETING SCHEDULE 2018-2019

Schedule of board meetings for the period beginning February 23, 2018 and ending January 23, 2019.

Moved by: Jennifer McKelvie
Seconded by: Jack Heath

THAT Meeting Schedule 2018-2019, dated October 20, 2017, be approved;

THAT Meeting Schedule 2017-2018 be amended such that the February 2, 2018 Executive Committee meeting be changed to February 9, 2018;

THAT the Executive Committee be delegated the powers of the Authority during the month of August, 2018, as defined in Section 2.10 of the Rules of Conduct;

AND FURTHER THAT the CEO's Office distribute this schedule at the earliest opportunity to Toronto and Region Conservation Authority's (TRCA) watershed municipalities and the Ministry of Natural Resources and Forestry.

CARRIED

RATIONALE

Since most Authority members also sit on municipal councils, boards or committees, which usually meet on days other than Friday, the recommended schedule accommodates TRCA board meetings on Fridays. Staff has made every effort to avoid conflicts with municipal council meetings, Federation of Canadian Municipalities' (FCM) annual conference and Board of Directors meetings, Board of Governors of Exhibition Place meetings, statutory holidays and school March breaks, in selecting the proposed meeting days, while still maintaining a schedule which meets TRCA's functional needs. There are some meetings that are the same week as Toronto City Council, so if the City meeting runs into extra days, a conflict may occur. Given the long weekends, other conflicts noted above and TRCA reporting requirements, these are the optimal dates for the meetings.

The January and February 2018 meetings were previously approved in Meeting Schedule 2017-2018, but are provided in Attachment 1 for assistance in updating calendars, with one change such that the February 2, 2018 meeting is recommended to be moved to February 9, 2018 due to a conflict with Toronto Council.

An Authority meeting is not scheduled in the month of August due to summer vacations. To accommodate the large number of permit requests at this time, an Executive Committee meeting is scheduled. Should an item require Authority approval in August, Section 2.10 of the Authority's Rules of Conduct permits the Authority to delegate its powers to the Executive Committee:

2.10 *to exercise such additional powers, excluding those powers set out in Clause (d) of Subsection (1) of Section 30 of the Act, as may be assigned to it by the Authority during the months of July and August provided that a report be given to the Authority at the first meeting of the Authority thereafter;*

Staff is recommending powers be assigned to the Executive Committee for August, 2018, with the required report being brought to the Authority at its meeting proposed to be held on September 28, 2018. Staff is also recommending that the August Executive Committee meeting be conducted with the option of teleconferencing due to the lighter agenda, unless otherwise advised as a result of items scheduled.

At Authority Annual Meeting #1/02, held on January 25, 2002, Resolution #A6/02 was approved in part as follows:

THAT the dates of future Annual Meetings be changed to accommodate the budget meeting schedule for our member municipalities, such that the Annual Meeting held following a municipal election be in January while the Annual Meetings in the interim two years between elections be moved to February;

In accordance with Resolution #A6/02, the 2019 annual Authority meeting is proposed to be held on Friday, January 23, 2019.

Meetings will be held at TRCA's Head Office at 101 Exchange Avenue, Vaughan. The Authority and Executive Committee meetings will be held at 9:30 a.m. with the exception of the Annual meeting which will be held at 10:30 a.m. at Black Creek Pioneer Village. The Budget/Audit Advisory Board (BAAB) meetings will be held at 8:30 a.m.

Members are requested to enter all board meetings in their calendars upon receipt of the annual schedule. Members are further requested to schedule to be in attendance at Authority and Executive Committee meetings from the start of the meeting until at least 1:30 p.m. to ensure quorum is maintained.

Report prepared by: Kathy Stranks, extension 5264

Emails: kstranks@trca.on.ca

For Information contact: Kathy Stranks, extension 5264

Emails: kstranks@trca.on.ca

Date: October 20, 2017

Attachments: 1

TORONTO AND REGION CONSERVATION AUTHORITY 2018- 2019 SCHEDULE OF MEETINGS

January '18						
Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5 AUTH #10/17	6
7	8	9	10	11	12 EXEC #11/17	13
14	15	16	17	18	18	20
21	22	23	24	25	26 AUTH #11/17	27
28	29	30	31			

February '18						
Su	M	Tu	W	Th	F	Sa
				1		2 3
4	5	6	7	8	9 EXEC #12/17	10
11	12	13	14	15	16	17
18	19	20	21	22	23 ANNUAL AUTH #1/18 (10:30 am)	24
25	26	27	28			

March '18						
Su	M	Tu	W	Th	F	Sa
				1	2 BAAB #1/18 EXEC #1/18	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23 AUTH #2/18	24
25	26	27	28	29	30	31

April '18						
Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6 EXEC #2/18	7
8	9	10	11	12	13	14
15	16	17	18	19	20 AUTH #3/18	21
22	23	24	25	26	27	28
29	30					

May '18						
Su	M	Tu	W	Th	F	Sa
		1	2	3	4 EXEC #3/18	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25 AUTH #4/18	26
27	28	29	30	31		

June '18						
Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8 BAAB #2/18 EXEC #4/18	9
10	11	12	13	14	15	16
17	18	19	20	21	22 AUTH #5/18	23
24	25	26	27	28	29	30

July '18						
Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6 EXEC #5/18	7
8	9	10	11	12	13	14
15	16	17	18	19	20 AUTH #6/18	21
22	23	24	25	26	27	28
29	30	31				

August '18						
Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10 EXEC #6/18	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

September '18						
Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7 EXEC #7/18	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28 AUTH #7/18	29

October '18						
Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5 EXEC #8/18	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26 AUTH #8/18	27
28	29	30	31			

November '18						
Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9 BAAB #3/18 EXEC #9/18	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30 AUTH #9/18	

December '18						
Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14 EXEC #10/18	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

January '19						
Su	M	Tu	W	Th	F	Sa
		1	2	3	4 AUTH #10/18	5
6	7	8	9	10	11 EXEC #11/18	12
13	14	15	16	17	18	19
20	21	22	23	24	25 ANNUAL AUTH #1/19 (10:30 am)	26
27	28	29	30	31		

AUTH = Authority
 EXEC = Executive Committee
 BAAB = Budget/Audit Advisory Board

Municipal Election
 Holidays
 March Break

All **AUTHORITY & EXECUTIVE COMMITTEE** meetings will be held from 9:30 am until 1:30 pm at TRCA Head Office, 101 Exchange Ave., Vaughan, unless otherwise noted on the agenda.

All **BAAB** meetings will held at 8:30 am unless otherwise noted on the agenda.

Maria Flammia

From: Ontario Clean Air Alliance <contact@cleanairalliance.org>
Sent: November-20-17 3:00 PM
To: Clerks
Subject: 10,000 people are right!

10,000 people are right!

More than 10,000 people have now signed our petition calling on the Government of Ontario to close the old and dangerous Pickering Nuclear Station. Clearly, there is a strong appetite to see this nuclear station – one of the world’s oldest and largest – shuttered as soon as possible.

What the petition signers recognize is that it makes no sense to keep this obsolete station operating in the middle of our country's largest urban area. No one would build a nuclear plant in Pickering today. We shouldn't keep the existing one operating there either, especially since it's years beyond its design life.




Pickering has the highest operating costs of any nuclear station in North America. That, along with the rebuilding of the Darlington Nuclear Station, is why OPG wants to dramatically increase its nuclear power rates by 180% (from 5.9 to 16.5 cents/kWh) – not exactly the solution the people of Ontario need right now.

To add insult to injury, at night and on weekends, Ontario's nuclear reactors produce more power than we need. And unlike water, wind and solar power, the Pickering Nuclear Station cannot reduce its output when demand drops. As a result we have to sell its surplus power to the U.S. at a financial loss, often at negative prices. By closing Pickering we can eliminate our need to export power at a financial loss, and we can lower electricity bills.

The smart solution to meeting our electricity needs is to make a deal with Quebec for low-cost power. Recently, Quebec offered to sell Ontario enough power to replace Pickering at a price that is 45% lower than the aging nuclear plant’s operating costs alone. Importing Quebec power could actually cut our electricity costs by more than \$12 billion over the next 20 years.

It was one sweet offer, but so far the Wynne government has refused to sign. So we've launched a new petition calling on the Premier to make a deal with Quebec to save us all \$billions.

Please sign our petition calling for a deal with Quebec and pass it on to your friends!

Please share this message:   

Thank you...

Angela Bischoff, Outreach Director

p.s. Last week I spoke at 2 events alongside First Nations calling for a 100% renewable Ontario. Watch a 2 min. video of my speech at Queen’s Park, and a 7 min. version of the events.

C.S. - LEGISLATIVE SERVICES

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Ontario Clean Air Alliance
160 John St., #300
Toronto M5V 2E5
Phone: 416 260-2080 x 1
angela@cleanairalliance.org



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Maria Flammia

From: Ontario Clean Air Alliance <contact@cleanairalliance.org>
Sent: November-21-17 1:39 PM
To: Clerks
Subject: FAO nuclear cost report is fundamentally flawed

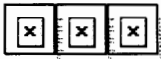
FAO nuclear cost report is fundamentally flawed

The Financial Accountability Officer of Ontario (FAO) has issued a report on the costs of nuclear power that relies on outdated and incorrect information to draw a highly misleading picture of the risks of continuing to pursue high-cost nuclear projects in Ontario. This is a very disconcerting – and highly inadequate -- piece of work from an agency that is supposed to provide an impartial, evidence-based look at major economic decisions facing the province.

The FAO’s flawed conclusions about the costs of Ontario’s plan to rebuild 10 aging reactors relies on the following false assumptions:

1. The FAO assumes the price of nuclear power will peak at 9.5 cents per kWh despite the fact that OPG is seeking to raise its price of nuclear power to 16.5 cents per kWh to pay for re-building the Darlington Nuclear Station.
2. The FAO assumes that the cost of importing water power from Quebec would be 12 to 16 cents per kWh despite the fact that last year Ontario and Quebec signed a seven-year electricity supply contract for 2 billion kWh per year at a price of 5 cents per kWh. The FAO also ignored the fact that this summer Hydro Quebec offered to sell us 8 billion kWh per year for 20 years at a price of only 5 cents per kWh and that the average price paid for power exported by Quebec in its most recent fiscal quarter was 4.2 cents per kWh.
3. The FAO assumes that the nuclear re-build cost overruns will not exceed 50% despite the fact that every nuclear project in Ontario’s history has gone massively over budget – on average by 2.5 times. It also ignores that fact that initial stages of the Darlington rebuild project are already over budget.
4. The FAO assumes that the cost of increasing transmission capacity between our two provinces by 3,300 megawatts (MW) would be \$2 billion despite the fact that a May 2017 IESO report said that we could upgrade our capacity by 4,050 MW for only \$1.6 billion – a fraction of the cost of rebuilding reactors.

Please sign our petition requesting Premier Wynne to say yes to Hydro Quebec’s offer to sell us clean, safe water power at one-third the cost of re-building the Darlington Nuclear Station.

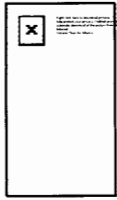
Please pass this message onto your friends. 

Thank you.

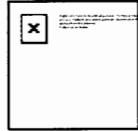
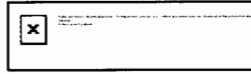
Angela Bischoff, Outreach Director

p.s. Listen to a 5 min. radio interview with Jack Gibbons on The Stafford Show this morning.

Original
To:
Copy
To:
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Take Appr. Action



Ontario Clean Air Alliance
 160 John St., #300
 Toronto M5V 2E5
 Phone: 416 260-2080 x 1
angela@cleanairalliance.org



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If this information is required in an accessible format, please contact 1-800-372-1102 ext. 2097.

The Regional Municipality of Durham

MINUTES

DURHAM REGION ROUNDTABLE ON CLIMATE CHANGE

November 10, 2017

A regular meeting of the Durham Region Roundtable on Climate Change was held on Friday, November 10, 2017 in Boardroom LL-C, Regional Municipality of Durham Headquarters, 605 Rossland Road East, Whitby at 1:00 PM.

Present: R. Gauder, Citizen Member, Chair
Councillor Ashe, Finance & Administration Committee
Councillor Ballinger, Works Committee
G.H. Cubitt, Chief Administrative Officer
C. Desbiens, Citizen Member
D. Hoornweg, Citizen Member
J. Kinniburgh, Citizen Member
H. Manns, Citizen Member
C. Mee, Citizen Member
B. Neil, Citizen Member
R. Plaza, Citizen Member attended the meeting at 1:05 PM
K. Shadwick, Citizen Member
J. Solly, Citizen Member
Z. Vonkalckreuth, Citizen Member
M. Vroegh, Citizen Member, Vice-Chair attended the meeting at 1:52 PM

Absent: Regional Chair Anderson
Councillor Glead, Health and Social Services Committee was absent due to municipal business
T. Hall, Citizen Member
Councillor Mitchell, Planning & Economic Development Committee was absent due to municipal business

Staff

Present: J. Booth, GIS Analyst, Corporate Services – Information Technology
B. Bridgeman, Commissioner of Planning and Economic Development
B. Kelly, Manager of Sustainability, Office of the CAO
A. Gibson, Director of Corporate Policy and Strategic Initiatives, Office of the CAO
C. Rochon, Program Coordinator, Climate Change, Office of the CAO
S. Penak, Committee Clerk, Corporate Services – Legislative Services
N. Prasad, Committee Clerk, Corporate Services – Legislative Services

1. Adoption of Minutes

Moved by Councillor Ballinger, Seconded by J. Solly,
That the minutes of the regular Durham Region Roundtable on
Climate Change meeting held on October 13, 2017, be adopted.
CARRIED

2. Declarations of Interest

There were no declarations of interest.

3. Next Steps on Results of LAP Programs Review in Last Meeting

A) Angela Gibson, Director of Corporate Policy and Strategic Initiatives

A. Gibson thanked the Committee members for their participation in the discussion about the existing programs in the Durham Community Climate Change Local Action Plan.

A. Gibson provided a summary of the discussion held at the October 13, 2017 meeting. She stated that the three areas of focus were education, residential retrofit and transportation.

A. Gibson asked the Committee whether they would like to repeat this exercise again in 2018 and look for further program opportunities in the remaining topics, or create a work plan from the ideas and opportunities that were generated from this exercise and see what can be done to move forward on those initiatives. It was the consensus of the Committee to create a work plan.

4. Durham's Five Million Trees Program

A) Rob Keen, CEO, Forests Ontario

R. Keen provided a PowerPoint presentation regarding Forests Ontario's 50 Million Trees Program. A copy of the presentation was provided to the Committee prior to the meeting.

Highlights of the presentation included:

- Tree Planting & Maintenance
- Durham 5 Million Tree Program
- Forests Ontario's Efforts to Date
- Communication and Outreach
- Targeted Outreach
- Challenges
- Opportunities

R. Keen stated that Forests Ontario is a relatively new merger between the Ontario Forestry Association and Trees Ontario. Forests Ontario has supported the planting of over 28 million trees and has kept data of where all of the trees are planted and the status of those trees. Forests Ontario's goal is to plant 5 million trees within Durham Region and 50 million trees in Ontario by the year 2025.

R. Keen stated that in the past couple of years, there has been difficulty in getting trees established due to weather extremes such as the extreme drought conditions two years ago, and severe flooding this past year.

R. Keen listed some challenges faced by Forests Ontario including: getting the word out to landowners; absentee land owners (those that live in the city); the need for more corporate sponsors; and competing land uses (landowners need to sign 15 year land agreements with Forests Ontario).

R. Keen responded to questions of the Committee regarding Durham's targets and where those trees will be planted; increasing the subsidy to the landowners in order to get buy-in from them; the most successful land site to date; and the cost per tree.

B. Kelly provided a map to the Committee of urban heat islands in Durham Region dated September 12, 2017 in collaboration with Geographic Information System (GIS) staff. B. Kelly stated that this a newly discovered resource and that within the Region there is the capability of producing urban heat island maps based on Landsat surface temperature data for the purpose of highlighting warmer areas due to human activity that might be targeted for mitigated actions (such as tree planting) or climate adaptation measures.

5. Risks and Opportunities for Agriculture in a Changing Climate

A) Al Douglas, Director, Ontario Centre for Climate Impacts and Adaptation Resources (OCCIAR)

A. Douglas provided a PowerPoint Presentation entitled, "Risks and Opportunities for Agriculture in a Changing Climate". A copy of the presentation was provided to the Committee prior to the meeting.

Highlights from the presentation included:

- Ontario Centre for Climate Impacts and Adaptations Resources (OCCIAR)
- What we are seeing
- Growing Degree Days - 2050s
- The Ontario Climate and Agriculture Assessment Framework (OCAAFF)

- The Project Team
- Objectives
- Land Suitability Rating System (LSRS)
- Research Methods
- Using the Climate Change Hazards Information Portal (CCHIP)
- OCCAAF Results
 - Observed Temperature Trends
 - Observed Precipitation Trends
 - Future Temperature Projections
 - Future Precipitation Projections
 - Observed Temperature Trends
 - Observed Precipitation Trends
 - Future Precipitation Trends
 - Future Temperature Projections
 - Future Precipitation Projections
 - So what can we expect to see in 2050?
- How can we adapt
 - Agriculture and Adaptation
 - Adaptation Options for the Clay Belt
 - Adaptation Options for Southwestern Ontario
 - Policy Briefs
 - OCAAF Outputs/Results
 - Examples of On-Farm Adaptation
 - Examples of Adaptation in Ontario
 - Enablers and Barriers of Adaptation
- So what does this all mean for Durham Region
- Tools
- Future of OCAAF

A. Douglas stated that the goals of OCAAF are to inform policy, program and management choices; and help prepare for the impacts of climate change through adaptation.

A. Douglas advised of the importance of adaptation and developing tools to assist with adaptation. He stated that when talking to farmers they are inherently adaptive with the increased variability and potentially longer compromised periods of extreme weather conditions. He explained the need to build capacity in order to manage the changing weather conditions. A. Douglas discussed the future of OCAAF which could include broadening the framework to include other areas in addition to Ontario; and improving the Land Suitability Rating System to include additional modules and factors that affect agriculture.

A. Douglas responded to questions of the Committee regarding receiving negative feedback from local farmers; how to get farmers on board and the effect of weather extremes shifting too quickly.

6. Draft of DRRC Annual Report for 2017

- A) Memorandum from Angela Gibson, Director of Corporate Policy & Strategic Initiatives, dated November 2, 2017

A memorandum from Angela Gibson, Director of Corporate Policy & Strategic Initiatives, dated November 2, 2017 regarding Durham Region Roundtable on Climate Change 2017 Annual Report was provided as Attachment #3 to the Agenda.

7. Other Business

- A) Natural Climate Solutions – Article from Proceedings of the National Academy of Sciences (PNAS)

A copy of the scientific paper from PNAS was provided to the Committee prior to the meeting.

Discussion ensued regarding land stewardship options; identifying and quantifying natural climate solutions; and improved land management actions.

- B) Chevrolet Bolt – Electric Vehicle

B. Kelly advised the Committee that Kent Chadwick recently purchased a Chevrolet Bolt EV.

K. Chadwick stated that he purchased the vehicle in July 2017. He stated that the vehicle is rated at a range of 383 kilometers but he is able to get roughly 500 kilometers per charge. He also stated that it costs \$7 of electricity a week to charge a car with a 60 kilowatt battery and uses off or mid-peak grid power. He stated that when someone purchases a Chevrolet Bolt EV they are assigned an EV ambassador. He stated that the car is equipped with FleetCarma that tracks the telematics of the car and that the Chevrolet Bolt EV is all electric with no internal combustion.

8. Date of Next Meeting

The next regular meeting of the Durham Region Roundtable on Climate Change will be held on Friday, December 8, 2017 starting at 1:00 PM in Room LL-C, Regional Headquarters Building, 605 Rossland Road East, Whitby.

9. Adjournment

Moved by D. Hoornweg, Seconded by G. Cubitt,
That the meeting be adjourned.

CARRIED

The meeting adjourned at 2:32 PM.

R. Gauder, Chair, Durham Region
Roundtable on Climate Change

S. Penak, Committee Clerk