

CHAIR:

N. IANNICCA

MEMBERS:

P. BROWN

G. CARLSON

B. CROMBIE

D. DAMERLA

S. DASKO

G. S. DHILLON

J. DOWNEY

C. FONSECA

P. FORTINI

A. GROVES

J. INNIS

J. KOVAC

M. MAHONEY

S. MCFADDEN

M. MEDEIROS

M. PALLESCHI

C. PARRISH

K. RAS

P. SAITO

R. SANTOS

I. SINCLAIR

R. STARR

A. THOMPSON

P. VICENTE



The Council of the
Regional Municipality of Peel
REVISED AGENDA

Date: Thursday, September 26, 2019

Time: 9:30 AM

Place: Council Chamber, 5th Floor
Regional Administrative Headquarters
10 Peel Centre Drive, Suite A
Brampton, Ontario

For inquiries about this agenda or to make arrangements for accessibility accommodations including alternate formats, please contact:

Christine Thomson at (905) 791-7800, ext. 4582 or at
christine.thomson@peelregion.ca.

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1. **ROLL CALL**

2. **DECLARATIONS OF CONFLICTS OF INTEREST**

3. **APPROVAL OF MINUTES**

3.1. September 12, 2019 Regional Council meeting

4. **APPROVAL OF AGENDA**

5. **PUBLIC ANNOUNCEMENTS SPONSORED BY A MEMBER OF COUNCIL**

6. **CONSENT AGENDA**

7. **DELEGATIONS**

7.1. **Nando Iannicca, Chair, Peel Police Services Board**, Introducing the In-coming Chief of Police, Nishan Duraipappah

7.2. **Lisa Chen, Canadian Conservation Corps Participant, Canadian Wildlife Federation**, Regarding Cigarette Butt Litter

7.3. **RoseMarie Pazzelli, Principal; Maygan Thimio, Teacher and Librarian, Our Lady of Providence School; and Dilraj Soor, Public Health Nurse, Peel Public Health**, Regarding the High-impact, Easy Approach Leading to Healthier Youth (HEALTHY) Pledge Program (Related to 7.4 and 17.2)

7.4. **Michelle Curry-Sharples, Principal, and Sam Bennett, Teacher, Floradale Public School; and Kimberley Wallace, Public Health Nurse, Peel Public Health**, Regarding the High-impact, Easy Approach Leading to Healthier Youth (HEALTHY) Pledge Program (Related to 7.3 and 17.2)

7.5. **Abid Arif, Resident, City of Mississauga**, Regarding Excessive Water Bill

8. **STAFF PRESENTATIONS**

8.1. Utility Billing Resolution Process
Presentation by Steve Fantin, Director, Operations Support

8.2. Transitioning to the New Ontario Seniors Dental Care Program (For information)
Presentation by Dr. Jessica Hopkins, Medical Officer of Health and Dr. Faahim Rashid, Dental Consultant

- 8.3. Service Level Implications for Peel Programs Impacted by Provincial Envelope Funding Reductions
Presentation by Norm Lum, Director, Business and Financial Planning; Cathy Granger, Acting Commissioner of Health Services; and Suzanne Finn, Director, Early Years and Child Care Services (**Presentation now available**)

9. ITEMS RELATED TO HUMAN SERVICES

Chaired by Councillor M. Medeiros or Vice-Chair Councillor G.S. Dhillon

- 9.1. Report of the Strategic Housing and Homelessness Committee (SHHC-4/2019) meeting held on September 19, 2019

10. COMMUNICATIONS

- 10.1. **Terri Brenton, Legislative Coordinator, City of Brampton**, Letter dated September 23, 2019, Regarding Public Safety and Downtown Brampton (Referral to Human Services and Public Works recommended)

11. ITEMS RELATED TO PLANNING AND GROWTH MANAGEMENT

Chaired by Councillor M. Palleschi or Vice-Chair Councillor A. Thompson

- 11.1. Peel 2041 Official Plan Review – Implications of the New Growth Plan 2019 and Status Update (For information) (Related to 12.1)

12. COMMUNICATIONS

- 12.1. **Steve Clark, Minister of Municipal Affairs and Housing**, Letter received September 4, 2019, Providing an Update on the *More Homes, More Choice Act, 2019*, Passed by the Legislature on June 6, 2019 (Receipt recommended) (Related to 11.1)

13. ITEMS RELATED TO ENTERPRISE PROGRAMS AND SERVICES

Chaired by Councillor C. Fonseca or Vice-Chair Councillor K. Ras

- 13.1. 2020 Regional Council and Committee Meeting Schedule
- 13.2. External Legal Counsel for Expropriation Matters – Document Number 2013-718P
- 13.3. Report of the Regional Council Policies and Procedures Committee (PPC-4/2019) meeting held on September 5, 2019 (Related to By-law 56-2019)

- 13.4. Update: 2019 Borrowing Limit

14. COMMUNICATIONS

15. ITEMS RELATED TO PUBLIC WORKS

Chaired by Councillor A. Groves or Vice-Chair Councillor P. Fortini

- 15.1. Lakeview Village Community - Sustainable Development Tour in Sweden Summary (For information)
- 15.2. *Clean Water Act* Requirements - Replacement of Alternate Risk Management Official and Appointments Process

16. COMMUNICATIONS

17. ITEMS RELATED TO HEALTH

Chaired by Councillor J. Downey or Vice-Chair Councillor D. Damerla

- 17.1. Meals on Wheels for Seniors (Related to 18.7)
- 17.2. Creating and Supporting Healthy Schools: The High-impact, Easy Approach Leading to Healthier Youth (HEALTHY) Pledge Program (For information) (Related to 7.3 and 7.4)

18. COMMUNICATIONS

- 18.1. **Christine Massey, Spokesperson, Fluoride Free Peel**, Email received September 11, 2019, Regarding the Freedom of Information (FOI) Response from the City of Calgary - Evidence on Fluoride Exposure During Pregnancy (Receipt recommended) **(The FOI response is available for viewing at the Office of the Regional Clerk)**
- 18.2. **Christine Massey, Spokesperson, Fluoride Free Peel**, Email received September 11, 2019, Regarding a Study Published in the Journal of the American Medical Association, Pediatrics, August 19, 2019 on the Association between Maternal Fluoride Exposure During Pregnancy and IQ Scores in Offspring in Canada (Receipt recommended)
- 18.3. **Christine Massey, Spokesperson, Fluoride Free Peel**, Email received September 11, 2019, Regarding Criticisms of Recent Journal of the American Medical Association Pediatrics Reports on Maternal Fluoride Levels Linked to Offsprings' Lower IQ (Receipt recommended)
- 18.4. **Christine Massey, Spokesperson, Fluoride Free Peel**, Email received September 11, 2019, Regarding In Utero Fluoride/IQ Studies - Should Provoke A Nation-Wide Fluoridation Moratorium (Receipt recommended)
- 18.5. **Christine Massey, Spokesperson, Fluoride Free Peel**, Email received September 11, 2019, Providing a Copy of "WeToo: Medical Assault and Battery" (Receipt recommended)

- 18.6. **Christine Massey, Spokesperson, Fluoride Free Peel**, Email received September 11, 2019, Providing a Copy of a Press Release from Mount Sinai Hospital, NY, titled "Fluoride May Diminish Kidney and Liver Function in Adolescents, Study Suggests" (Receipt recommended)
- 18.7. **Cathy Granger, Acting Commissioner, Health Services**, Email dated September 18, 2019, Providing Information to Members of Council in Response to a Letter from Karen Humber, Executive Director, Brampton Meals on Wheels, and Christine Sevigny, Executive Director, Caledon Meals on Wheels, Regarding Meal Fee Increases (Related to 17.1)

19. OTHER BUSINESS

20. NOTICE OF MOTION/MOTION

- 20.1. Deliberations During 2020 Regional Council Budget Meetings for Inclusion of Community Youth Hubs, Century Gardens Lawn Bowling Clubhouse and Fletcher's Sportsplex, City of Brampton **(As requested by Councillor Medeiros)**

21. BY-LAWS

Three Readings

By-law 56-2019: A by-law to govern the calling, place, and proceedings of the meetings of Council and its committees and the conduct of their members and to repeal By-laws 9-2018 and 52-2018. (Related to 13.3)

22. IN CAMERA MATTERS

- 22.1. September 12, 2019 Regional Council Closed Session Report
- 22.2. Appointment of Non-elected Members to the Region of Peel Diversity, Equity and Anti-Racism Committee (Personal matters about an identifiable individual, including municipal or local board employees) **(Deferred from the September 12, 2019 Regional Council meeting)**
- 22.3. Update on Growth Management Strategy (Oral) (Advice that is subject to solicitor-client privilege, including communications necessary for that purpose)
- 22.4. Local Planning Appeal Tribunal - 134 Kennedy Road South, City of Brampton, Ward 3 (Litigation or potential litigation, including matters before administrative tribunals; and, advice that is subject to solicitor-client privilege, including communications necessary for that purpose)

- 22.5. Expropriation Proceedings - Regional Road 14 (Mayfield Road) Widening from Regional Road 7 (Airport Road) to Regional Road 150 (Coleraine Drive) - City of Brampton, Ward 10 and Town of Caledon, Wards 2, 4 and 5 (A proposed or pending acquisition or disposition of land by the municipality or local board)
- 22.6. Commencement of Expropriation Proceedings - Regional Road 1 (Mississauga Road) Widening from 300 metres North of Regional Road 107 (Bovaird Drive West) to Regional Road 14 (Mayfield Road) - City of Brampton, Ward 6 (A proposed or pending acquisition or disposition of land by the municipality or local board)
- 22.7. Development Charges (Litigation or potential litigation, including matters before administrative tribunals affecting the municipality or local board; and advice that is subject to solicitor-client privilege, including communications necessary for that purpose)
- 22.8. Closed Session Report of the Strategic Housing and Homelessness Committee (SHHC-4/2019) meeting held on September 19, 2019
- 22.9. Housing Master Plan Update (A position, plan, procedure, criteria or instruction to be applied to any negotiations carried on her to be carried on by or on behalf of the municipality or local Board) **(Referred from the September 19, 2019 Strategic Housing and Homelessness Committee meeting)**
- 22.10. Update on Litigation Affecting the Municipality (Oral) (Advice that is subject to solicitor-client privilege, including communications necessary for the purpose)
- 22.11. Collective Agreement Negotiations (Labour relations or employee negotiations)

23. BY-LAWS RELATING TO IN CAMERA MATTERS

By-law 52-2019:

By-law 53-2019:

By-law 54-2019:

By-law 55-2019:

24. BY-LAW TO CONFIRM THE PROCEEDINGS OF COUNCIL

25. ADJOURNMENT



**THE COUNCIL OF
THE REGIONAL MUNICIPALITY OF PEEL
September 12, 2019**

Regional Chair Iannicca called the meeting of Regional Council to order at 9:32 a.m. in the Council Chamber, Regional Administrative Headquarters, 10 Peel Centre Drive, Suite A, Brampton.

1. ROLL CALL

Members Present:	P. Brown	S. McFadden
	B. Crombie	M. Medeiros*
	S. Dasko	M. Palleschi
	J. Downey	C. Parrish*
	C. Fonseca♦	K. Ras
	P. Fortini	P. Saito
	A. Groves	R. Santos
	N. Iannicca	I. Sinclair
	J. Innis	R. Starr
	J. Kovac	A. Thompson
	M. Mahoney	P. Vicente
Members Absent:	G. Carlson	Due to illness
	D. Damerla	Due to illness
	G.S. Dhillon	Due to other municipal business

Also Present: N. Polsinelli, Interim Chief Administrative Officer; C. Matheson, Commissioner of Corporate Services; S. VanOfwegen, Commissioner of Finance and Chief Financial Officer; S. Baird, Commissioner of Digital and Information Services; P. O'Connor, Regional Solicitor; A. Smith, Acting Chief Planner; A. Farr, Acting Commissioner of Public Works; J. Sheehy, Commissioner of Human Services; C. Granger, Acting Commissioner of Health Services; Dr. M. Hau, Acting Medical Officer of Health; K. Lockyer, Regional Clerk and Director of Legal Services; C. Thomson, Legislative Specialist; S. Valteau, Legislative Technical Coordinator; H. Gill, Legislative Specialist

2. DECLARATIONS OF CONFLICTS OF INTEREST - Nil

* See text for arrivals
♦ See text for departures
★ Denotes alternate member

3. APPROVAL OF MINUTES

3.1. July 11, 2019 Regional Council meeting

Moved by Councillor Mahoney,
Seconded by Councillor McFadden;

That the minutes of the July 11, 2019 Regional Council meeting be approved.

Carried 2019-756

4. APPROVAL OF AGENDA

Moved by Councillor Kovac,
Seconded by Councillor Innis;

That the agenda for the September 12, 2019 Regional Council meeting include a communication from Walmart Canada Corp. regarding the Region of Peel's Off-Peak Delivery Pilot Project, to be dealt with under Items Related to Public Works – Item 14.5;

And further, that the agenda for the September 12, 2019 Regional Council meeting include a communication from the LCBO regarding the Region of Peel's Off-Peak Delivery Pilot Project, to be dealt with under Items Related to Public Works – Item 14.6;

And further, that the agenda for the September 12, 2019 Regional Council meeting include a communication from Loblaw Companies Limited regarding the Region of Peel's Off-Peak Delivery Pilot Project, to be dealt with under Items Related to Public Works – Item 14.7;

And further, that the agenda for the September 12, 2019 Regional Council meeting include an oral update on the Anaerobic Digestion project, to be dealt with under Other Business – Item 19.1;

And further, that the agenda for the September 12, 2019 Regional Council meeting include an oral item regarding Domestic Violence, to be dealt with under Other Business – Item 19.2;

And further, that the agenda for the September 12, 2019 Regional Council meeting be approved, as amended.

Carried 2019-757

Item 22.5 was dealt with.

At 9:36 a.m., in accordance with section 239(2) of the *Municipal Act, 2001*, as amended, the following motion was placed:

Moved by Councillor Fonseca,
Seconded by Councillor Groves;

That Council proceed “In Camera” to consider a report relating to the following:

- Silverthorn Water Pumping Station Watermain Break (Oral) (Litigation or potential litigation, including matters before administrative tribunals, affecting the municipality or local board; and a Position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local board)

Carried 2019-758

Councillor Medeiros arrived at 9:41 a.m.

Councillor Parrish arrived at 9:56 a.m.

Moved by Councillor Ras,
Seconded by Councillor Saito;

That Council proceed out of “In Camera”.

Carried 2019-759

Council moved out of closed session at 10:53 a.m.

- 22.5. **Silverthorn Water Pumping Station Watermain Break (Oral) (Litigation or potential litigation, including matters before administrative tribunals, affecting the municipality or local board; and a Position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local board)**

Moved by Councillor Fonseca,
Seconded by Councillor Parrish;

That directions given “In Camera” to the Regional Solicitor and the Acting Commissioner of Public Works, related to item 22.5 listed on the September 12, 2019 Regional Council agenda be approved, and voted upon in accordance with Section 239(6) (b) of the *Municipal Act, 2001*, as amended.

In Favour	P. Brown; B. Crombie; S. Dasko; J. Downey; C. Fonseca; P. Fortini; A. Groves; J. Innis; J. Kovac; M. Mahoney; S. McFadden; M. Medeiros; C. Parrish; R. Starr; A. Thompson; P. Vicente	Total 16
Opposed	M. Palleschi; K. Ras; P. Saito; R. Santos	4
Abstain <i>(counted as a no vote)</i>		
Absent <i>(from meeting and/or vote)</i>	G. Carlson; D. Damerla; G.S. Dhillon; I. Sinclair	4

Carried 2019-760

Councillor Fonseca departed at 10:56 a.m. due to other municipal business

5. PUBLIC ANNOUNCEMENTS SPONSORED BY A MEMBER OF COUNCIL

Regional Chair Iannicca announced that the kick-off for the 2019 Region of Peel Employee United Way Campaign will take place on September 17, 2019. The fundraising goal for the 2019 Employee Campaign is \$300,000.

6. CONSENT AGENDA

Moved by Councillor Downey,
Seconded by Councillor Starr;

That the following matters listed on the September 12, 2019 Regional Council Agenda be approved under the Consent Agenda:

- 10.1. Steve Clark, Minister of Municipal Affairs and Housing, Letter dated July 22, 2019, Regarding Provincial Policy Statement Review - Draft Policies
- 10.2. Andrew Farnsworth, Clerk and Manager, Policy, Clerk and Corporate Records, Corporate Services, Toronto and Region Conservation Authority (TRCA), Email dated August 1, 2019, Providing a Copy of a Resolution and Report Regarding TRCA's Regulation Mapping Update, as Approved by its Board of Directors on June 21, 2019
- 10.3. Conservation Ontario, Media Release dated August 19, 2019, Regarding "Letter from Province: Province Moves to Constrain Conservation Authority Programs and Services"
- 11.1. Budget Policy and Reserve Management Policy Compliance Update - June 30, 2019
- 11.2. Review of the Vacant and Excess Land Subclass Reduction Program for Commercial and Industrial Properties

- 11.3. Lease Renewal/Amending Agreement Located at 150 Central Park Drive, Suites 9, 13, 302, 307 and 308 - City of Brampton, Ward 7
- 11.4. License Agreement - Installation of Sanitary Sewer at 109 McLaughlin Road South - City of Brampton, Ward 4
- 12.1. Caroline Mulroney, Minister of Transportation and Kinga Surma, Associate Minister of Transportation (GTA), Letter dated July 22, 2019, Regarding Investing in Canada Infrastructure Program Transit Stream Intake
- 12.2. Ernie Hardeman, Minister of Agriculture, Food and Rural Affairs, Letter dated July 29, 2019, Advising of the Rural Economic Development (RED) Program
- 12.3. Prabmeet Singh Sarkaria, Associate Minister of Small Business and Red Tape Reduction, Letter dated August 1, 2019, Responding to a Letter of Congratulations from Regional Chair Iannicca Regarding his Appointment as Associate Minister of Small Business and Red Tape Reduction
- 12.4. Steve Clark, Minister of Municipal Affairs and Housing, Letter dated August 8, 2019, Advising of Approval for Funding for Review of the Child Care Fee Subsidy Program through the Provincial Audit and Accountability Fund
- 12.6. Jeff Yurek, Minister of the Environment, Conservation and Parks, Letter dated August 26, 2019, Regarding the Association of Municipalities of Ontario Delegation
- 12.7. Rod Phillips, Minister of Finance, Letter dated August 29, 2019, Responding to a Letter of Congratulations from Regional Chair Iannicca Regarding his Appointment as Minister of Finance
- 13.2. Boundary Road Agreement Execution Between the Region of Peel and the County of Dufferin
- 13.3. Engineering Services for the Design and Construction of Plant Capacity Upgrade at G.E. Booth Wastewater Treatment Plant, Capital Projects 17-2926 and 22-2940, Document 2017-488P, City of Mississauga, Ward 1
- 14.1. Catherine McKenna, Minister of the Environment and Climate Change, Letter dated July 22, 2019, Responding to a Letter from Regional Chair Iannicca, Regarding the Region of Peel Resolution in Support of the Great Lakes and St. Lawrence Cities Initiative Position Statement (Resolution 2019-288)
- 14.2. Laurie Scott, Minister of Infrastructure, Letter dated July 24, 2019, Responding to a Letter of Congratulations from Regional Chair Iannicca Regarding her Appointment as Minister of Infrastructure
- 14.3. Jeff Yurek, Minister of the Environment, Conservation and Parks, Letter dated July 25, 2019, Responding to a Letter of Congratulations from Regional Chair Iannicca Regarding his Appointment as Minister of the Environment, Conservation and Parks

- 14.4. Kinga Surma, Associate Minister of Transportation (GTA), Letter dated July 29, 2019, Responding to a Letter of Congratulations from Regional Chair Iannicca Regarding her Appointment as Associate Minister of Transportation
- 15.1. Peel Waterpipe Smoking By-Law Update
- 16.1. Christine Massey, Spokesperson, Fluoride Free Peel, Email dated August 6, 2019, Regarding the O'Brien Institute for Public Health Report on Community Water Fluoridation
- 16.2. Christine Elliott, Deputy Premier and Minister of Health, Letter received August 20, 2019, Advising of Revised Funding with Respect to the Land Ambulance Services Grant for 2019
- 16.3. Alison Blair, Executive Director, Emergency Health Services Office, Letter dated August 20, 2019, Advising of the Additional Base Funding for the 2019 Land Ambulance Services Grant
- 16.4. David C. Williams, Chief Medical Officer of Health, Letter dated August 20, 2019, Providing the Ministry of Health Public Health Funding and Accountability Agreement with the Board of Health for Peel Public Health
- 17.1. Ontario's Community Housing Renewal Strategy

In Favour	P. Brown; B. Crombie; S. Dasko; J. Downey; P. Fortini; A. Groves; J. Innis; J. Kovac; M. Mahoney; S. McFadden; M. Medeiros; M. Palleschi; C. Parrish; K. Ras; P. Saito; R. Santos; R. Starr; P. Vicente	Total 18
Opposed		
Abstain <i>(counted as a no vote)</i>		
Absent <i>(from meeting and/or vote)</i>	G. Carlson; D. Damerla; G.S. Dhillon; C. Fonseca; I. Sinclair; A. Thompson	6

Carried 2019-761

RESOLUTIONS AS A RESULT OF THE CONSENT AGENDA

- 10.1. **Steve Clark, Minister of Municipal Affairs and Housing**, Letter dated July 22, 2019, Regarding Provincial Policy Statement Review - Draft Policies

Received 2019-762

- 10.2. **Andrew Farnsworth, Clerk and Manager, Policy, Clerk and Corporate Records, Corporate Services, Toronto and Region Conservation Authority (TRCA)**, Email dated August 1, 2019, Providing a Copy of a Resolution and Report Regarding TRCA's Regulation Mapping Update, as Approved by its Board of Directors on June 21, 2019
- Received 2019-763
- 10.3. **Conservation Ontario**, Media Release dated August 19, 2019, Regarding "Letter from Province: Province Moves to Constrain Conservation Authority Programs and Services"
- Referred to Public Works 2019-764
- 11.1. **Budget Policy and Reserve Management Policy Compliance Update - June 30, 2019**
- Received 2019-765
- 11.2. **Review of the Vacant and Excess Land Subclass Reduction Program for Commercial and Industrial Properties**
- Received 2019-766
- 11.3. **Lease Renewal/Amending Agreement Located at 150 Central Park Drive, Suites 9, 13, 302, 307 and 308 - City of Brampton, Ward 7**
- Received 2019-767
- 11.4. **License Agreement - Installation of Sanitary Sewer at 109 McLaughlin Road South - City of Brampton, Ward 4**
- Received 2019-768
- 12.1. **Caroline Mulroney, Minister of Transportation and Kinga Surma, Associate Minister of Transportation (GTA)**, Letter dated July 22, 2019, Regarding Investing in Canada Infrastructure Program Transit Stream Intake
- Received 2019-769
- 12.2. **Ernie Hardeman, Minister of Agriculture, Food and Rural Affairs**, Letter dated July 29, 2019, Advising of the Rural Economic Development (RED) Program
- Received 2019-770

- 12.3. **Prabmeet Singh Sarkaria, Associate Minister of Small Business and Red Tape Reduction**, Letter dated August 1, 2019, Responding to a Letter of Congratulations from Regional Chair Iannicca Regarding his Appointment as Associate Minister of Small Business and Red Tape Reduction

Received 2019-771

- 12.4. **Steve Clark, Minister of Municipal Affairs and Housing**, Letter dated August 8, 2019, Advising of Approval for Funding for Review of the Child Care Fee Subsidy Program through the Provincial Audit and Accountability Fund

Received 2019-772

- 12.6. **Jeff Yurek, Minister of the Environment, Conservation and Parks**, Letter dated August 26, 2019, Regarding the Association of Municipalities of Ontario Delegation

Received 2019-773

- 12.7. **Rod Phillips, Minister of Finance**, Letter dated August 29, 2019, Responding to a Letter of Congratulations from Regional Chair Iannicca Regarding his Appointment as Minister of Finance

Received 2019-774

- 13.2. **Boundary Road Agreement Execution Between the Region of Peel and the County of Dufferin**

Moved by Councillor Downey,
Seconded by Councillor Starr;

That The Regional Municipality of Peel (the "Region of Peel") enter into a Boundary Road Agreement with The Corporation of the County of Dufferin (the "County of Dufferin") for the maintenance and repair of the portions of Regional Road 136 (Porterfield Road) and Regional Road 23 (County Road 23) under joint jurisdiction, as outlined in Appendix I of the report titled "Boundary Road Agreement Execution Between the Region of Peel and the County of Dufferin", for a term of ten (10) years, from May 1, 2015 to December 31, 2025 on business terms satisfactory to the Commissioner of Public Works and on legal terms satisfactory to the Regional Solicitor;

And further, that a by-law be enacted authorizing and directing the Regional Clerk to execute the Boundary Road Agreement;

And further, that the Commissioner of Public Works be given the delegated authority to execute two (2) consecutive renewals of ten (10) years each on behalf of the Region of Peel.

Carried 2019-775

Related to Resolution 2019-804

- 13.3. **Engineering Services for the Design and Construction of Plant Capacity Upgrade at G.E. Booth Wastewater Treatment Plant, Capital Projects 17-2926 and 22-2940, Document 2017-488P, City of Mississauga, Ward 1**

Moved by Councillor Downey,
Seconded by Councillor Starr;

That the contract (Document 2017-488P) for engineering services for the design and construction of the New Plant 1 at G. E. Booth (Lakeview) Wastewater Treatment Plant, awarded to CIMA Canada Inc., be extended in the estimated amount of \$7,299,272.00 (excluding applicable taxes) for additional engineering services under Capital Project 22-2940, for total contract commitment of \$16,799,114.00 (excluding applicable taxes), in accordance with Procurement By-law 30-2018;

And further, that the G. E. Booth (Lakeview) Wastewater Treatment Plant Capacity Upgrade, included in the 2019-2028 Capital Forecast as Capital Project 22-2940 in the amount of \$7,300,000.00, financed from the Wastewater Capital Financing DC Reserve R3515, be advanced from 2022 to 2019 and approved in order to fund the engineering services required for the treatment capacity recovery project;

And further, that the Commissioner of Finance and Chief Financial Officer, in conjunction with the Commissioner of Public Works and Director of Procurement, be authorized to approve any required additional increases to the above contract to the limits of the approved budget, in order to complete the project.

Carried 2019-776

- 14.1. **Catherine McKenna, Minister of the Environment and Climate Change**, Letter dated July 22, 2019, Responding to a Letter from Regional Chair Iannicca, Regarding the Region of Peel Resolution in Support of the Great Lakes and St. Lawrence Cities Initiative Position Statement (Resolution 2019-288)

Received 2019-777

- 14.2. **Laurie Scott, Minister of Infrastructure**, Letter dated July 24, 2019, Responding to a Letter of Congratulations from Regional Chair Iannicca Regarding her Appointment as Minister of Infrastructure

Received 2019-778

- 14.3. **Jeff Yurek, Minister of the Environment, Conservation and Parks**, Letter dated July 25, 2019, Responding to a Letter of Congratulations from Regional Chair Iannicca Regarding his Appointment as Minister of the Environment, Conservation and Parks

Received 2019-779

- 14.4. **Kinga Surma, Associate Minister of Transportation (GTA)**, Letter dated July 29, 2019, Responding to a Letter of Congratulations from Regional Chair Iannicca Regarding her Appointment as Associate Minister of Transportation

Received 2019-780

- 15.1. **Peel Waterpipe Smoking By-Law Update**

Received 2019-781

- 16.1. **Christine Massey, Spokesperson, Fluoride Free Peel**, Email dated August 6, 2019, Regarding the O'Brien Institute for Public Health Report on Community Water Fluoridation

Received 2019-782

- 16.2. **Christine Elliott, Deputy Premier and Minister of Health**, Letter received August 20, 2019, Advising of Revised Funding with Respect to the Land Ambulance Services Grant for 2019

Received 2019-783

Related to Resolution 2019-784

- 16.3. **Alison Blair, Executive Director, Emergency Health Services Office**, Letter dated August 20, 2019, Advising of the Additional Base Funding for the 2019 Land Ambulance Services Grant

Received 2019-784

Related to Resolution 2019-783

- 16.4. **David C. Williams, Chief Medical Officer of Health**, Letter dated August 20, 2019, Providing the Ministry of Health Public Health Funding and Accountability Agreement with the Board of Health for Peel Public Health

Referred to Health Services 2019-785

Related to Resolution 2019-800

17.1. **Ontario's Community Housing Renewal Strategy**

Moved by Councillor Downey,
Seconded by Councillor Starr;

That participation by the Region of Peel in Ontario's Community Housing Renewal Strategy, be approved;

And further, that the Ministry of Municipal Affairs and Housing Transfer Payment Agreement and any related amendments and extensions (Transfer Payment Agreement), together with such further agreements and ancillary documents that may be required for participation in and delivery of the Canada-Ontario Community Housing Initiative (COCHI) and Ontario Priorities Housing Initiative (OPHI) components of the Community Housing Renewal Strategy, be executed by the Region of Peel's duly authorized signing officers, provided the Transfer Payment Agreement and any such further agreements and ancillary documents are on business terms satisfactory to the Commissioner of Human Services and on legal terms satisfactory to the Regional Solicitor;

And further, that the Region of Peel's Investment Plan for Ontario's Community Housing Renewal Strategy funding as set out in Appendix I to the report of the Commissioner of Human Services titled "Ontario's Community Housing Renewal Strategy" be approved for submission to the Ministry of Municipal Affairs and Housing (Ministry);

And further, that the Commissioner of Human Services be delegated Council's authority to approve the Region of Peel's Canada-Ontario Community Housing Initiative - Sustainability Plan for submission to the Ministry by December 15, 2019;

And further, that a Capital Project in the amount of \$1,465,636 (including administration funding) be established with Canada-Ontario Community Housing Initiative funding, to fund capital repairs for Peel Housing Corporation buildings;

And further, that the Region of Peel's duly authorized signing officers be authorized to execute Project Funding Agreements, together with such further ancillary documents necessary, with Peel Housing Corporation for Canada-Ontario Community Housing Initiative funding in an amount up to \$1,392,355 on business terms satisfactory to the Commissioner of Human Services and on legal terms satisfactory to the Regional Solicitor;

And further, that the Region of Peel's duly authorized signing officers be authorized to execute funding agreements, together with such further ancillary documents necessary, with federally funded housing providers to provide them with Canada-Ontario Community Housing Initiative subsidy funding on business terms satisfactory to the Commissioner of Human Services and on legal terms satisfactory to the Regional Solicitor;

And further, that Capital Project 175033 (East Avenue Redevelopment) be increased by \$9,910,600 to \$41,910,600, to account for additional Ontario

Priorities Housing Initiative funding being allocated to the East Avenue Redevelopment project;

And further, that the Region of Peel's duly authorized signing officers be authorized to execute an Ontario Priorities Housing Initiative Contribution Agreement, together with any further ancillary documents necessary, with Peel Housing Corporation, to provide partial funding for the East Avenue Redevelopment project in the amount of \$9,415,070 on business terms satisfactory to the Commissioner of Human Services and on legal terms satisfactory to the Regional Solicitor;

And further, that the Region of Peel's duly authorized signing officers be authorized to enter into and execute an Ontario Priorities Housing Initiative Contribution Agreement, together with any further ancillary documents necessary, with the Peel Housing Corporation or as required to enable the provision of funding to the Region of Peel, to provide Year 2 (2020-2021) based funding for new affordable rental housing projects as approved as part of the Region of Peel's Housing Master Plan in the amount of \$4,877,680 on business terms satisfactory to the Commissioner of Human Services and on legal terms satisfactory to the Regional Solicitor;

And further, that the Region of Peel's duly authorized signing officers be authorized to enter into and execute an Ontario Priorities Housing Initiative Contribution Agreement, together with any further ancillary documents necessary, with the Peel Housing Corporation or as required to enable the provision of funding to the Region of Peel, to provide Year 3 (2021-2022) based funding for new affordable rental housing projects as approved as part of the Region of Peel's Housing Master Plan in the amount of \$7,593,540 on business terms satisfactory to the Commissioner of Human Services and on legal terms satisfactory to the Regional Solicitor.

Carried 2019-786

AGENDA ITEMS SUBJECT TO DISCUSSION AND DEBATE

7. DELEGATIONS

- 7.1. **Dr. Matthew Roorda, Chair, Smart Freight Centre and Professor of Civil and Mineral Engineering, University of Toronto**, Providing an Update on the Smart Freight Centre Projects and Partnership

Received 2019-787

Related to Resolutions 2019-788 to 2019-793 inclusive

Dr. Matthew Roorda, Chair, Smart Freight Centre (SFC) and Professor of Civil and Mineral Engineering, University of Toronto (UoT), stated that the Smart Freight Centre Mission is to

improve the economic vibrancy of business, environmental sustainability, and quality of life for residents of the Greater Toronto and Hamilton Area by providing innovative evidence-based research, decision support, advocacy, training and monitoring in order to coordinate transportation infrastructure, land development, regulation, technology tools, and resources that improve goods movement activities. He outlined the SFC's funding and governance structures, noting that it is providing excellent training opportunities for students and post-doctoral fellows at UoT, as well as, McMaster University and York University. Dr. Roorda highlighted year-one SFC projects, including the off-peak delivery pilot conducted in the Region of Peel. There are many additional potential projects that need partners and the SFC is actively seeking additional financial support.

In response to a question from Councillor Vicente, Dr. Roorda advised that the Off-Peak Delivery Pilot findings indicate significant travel time improvements for the 13 participating stores and that data from the pilot is still being analyzed.

In response to a question from Councillor Groves, Dr. Roorda stated that, in his opinion, the implementation of truck-only lanes on provincial highways may not represent the best use of roadway capacity.

In response to comments from Councillor Thompson, Sabbir Saiyed, Manager, Transportation System Planning, undertook to report to a future meeting of Regional Council with information regarding incorporating enterprise business zones in Official Plans.

7.2. **Sebastian Prins, Director, Government Relations (Ontario), Retail Council of Canada**, Providing Details about the Importance of Off-Peak Delivery

Received 2019-788

Related to Resolutions 2019-787 and 2019-789 to 2019-793 inclusive

Sebastian Prins, Retail Council of Canada, (RCC), advised that retail is Canada's largest employer and generates over \$75 million in wages and employee benefits. RCC is a not-for-profit industry-funded association that represents small, medium and large retail businesses in every community across the country.

Sabastian Prins noted that throughout the Region of Peel, there are restrictions on when a truck can deliver to stores and these restrictions represent a disruption for business that takes the form of circuitous routing or shipping only during peak congestion hours.

The Smart Freight Centre and the Region of Peel showed leadership by waiving those restrictions for participants in the Off-Peak Delivery Pilot and each of the three pilot participants have sent letters of support to the Region of Peel. Early data indicates that trip time decreased an average of 17 per cent as a result of moving to off-peak delivery. He also highlighted the positive environmental effects of off-peak deliveries, such as a reduction in carbon dioxide emissions.

The RCC encouraged the Region of Peel to continue to support the Smart Freight Centre, noting that they are doing important work to make roadways more efficient for residents and business.

In response to a question from Councillor Saito, Sabbir Saiyed, Manager, Transportation System Planning, advised that no noise complaints were received during the pilot which was conducted from February to August, 2019 and included residential areas.

Councillor Saito inquired how much funding the RCC contributes to the Smart Freight Centre and was advised by Sebastian Prins that the RCC is a non-profit agency that does not provide funding but advocates on behalf of retail across Canada.

Councillor Saito stated that if the retail sector wants to reap the benefits of the Smart Freight Centre and participate in its projects, it should be required to contribute financially, and she requested that staff approach large retailers regarding such a requirement.

7.3. **Ian Klesmer, Director, Strategy and Grants, The Atmospheric Fund**, Regarding the Importance of One of the Smart Freight Centre Projects - Off Peak Delivery

Received 2019-789

Related to Resolutions 2019-787, 2019-788 and 2019-790 to 2019-793 inclusive

Ian Klesmer, Director, Strategy and Grants, The Atmospheric Fund (TAF), noted that TAF was the first investor in the Off-Peak Delivery Pilot and he highlighted the benefits of reduced greenhouse gas emissions that were achieved. Ian Klesmer acknowledged the Region of Peel for being a national leader in addressing goods movement.

Items 13.1, 14.5, 14.6 and 14.7 were dealt with.

13.1. **Peel Goods Movement Status and Smart Freight Centre Update**

Moved by Councillor Vicente,
Seconded by Councillor Thompson;

That the Region of Peel extend the funding of \$240,000 per year for the next four years (2020-2023) to the Smart Freight Centre;

And further, that the major retailers in the Region of Peel be approached regarding the requirement to contribute funding to participate in the Smart Freight Centre;

And further, that a copy of the report of the Acting Commissioner of Public Works, titled "Peel Goods Movement Status and Smart Freight Centre Update", be circulated to members of the Peel Goods Movement Task Force.

In Favour	P. Brown; B. Crombie; S. Dasko; J. Downey; J. Innis; J. Kovac; M. Mahoney; S. McFadden; M. Medeiros; C. Parrish; K. Ras; P. Saito; R. Santos; I. Sinclair;	Total 17
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	R. Starr; A. Thompson; P. Vicente	
Opposed		
Abstain <i>(counted as a no vote)</i>		
Absent <i>(from meeting and/or vote)</i>	G. Carlson; D. Damerla; G.S. Dhillon; C. Fonseca; P. Fortini; A. Groves; M. Palleschi	7

Carried 2019-790

Related to Resolutions 2019-787 to 2019-789 inclusive and 2019-791 to 2019-793 inclusive

- 14.5. **Francis Lalonde, Vice-President, Transportation, Walmart Canada Corp.**, Letter dated September 9, 2019, Applauding the Leadership and Success of Peel's Off-Peak Delivery Pilot Project

Received 2019-791

Related to Resolutions 2019-787 to 2019-789 inclusive, 2019-790, 2019-792 and 2019-793

- 14.6. **Nick Nanos, Senior Vice-President, Supply Chain and Wholesale, Liquor Control Board of Ontario (LCBO)**, Letter received September 11, 2019, Applauding the Leadership and Success of Peel's Off-Peak Delivery Pilot Project

Received 2019-792

Related to Resolutions 2019-787 to 2019-791 inclusive and 2019-793

- 14.7. **Loblaw Companies Limited**, Letter received September 11, 2019, Applauding the Leadership and Success of Peel's Off-Peak Delivery Pilot Project

Received 2019-793

Related to Resolutions 2019-787 to 2019-792 inclusive

- 7.4. **Ramdai Dhanrajh and Deeneshwar Dhanrajh, President, Brampton Triveni Community Centre**, Requesting Relief of Development Charges for Place of Worship, 20 Daviselm Drive, Brampton, Ward 5

Referred to Finance for a report to a future meeting of Regional Council 2019-794

Ramdai Dhanrajh, President, and Deeneshwar Dhanrajh, Chief Executive Officer, Brampton Triveni Community Centre, requested relief with respect to the payment of Region of Peel Development Charges for the building of a community centre that will include a religious centre. Deeneshwar Dhanrajh stated that funds for the centre are being raised through donations

however, the unexpectedly high development charge amount would force construction to be delayed for a year. He noted that the community centre would serve all races and all religions.

Councillor Vicente requested that the delegates' request be referred to staff for a report back to Regional Council in October.

In response to a question from Councillor Brown, the Regional Solicitor advised that the Region of Peel Development Charges By-law provides limited relief for places of worship and that staff do not have discretion to extend exemptions. He noted that the future report will include options to defer the charge, for the consideration of Regional Council.

Councillor Medeiros requested that the report include an analysis of the social impact of outreach activities of community centres.

In response to a question from Councillor Parrish, the Chief Financial Officer advised that the Development Charges By-law would be updated in 2020 and the update will include a review of the policies related to community centres.

Councillor Ras requested that the policy review include information regarding the ability of organizations to incorporate revenue generating opportunities for community centres, such as offering child care space or the rental of facilities for weddings and other special events.

Regional Council recessed at 12:31 p.m.

Regional Council reconvened at 1:04 p.m.

Members Present:	P. Brown ♦	M. Medeiros
	B. Crombie	M. Palleschi
	S. Dasko	C. Parrish
	J. Downey	K. Ras
	A. Groves	P. Saito
	N. Iannicca	R. Santos ♦
	J. Innis	I. Sinclair
	J. Kovac	R. Starr
	M. Mahoney	A. Thompson
	S. McFadden	P. Vicente

Members Absent:	G. Carlson	Due to illness
	D. Damerla	Due to illness
	G.S. Dhillon	Due to other municipal business
	C. Fonseca	Due to other municipal business
	P. Fortini	

Also Present: N. Polsinelli, Interim Chief Administrative Officer; C. Matheson, Commissioner of Corporate Services; S. VanOfwegen, Commissioner of Finance and Chief Financial Officer; S. Baird, Commissioner of Digital and Information Services; P. O'Connor, Regional Solicitor; A. Smith, Acting Chief Planner; A. Farr, Acting Commissioner of Public Works; J. Sheehy,

Commissioner of Human Services; C. Granger, Acting Commissioner of Health Services; Dr. M. Hau, Acting Medical Officer of Health; K. Lockyer, Regional Clerk and Director of Legal Services; C. Thomson, Legislative Specialist; S. Valteau, Legislative Technical Coordinator; H. Gill, Legislative Specialist

8. STAFF PRESENTATIONS

Item 8.2 was dealt with.

8.2. Seniors' Services 2018 Annual Report

Presentation by Cathy Granger, Acting Commissioner, Health Services and Dr. Sudip Saha, Senior Medical Director, Long Term Care

Received 2019-795

Dr. Sudip Saha, Senior Medical Director, Long Term Care, provided an overview of the seniors landscape within the Peel community and the lived experiences within Region of Peel Long Term Care Centres. He noted that to offset demands, community-based services, such as supports for daily living, seniors housing, adult day programs and resources for informal caregivers, continue to support high-needs individuals to live safely within the community.

Based on performance in 2018, all five Peel Long Term Care Centres received the highest performance level that a home can achieve from the Ministry of Health and Long Term Care. An area of focus for the Centres continues to be making significant improvements in the prescribing of antipsychotic medication for people who do not have a diagnosis of psychosis.

Councillor Saito requested that information be provided to a future meeting of the Health Services Integration Committee regarding the 2019-2023 Long Term Care and Adult Day Services Plan in relation to adult day services, including whether there are plans to offer services in locations other than the Region of Peel Long Term Care Centres.

8.1. Update: The Butterfly Model - Supporting Person-Centred Care for People Living with Dementia

Presentation by Mary Connell, Butterfly Model Project Manager and Francoise Morissette - Queens University Industrial Relations Centre Facilitator

Received 2019-796

Francoise Morissette, Queens University, Industrial Relations Centre Facilitator, congratulated Regional Council for approving the implementation of the Butterfly Model in Region of Peel Long Term Care Centres. Queen's University Industrial Relations Centre published an article highlighting the Region of Peel, through the Butterfly approach to dementia care, as an innovative and compassionate organization and also links the Region of Peel to the world-wide movement toward compassionate care for vulnerable populations. She stated that the "Compassion Revolution" is driven by:

- Stewardship – acting for the greater good of those under one’s care. Choosing service over self-interest.
- Systems Thinking and Action – focusing on the whole system to enhance synergy, connectivity, performance and sustainability.
- Service Delivery Models – when dealing with at risk and vulnerable populations, caring must come first

Mary Connell, Butterfly Model Project Manager, advised that since the implementation of the Butterfly Model, there has been a reduction in staff sick days and resident falls and antipsychotic drug use. Social engagement has increased. All of these factors create cost savings for homes and the health care system. The Region of Peel has been asked to participate in several consultations with both the Ministry of Health and the Ministry of Labour. Federally, staff have been invited to participate in the application for a funding request that, if awarded, would identify the Region of Peel as a Knowledge Hub for the national dementia community.

8.3. **Update on Provincial Funding Cuts Delivery**

Presentation by Norm Lum, Director, Business and Financial Planning

Received 2019-797

Norm Lum, Director, Business and Financial Planning, reviewed provincial funding announcements received since the last update to Regional Council in the areas of child care, public health and paramedics.

In total, there is a \$27.6 million funding impact for 2020; \$25.2 million in funding envelope reductions and a cost share shift of \$2.4 million. When added to Regional Council’s 2020 Budget target of 2.9 per cent, this results in a net tax levy of 5.5 per cent. Staff will be reporting to the September 26, 2019 Regional Council meeting with the impacts and risks to service level outcomes and options and strategies to address them.

Councillor Ras requested that the report to the next Regional Council meeting include options to spread-out the funding impacts across other service areas.

Councillor Ras further requested that the report include the individual costs to each impacted service for 2020 and 2021.

In response to a question from Councillor Parrish, the Associate Medical Officer of Health advised that staff would be reporting to a future meeting of Regional Council with an update on the transition of the senior’s dental program.

Councillor Brown departed at 1:51 p.m.

9. **ITEMS RELATED TO PLANNING AND GROWTH MANAGEMENT**

These items were dealt with under Consent Agenda

11. **ITEMS RELATED TO ENTERPRISE PROGRAMS AND SERVICES**

Chaired by Vice-Chair Councillor K. Ras

12. **COMMUNICATIONS**

- 12.5. **Rod Phillips, Minister of Finance**, Letter dated August 13, 2019, Providing an Update on the Ontario Cannabis Legalization Implementation Fund

Received 2019-798

13. **ITEMS RELATED TO PUBLIC WORKS**

Chaired by Councillor A. Groves

- 13.1. **Peel Goods Movement Status and Smart Freight Centre Update**

This item was dealt with under Resolution 2019-790

14. **COMMUNICATIONS**

- 14.5. **Francis Lalonde, Vice-President, Transportation, Walmart Canada Corp.**, Letter dated September 9, 2019, Applauding the Leadership and Success of Peel's Off-Peak Delivery Pilot Project

This item was dealt with under Resolution 2019-791

- 14.6. **Nick Nanos, Senior Vice-President, Supply Chain and Wholesale, Liquor Control Board of Ontario (LCBO)**, Letter received September 11, 2019, Applauding the Leadership and Success of Peel's Off-Peak Delivery Pilot Project

This item was dealt with under Resolution 2019-792

- 14.7. **Loblaw Companies Limited**, Letter received September 11, 2019, Applauding the Leadership and Success of Peel's Off-Peak Delivery Pilot Project

This item was dealt with under Resolution 2019-793

15. **ITEMS RELATED TO HEALTH**

Chaired by Councillor J. Downey

- 15.2. **By-Law to Prohibit Smoking and Vaping in Outdoor Public Places and Workplaces and to Repeal the Peel Outdoor Smoking By-law 20-2013**

Moved by Councillor Ras,
Seconded by Councillor Parrish;

That the "Peel Outdoor No Smoking or Vaping By-law (By-law)", be presented for enactment;

And further, that the By-law be forwarded to the Cities of Brampton and Mississauga and the Town of Caledon to seek triple majority consent as required under the *Municipal Act, 2001*;

And further, that the Cities of Brampton and Mississauga and the Town of Caledon be requested to rescind the resolutions that consented to the enactment of By-law 20–2013 (Peel Outdoor Smoking By-law) as required under s 115 (6) of the *Municipal Act, 2001*;

And further, that the 2019 Public Health Budget be increased to cover the incremental implementation costs which are to be refunded through the Ontario Cannabis Legalization Implementation Fund as permitted under the terms and conditions of the fund;

And further, that staff submit the proposed Set Fines in Section “C” of the By-law to the Regional Senior Justice of the Ontario Court of Justice for approval;

And further, that the Regional Solicitor be authorized to approve and implement minor changes required by the Regional Senior Justice of the Ontario Court of Justice to the Set Fines.

In Favour	B. Crombie; S. Dasko; J. Downey; A. Groves; J. Innis; J. Kovac; M. Mahoney; S. McFadden; M. Medeiros; M. Palleschi; C. Parrish; K. Ras; P. Saito; R. Santos; I. Sinclair; R. Starr; P. Vicente	Total 17
Opposed		
Abstain <i>(counted as a no vote)</i>		
Absent <i>(from meeting and/or vote)</i>	P. Brown; G. Carlson; D. Damerla; G.S. Dhillon; C. Fonseca; P. Fortini; A. Thompson	7

Carried 2019-799

Related to Resolutions 2019-804

16. COMMUNICATIONS

- 16.5. **David Williams, Chief Medical Officer of Health**, Letter dated August 20, 2019, Providing the Ministry of Health Public Health Funding and Accountability Agreement with the Board Of Health for Peel Public Health

Referred to Health Services 2019-800

Related to Resolutions 2019-785

In response to a question from Councillor Santos, the Associate Medical Officer of Health advised that staff would be reporting to Regional Council with an update on the opioid crisis later in the Fall, 2019.

In response to a question from Councillor Palleschi, the Chief Financial Officer confirmed that the Region of Peel does not transfer funds to the local municipalities for their efforts to combat the opioid crisis.

17. ITEMS RELATED TO HUMAN SERVICES

This item was dealt with under Consent Agenda

18. COMMUNICATIONS - Nil

19. OTHER BUSINESS

19.1. Update on the Anaerobic Digester Project (Oral)

Received 2019-801

Andrew Farr, Acting Commissioner of Public Works, advised that the Request for Proposals to design, build, operate and maintain the Region of Peel's new anaerobic digestion facility were sent to the four prequalified teams, which represents a significant step forward for this important project.

All proponents are aware that they must direct any and all questions to the Region's project team and he requested that any inquiries received by Councillors be referred to the Region's Procurement Division.

19.2. Update on Domestic Violence (Oral)

Received 2019-802

Related to Resolution 2019-803

Moved by Councillor Santos
Seconded by Councillor Ras;

That staff present information on how the Region of Peel is addressing the issue of domestic violence to Regional Council prior to November 25, 2019.

Carried 2019-803

Related to Resolution 2019-802

Councillor Santos noted the increase in domestic violence incidents, particularly in the City of Brampton. She requested that staff present information on what the Region of Peel is doing to address the issue to Regional Council, prior to November 25, 2019.

20. NOTICE OF MOTION/MOTION - Nil

21. BY-LAWS

Three Readings

By-law 49-2019: A by-law to prohibit Smoking and Vaping in Outdoor Public Places and Workplaces and to repeal By-law 20-2013.

By-law 50-2019: A by-law to authorize the execution of an Agreement attached hereto as Schedule "A" between the County of Dufferin and the Regional Municipality of Peel for the maintenance of Regional Road 23 (County Road 23) and Regional Road 136 (Porterfield Road) forming the boundary between the County of Dufferin and the Regional Municipality of Peel; and to repeal By-law 12-2006.

Moved by Councillor Dasko,
Seconded by Councillor Kovac;

That the by-laws listed on the September 12, 2019 Regional Council agenda, being By-laws 49-2019 and 50-2019, be given the required number of readings, taken as read, signed by the Regional Chair and the Regional Clerk, and the Corporate Seal be affixed thereto.

Carried 2019-804

Related to Resolutions 2019-775 and 2019-799

Councillor Santos departed at 2:08 p.m. due to other municipal business

22. IN CAMERA MATTERS

At 2:09 p.m., in accordance with section 239(2) of the *Municipal Act, 2001*, as amended, the following motion was placed:

Moved by Councillor Parrish,
Seconded by Councillor Palleschi;

That Council proceed “In Camera” to consider the July 11, 2019 Closed Session report and reports relating to the following:

- Appointment of Non-Elected Members to the Region of Peel Diversity, Equity and Anti-Racism Committee (Personal matters about an identifiable individual, including municipal or local board employees)
- Peel Waterpipe Smoking By-law 30-2016 Update (Litigation or potential litigation, including matters before administrative tribunals, affecting the municipality or local board)
- Collective Agreement Negotiations (Labour relations or employee negotiations)

Carried 2019-805

Moved by Councillor Dasko,
Seconded by Councillor Downey;

That Council proceed out of “In Camera”.

Carried 2019-806

Council moved out of closed session at 2:21 p.m.

Moved by Councillor Medeiros,
Seconded by Councillor McFadden;

That the July 11, 2019 Regional Council Closed Session report be received;

And further, that the report listed as item 22.2 on the September 12, 2019 Regional Council agenda, be deferred to a future meeting of Regional Council;

And further, that direction given “In Camera” to the Regional Solicitor and the Director, Procurement as set out in the in camera report of the Regional Solicitor, Medical Officer of Health and the Acting Commissioner of Health Services titled “Peel Waterpipe Smoking By-law 30-2016 Update”, be approved and voted upon in accordance with section 239(6)b of the *Municipal Act, 2001*, as amended;

And further that the oral in camera item listed as item 22.4 on the September 12, 2019 Regional Council agenda, be received.

In Favour	B. Crombie; S. Dasko; J. Downey; A. Groves; J. Innis; J. Kovac; M. Mahoney; S. McFadden; M. Medeiros; M. Palleschi; C. Parrish; K. Ras; P. Saito; I. Sinclair; R. Starr; A. Thompson; P. Vicente	Total 17
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Opposed		
Abstain (counted as a no vote)		
Absent (from meeting and/or vote)	P. Brown; G. Carlson; D. Damerla; G.S. Dhillon; C. Fonseca; P. Fortini; R. Santos	7

Carried 2019-807

22.1. **July 11, 2019 Regional Council Closed Session Report**

Received 2019-808

22.2. **Appointment of Non-Elected Members to the Region of Peel Diversity, Equity and Anti-Racism Committee (Personal matters about an identifiable individual, including municipal or local board employees)**

Deferred to a future meeting of Regional Council 2019-809

22.3. **Peel Waterpipe Smoking By-law 30-2016 Update (Litigation or potential litigation, including matters before administrative tribunals, affecting the municipality or local board)**

Moved by Councillor Medeiros,
Seconded by Councillor McFadden;

That direction given “In Camera” to the Regional Solicitor and the Director, Procurement as set out in the report of the Regional Solicitor, Medical Officer of Health and the Acting Commissioner of Health Services titled “Peel Waterpipe Smoking By-law 30-2016 Update”, be approved and voted upon in accordance with section 239(6)b of the *Municipal Act, 2001*, as amended.

Carried 2019-810

22.4. **Collective Agreement Negotiations (Oral) (Labour relations or employee negotiations)**

Received 2019-811

22.5. **Silverthorn Water Pumping Station Watermain Break (Oral) (Litigation or potential litigation, including matters before administrative tribunals, affecting the municipality or local board; and a Position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local board)**

This item was dealt with under Resolution 2019-760

23. BY-LAW TO CONFIRM THE PROCEEDINGS OF COUNCIL

Moved by Councillor Innis,
Seconded by Councillor Dasko;

That By-law 51-2019 to confirm the proceedings of Regional Council at its meeting held on September 12, 2019, and to authorize the execution of documents in accordance with the Region of Peel by-laws relating thereto, be given the required number of readings, taken as read, signed by the Regional Chair and the Regional Clerk, and the corporate seal be affixed thereto.

Carried 2019-812

24. ADJOURNMENT

The meeting adjourned at 2:23 p.m.

Regional Clerk

Regional Chair

Request for Delegation

FOR OFFICE USE ONLY

MEETING DATE YYYY/MM/DD 2019/09/26	MEETING NAME Regional Council Meeting
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Attention: Regional Clerk
Regional Municipality of Peel
10 Peel Centre Drive, Suite A
Brampton, ON L6T 4B9
Phone: 905-791-7800 ext. 4582
E-mail: council@peelregion.ca

DATE SUBMITTED YYYY/MM/DD 2019/09/11
--

NAME OF INDIVIDUAL(S) Nando Iannicca
--

POSITION(S)/TITLE(S) Chair

NAME OF ORGANIZATION(S) Peel Police Services Board
--

E-MAIL nando.iannicca@peelregion.ca	TELEPHONE NUMBER (905) 630-9455	EXTENSION
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REASON(S) FOR DELEGATION REQUEST (SUBJECT MATTER TO BE DISCUSSED) Introduction of the incoming Chief of Police, Nishan Duraiappah, to Regional Council and Staff
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A formal presentation will accompany my delegation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Presentation format: <input type="checkbox"/> PowerPoint File (.ppt) <input type="checkbox"/> Adobe File or Equivalent (.pdf) <input type="checkbox"/> Picture File (.jpg) <input type="checkbox"/> Video File (.avi,.mpg) <input type="checkbox"/> Other <input type="text"/>
Additional printed information/materials will be distributed with my delegation : <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Attached

Note:
Delegates are requested to provide an electronic copy of all background material / presentations to the Clerk's Division at **least seven (7) business days prior** to the meeting date so that it can be included with the agenda package. **In accordance with Procedure By-law 9-2018 delegates appearing before Regional Council or Committee are requested to limit their remarks to 5 minutes and 10 minutes respectively (approximately 5/10 slides).**
Delegates should make every effort to ensure their presentation material is prepared in an [accessible format](#).
Once the above information is received in the Clerk's Division, you will be contacted by Legislative Services staff to confirm your placement on the appropriate agenda.

Notice with Respect to the Collection of Personal Information
(Municipal Freedom of Information and Protection of Privacy Act)

Personal information contained on this form is authorized under Section 5.4 of the Region of Peel Procedure By-law 9-2018, for the purpose of contacting individuals and/or organizations requesting an opportunity to appear as a delegation before Regional Council or a Committee of Council. The Delegation Request Form will be published in its entirety with the public agenda. The Procedure By-law is a requirement of Section 238(2) of the *Municipal Act, 2001*, as amended. Please note that all meetings are open to the public except where permitted to be closed to the public under legislated authority. All Regional Council meetings are audio broadcast via the internet and will be posted and available for viewing subsequent to those meetings. Questions about collection may be directed to the Manager of Legislative Services, 10 Peel Centre Drive, Suite A, 5th floor, Brampton, ON L6T 4B9, (905) 791-7800 ext. 4462.

Please complete and return this form via email to council@peelregion.ca

Request for Delegation

FOR OFFICE USE ONLY

MEETING DATE YYYY/MM/DD 2019/09/26	MEETING NAME Regional Council
--	---

Attention: Regional Clerk
Regional Municipality of Peel
10 Peel Centre Drive, Suite A
Brampton, ON L6T 4B9
Phone: 905-791-7800 ext. 4582
E-mail: council@peelregion.ca

DATE SUBMITTED YYYY/MM/DD 2019/09/06
--

NAME OF INDIVIDUAL(S) Lisa Chen

POSITION(S)/TITLE(S) Canadian Conservation Corps Participant
--

NAME OF ORGANIZATION(S) Canadian Wildlife Federation
--

E-MAIL [REDACTED]	TELEPHONE NUMBER [REDACTED]	EXTENSION
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REASON(S) FOR DELEGATION REQUEST (SUBJECT MATTER TO BE DISCUSSED) Cigarette butt litter issue: why this should be tackled, proposed action plans, and benefits to these actions

A formal presentation will accompany my delegation <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Presentation format: <input checked="" type="checkbox"/> PowerPoint File (.ppt) <input type="checkbox"/> Adobe File or Equivalent (.pdf) <input type="checkbox"/> Picture File (.jpg) <input type="checkbox"/> Video File (.avi,.mpg) <input type="checkbox"/> Other <input type="text"/>
Additional printed information/materials will be distributed with my delegation : <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Attached

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Notice with Respect to the Collection of Personal Information
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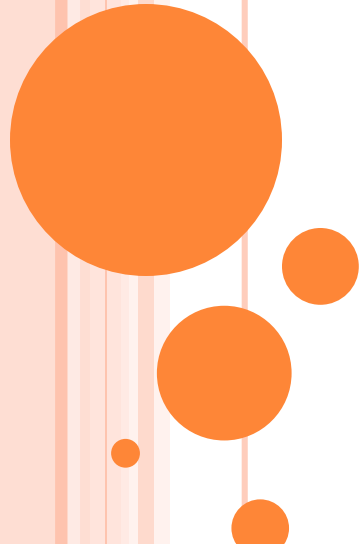
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CIGARETTE BUTT LITTER

The Problem and Proposed Action

By: Lisa Chen



BUTT FACTS

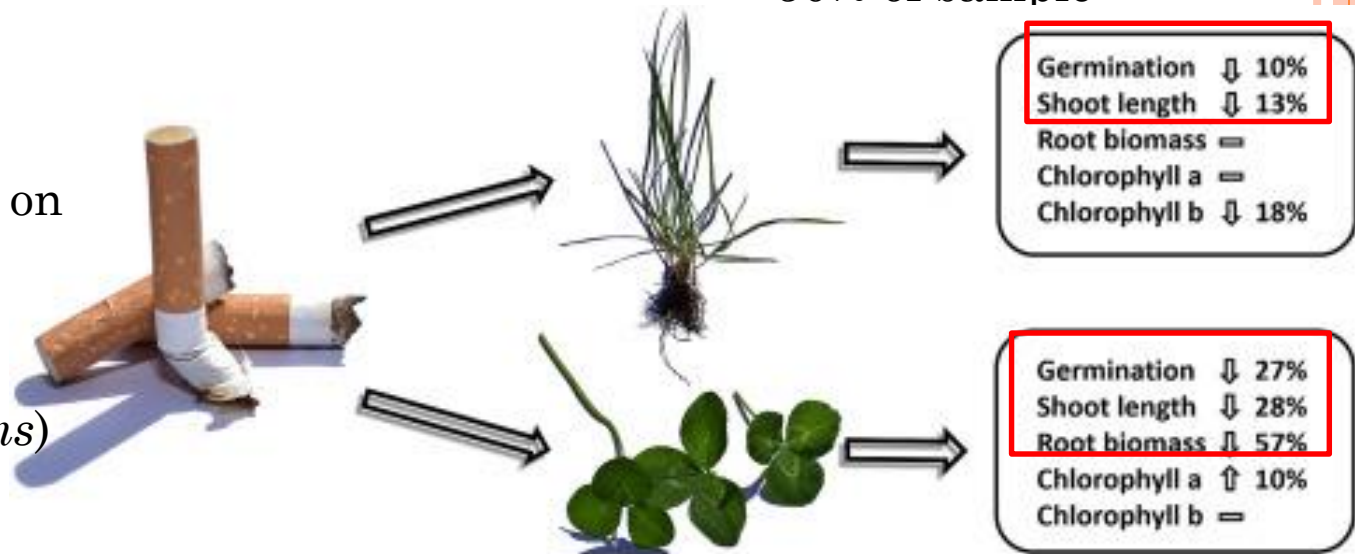
- Annually, 4.95 trillion cigarette butts are disposed of in our environment
- Butt filters are made out of “cellulose acetate” (non-biodegradable plastic)
- Cigarette butts are toxic waste
- Butts, if ingested by wildlife, can cause digestive blockage leading to death

Cigarette butts/l

Species	Cigarette butts/l		
	Unsmoked filters USF	Smoked filters SF	Smoked Cigarette Butts SCB
Topsmelt LC50	5.1 (4.6–5.7)	1.8 (1.5–2.0)	1.1 (0.95–1.3)
Fathead minnow LC50	13.5 (11.4–15.9)	4.3 (3.7–5.1)	0.97 (0.84–1.1)

Toxicity summary
(Slaughter et al., 2011)
LC50: Lethal
concentration that kill
50% of sample

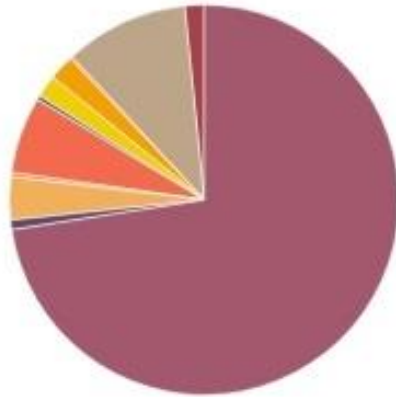
Cigarette butts effects on
growth of perennial
ryegrass (*Lolium
perenne*) and white
clover (*Trifolium repens*)
(Green et al., 2019)



BUTT LITTER PROBLEM - MISSISSAUGA

Litter Survey Data (August)

Mississauga - 10 Surveys



Butts	3,905	Straws	43
Wrapper	191	Styrofoam	19
Paper	343	PlasticBottle	19
BottleCap	100	Metal	113
Glass	11	OtherPlastic	552
Others	87		

- Counted 5372 pieces of litter through 10 litter surveys at 9 different sites, 73% were cigarette butts
- Windrush Woods Park: 2 cleanups, one week apart, 164 butts during the second cleanup
- Only 2 out of 9 survey sites had public ashtrays

Summary of 10 litter surveys conducted in Mississauga in August



TERRACYCLE



Accepted waste of TerraCycle's Cigarette Waste Recycling Program

Tobacco waste can be recycled into pallets and lumber!

PROPOSED ACTION

1. Install public accessible butt collection canisters
2. Awareness raising through the distribution of educational materials to smokers and use better signage at existing public ashtrays
3. Amend smoking bylaw 94-14 and litter bylaw 219-85 of Mississauga and other related bylaws of Brampton and Caledon to include cigarette butt litter and are reinforced by mandating public ashtrays and/or fines for butt litter



Cigarette butt litter education signs in Japan

ACTION VS INACTION



ACKNOWLEDGEMENT

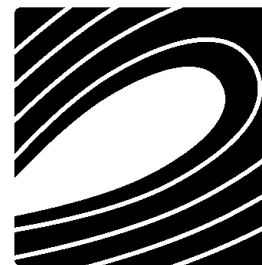


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TERRACYCLE

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SURFRIDER
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PRESS
RELEASE

Toxicity of cigarette butts, and their chemical components, to marine and freshwater fish

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Received 18 September 2010

Accepted 4 February 2011

ABSTRACT

Background Cigarette butts are the most common form of litter, as an estimated 4.5 trillion cigarette butts are thrown away every year worldwide. Many chemical products are used during the course of growing tobacco and manufacturing cigarettes, the residues of which may be found in cigarettes prepared for consumption. Additionally, over 4000 chemicals may also be introduced to the environment via cigarette particulate matter (tar) and mainstream smoke.

Methods Using US Environmental Protection Agency standard acute fish bioassays, cigarette butt-derived leachate was analysed for aquatic toxicity. Survival was the single endpoint and data were analysed using Comprehensive Environmental Toxicity Information System to identify the LC50 of cigarette butt leachate to fish.

Results The LC50 for leachate from smoked cigarette butts (smoked filter + tobacco) was approximately one cigarette butt/l for both the marine topsmelt (*Atherinops affinis*) and the freshwater fathead minnow (*Pimephales promelas*). Leachate from smoked cigarette filters (no tobacco), was less toxic, with LC50 values of 1.8 and 4.3 cigarette butts/l, respectively for both fish species. Unsmoked cigarette filters (no tobacco) were also found to be toxic, with LC50 values of 5.1 and 13.5 cigarette butts/l, respectively, for both fish species.

Conclusion Toxicity of cigarette butt leachate was found to increase from unsmoked cigarette filters (no tobacco) to smoked cigarette filters (no tobacco) to smoked cigarette butts (smoked filter + tobacco). This study represents the first in the literature to investigate and affirm the toxicity of cigarette butts to fish, and will assist in assessing the potential ecological risks of cigarette butts to the aquatic environment.

BACKGROUND

Cigarette butts are the most common form of litter in the world, as approximately 5.6 trillion cigarettes are smoked every year worldwide.¹ Cigarette waste constitutes an estimated 30% of the total litter (by count) on US shorelines, waterways and on land (LitterFreePlanet, 2009). In fact, cigarette butts are the most common debris item collected along waterways during the Ocean Conservancy's yearly International Coastal Cleanup. In all, 2 189 252 cigarettes were collected during the 2009 cleanup. (Ocean Conservancy, 2010) Conservatively, this quantity of cigarettes weighs approximately 821 lb and displaces a volume of 1095 litres.² Owing to the ubiquitous nature and magnitude of cigarette butts discharged into the environment, studies are needed to determine

whether cigarette butt waste can exert ecotoxic effects when in aquatic environments.

Many chemical products are used during the course of growing tobacco and manufacturing cigarettes, the residues of which may be found in cigarettes prepared for consumption.^{3 4} These include pesticides, herbicides, insecticides, fungicides and rodenticides.⁵ Additionally, over 4000 chemicals may also be introduced to the environment via cigarette particulate matter (tar) and mainstream smoke.⁴ These include chemicals such as carbon monoxide, hydrogen cyanide, nitrogen oxides, polycyclic aromatic hydrocarbons, ammonia, acetaldehyde, formaldehyde, benzene, phenol, argon, pyridines and acetone, over 50 of which are known to be carcinogenic to humans.⁴ A study performed by Moriwaki *et al* found that arsenic, nicotine, polycyclic aromatic hydrocarbons and heavy metals are released into the environment by littered 'roadside waste' cigarette butts.⁶ Moreover, previous studies have shown chemicals in cigarette butt leachate can be acutely toxic to aquatic organisms.^{2 7 8} Register found leachates from smoked cigarette tobacco, smoked cigarette filters and unsmoked cigarette filters to be acutely toxic to the freshwater cladoceran *Daphnia magna* between 0.125 and 0.25, 1 and 2, and >16 cigarette butts/l (48-hour LC50 (lethal concentration the concentration that kills 50% of a sample population)), respectively.² Warne *et al* found leachates from smoked cigarette butts, smoked cigarette filters, and unsmoked cigarette filters to be acutely toxic to the freshwater cladoceran *Ceriodaphnia cf dubia* at 0.06, 0.16, and 1.7 cigarette butts/l, respectively (48-hour EC50 (immobilisation)), and to the marine bacterium *Vibrio fischeri* at 0.58, 1.25, and >970 cigarette butts/l, respectively (30-minute EC50 (bioluminescence)).⁷ The EC50 is the concentration at which 50% of the test organisms exhibit a specified effect (eg, immobilisation). Lastly, Micevska *et al* found that leachate from various brands of smoked cigarette butts were toxic to *Ceriodaphnia cf dubia* at concentrations between 8.9 and 25.9 mg butts/l (which corresponds to 0.03–0.08 butts/l) (48-hour EC50 (immobilisation)) and to *Vibrio fischeri* at concentrations between 104 and 832 mg butts/l (which corresponds to 0.3–2.7 butts/l) (30-minute EC50 (bioluminescence)).⁸ This research also found that toxicity for both test species was related to cigarette brand as well as tar content. There is no research to support that flavoured cigarettes (eg, menthol) alter toxicity or impart additional toxicity.

All previous studies used non-vertebrate species (ie, daphnids and marine bacteria) for testing the



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toxicity of cigarette butts in water, while similar studies investigating the toxicity to vertebrates, specifically marine and freshwater fish, have not been performed. Fish are ecologically important organisms, and are often used as bioindicators of healthy aquatic systems. Furthermore, toxicity data for a number of aquatic species are the minimum needed to derive water quality guidelines or to conduct hazard assessments. Therefore, it is important to determine the toxicity of cigarette butt leachate to fish. In this study, we investigated the toxicity of smoked cigarette butts (smoked filter + tobacco), smoked cigarette filters (no tobacco), as well as unsmoked cigarette filters (no tobacco) to the marine fish, topsmelt (*Atherinops affinis*), and to the freshwater fathead minnow (*Pimephales promelas*) in order to better understand the impact of cigarette waste on both marine and freshwater ecosystems. The specific aims of this study were to:

1. Determine if smoked cigarette butts (SCB) (smoked filter + tobacco), smoked filters (SF) (no tobacco) and unsmoked filters (USF) (no tobacco) were acutely toxic to a representative marine and freshwater fish.
2. Determine whether most of the toxicity of a cigarette butt was in the filter or the remnant tobacco.
3. Compare the sensitivity of fish to cigarette butts with other aquatic test organisms.
4. Determine if smoking increases the toxicity of cigarette filters.

MATERIALS AND METHODS

Toxicity test methods followed US Environmental Protection Agency (EPA) acute protocols.⁹ Tests on both topsmelt and fathead minnows were performed utilising three different cigarette leachates: (1) leachate from smoked cigarette butts (SCB), with 1–2 cm of remnant tobacco left intact with the filter. This test was performed twice, once with artificially smoked cigarettes and again with naturally smoked cigarettes; (2) leachate from smoked cigarette filters (SF), with all remnant tobacco removed. This test was performed three times, once with artificially smoked cigarettes and twice with naturally smoked cigarettes; (3) leachate from unsmoked cigarette filters (USF), without tobacco. This test was performed once.

Test cigarettes consisted of regular filtered cigarettes (ie, no flavoured or light cigarettes were used). Cigarettes were purchased new and artificially smoked at the University of California, San Francisco, in order to control for variability and to decrease the risk of contamination from external sources. Cigarettes were smoked according to ISO Standard 3308:2000 using a TE10z smoking machine (Teague Enterprises, 530-406-88931237 E Beamer, Suite E Woodland, CA 95776, USA). Cigarettes that self-extinguished prior to completion of a complete smoking cycle were relit with a disposable butane lighter. For comparative purposes, toxicity tests were also carried out using naturally smoked cigarettes, defined as cigarettes that were actually smoked by people, extinguished in cigarette disposal units and collected within 24 hours of deposition.

To produce the leachate stock, cigarette butts were submerged and allowed to soak in dilution water (diluted mineral water for freshwater tests and natural seawater for saltwater tests), prepared according to EPA protocol, for 24 hours.⁹ Diluted mineral water consisted of eight parts nanopure deionised water for every two parts Perrier mineral water. Following overnight aeration, the diluted mineral water would yield a pH range of 7.9–8.3 and a hardness range of 80–100 mg/l CaCO₃. Natural seawater was obtained from Scripps Institution of Oceanography and transported to the laboratory. Seawater was held in

a flow-through system with a 20 µm in-line fibre filter and chiller unit. The leachate stock for the smoked cigarette butt (SCB) (smoked filter + tobacco) test was made by adding eight cigarette butts to 2 litres of dilution water. A 0.5× dilution series was then performed to obtain subsequent lower concentrations. Concentrations for this test were 4, 2, 1, 0.5, 0.25, 0.125 cigarette butts/l. The leachate stock for the smoked cigarette filter (SF) (no tobacco) test was made by adding 16 filters to 2 litres of dilution water. Concentrations for this test were 8, 4, 2, 1, 0.5, 0.25, 0.125 cigarette butts/l. The leachate stock for the unsmoked cigarette filter (USF) (no tobacco) test was made by adding 32 filters to 2 litres of dilution water. Concentrations for this test were 16, 8, 4, 2, 1, 0.5 cigarette butts/l. All tests were run with laboratory controls comprised of clean dilution water of either natural seawater for the saltwater tests or diluted mineral water for the freshwater tests.

There were four replicates for every concentration, each replicate containing five fish, for a total of 20 fish per concentration. Topsmelt were 7–14 days old and fathead minnows were 12–14 days old. Both were fed *Artemia* (brine shrimp) prior to initiation and again after 48 hours of testing. Fish were provided by Aquatic Bio Systems in Fort Collins, Colorado. All tests received continuous light aeration, a water renewal at 48 hours, and a light cycle of 16 hours of light and 8 hours of darkness. Water quality readings (pH, conductivity, salinity, dissolved oxygen and temperature) and survival counts were performed on a daily basis until test termination at 96 hours, to ensure a controlled environment. Water was to have a dissolved oxygen content between 6 mg/l and 9 mg/l at initiation and at the 48-hour renewal, and was never allowed to fall below 4 mg/l during testing. Temperature was to remain between 20±1°C for saltwater tests and 25±1°C for freshwater tests. Water quality parameters were measured by various meters: the Orion 250A+ pH meter, the YSI 550A dissolve oxygen meter and the Orion 130 to measure temperature, conductivity and salinity. Mean survival in the laboratory controls must be 90% or greater in order for the test to be deemed acceptable.⁹

Survival was the endpoint evaluated and data were analysed to identify the median lethal effect concentration (LC50), the concentration of cigarette butt leachate resulting in 50% mortality. LC50 values were determined using the Trimmed Spearman-Kärber method, as outlined in US EPA 2002, using Comprehensive Environmental Toxicity Information System v1.6.3revE, Tidepool Scientific Software.⁹ ¹⁰ To determine whether there were statistically significant ($p < 0.05$) differences in the toxicity of cigarette butt leachates, concentration-response curves were compared with an F test using Prism version 4.02, GraphPad Software, Inc.¹¹

RESULTS

Toxicity of leachate from smoked cigarette butts

Leachate from smoked cigarette butts (SCB) (smoked filter + tobacco) was found to be acutely toxic to both the saltwater topsmelt (*Atherinops affinis*) and the freshwater fathead minnow (*Pimephales promelas*). An LC50 of approximately 1 cigarette butt/l of water was obtained for both species. The concentration-response curve for the topsmelt is shown in figure 1 and for the fathead minnow in figure 2. Survival in all laboratory controls was 90% or greater, as required by EPA protocol for test validity.⁹ For comparative purposes, this test was performed twice, once with artificially smoked cigarettes and again with naturally smoked cigarettes. Both methods of smoking the cigarette yielded similar results, as concentration-response curves for this test were not found to be statistically different (as

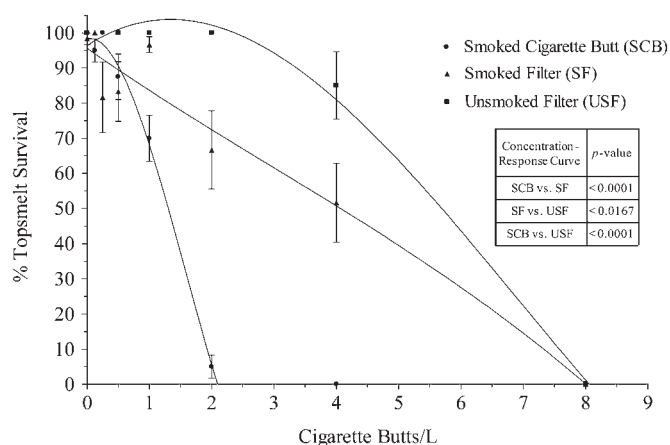


Figure 1 Concentration-response curves for topsmelt (*Atherinops affinis*). LC50 values for leachate from smoked cigarette butts (SCB) (smoked filter + tobacco), smoked cigarette filters (SF) (no tobacco) and unsmoked cigarette filters (USF) (no tobacco) were determined to be 1.1, 1.8 and 5.1 cigarette butts/l, respectively. Survival in all laboratory controls exceeded 90%. Error bars represent one SE of the mean. Dose-response curves are significantly ($p < 0.05$) different.

$p > 0.05$) when comparing artificially smoked versus naturally smoked cigarette leachates for either fish species.

Toxicity of leachate from smoked cigarette filters

Leachate from smoked cigarette filters (SF) (no tobacco) was also found to be acutely toxic to topsmelt at the concentration of 1.8 cigarette butts/l (figure 1), and to fathead minnows at 4.3 cigarette butts/l (figure 2). Survival in all laboratory controls was 90% or greater, as required by EPA protocol for test validity.⁹ The toxicity tests for smoked filters (SF) (no tobacco) were performed three times, once with artificially smoked cigarette filters and twice with naturally smoked cigarette filters. The different methods of smoking the cigarette yielded different results. Concentration-response curves for both species were found to be statistically different ($p < 0.05$) when comparing artificially smoked versus naturally smoked filter leachates. Artificially smoked filters were found to be more toxic than naturally smoked filters for both fish species. The reasons for this discrepancy are unclear.

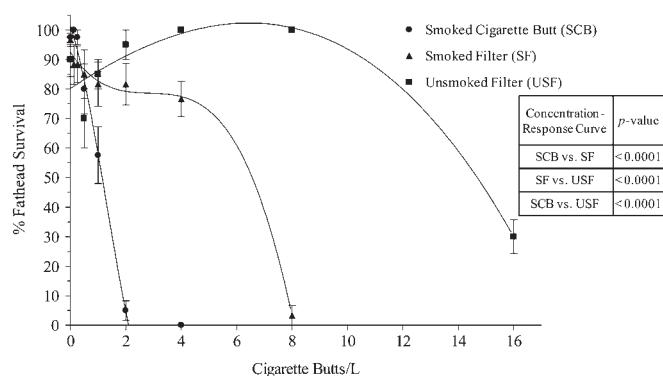


Figure 2 Concentration-response curves for the fathead minnow (*Pimephales promelas*). LC50 values for leachate from smoked cigarette butts (SCB) (smoked filter + tobacco), smoked cigarette filters (SF) (no tobacco) and unsmoked cigarette filters (USF) (no tobacco) were determined to be 0.97, 4.3, and 13.5 cigarette butts/l, respectively. Survival in all laboratory controls exceeded 90%. Error bars represent one SE of the mean. Dose-response curves are significantly ($p < 0.05$) different.

Toxicity of leachate from unsmoked cigarette filters

One surprising result of our study was that leachate from unsmoked cigarette filters (USF) (no tobacco) was found to be acutely toxic to both fish species with an LC50 value of 5.1 for the topsmelt (figure 1) and 13.5 cigarette butts/l for the fathead minnow (figure 2). Survival in all laboratory controls was 90% or greater, as required by EPA protocol for test validity.⁹

DISCUSSION

Sensitivity of fish to smoked cigarette leachate compared to other species

A summary of toxicity (LC50 and EC50 values) from all research completed to date can be found in table 1. Results of a previous study found that smoked cigarette butt (SCB) leachate was acutely toxic to the daphnid, *Ceriodaphnia cf dubia*, at concentrations between 8.9 and 25.9 mg butts/l when remnant tobacco is left intact.⁸ Given that the mean weight of a single smoked cigarette butt is approximately 310 mg, it can be calculated that smoked cigarette butt (SCB) leachate was found to be acutely toxic to daphnids between 0.03 and 0.08 cigarette butts/l (48-hour EC50 (immobilisation)). A study conducted by Warne *et al* supports this finding, as a similar EC50 (48-hour (immobilisation)) of 0.06 cigarette butts/l was identified, utilising the same test species.⁷ However, a study conducted by Register found leachate from smoked cigarette tobacco (no filter) to be acutely toxic to *Daphnia magna* at slightly higher concentrations, between 0.125 and 0.25 cigarette butts/l (48-hour LC50).² In comparison, our current study found smoked cigarette butt (SCB) leachate to be less toxic to topsmelt and fathead minnows, than to daphnids tested in previous studies, as the LC50 (96-hour) for fish was identified as approximately 1 cigarette butt/l.

The toxicity of smoked cigarette butts (SCB) has also been evaluated using a marine bacterium (*Vibrio fischeri*). Warne *et al* found SCB leachate to be acutely toxic to *V fischeri* at 0.58 cigarette butts/l (30-minute EC50 (bioluminescence)) and Micevska *et al* supported this finding with a SCB leachate EC50 (30-minute bioluminescence) between 0.3 and 2.7 cigarette butts/l.^{7, 8} Since fish were found to have an LC50 of 1 cigarette butt/l for this same cigarette leachate, fish and marine bacteria may have similar sensitivities to smoked cigarette butt (SCB) leachate.

Register found leachate from smoked cigarette filters (SF) (no tobacco) to be toxic to *D magna* between 1 and 2 cigarette butts/l (48-hour LC50).² Warne *et al* found daphnids to be more sensitive to leachate from smoked filters (SF) (no tobacco), as leachate was found to be toxic to *C cf dubia* at approximately 0.16 cigarette butts/l (48-hour EC50 (immobilisation)).⁷ Compared to the current study, fish were found to be less sensitive to smoked filter (SF) leachate than daphnids in previous studies, with LC50s of 1.8 and 4.3 cigarette butts/l for the topsmelt and fathead minnow, respectively.

The reason for the greater sensitivity of daphnids to cigarette butt toxicity, compared to fish, is currently unknown, but may be due to the presence of nicotine and/or pesticide residues in cigarette butt leachates, or to metabolic differences between the species. Daphnids, specifically *Daphnia magna* and *Ceriodaphnia dubia*, are largely herbivorous and detritivorous and are known to be more susceptible to nicotine than fish.¹²

Potential causes of toxicity

Pesticides, potentially remaining in unsmoked cigarettes, may contribute to the toxicity of cigarette leachate. Daphnids may be more sensitive to pesticides than are fish, which would explain the observed greater sensitivity to cigarette leachate with

Table 1 Toxicity summary

Species	Cigarette butts/l		
	USF	SF	SCB
Topsmelt LC50	5.1 (4.6–5.7)	1.8 (1.5–2.0)	1.1 (0.95–1.3)
Fathead minnow LC50	13.5 (11.4–15.9)	4.3 (3.7–5.1)	0.97 (0.84–1.1)
Daphnid (<i>D magna</i>)* LC50	>16	1.0–2.0	0.125–0.25†
Daphnid (<i>C cf dubia</i>)‡ EC50 (immobilisation)	NA	NA	0.03–0.08 (0.02–0.12)
Daphnid (<i>C cf dubia</i>)§ EC50 (immobilisation)	1.7 (1.4–2.06)	0.16 (0.09–0.27)	0.06 (0.05–0.08)
Marine bacterium (<i>V fischeri</i>)‡ EC50 (bioluminescence)	NA	NA	0.3–2.7 (0.3–3.5)
Marine bacterium (<i>V fischeri</i>)§ EC50 (bioluminescence)	> 970	1.25 (1.21–1.33)	0.58 (0.53–0.63)

LC50 and EC50 values (with 95% CIs) for leachates from unsmoked cigarette filters (USF) (no tobacco), smoked cigarette filters (SF) (no tobacco), and smoked cigarette butts (SCB) (smoked filter + tobacco).

*Courtesy: Register.² No CIs reported.

†Test utilised smoked cigarette tobacco (no filter).

‡Courtesy: Micevska *et al.*⁸ 95% fiducial limits reported.

§Courtesy: Warne *et al.*⁷

daphnids, compared to fish. A US Government Accountability Office report discusses the use of pesticides on cigarette tobacco crops.¹³ The US EPA regulates which specific pesticides may be used on tobacco crops, as well as how they are used, but it does not regulate pesticide residues on tobacco, as is required for human foods and animal feed crops. The USDA, however, has found that some imported and domestic tobacco exceeds current residue limits considered safe for human health and environmental effects.¹³ A 2006 study performed by Dane *et al* also found three previously undetected pesticides (flumetralin, pendimethalin and trifluralin) in both mainstream and side-stream cigarette smoke, which could also be retained by the cigarette filters causing toxicity to aquatic organisms as they leach out of the cigarette butts.¹⁴

Micevska *et al* conducted toxicity identification evaluations (TIEs) on smoked cigarette butt leachates and found that nicotine and ethylphenol may play significant roles in causing the toxicity observed in daphnids and marine bacteria.⁸ Nicotine is an antiherbivore chemical derived from the tobacco plant *Nicotiana* sp and it has commonly been used as an insecticide.¹⁵ It has also been reported that ethylphenol is commonly used in the tobacco industry as a tobacco flavouring agent and is present in cigarette smoke.^{16–18} Ethylphenol has been shown to be capable of bioconcentration in aquatic organisms.¹⁹

Chemical additives are often introduced to make tobacco products more attractive to consumers. For example, sugars and humectants make smoke milder and easier to inhale, humectants can prolong shelf life, ammonia may enhance the delivery of nicotine and menthol and eugenol effectively numb the throat.⁵ In fact, approximately 600 additives were in use by major American cigarette companies in 1994.²⁰ Many of these chemicals may be harmful to humans as a result of smoking. The major humectants used for cigarettes are glycerol, diethylene glycol and/or propylene glycol which may be carcinogenic to humans.⁴ However, little is known about the fate of such additives in cigarette butt leachates.

There are several chemicals in an unsmoked cigarette filter that may contribute to aquatic toxicity. The filter of a filter-tipped cigarette is composed of cellulose acetate fibres.²¹ These fibres, each approximately 20 µm in diameter, are treated with titanium dioxide (a delustrant) and over 15 000 of them are packed tightly together, using triacetin (glycerol triacetate) as a binding agent, to create a single filter.^{22–25} Most cigarette filters are surrounded by two layers of paper and/or rayon wrapping, which contain chemicals, such as glues to hold the paper

together, and alkali metal salts of organic acids (eg, sodium acetate) in order to maintain burning while the cigarette is being smoked.²² It is also possible that cigarette filters attached to tobacco absorb toxicants from the adjacent unsmoked tobacco column; however, this has not been investigated in the literature.

Toxicity of leachate from smoked cigarette butts, smoked filters and unsmoked filters

Both fish species exhibited statistically different concentration-responses to the different cigarette leachates, as reported by the p values in figures 1 and 2. For both fish species, the toxicity increased significantly from unsmoked filters (USF) to smoked filters (SF) to smoked cigarette butts (SCB). These findings are consistent with findings published by Register and Warne *et al*, who also found a progressive increase in toxicity from USF to SF to SCB.^{2–7} Although, it has been shown that less than 2% of the quantity of all elements in cigarette tobacco and paper adsorb onto the filter as a result of smoking, our results show that the chemicals solely in the smoked filter still exert considerable toxicity to fish.²⁴ However, the remnant tobacco of the cigarette butt contributed a degree of toxicity (to both topmelt and fathead minnows) significantly ($p < 0.05$) greater than that conferred by chemicals trapped and leached from the smoked filter itself. Remnant tobacco comprised unburned tobacco as well as a burnt tobacco tip and including such remnant tobacco effectively exacerbated toxicity. The chemicals in smoked cigarette butts (SCB) may be significantly greater and different from those retained within the smoked filter (SF) itself; the former may contain additional toxic products of combustion. Chemicals in smoked versus unsmoked cigarette butts may not only contribute differently to toxicity, but also may have different fates and/or potential for bioaccumulation in the environment.

Despite the gathering evidence on the toxicity of cigarette butt leachates to various organisms, it is difficult to assess the risk that cigarette waste may have on the actual aquatic environment. Pathways of cigarette waste to aquatic environments are complex and varied. In 2002, a hazard assessment concluded that, while definitive quantification is still needed, it is likely that littered cigarette butts pose a low to moderate risk to aquatic organisms.⁷ However, aside from toxicity, little is known about the specific chemicals, fate and bioaccumulation potential of such cigarette butt leachates, and the actual effects they may have on aquatic life. This study represents the first in the literature to show that cigarette butt leachate is toxic to representative marine and freshwater fish species. Additional research is

What this paper adds

- ▶ Cigarette butts are the most common form of litter in the world. Thousands of chemicals are present in a cigarette, the residues of which may be found in littered cigarette butts. Previous studies have shown chemicals in cigarette butt leachate can be acutely toxic to aquatic organisms; however, all previous studies used non-vertebrate species for testing.
- ▶ This study represents the first in the literature to show that leachate from cigarette butts is acutely toxic to representative marine and freshwater fish species. Leachates from smoked cigarette butts with remnant tobacco were significantly more toxic to fish than the smoked filters alone, but even unsmoked filters exhibited a small level of toxicity.

necessary to explore the actual risks that cigarettes pose to freshwater and marine environments.

CONCLUSION

- ▶ Smoked cigarette butts (SCB) (smoked filter + tobacco), smoked cigarette filters (SF) (no tobacco) and unsmoked cigarette filters (USF) (no tobacco) were all found to be acutely toxic to representative marine and freshwater fish.
- ▶ Remnant tobacco was found to contribute a degree of toxicity above that which was conferred by the smoked filter alone.
- ▶ Fish were found to be less sensitive to cigarette butt leachate than daphnids previously tested, but to have a similar sensitivity as marine bacteria.
- ▶ Smoking was found to increase the toxicity of cigarette filters.

Acknowledgements We thank Dr Suzaynn Schick, University of California San Francisco, for kindly generating the artificially smoked cigarettes, and Christina Meyer, San Diego State University, for laboratory technical support.

Funding This research was supported by a University of California Tobacco Related Disease Research Program IDEA Grant, No 17IT-0014.

Competing interests None.

Provenance and peer review Not commissioned; externally peer reviewed.

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Correction

Slaughter E, Gersberg RM, Watanabe K, *et al*. Toxicity of cigarette butts, and their chemical components, to marine and freshwater fish. *Tob Control* 2011;**20**:i25–i29. doi:10.1136/tc.2010.040170.

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Tobacco Control 2011;**20**:418. doi:10.1136/tc.2011.040170corr1

Communication

Cigarettes Butts and the Case for an Environmental Policy on Hazardous Cigarette Waste

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Received: 2 April 2009 / Accepted: 19 May 2009 / Published: 20 May 2009

Abstract: Discarded cigarette butts are a form of non-biodegradable litter. Carried as runoff from streets to drains, to rivers, and ultimately to the ocean and its beaches, cigarette filters are the single most collected item in international beach cleanups each year. They are an environmental blight on streets, sidewalks, and other open areas. Rather than being a protective health device, cigarette filters are primarily a marketing tool to help sell ‘safe’ cigarettes. They are perceived by much of the public (especially current smokers) to reduce the health risks of smoking through technology. Filters have reduced the machine-measured yield of tar and nicotine from burning cigarettes, but there is controversy as to whether this has correspondingly reduced the disease burden of smoking to the population. Filters actually may serve to sustain smoking by making it seem less urgent for smokers to quit and easier for children to initiate smoking because of reduced irritation from early experimentation. Several options are available to reduce the environmental impact of cigarette butt waste, including developing biodegradable filters, increasing fines and penalties for littering butts, monetary deposits on filters, increasing availability of butt receptacles, and expanded public education. It may even be possible to ban the sale of filtered cigarettes altogether on the basis of their adverse environmental impact. This option may be attractive in coastal regions where beaches accumulate butt waste and where smoking indoors is increasingly prohibited. Additional research is needed on the various

policy options, including behavioral research on the impact of banning the sale of filtered cigarettes altogether.

Keywords: cigarette litter; waste; butts; smoking; filters; environment

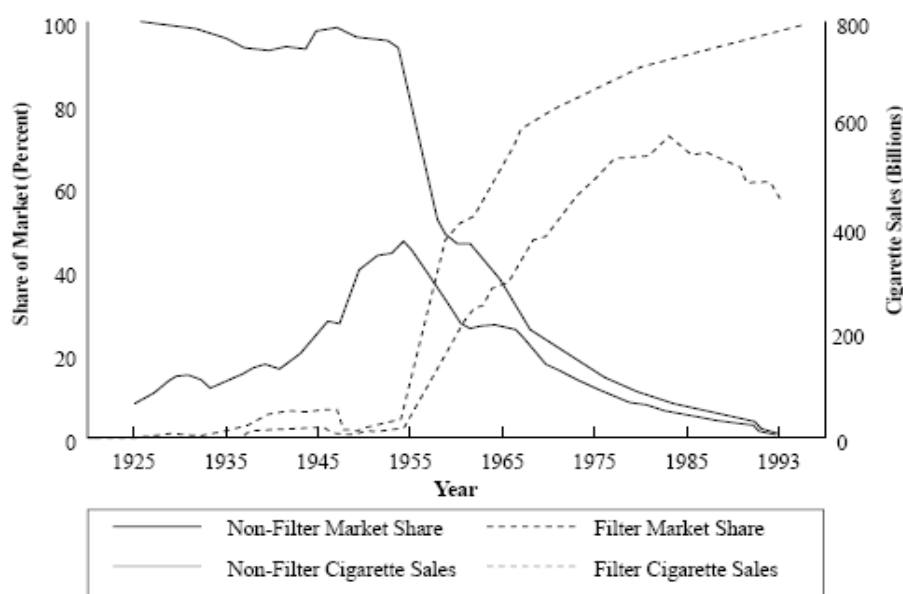
1. The History and Function of Cigarette Filters

The cellulose-acetate filter was added to cigarettes in the 1950s in the wake of increasingly convincing scientific evidence that cigarettes caused lung cancer and other serious diseases [1]. Filters were found to reduce the machine-measured yields of tar and nicotine in smoked cigarettes, and at first this seemed to be a healthy technological improvement in the cigarette product. In 1966, a review by the US Public Health Service concluded that, “The preponderance of scientific evidence strongly suggests that the lower the ‘tar’ and nicotine content of cigarette smoke, the less harmful would be the effect.” Following this report, both Government and tobacco industry scientists conducted studies of cigarette manufacturing and tobacco cultivation that could lead to lower “tar” and nicotine yields. Cigarette manufacturers promoted such products, especially filtered cigarettes, through advertising that included an implied health claim for ‘safer’ cigarettes. Some epidemiological studies have alluded to reduced health impacts attributable to lower tar- and nicotine-yielding cigarettes [2,3]; in fact, the sales-weighted averages of these constituents in cigarettes has dramatically declined over the last 50 years. Nevertheless, smokers who switched to these low-yield brands did not substantially alter their exposure to tar and nicotine because of compensatory smoking (deeper and more frequent puffing, plugging ventilation holes on filters, etc.) and the changes in the way cigarettes were manufactured. To address this confusion, the National Cancer Institute undertook a comprehensive review of low-tar and low-nicotine yielding cigarettes’ potential health benefits. Its 2001 *Monograph 13, Risks Associated with Smoking Cigarettes with Low Machine- Measured Yields of Tar and Nicotine*, [4] concluded that “Epidemiological and other scientific evidence, including patterns of mortality from smoking-caused diseases, does not indicate a benefit to public health from changes in cigarette design and manufacturing over the last fifty years.” In addition, a 2006 US Department of Justice ruling against the tobacco companies, at present stayed and pending appeal, “bans terms including “low tar,” “light,” “ultra light,” “mild,” and “natural” that have been used to mislead consumers about the health risks of smoking and prohibits the tobacco companies from conveying any explicit or implicit health message for any cigarette brand” [5]. Over the last 50 years, smokers switched almost entirely (99%) to filtered cigarettes (Figure 1), and nearly all of these sold in the United States are made of cellulose acetate, a plastic product [6].

Filters likely discourage many smokers from making the quit attempt because they still cling to the belief that filtered cigarettes are protective of their health; thus, filters may have overall a detrimental effect on population health. Filters are a rod of about 12,000 fibers, and fragments of this material become separated from the filter during the manufacturing process and may be released during inhalation of a cigarette. It has been reported in tests on 12 popular brands that fibers are inhaled and also ingested, and filter fibers have been reportedly found in the lung tissue of patients with lung

cancer [7]. Furthermore, consumer preference for filtered cigarettes may have been associated with a histological shift in predominant lung cancer type from squamous cell to the more aggressive adenocarcinoma cell type [8].

Figure 1. Market share and sales of filtered and non-filtered cigarettes in the United States, 1925-1993.



Source: US National Cancer Monograph No. 13, 2001 [4]

Currently, cigarette manufacturers are contemplating and test marketing additional “reduced harm” products, including new types of filters that may reduce toxic constituents in cigarette smoke (these new filters also contain cellulose acetate as well as new filter materials) [9]. Nonetheless, filters continue to be primarily a marketing tool to help sell cigarettes.

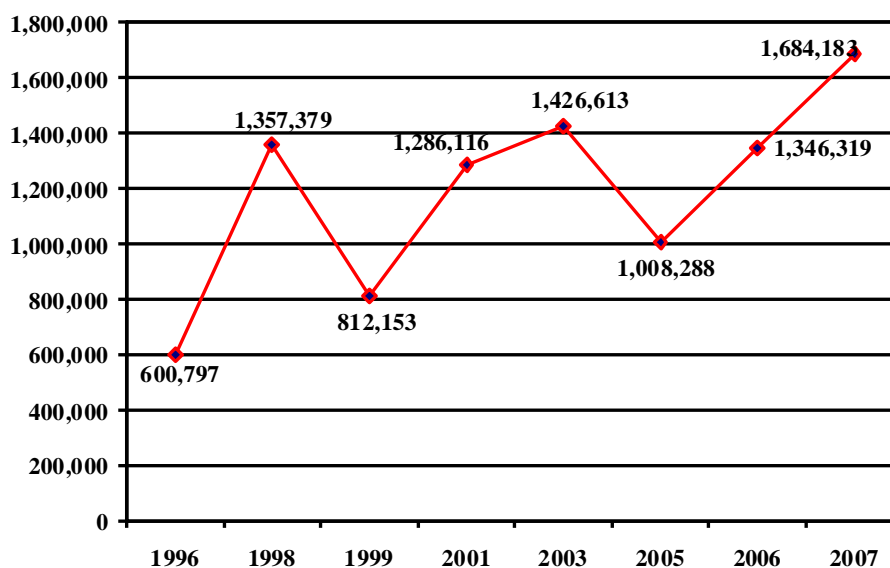
2. The Environmental Problem of Cigarette Butts

Whatever their direct health impact on or benefit to smokers, cigarette filters pose a serious litter and toxic waste disposal problem. Cellulose acetate is photodegradable but not bio-degradable. Although ultraviolet rays from the sun will eventually break the filter into smaller pieces under ideal environmental conditions, the source material never disappears; it essentially becomes diluted in water or soil [10,11].

While the environmental impact of a single disposed cigarette filter is minimal, there were 1.35 trillion filtered cigarettes manufactured in the United States in 2007, and of these, more than 360 billion were consumed here [12]. About 680,000 tons of cellulose acetate was used in the production of these filtered cigarettes. With 5.6 trillion filtered cigarettes consumed worldwide in 2002, and nine trillion expected by 2025, the global environmental burden of cigarette filters is also significant [13]. It is estimated that 1.69 billion pounds (845,000 tons) of butts wind up as litter worldwide per year [14].

Most attention has been given to the cigarette butt waste problem because of the filters that end up on beaches. The annual Ocean Conservancy's International Coastal Cleanup (ICC) reports that 'cigarette butts have been the single most recovered item since collections began' [15]. Although volunteers collected 1,684,183 cigarette butts (33.6% of all debris) in the 2007 US Cleanup (Figure 2), these data likely underestimate total discarded filters. For example, a comprehensive cleanup in Orange County, California, yielded 20 times more butts than the estimated ICC total for that beach for the same year [16].

Figure 2. Cigarettes and Cigarette Filters Collected in the United States in the International Coastal Cleanup, 1996-2007. Source: Ocean Conservancy 2007.



The cigarette butts recovered from beaches are not necessarily due to cigarettes that are smoked on them. Butts are dropped on sidewalks or thrown from moving cars; they then move to the street drains, and thus to streams, rivers, and the oceans. In addition, since the early 1980s there has been increasing concern about the health consequences of passive smoking, and thus more smoking occurs outdoors, likely contributing to this chain of events. As a consequence, cigarette butts become unsightly and difficult-to-remove waste in multiple locations, including streets, storm drains, streams, and beaches. In a review of litter cleanup project reports, the *Keep America Beautiful Campaign* reported that cigarette butts comprise from 25 to 50 percent of all collected litter items from roadways and streets. One report from a college campus estimated the cost of cigarette litter cleanup at \$150,000 for a single, two-week-long effort. No other economic impact studies have been reported [17]. Their non-biodegradability means that they also increase landfill demands, add costs to municipalities' waste disposal programs, and create environmental blight in public spaces.

Discarded cigarette butts are not only unsightly; they are also toxic in and of themselves. Environmental groups have expressed concern for marine creatures that ingest littered filters [18,19]. A 2006 laboratory study found that cigarette butts were found to be acutely toxic to a freshwater cladoceran organism and a marine bacteria (microtox) and that the main cause of toxicity was attributed to nicotine and ethylphenol in the leachates from cigarette butts [20]. A 1997 report from the

Rhode Island Department of Health reported 146 cases of cigarette butt ingestion among children < 6 years old; of these, approximately one-third displayed transient nicotine toxicity [21]. Even if properly disposed, cigarette butts are hazardous solid waste. It is unknown as to how many must be consumed to cause adverse health effects in marine animals such as birds or mammals.

3. The Tobacco Industry Response

In the 1990s, market research prompted cigarette manufacturers to recognize that environmental concerns about discarded butts might become more important to consumers and policymakers. A 1992 Philip Morris USA internal memo identified cellulose acetate filters as non-degradable material and reported that Eastman Chemical Products Company and Celanese Fibers Company were conducting research on cellulose acetate degradation [22]. Alternatives to the cellulose acetate filter were also pursued by Brown & Williamson Tobacco Company [23] and RJR, whose ‘Degradable Team’ reported in the minutes from an April 4, 1996, meeting that it had tested five biodegradable filter prototypes in sensory evaluation tests. However, these filters were found to be unacceptable to smokers: “all products had greater artificial lit aroma, less tobacco taste, more artificial taste, more generic taste, less sweet, more bitter, less tobacco aftertaste, greater bitter, non-tobacco aftertaste and greater drying.”[24]. In 1998, RJR scientists filed a US patent on a “degradable smoking article” that utilized dissociable cigarette parts to accelerate disintegration by increasing exposure of surface areas to “natural elements”. However, their research found that the disintegrated filter components were still deposited in the environment as small particles [25].

CORESTA, the tobacco industry’s international research organization, formed a ‘Cigarette Butt Degradability Task Force’ in the early 1990s to “develop a test to determine the rate of degradability of a complete cigarette butt” [26]. The task force’s membership of cigarette makers, filter suppliers, paper manufacturers, and adhesive companies displayed extensive interest in biodegradability research. If a biodegradable filter were marketable, these industries would reap significant financial benefits through a new marketing tool that would help smokers identify themselves as environmentally friendly. However, the task force’s final report stated that their objective “was made more difficult by the fact that most of the available reference work supported efforts to enhance stability not degradability, and were applied to single component products, not systems composed of different types of materials”. The task force disbanded in 2000 after CORESTA found that it was “unlikely that the level of interest could justify the scale of the effort”, which would require more data collection and the development of instrumentation to establish a standardized test for cigarette filter degradation [27].

In 2000, Philip Morris’ consumer research on cigarette litter found that the issue was not “top of mind” for smokers, that there is ritualized behavior in the disposal of cigarette butts, and that “adults who choose to smoke need convenient alternatives to cigarette disposal” [28]. As a result of this research, Philip Morris proposed distribution of convenient disposal receptacles and direct communication with smokers to encourage them to dispose of butts in an environmentally conscious manner. Subsequently, Phillip Morris became one of the major supporters of the *Keep America Beautiful Campaign* ([KAB] a non-profit, grass roots organization), which encourages individual responsibility for proper butt disposal and other wastes [29]. However, there are no evaluation data on

the effectiveness of such campaigns in reducing butt litter. It may be that Philip Morris' interests lie primarily in shifting the responsibility for butt waste to the consumer; KAB's efforts focus on public education and increasing availability of butt receptacles, including hand held ashtrays; its campaigns support Philip Morris' corporate social image [30]. In 2007, it received a \$3 million grant from Philip Morris USA for its butt litter campaigns [31].

The tobacco industry has considered this problem further with some of their own research on filter degradability. Philip Morris documents described "Project Natural" at the 1990 Philip Morris International Marketing Meeting, where the litter issue and the problems with filter degradability were discussed. The presenter stated: "to avoid this problem, the simplest solution would be to eliminate the filter! But this of course would defy consumer preference and make it difficult to control tar and nicotine levels" [32].

In a 2006 Stakeholder analysis and response project, RJR described these internal and industry-sponsored programs as mainly to develop test methods that define the photo, water and biological degradability of existing and new materials. RJR's final message to stakeholders was, "Our opinion is that the *current state of the art in material technology has not produced a material that is commercially feasible*. While some degradable materials have been identified, they are unsuitable because of poor taste, short shelf-life and physical instability during smoking, manufacturability and/or material variability. The company is continuing to look at all technological solutions to biodegradability" (emphasis added) [33].

Currently, there is no evidence that the industry has developed a marketable, degradable filter. However, one biotech company (Stanelco) has developed a food-starch-based filter and has appointed Rothschild International, to develop and test this device for possible widespread adoption [34]. Starch used in the filter is essentially a carbohydrate polymer found in foods such as potato and rice. The biodegradability of such filters could theoretically reduce the environmental impact of butt waste by being compostable. Stanelco has touted this filter as not only eco-friendly but 30 to 50% cheaper than cellulose acetate filters at bulk prices. Compared with cellulose acetate filters, the company claims that starch-based filters may also have health effects because smokers will not be exposed to "fall-out" of cellulose acetate fragments entering the lung through inhalation [35]. Even with starch-based composition, these filters may take two months to biodegrade, and they would still release toxic filtrates into the environment when they do so.

4. Community and State Response

In response to the issue of cigarette butt litter, some municipalities have banned smoking on beaches, including in Chicago, San Diego, and other areas (Table 1). These bans are widely seen as a good first step to controlling butt waste, but because of the runoff from streets to waterways to ocean, they will not eliminate them from beaches. Butts despoil these heavily used public spaces, which then become the responsibility of the state and local authorities to clean up. In California, a law that would ban smoking on all 64 state-run beaches and State Parks in California failed by two votes in 2004 in the state Senate and is currently under consideration again [36]. There appears to be considerable

interest in beach smoking bans, mainly at the local level, where responsibility for cleanup resides. Detailed cost analyses and impact assessments on such bans are as yet lacking.

Table 1. Smoking bans on beaches by State and Municipality, United States, 2008.

State	Municipality
California	Albany, Belmont, Calabasas, Capitola, Carmel, Carpinteria, Del Mar, El Cajon, El Segundo, Encinitas, Hayward, Hermosa Beach, Imperial Beach, Laguna Beach, Loma Linda, Los Angeles, Los Angeles County, Manhattan Beach, Monterey, Morro Bay, Novato, Oceanside, Pacific Grove, Pacifica, Palos Verdes Estates, San Diego, San Mateo County, Sand City, Santa Cruz, Santa Monica, Seal Beach, Torrance
Florida	Jupiter Island
Hawaii	Hawaii County
Iowa	Des Moines, Johnson County
Illinois	Chicago, Highland Park, Lake Forest, Wilmette
Massachusetts	Abington, Braintree, Grafton, Holliston, Sharon, Tyngsborough, Upton, Westford
Michigan	Grand Haven Township, Howell, Ottawa County
Minnesota	Battle Lake, Bloomington, Buffalo, Fergus Falls, Hennepin County, Hoffman, Ramsey County, Washington County
New Hampshire	Gilford, Windham
New Jersey	Brick Township, Dover Township, Lavallette Borough, Mount Arlington Borough, Seaside Park, Ship Bottom Borough, Surf City Borough
New York	Kingston
Puerto Rico	Puerto Rico
Rhode Island	Westerly
South Carolina	Surfside Beach
Utah	Davis County
Washington	Lake Stevens
Wisconsin	Madison

Source: Personal communication, B. Frick, Americans for Nonsmokers Rights, December 2008

5. Policy Options to Reduce the Environmental Impact of Cigarette Butt Litter

Our previous report [37] established the environmental externalities of smoking, focusing on the enormous number of butts reported in international beach cleanups and on the hazardous wastes resulting from cigarette manufacturing processes. There is precedent for enacting state and local regulation to protect the environment from non-biodegradable solid waste from consumer products; we suggest several models for possible action against cigarette butt waste.

5.1. Labeling

Some products carry warnings printed on them advising consumers not to litter the packages or the product (aluminum cans, bottles, plastics, etc). This has never been proposed as a means of warning smokers about the non-biodegradability of filters (or of package litter). A warning label of sufficient

size could be required as part of the proposed FDA regulatory authorization that simply states: “Cigarette filters are non-biodegradable hazardous waste. Disposal of filters should be in accordance with state law” (with appropriate state law requirements included on each package sold in the each state). These could go on to describe potential human toxicity, methods for safe handling, etc.

5.2. Deposit/Return

In the 1970s, Oregon and several other states introduced “bottle bills” as a way to reduce the hazards, clean-up costs, and waste of discarded glass containers (mostly from beverages). Deposit/recycling laws have been implemented around the world, in fact. These laws mandate that consumers pay a deposit when they purchase specified items which will be returned when the container is returned. The Oregon law is credited with reducing litter and increasing container recycling, with return rates of up to 90%. The Oregon Department of Environmental quality reports that discarded items covered by the laws were reduced from 40% of roadside litter collected to 6% [38]. In South Australia, there has been similar success with bottle bills and electronics [39]. Similarly, cigarettes could be sold with a “butt deposit” to be refunded when the pack is returned to the vender with the butts. As with bottles and cans, this could spark both more care on the part of smokers and provide income to others who retrieve any butts that smokers discard. It would also increase the opportunity costs of smoking, thus perhaps having a salutary effect on reduced cigarette consumption.

5.3. Waste Tax

Concern about toxic waste resulting from technology products such as computers, telephones, and televisions, has given rise to legislation implementing a consumer funded Advanced Recycling Fee (ARF); this is assessed at the point of purchasing electronic products [40]. These fees are intended to pay for the costs of recycling the item and disposing properly of any non-recyclable material. The fees are minimal (compared to the cost of the products), ranging from \$6 to \$10. Of note, this system functions with complete support of the manufacturers themselves, with core principals calling for shared responsibility. Adding a waste *fee* to cigarettes is another possibility, and the funds collected could be used to mitigate environmental consequences and to fund research on butt waste. A fee or tax has the added advantage of increasing costs of cigarettes, thereby reducing consumption. Such fees would have to be supported by careful litter audits and economic costs of cleanup studies.

5.4. Litigation

To date, most litigation against the tobacco industry has focused on the health costs that others (individuals, insurance companies, states) end up paying as a result of cigarette consumption. Similarly, the industry could be held responsible for environmental impacts associated with the sales of their product. In addition, although the tobacco industry has yet to produce a commercially viable biodegradable filter, it may be that there is a technological solution which has so far not met economic requirements. Litigation may change that equation.

Litigation has been pursued against manufacturers of products that damage the environment. In fact, entire communities have filed class action lawsuits to sue polluters, and these cases are typically based on two tort theories: negligence and nuisance. Negligence is a tort theory that permits someone who is injured by another's unreasonable conduct to recover money damages. The primary element of a successful negligence case is proof of the defendant's wrongful conduct, or failure to take reasonable steps to prevent the harm. Nuisance is a tort theory that protects someone's right to use and enjoyment of their real property [41]. Settlement of these cases sometimes requires abatement as well as restitution. Interesting to note is that the responsibility of hazardous waste abatement may include the waste generator who is in part responsible for the waste handler's actions. Thus, if the handler does a poor job and pollutes the environment, the generator may be responsible for cleanup. One could imagine beach communities in particular resorting to litigation to hold accountable the waste generator (in this case the cigarette manufacturers) for the action of the waste handler (the smoker).

5.5. Fines

Fines are levied by local communities for violations of smoking bans on beaches and in enclosed places. Fines for littering may be as high as \$1,000 in some states if the littering subject can be observed and cited by authorities. Fines could also be levied by states (or municipalities) against cigarette manufacturers based on the amount of cigarette waste found either as litter or as properly disposed waste. These fines would at least partially compensate for the costs of cleaning up and disposing of cigarette waste; they would certainly be passed along to consumers, thus increasing the costs of smoking and reducing consumption.

5.6. Mandatory Filter Biodegradability

Food and Drug Administration (FDA) Regulation of Tobacco products is now being considered for authorization under the US Senate *Family Smoking Prevention and Tobacco Control Act* (already passed by the House of Representatives and not approved in the Senate). If passed, this act would:

- Empower the FDA to establish a periodically re-evaluated content standard, and require changes in tobacco products to meet the standard.
- Grant the FDA authority to require changes in current and future tobacco products to protect public health, such as the reduction or elimination of harmful ingredients, additives and constituents, including smoke constituents.
- Empower the FDA to reduce nicotine yields to any level other than zero (reserved to Congress). This means the FDA can reduce nicotine to minimal levels, including levels that do not lead to addiction.
- Authorize the FDA to require the reduction or removal of harmful or potentially harmful constituents to protect the public health [42].

Clearly, this legislation would have implications for states that hope to regulate tobacco products in any way, and there is concern among tobacco control advocates as to whether such regulation would pre-empt state actions. However, there is already precedent for state regulation of tobacco projects.

Cigarettes are regulated by 22 states to be fire safe if sold in a specific state. Canada has become the first nation to mandate the sale of fire-safe cigarettes [43]. State legislation to mitigate a significant non-point-source of environmental pollution may be an effective means of either prohibiting the sale of cellulose-acetate filtered cigarettes or mandating that only biodegradable filtered cigarettes could be sold in the state.

5.7. Ban Disposable Filters

Some products known to be hazardous or prone to improper disposal have simply been banned entirely from sales and distribution. For example, pop-tops on aluminum cans [44], which were frequently littered and caused injury when stepped on, and plastic tampon applicators, which even when disposed of properly tended to wash up on beaches [45] were regulated by state laws. Thus, States could simply ban the sale of filtered cigarettes if these were to be considered as an environmental problem. This controversial proposal requires further research to determine its potential individual and population health impacts. There may in fact be significant positive behavioral impacts in reducing smoker's consumption of unfiltered cigarettes or reducing initiation among children.

5.8. Consumer Education and Responsibility

There are several grass roots organizations and websites addressing the issue of cigarette butt waste, both in the United States and elsewhere around the world (Table 2). These focus primarily on consumer education and responsibility to dispose of butts properly. Many, such as KAB, may be funded by the tobacco industry [46]. However, it is an accepted notion in health behavior science that human behavior changes only slowly if at all unless there are costs, benefits, and social norms to support these changes. Butt littering is for the most part an ignored behavior among smokers; it may even be a part of the smoking ritual. Added to this is the now widespread regulation of indoor smoking, which causes smokers to retreat to the street and sidewalk where there may be no butt receptacles. The question arises as to the responsibility to provide suitable receptacles. Should these be the property owner, the city or county, or should there be requirements for all smokers to carry hand-held ashtrays? If they did carry and use these, how would disposal of the ashtray contents be regulated or assured?

Table 2. Environmental Groups Concerned with Cigarette Butt Waste.

Organization	Main Focus	Website
Surfrider Foundation	Clean Water, Beach Access, Beach Preservation and Protecting Special Places	http://www.surfrider.org/a-z/cig_but.php
Earth Resource Foundation	Environmental Education	http://www.earthresource.org/events/hotyb-current.html
Clean Virginia Waterways	Waterway cleanup	http://www.longwood.edu/cleanva/cigarettelitterhome.html
Ocean Conservancy	International Coastal Cleanup	http://www.oceanconservancy.org/site/PageServer?pagename=icc_home
Queensland Litter Prevention Alliance	Anti-litter advocacy	http://www.qldlitter.com/litter_facts.php
ButtsOut	Personal Ashtrays	http://www.buttsout.net/UK

Public information campaigns that involve all stakeholders will be important no matter what the policy approaches to controlling butt waste. Public enforcement of littering regulations will follow changing social norms. Increased regulatory activity at the state and local level will follow raised awareness of the butt litter problem. Increased publicity about ‘green’ behavior may affect the littering behavior of smokers. Added to this are fines, fees, and other economic disincentives, and smokers may change behavior even more. One thing is certain, however: when cigarette consumption decreases as a result of reduced prevalence of smoking, butt waste decreases. In the last ten years, the per capita consumption of cigarettes declined almost 20% in the United States [4].

6. Discussion

Cigarette butts are undoubtedly an environmental problem causing blight on beaches, streets, sidewalks, waterways, and public spaces. Most of the policy approaches proposed above would likely have two benefits to health and the environment. First, they would likely increase the costs of cigarettes to consumers, as manufacturers would pass along the costs of taxes, fees, litigation, or new production technology. Increasing the price of smoking is a well-established way to reduce smoking [47]. Even a returnable deposit, if large enough, might deter some from starting to smoke, since it would require a larger initial outlay. Reduced smoking rates would in turn lead to fewer discarded butts. The health consequences of changing or removing filters from the market altogether are not known. However, the possibilities range from improved population health due to decreased consumption (if smokers were induced to quit by the absence of their preferred cigarettes, and the loss of the psychological “safety” of filters); worse population health (if smokers continued to smoke unfiltered, somewhat more hazardous cigarettes); or unchanged population health (if new products created in response to these regulations replaced filtered cigarettes, or if filters are confirmed to have no appreciable health benefits). New products might include cigarettes with toxins removed in some other way, or the introduction of non-disposable, reusable filters. Under the new FDA regulations that may be authorized by Congress, changes in the tobacco products would need to undergo FDA review.

Second, adoption of these policies would mean no longer allowing the industry to externalize the costs of the cleanup of butt litter. The current industry approach (as with its historical approach to the direct health consequences of smoking) is basically to ‘blame the victim’. In this context, the smoker is the litterer and thus it is his or her responsibility to take care of the butt disposal. However, it is clear that municipalities, businesses, states, voluntary groups, and other external bodies bear the brunt of most butt waste cleanup costs.

Although some aspects of tobacco product policy in the United States are reserved for the Federal government (for example, labeling), others are clearly in the camp of state or local intervention. For example, states are increasingly requiring that cigarettes sold be designed for Reduced Ignition Propensity (RIP), to reduce fire risk. Pollution mitigation fees can be charged at numerous governmental levels. It is clear that under current conditions Federal authority is not required to adopt state or local policies aimed at reducing cigarette litter and waste.

There may be drawbacks or unintended consequences to many the policies to control butt waste. Would biodegradable filters make smoking more acceptable, or allow cigarette companies to tout their products as “green”? Would states or municipalities come to rely on taxes, fines, or fees, and therefore be reluctant to impose new tobacco control laws that might reduce revenue? Would the negative health consequences of banning or changing filters outweigh the behavioral changes anticipated in removing them from the market? Clearly, more research is called for on many of these issues, especially on the behavioral effects on smokers and potential smokers, and on the economic impact of butt waste cleanup.

Acknowledgements

This research was supported a University of California Tobacco Related Disease Research Program IDEA Grant, No. 17IT-0014, and in part by NCI Grant CA-61021. The funding agencies had no role in the conduct of the research or preparation of the manuscript.

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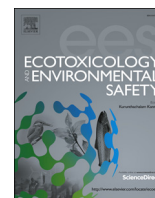
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Contents lists available at ScienceDirect

Ecotoxicology and Environmental Safety

journal homepage: www.elsevier.com/locate/ecoenv

Cigarette butts have adverse effects on initial growth of perennial ryegrass (gramineae: *Lolium perenne* L.) and white clover (leguminosae: *Trifolium repens* L.)

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ARTICLE INFO

Keywords:

Pollution
Cellulose acetate filters
Menthol cigarettes
Tobacco
Plastic debris
Cigarette butts

ABSTRACT

Cigarette filters (butts) are currently the most abundant form of anthropogenic litter on the planet, yet we know very little about their environmental impacts on terrestrial ecosystems, including plant germination and primary production. When discarded, filters contain a myriad of chemicals resulting from smoking tobacco and some still contain unsmoked remnants. A greenhouse experiment was used to assess the impacts of discarded filters of regular or menthol cigarette, either from unsmoked, smoked, or smoked cigarettes with remnant tobacco, on the growth and development of *Lolium perenne* (perennial ryegrass) and *Trifolium repens* (white clover). After 21 days, shoot length and germination success were significantly reduced by exposure to any type of cigarette filter for the grass and clover. Although total grass biomass was not measurably affected, the root biomass and root:shoot ratio were less in the clover when exposed to filters from smoked regular cigarettes and those with remnant tobacco. Cigarette filters caused an increase in chlorophyll-a in clover shoots and an increase in chlorophyll-b in grass shoots. Accordingly, whilst the chlorophyll a:b ratio was increased in the clover exposed to cigarette filters, it was decreased in grass. This study indicates the potential for littered cigarette filters to reduce growth and alter short-term primary productivity of terrestrial plants.

1. Introduction

Since the 1990's cigarette filters (or butts) have maintained their place as the most abundant litter item worldwide, blighting beaches, streets, sidewalks, waterways, and public spaces (Ocean Conservancy, 2019). Globally, the number of smokers is steadily increasing with global population growth (Ng et al., 2014) corresponding to an increase in the number of cigarettes being smoked. Each year, ~4.5 trillion cigarette filters are discarded into the environment (Araújo and Costa, 2019) due to 76%–84% of smokers littering their cigarette filters rather than disposing of them into a bin (Patel et al., 2013; Wilson et al., 2014).

Despite their prevalence as litter, there is still a dearth of information about the environmental impacts of cigarette filters. Most filters are composed of up to 12000 cellulose acetate fibres (Novotny et al., 2009), which persist in the environment for an unknown length of time. Furthermore, when discarded, cigarette filters typically contain leftover, unsmoked tobacco (Slaughter et al., 2011). As such, they present a combination of bio-based plastic litter, tobacco, and a myriad of toxicants including nicotine, formaldehyde, heavy metals and a variety of

polycyclic aromatic hydrocarbons (PAHs) retained in the filter after smoking (Hoffman and Hoffman, 1997; Novotny et al., 2009; Rodgman and Perfetti, 2013). Some cigarettes also contain adjuncts such as cloves or other spices but, most commonly 5-methyl-2-(propan-2-yl)cyclohexan-1-ol is added as flavouring and is available in menthol cigarettes. In aquatic habitats, there is evidence that these compounds can leach into waterways (e.g. Green et al., 2014) where they can cause harm to freshwater fauna, including *Ceriodaphnia dubia* (a water flea) (Micevska et al., 2006) and *Pimephales promelas* (fathead minnow)- (Slaughter et al., 2011), and marine organisms including bacteria (Micevska et al., 2006), *Hediste diversicolor* (polychaete); (Wright et al., 2015), several gastropods (Booth et al., 2015); and *Atherinops affinis* (marine topsmelt) (Slaughter et al., 2011). Interestingly, Slaughter et al. (2011) found that even unsmoked cigarette filters could be toxic to the marine and freshwater fish mentioned above. When in aquatic ecosystems, toxicants can become accessible to organisms depending on their leaching potential. For example, nicotine can be highly soluble in water (16 g L^{-1} ; American Chemical Society, 2018) especially with alkaline conditions and can leach from cigarette filters over time (Selmar et al., 2018).

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<https://doi.org/10.1016/j.ecoenv.2019.109418>

Received 19 April 2019; Received in revised form 1 July 2019; Accepted 3 July 2019

Available online 18 July 2019

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In urbanised terrestrial habitats, such as cities, parks and public green spaces, cigarette filters are commonly littered (Schultz et al., 2013), yet very few studies have quantified the amount of cigarette filter litter in these habitats or the consequent environmental effects. Of these studies, Green et al. (2014) found an average density of cigarette filters of 2.7 m^{-2} (SD = 0.6 m^{-2}) with a maximum of 49 filters m^{-2} in Berlin, Germany. Schultz et al. (2013) found that the rate of littering cigarette filters in the USA depended on the individual's age, distance to disposal sites and the amount of litter present. Studies on the impact of cigarette filter litter on ecosystem functioning in terrestrial habitats are particularly limited, but urban birds (such as house sparrows *Passer domesticus* and house finches *Carpodacus mexicanus*) have been observed incorporating smoked cigarette filters into the lining of nests, potentially reducing nest parasites suggesting increased fitness of the offspring (Suárez-Rodríguez et al., 2013). Follow up studies on *C. mexicanus*, however, indicates that the benefits may be short-lived due to toxic damage to the offspring (Suárez-Rodríguez and Garcia, 2014). In soil ecosystems, the only experiment conducted, to date, found no effects on the growth, feeding and life-cycle of the woodland snail, *Anguispira alternata*, in response to cigarette filter leachate (up to 4 filters L^{-1}), although initial avoidance behaviour was noted (Gill et al., 2018).

Nicotine has been detected in several plant products, including; food crops, teas and spices, and research shows that plants can take up nicotine either from tobacco smoke or from soil littered with commercial tobacco (Selmar et al., 2015). Even just one littered cigarette filter can contaminate plants within 1 m^{-2} with nicotine (Selmar et al., 2018). Despite their prevalence as waste in terrestrial habitats, the effects of littered cigarette filters on plant germination, growth and chlorophyll content remains largely unknown. A recent short term experimental (48 h) exposure to leachate from smoked cigarette filters revealed cytotoxic, genotoxic and mutagenic effects on onion plants, *Allium cepa* (Montalvão et al., 2018) thus indicating the potential for wider effects on plants. Furthermore, there is some evidence that plants can absorb components of cigarette smoke from the air in their tissues (Selmar et al., 2015). Cigarette smoke also contains pollutants including heavy metals (e.g. Chiba and Masironi, 1992) and polycyclic aromatic hydrocarbons (PAHs) (Ding et al., 2005), and cigarette smoke can also decrease the shoot and root length, and alter the chlorophyll content of common wheat, *Triticum vulgare* (Tileklioğlu et al., 1996) and to decrease the number of leaves grown on chickpea, *Cicer arietinum* (Mondal et al., 2014).

Many temperate grassland ecosystems contain members of the gramineae and leguminosae such as the monocotyledon *Lolium perenne* (perennial ryegrass) and dicotyledon *Trifolium repens* (white clover). They are important forage crops in temperate regions and can also be found in many urban green spaces such as parks and are used in landscaping as part of private lawns and around public buildings. Besides being an economically important forage crop as high quality livestock feed (Brock and Hay, 2001), *T. repens* also provides resources for pollinating insects (e.g. Rodet et al., 1998). *Lolium perenne* and *T. repens* are often also grown in combination because of the added value from the atmospheric nitrogen fixation by *T. repens*. It is currently unknown how these plant species respond to littered cigarette filters.

To study potential effects of cigarette filters on the development of two important terrestrial plants, a greenhouse experiment was set up, simulating littered cigarette filters from regular and flavoured tobacco (either as filters from unsmoked, smoked, or smoked cigarettes with remnant tobacco). The following hypotheses were tested: (i) the germination success, growth and chlorophyll content - as a proxy for primary production - of *L. perenne* and *T. repens* is negatively affected by cigarette filters either smoked or unsmoked. (ii) Plants respond in a similar fashion to regular and menthol-flavoured cigarettes, either smoked or unsmoked.

2. Materials and methods

2.1. Preliminary sampling of cigarette filters as litter and rationale for the experiment

In June 2018 the density of littered cigarette filters in urban green spaces in Cambridge, UK was assessed using surveys in three green spaces (Parker's Piece, Jesus Green and Christ Park) in Cambridge, United Kingdom (population: 1.29×10^5 in the 2018 census). At each park, a randomly placed $50 \times 50 \text{ cm}$ quadrat was used to estimate, by counting, the density of cigarette filters, repeated 15 times at each location. The results from this initial survey (section 3.2) provided the rationale for the density of cigarette filters and the length of remnant tobacco used in the experiment.

2.2. Experimental design and setup

A controlled mesocosm experiment was set up in a north-east facing glass greenhouse at Anglia Ruskin University, Cambridge, UK to test the responses of *Lolium perenne* (perennial ryegrass) and *Trifolium repens* (white clover) to filters from regular or flavoured cigarettes. The plants were simultaneously (separately) grown in the greenhouse, but were considered separately, thus the design included the factors "CIGARETTE" with two levels: *Regular* or *Menthol* and "STATE" with three levels: *Unsmoked*, *Smoked* (with no remnant tobacco) or *Smoked with Remnant Tobacco* [SwRT]. A random pack of regular and menthol cigarettes was purchased and a random subsample was smoked using a manual aspirator in a dedicated, ventilated area. All remnant tobacco from filters from the *Smoked* and *Unsmoked* treatments was removed using a pair of scissors and forceps to ensure that only the filter with its paper wrapper were included. The treatment *Smoked with Remnant Tobacco* contained filters containing $\sim 1 \text{ cm}$ of remnant tobacco after smoking. Both experiments (*L. perenne* and *T. repens*) also included a single *Control* treatment, which received a piece of untreated, wooden doweling the same diameter and similar length as the cigarette filters. This takes into account a reduction in available surface area caused by the presence of any of the cigarette filters. In keeping with *a priori* field observations, the CIGARETTE mesocosms received 1 cigarette filter, equalling observed littering of $61 \text{ filters m}^{-2}$ (corresponding to almost half of the upper quartile found in the preliminary survey). The experiment resulted in two separate, asymmetric designs with $n = 5$ replicates for each control and treatment making $N = 35$ replicates (control * 5 replicates plus 2 cigarettes * 3 states * 5 replicates) each for *L. perenne* and *T. repens* (see section 2.4 and Fig. S1 for more detail).

Mesocosms were constructed using plant pots with dimensions $11 \text{ cm height} \times 14 \text{ cm diameter}$ ($\sim 1800 \text{ cm}^3$). A mixture of air-dried (48 h at room temperature), sandy clay loam top soil (Westland, UK) was homogenised by hand in bulk before being added to the pots to reach a volume of $\sim 1200 \text{ cm}^3$, yielding a mean dry bulk density of $\rho^d = 1.03 \pm 0.01 \text{ g cm}^{-3}$. Mesocosms for *L. perenne* received 200 seeds = $\sim 12.1 \times 10^3 \text{ seeds m}^{-2}$ equivalent and those for *T. repens* received 150 seeds = $\sim 6.1 \times 10^3 \text{ seeds m}^{-2}$ equivalent and were distributed equally over the surface area. All mesocosms containing *L. perenne* or *T. repens* were simultaneously placed in a greenhouse and organised in a completely randomised fashion. Moisture content of each mesocosm was kept at 60% water holding capacity throughout the experimental period via gravimetrically monitoring water loss and adding distilled water when necessary. The experiment ran for 21 days from the 10th of July 2018.

2.3. Measurement of biological responses: germination success, plant growth, biomass and chlorophyll content

The number of germinated plants and the length (mm) of shoots was measured throughout the 21 days of the experiment. Shoot length was estimated using a ruler and measuring the length of plants at 5 random

spots in each mesocosm and averaged. On the final day, all mesocosms were destructively sampled, but prior to any other manipulation, the shoots of *L. perenne* or *T. repens* were harvested by hand using a pair of fine secateurs, removing all plant material from the surface. Total fresh above ground plant biomass was recorded and a randomly taken subsample of ~2 g was put aside to determine moisture content gravimetrically after oven-drying at 50°C for 12 h. Another randomly taken subsample was removed for the determination of chlorophyll content. For this, ~0.2 g fresh material was added to separate 15 mL, capped centrifuge tubes and stored at -20°C in the dark until processing (~48 h). Chlorophyll was extracted using 90% acetone for 24 h in the dark at -20°C. Chlorophyll-a and -b were estimated via spectrophotometrically measuring the absorbance at 647 nm and 664 nm (Jeffrey and Humphreys, 1975) and corrected for dry biomass.

Plant roots were carefully removed from the soil matrix by hand and washed by hand to remove any adhering soil particles. Biomass of fresh roots was determined gravimetrically. Roots were then oven-dried at 50°C to determine dry biomass and to determine dry weight root:shoot ratios.

2.4. Statistical data analysis

Using R v 3.5.2 (R Core Team, 2018), all response variables were checked for normality via q-q plots and Shapiro-Wilkinson tests, homoscedasticity was checked via residual plots and the *car* (v3.0-2) package (Fox and Weisberg, 2018) was used for Levene's tests using to ascertain assumptions for ANOVA. Some results did not conform to these assumptions and were transformed (detailed in the statistical results associated with the data). The experimental design had a single control group *Control* (n = 5) for the two orthogonal factors "CIGARETTE" and "STATE" and therefore was asymmetric. All results were thus analysed by using the mean squares from two independent ANOVAs (see Fig. S2, Tables S1a and S1b for detailed example of calculations). Briefly, the procedure involved partitioning of the variance by calculating: (1) a one-way ANOVA with all treatments as separate levels (All levels: a = 7, n = 5, N = 35); and (2) a full-factorial, two-way ANOVA of "CIGARETTE" by "STATE" without the level *Control* (a = 2, b = 3, n = 5, N = 30). The residuals of the 1st ANOVA were used to estimate any differences between the levels within the 2nd ANOVA, allowing the variation associated with *Control* and that of the other treatments to be distinguished ("Control vs. Others"), which is contrasted with one degree of freedom (Underwood, 1997). When a significant effect (at $\alpha = 0.05$) in the "Control vs. Others" contrast was found, a Dunnett's test was used to contrast the *Control* versus each level of the significant term using the *multcomp* (v1.4-6) package. Pairwise comparisons for the factors in the 2nd ANOVA were computed using Tukey HSD tests when the main terms were significant (at $\alpha = 0.05$). Using non-linear least squares (*nls*), plant growth data was analysed assuming a Gompertz model (e.g. Paine et al., 2012):

$$\text{Length} = K \left(\frac{M_0}{K} \right)^{e^{-rt}}$$

With the length (mm) of clover or grass for each treatment over time (*t* in days since sowing) and the three unknown parameters M_0 , *r* and *K* being M_0 = length at *t* = 0 in mm, *r* = the growth rate (day^{-1}), and *K* = the asymptote (mm) respectively, using starting values based on observations of the plotted data.

3. Results

3.1. Preliminary sampling of cigarette filters as litter and rationale for the experiment

The density of cigarette filters ranged from 0 to 128 m^{-2} (median = 16, n = 45). It was observed that 65% of the discarded,

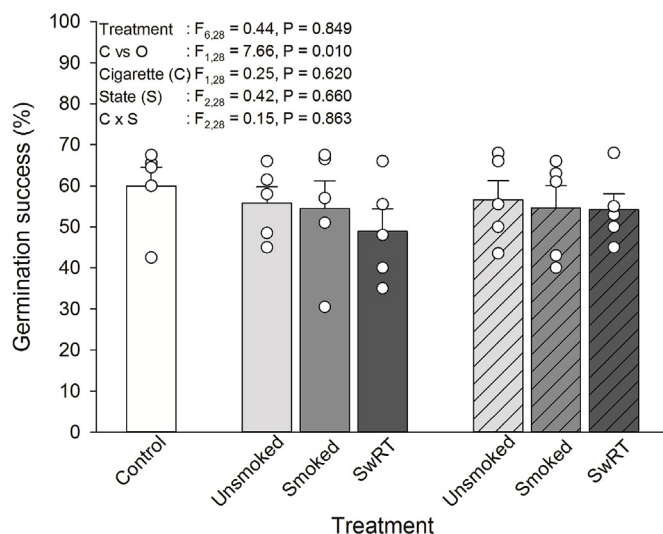


Fig. 1. The germination success of *L. perenne* after 21 days of exposure to either no cigarette filters (*Control*), or with either regular (without diagonal lines) or menthol (with diagonal lines) filters that had either not been smoked (*Unsmoked*) or had been smoked (*Smoked*) or smoked and still have remnant tobacco remaining (*SwRT*).

smoked cigarette filters still contained remnant tobacco. Therefore randomly selected cigarette filters that contained remnant tobacco were measured in the green spaces in Cambridge to obtain the average length of tobacco from the cigarette remaining, which was on average $9.9 \pm 0.8 \text{ mm}$ (mean \pm SEM, N = 50).

3.2. Germination success and above ground growth of *L. perenne*

After 21 days, on average $55 \pm 23\%$ (mean \pm SEM, N = 35) of *L. perenne* seeds had germinated, which ranged from 49 ± 6 (*Regular SwRT*) to $60 \pm 5\%$ (*Control*) treatment (Fig. 1). There was a significant decrease (~10%) in germination success of *L. perenne* when exposed to any type of cigarette filter (*Control* vs Others: $F_{1,28} = 7.56$, $P = 0.001$, Table S2).

The shoots of *L. perenne* after 21 days were significantly longer in the *Control* compared to all of the other treatments (*Control* vs Others: $F_{1,28} = 70.3$, $P < 0.001$, Table S2), with an average length ranging between 159 ± 3 (*Menthol SwRT*) and $187 \pm 5 \text{ mm}$ (*Control*) at the end of the experiment (Fig. 2). Shoot length was ~13% less when exposed to any of the cigarette filters compared to the *Control*. This is reflected in the estimated coefficients (Table S3a) of the Gompertz growth model, with the estimated *r* (day^{-1}) and *K* (mm) being ~6% and ~17% respectively greater in the *Control* treatments compared to the others, but there was no statistically significant difference between the treatments (Table S3a).

3.2.1. Above- and belowground biomass, and chlorophyll content of *L. perenne*

At the end of the experiment the biomass of *L. perenne* was not measurably affected by cigarette filters. The yield of dry shoot biomass was on average $31 \pm 1 \text{ g m}^{-2}$ (Fig. S3a) and the dry root biomass was on average $14 \pm 0 \text{ g m}^{-2}$ (Fig. S3b). The total above- and below-ground dry plant biomass was on average $41 \pm 1 \text{ g m}^{-2}$ (Fig. S3c). The dry biomass root:shoot ratio for *L. perenne* was on average $0.46 \pm 0.02 \text{ g g}^{-1}$ (Fig. S3d) with no significant difference (Table S2) between the treatments.

Shoot chlorophyll-a and -b contents were also determined after 21 days of growth. The average chlorophyll-a content was $496 \pm 22 \mu\text{g g}^{-1}$ dry biomass (Fig. 3a), with *L. perenne* not significantly affected by any of the treatments (Table S2). Chlorophyll-b,

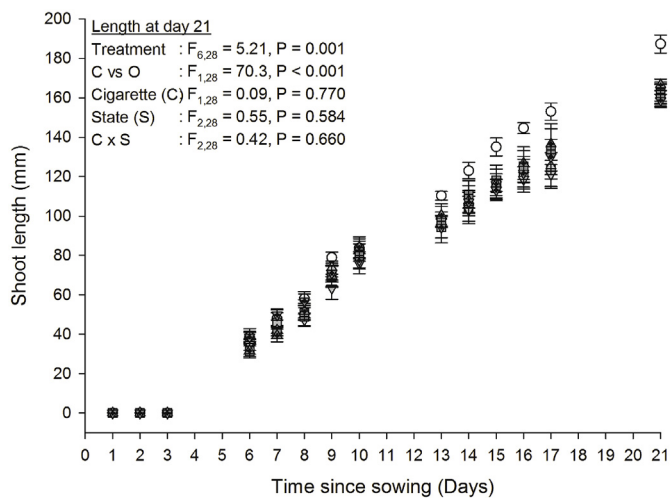


Fig. 2. The shoot growth over 21 days of *L. perenne* exposure to either no cigarette filters (Control, white circles), or with either regular (light grey) or menthol (dark grey) filters that had either not been smoked (Unsmoked, squares) or had been smoked (Smoked, triangles) or smoked and still have remnant tobacco remaining (SwRT, upside down triangles).

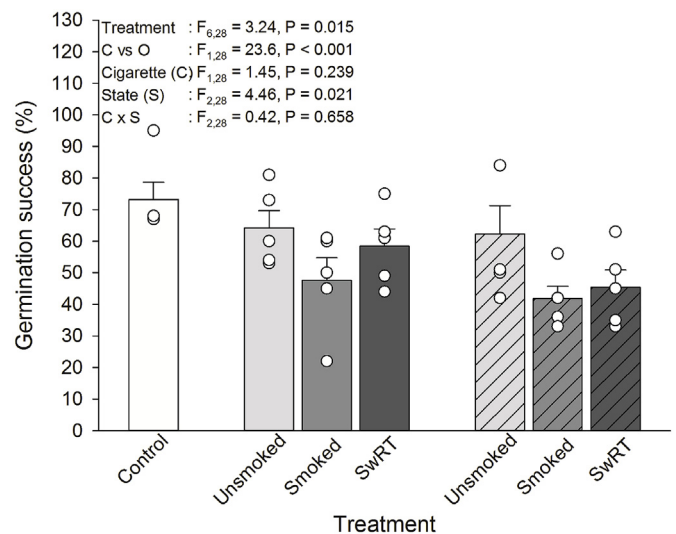


Fig. 4. The germination success of *T. repens* after 21 days of exposure to either no cigarette filters (Control), or with either regular (without diagonal lines) or menthol (with diagonal lines) filters that had either not been smoked (Unsmoked) or had been smoked (Smoked) or smoked and still have remnant tobacco remaining (SwRT).

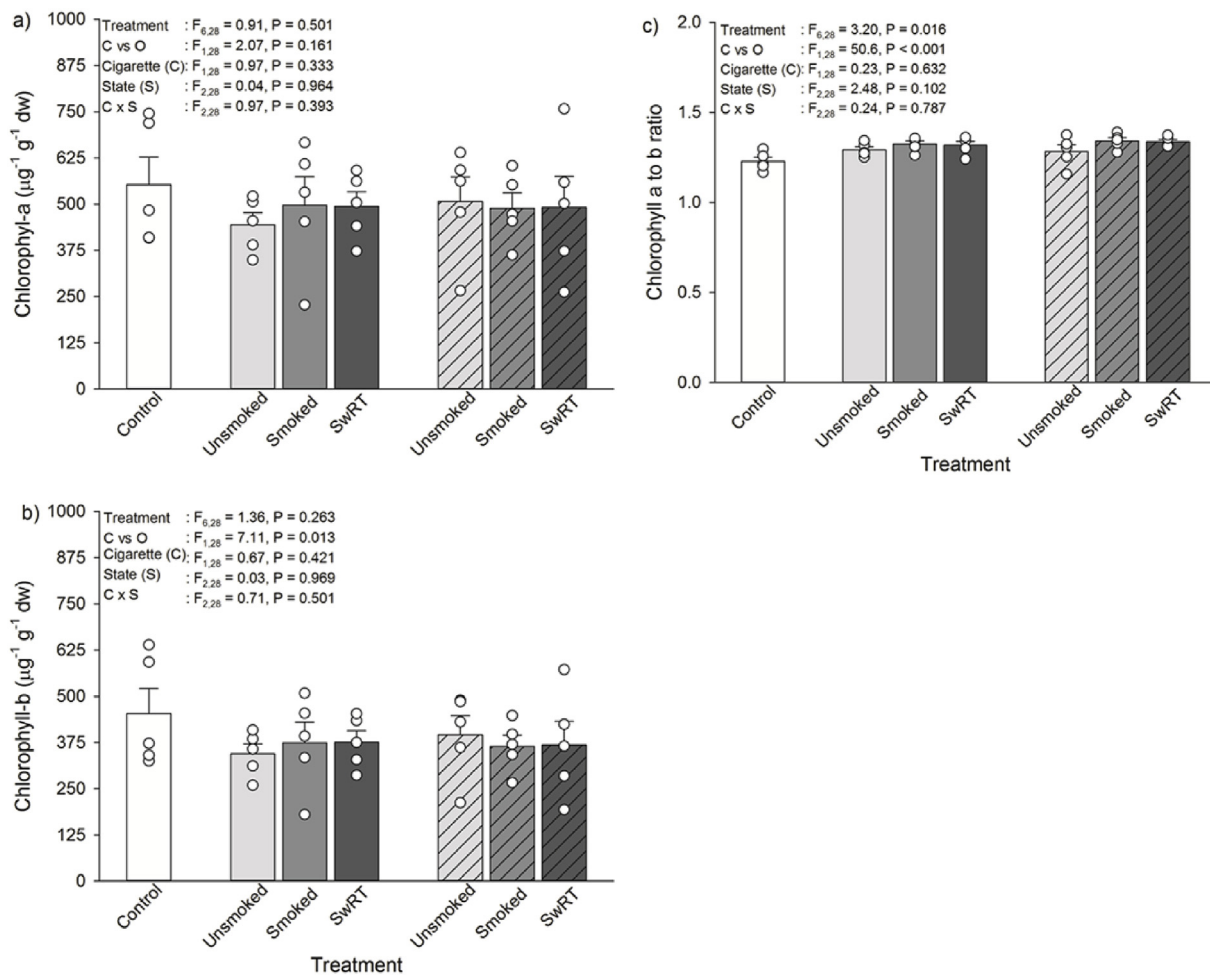


Fig. 3. Chlorophyll a (a) and b (b) concentrations ($\mu\text{g}^{-1} \text{g}^{-1} \text{dw}$) and chlorophyll a to b ratios (c) of *L. perenne* after 21 days of exposure to either no cigarette filters (Control), or with either regular (without diagonal lines) or menthol (with diagonal lines) filters that had either not been smoked (Unsmoked) or had been smoked (Smoked) or smoked and still have remnant tobacco remaining (SwRT).

however, ranged between 344 ± 27 (Regular Unsmoked) and $454 \pm 67 \mu\text{g g}^{-1}$ dry biomass (Control) (Fig. 3b), was significantly different between the Control and the other treatments (Control vs. Other: $F_{1,28} = 9.89$, $P = 0.004$). Chlorophyll-b in shoots of the Control was $\sim 18\%$ greater than the other treatments. The chlorophyll a:b ratio within *L. perenne* shoots ranged between 1.23 ± 0.02 (Control) and 1.34 ± 0.04 (Menthol Smoked) (Fig. 3c) and was also significantly different between the Control and treatments (Control vs Others: $F = 50.6$, $P < 0.001$, Table S2), with all smoked or remnant cigarette treatments having $\sim 7\%$ higher chlorophyll a:b ratios than that found in the controls.

3.2.2. Germination success and above ground growth of *T. repens*

Of the *T. repens* seeds sown, overall $56 \pm 3\%$ (mean \pm SEM, $N = 35$) germinated, ranging from 42 ± 4 (Menthol Smoked) to $73 \pm 5\%$ (Control) (Fig. 4) with the Control treatments having significantly better germination success compared to when cigarette filters were present (Control vs Others: $F_{1,28} = 23.65$, $P < 0.001$). Approximately 27% more *T. repens* seeds germinated in the Control compared to the others. The type of cigarette filter added to the soil was also significantly different (STATE: $F_{2,28} = 4.46$, $P = 0.021$), especially between filters from Smoked or Unsmoked cigarettes ($P = 0.018$, Table S2), with the Unsmoked having a $\sim 29\%$ better germination success for *T. repens*.

The shoots in the Control were significantly longer than those in all of the other treatments (Control vs Others: $F_{1,28} = 69.1$, $P < 0.001$, Table S2), with an average length ranging between 46 ± 5 (Menthol SwRT) and 67 ± 4 mm (Control) at the end of the experiment (Fig. 5). *T. repens* shoots were $\sim 28\%$ longer in the Control compared to the other treatments. This is reflected in the estimated coefficients (Table S3b) of the Gompertz growth model, with the estimated r (day^{-1}) and K (mm) being $\sim 1\%$ and $\sim 26\%$ respectively greater in the Control treatments compared to the others, but there were no significant differences between the coefficients (Table S3b).

3.2.3. Above- and belowground biomass, and chlorophyll content of *T. repens*

There was no significant difference (Table S2) between the treatments for dry shoot biomass of *T. repens* (Fig. 6a) which was on average $18 \pm 1 \text{ g m}^{-2}$. The dry biomass of roots was, however, significantly different (Table S2) between the Control and the cigarette filter treatments (Control vs Others: $F_{1,28} = 10.85$, $P = 0.003$), ranging between

2 ± 1 and $6 \pm 1 \text{ g m}^{-2}$ (Fig. 6b), with the Control having $\sim 57\%$ more dry root biomass than the other treatments. The total above- and belowground dry above- and belowground biomass did not significantly differ (Table S2) and was on average $21 \pm 1 \text{ g m}^{-2}$ (Fig. 6c). The root:shoot ratio of dry *T. repens* biomass was significantly different between the Control and the cigarette filter treatments (Control vs Others: $F_{1,28} = 24.57$, $P < 0.001$), ranging between 0.12 ± 0.03 (Regular SwRT) and $0.36 \pm 0.14 \text{ g g}^{-1}$ (Control) (Fig. 6d).

The chlorophyll-a content of *T. repens* shoots ranged between 419.45 ± 72.54 (Control) and 578.67 ± 32.07 (Remnant menthol) $\mu\text{g g}^{-1}$ dry biomass (Fig. 7a), and there was a significant difference between the plants grown in the Control compared to the treatments (Control vs Others: $F_{1,28} = 4.64$, $P = 0.040$, Table S2). Chlorophyll-b content, on average $352.65 \pm 22.96 \mu\text{g g}^{-1}$ dry biomass (Fig. 7b), however, was not significantly different between any of the treatments (Table S2). The ratio of chlorophyll-a and -b ranged between 1.41 ± 0.01 (Smoked Menthol) and 1.86 ± 0.00 (Control) (Fig. 7c) and was significantly different between the Control and treatments (Control vs Others: $F = 56.6$, $P < 0.001$, Treatment: $F = 3.2$, $P = 0.016$, Table S2), with all remnant or smoked cigarette treatments having $\sim 20\%$ lower chlorophyll a:b ratios than that found in the controls.

4. Discussion

The germination success and initial growth (shoot length during 21 days) of two ecologically and agronomically important plant species was reduced by exposure to smoked and unsmoked cigarette filters. In particular, the germination of *Trifolium repens* was more strongly reduced by smoked cigarette filters and those containing remnant tobacco than by unsmoked filters. This is concerning, because, early detrimental effects from stress on plant development can be sustained over longer terms. An early stage reduction in plant height can reduce the amount of light that is intercepted by the leaves and, therefore, can lead to economic loss by reducing the final biomass and yield of crops (Mathan et al., 2016). *T. repens* also experienced a significant decrease in root biomass in response to the presence of cigarette filters. A reduction in root biomass could jeopardise the ability of the plant to gain water and nutrients from the soil. Root reduction has occurred in response to other environmental stressors such as drought (Zhou et al., 2018). White clover is ecologically important for pollinators (e.g. Rodet et al., 1998) and nitrogen fixation (e.g. Griffith et al., 2000), and economically important as it provides biomass for agricultural animal feed (Abberton and Marshall, 2010). Further research is needed to ascertain whether *L. perenne* and *T. repens* could recover from the impacts of cigarette butts over the longer term and whether different species of plant may respond and recover at different rates to this stressor.

Plants can take up pollutants actively such as heavy metals (Tangahu et al., 2011), but also passively such as alkaloids (Yahyazadeh et al., 2017), from the soil substrate and they can accumulate these pollutants into their biomass. Lambrechts et al. (2014) found that *T. repens* and *L. perenne* responded with reduced rooting depth and altered root morphology when exposed to Cd or Zn, whereas the aboveground biomass appeared to be unaffected. They found that the two species also responded differently in translocating the pollutants to different parts of the plant, with *L. perenne* accumulating heavy metals in the root biomass whilst *T. repens* was unable to restrict heavy metal translocation. Similarly, Binet, 2000 found a significant reduction in root and shoot biomass of *L. perenne* when exposed to soil contaminated with PAH.

In the current study, chlorophyll a content increased in *T. repens* and chlorophyll b content decreased in *L. perenne* in response to exposure to cigarette filters. Photosynthetic pigments, such as chlorophylls, play vital roles in harvesting light and changes in their contents are commonly used as biomarkers to indicate stress in plants (Pavlović et al., 2014). For example, chlorophyll a content sometimes increases in plants in response to drought and could be a defensive response to reduce the harmful effects of such environmental stressors (Farooq et al.,

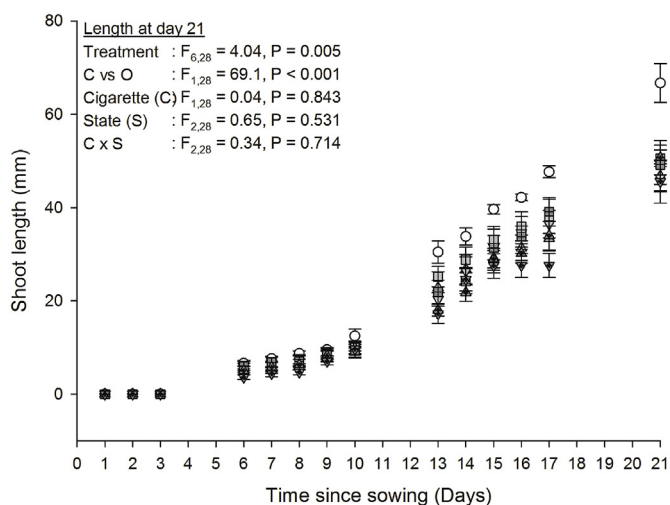


Fig. 5. The shoot growth over 21 days of *T. repens* exposure to either no cigarette filters (Control, white circles), or with either regular (light grey) or menthol (dark grey) filters that had either not been smoked (Unsmoked, squares) or had been smoked (Smoked, triangles) or smoked and still have remnant tobacco remaining (SwRT, upside down triangles).

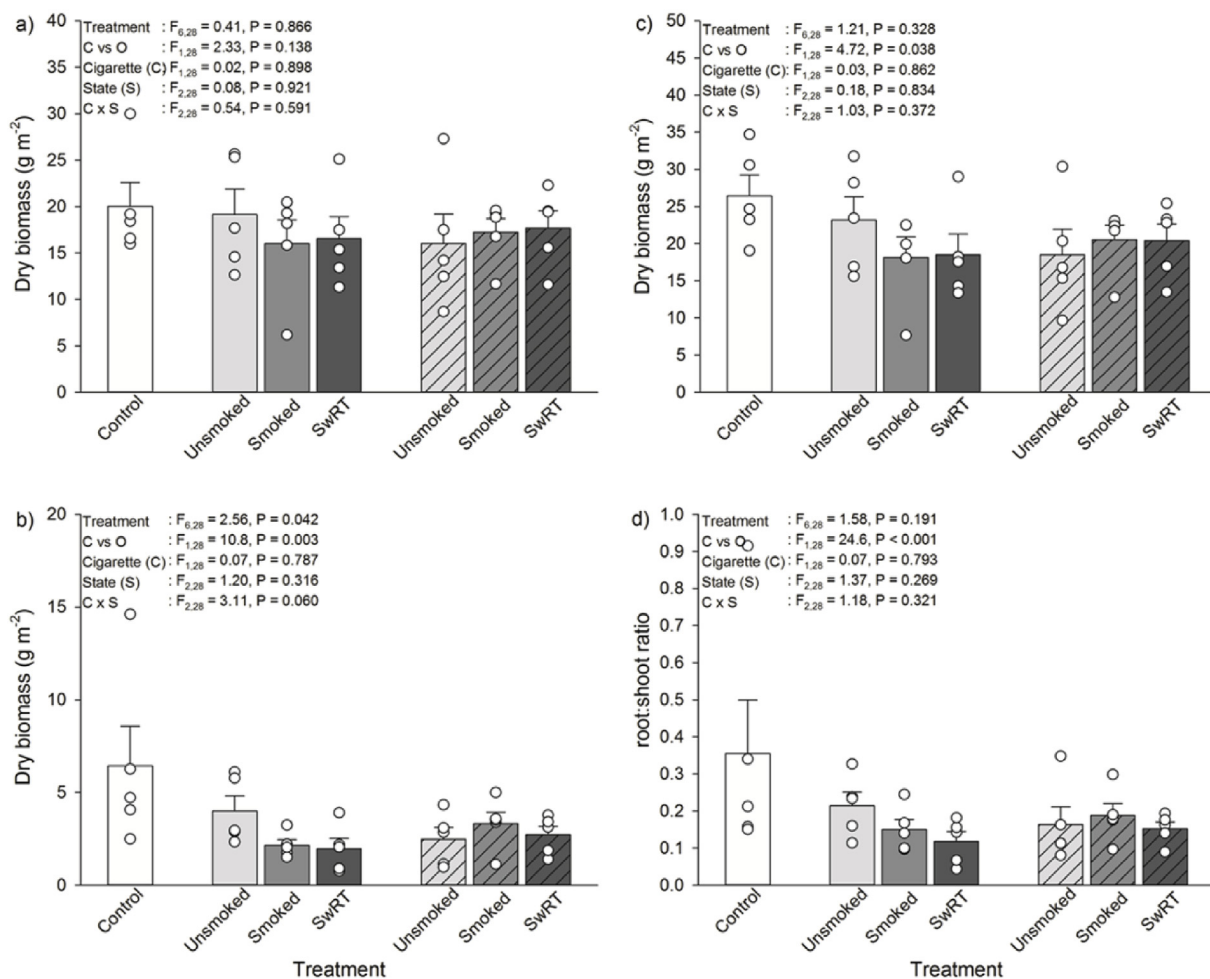


Fig. 6. The dry shoot (a), root (b) and combined (shoot plus root) (c) biomass and the dry root to shoot ratio (d) for *T. repens* after 21 days of exposure to either no cigarette filters (Control), or with either regular (without diagonal lines) or menthol (with diagonal lines) filters that had either not been smoked (Unsmoked) or had been smoked (Smoked) or smoked and still have remnant tobacco remaining (SwRT).

2009). On the other hand, chlorophyll *a* and *b* content has been found to decrease in other plants such as cotton, *Gossypium hirsutum*, in response to drought (Mssacci et al., 2008) and in grass, *Sorghum* spp. (Sayyad-Amin et al., 2016) and rosy periwinkle, *Catharanthus roseus* (Jaleel et al., 2009) in response to increased salinity. Similarly, in the current study chlorophyll *a/b* ratios were also altered by cigarette butts in both plants. These ratios are strongly linked to photosynthetic activity and changes can indicate stress in plants (Iori et al., 2017; Zengin and Munzuroglu, 2005).

The effects on shoot length, root biomass and chlorophyll content did not differ depending on whether the cigarette filters were unsmoked, smoked or contained remnant tobacco. This suggests that the bio-based plastic filter itself, rather than the tobacco-related contaminants in the filter after smoking, may contribute to the observed responses. Nevertheless, the majority of cigarette filters, and those used in the current study, are manufactured of cellulose acetate fibres (Register, 2000). Cellulose acetate is a bio-based plastic which has been found to have detrimental effects on plants (including crimson clover, *Trifolium incarnatum*; Maramorosch, 1951, barley, *Hordeum vulgare*; Chada, 1962, cucumber, *Cucumis sativus*; Krizek and Mirecki, 2004, broad bean, *Vicia faba* and alfalfa, *Medicago sativa*; Kieckhefer and Medler, 1960). For example, *C. sativus* grown on cellulose acetate sheets were 25% shorter and had ~50% less shoot and root biomass than those grown on sheets constructed of polytetrafluoroethylene (Krizek and Mirecki, 2004). Furthermore, cellulose acetate cages resulted in mortality of *V. faba* and *M. sativa* after just a few weeks (Kieckhefer and

Medler, 1960). These effects were attributed to the presence of the plasticiser, diethyl phthalate in cellulose acetate. Diethyl phthalate can be found in cellulose acetate cigarette filters that are either unsmoked, smoked or smoked with remnant tobacco (Shevchenko, 2012). In isolation, it can be toxic to plants (Cheng, 2012), but also animals (Liu et al., 2009). Diethyl phthalate is slightly water soluble (1 g L⁻¹ at 25°C; Yalkowsky and Dannenfels, 1992), therefore leaching of this plasticiser could account for the effects on *T. repens* and *L. perenne* observed in the current study. This is, however, only one of many chemicals and toxins present in cigarette filters which may account for the reduction in germination and growth, additional research testing these in isolation would allow a more mechanistic understanding of these effects. It is possible that other potentially toxic substances associated with smoked filters had not leached from the filters into the soil during the 21 days of this study, therefore the immediate (short-term) responses observed may not be attributable to tobacco-related contaminants. Longer-term exposure, promoting further leaching of contaminants, may have a stronger effect on soil flora and fauna.

Very few peer-reviewed studies have assessed the decomposition of cigarette filters under natural conditions, however Bonanomi et al. (2015) found no evidence of decomposition of cellulose acetate filters in soils after 2 years, regardless of environmental conditions (e.g. soil type, moisture, temperature). More recently, Joly and Coulis (2018) compared the decomposition of cellulose acetate filters with recently developed cellulose filters and found that, if discarded onto soil, cellulose acetate cigarette filters will take approximately 14 years to

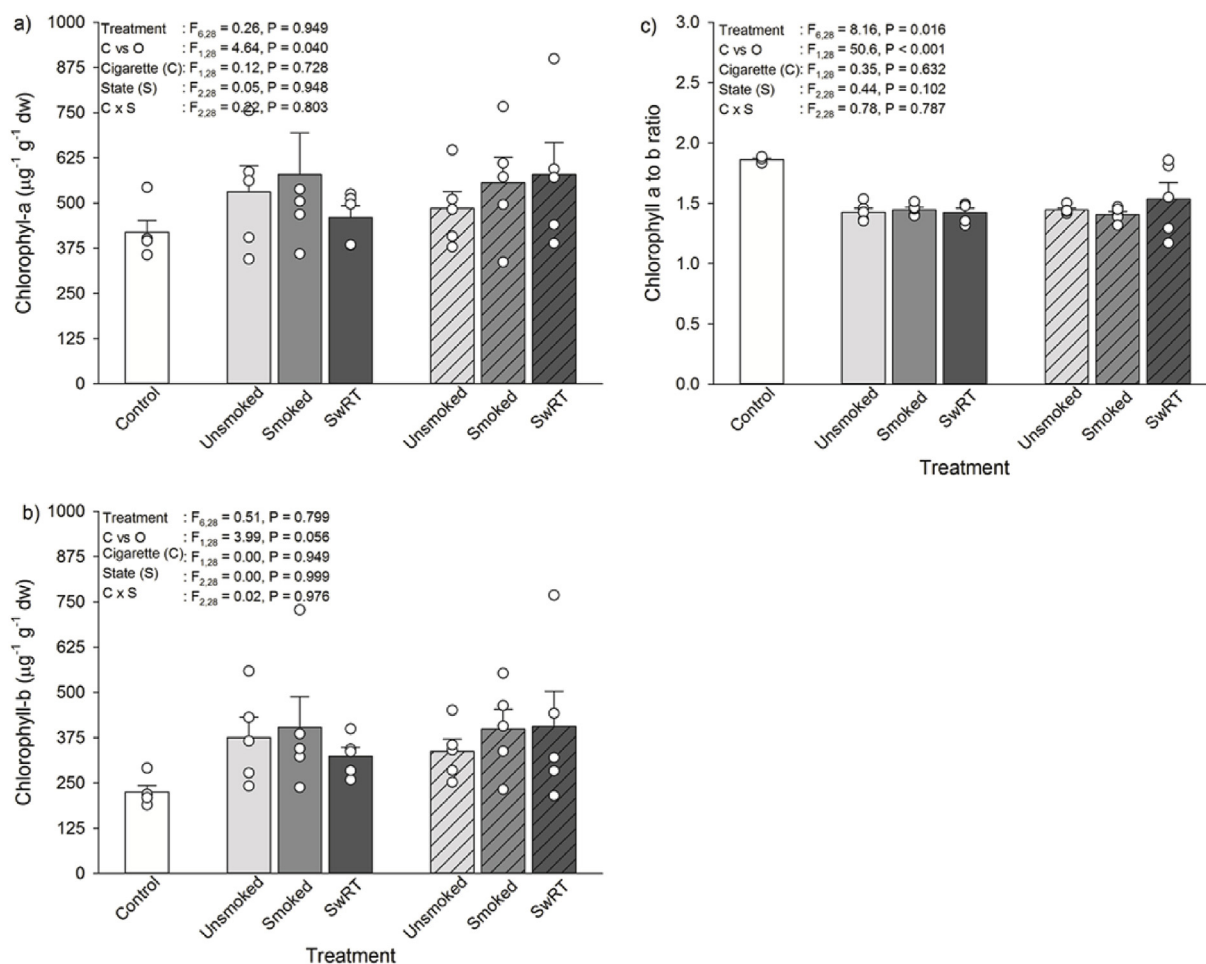


Fig. 7. Chlorophyll a (a) and b (b) concentrations ($\mu\text{g}^{-1} \text{g}^{-1} \text{dry shoot biomass}$) and chlorophyll a to b ratios (c) of *T. repens* after 21 days of exposure to either no cigarette filters (Control), or with either regular (without diagonal lines) or menthol (with diagonal lines) filters that had either not been smoked (Unsmoked) or had been smoked (Smoked) or smoked and still have remnant tobacco remaining (SwRT).

decompose (compared with 7 years in a compost heap), whereas cellulose filters will take 13 years to decompose, six times longer than in a compost heap. It is clear, therefore, that neither cellulose acetate nor cellulose cigarette filters degrade quickly enough to avoid potential ecological damage.

There is now evidence that every aspect of smoking cigarettes, including the smoke (Tileklioğlu et al., 1996), the tobacco (Mondal et al., 2014), the leachate alone (Montalvão et al., 2018) and the discarded filter with associated leachate (current study), may affect the health and productivity of plants. It has been observed by Patel et al. (2013) and Wilson et al. (2014) that the majority of consumers of cigarettes in cities litter their used cigarette filters rather than dispose of them in bins. Interviews conducted by Rath et al. (2012) revealed that this may be due to smokers not viewing cigarette filters as litter. There is an urgent need, therefore, to raise awareness about the fact that, even if biodegradable, cigarette filters can persist in the environment for years, and possibly decades, and that during this time they may cause harmful ecological effects by decreasing the growth and biomass of economically important primary producers with potential cascading effects on ecosystems.

Author contributions

DSG and BB designed the experiment and wrote the initial manuscript, TS and JDSC carried out laboratory work and contributed to the final manuscript.

Acknowledgements

Thank you to Nuria Casado Coy, Leon Stone and Jackie Bodimead for assisting with laboratory work, to the Research and Innovation Development Office at Anglia Ruskin University for funding a Summer research assistant and to Lithgow Public Library, Australia for the use of their facilities.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ecoenv.2019.109418>.

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Watershed Stewardship Program

Spring 2013

Volume 10 Issue 2

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Eco-Logical...

Tips to Reducing Your Footprint On the Road



The next edition of *Eco-logical... Tips To Reduce Your Footprint* will highlight the importance of ensuring cigarette filters and other tobacco-related products are kept out of the environment.

Studies have shown that the chemicals remaining in used cigarette butts, along with the bits of tobacco still attached, can have detrimental effects on aquatic life and water quality.

When littered, cigarette butts are inevitably washed into the storm drains that lead to streams, and eventually into our drinking water supply. It happens every day. Some estimates show cigarette butts are littered about eight million times every minute worldwide. This number, coupled with the fifteen years it takes the typical cigarette butt to degrade in the environment, makes the accumulation probability staggering. Cigarette butts are the most common form of litter in the United States, stacking up as 38% of all roadside litter collected during clean-ups.

Cigarette Butts as Litter, Toxic as well as Ugly, (page 2) gives insight to some of the research conducted about the toxic effects of tobacco litter.

Tips to Reduce Your Footprint on the Road, the third release in the Eco-Logical series, is coming soon. To view this and past videos, visit the Cobb County Watershed Stewardship website at www.cobbstreams.org



38% of all roadside litter is tobacco-related products



If you note a cigarette butt litter issue, encourage your place of employment and/or the businesses you patronize to provide an ash receptacle.

CIGARETTE BUTTS AS LITTER— TOXIC AS WELL AS UGLY

By Kathleen M. Register

This study first appeared in the publication "Underwater Naturalist", *Bulletin of the American Littoral Society*, Volume 25, Number 2, August 2000

Beyond being unsightly, does cigarette litter present a threat to organisms? This article summarizes research conducted to determine if the compounds in discarded cigarette butts (the filters and remnant tobacco) are biohazards to the water flea (*Daphnia magna*). Short-term bioassays (48 hours) using the water flea as the test organism were conducted. The results indicate that the chemicals released into freshwater environments from cigarette butts are lethal to *Daphnia* at concentrations of 0.125 cigarette butts per liter (one butt per two gallons of water). Smokers discard billions of cigarette butts yearly, tossing many directly into the environment. Cigarette butts accumulate outside of buildings, on parking lots and streets where they can be transported through storm drains to streams, rivers, and beaches.

Some background on cigarettes

Ninety-five percent of cigarette filters are made of cellulose acetate, a plastic slow to degrade. Cellulose acetate fibers are thinner than sewing thread, white, and packed tightly together to create a filter; they can look like cotton. Cigarette filters are specifically designed to absorb vapors and to accumulate particulate smoke components. Tobacco leaves contain several alkaloids, including the highly toxic alkaloid nicotine. Nicotine is a powerful insecticide and among the deadliest of all plant products in its pure form. Nicotine is a colorless liquid, highly soluble in water, and readily absorbed through the skin in its pure form. Potentially hundreds of additives are mixed with tobacco during the manufacturing process. The complete list of 1,400 potential tobacco additives, which include sweeteners and flavors such as cocoa, rum, licorice, sugar, and fruit juices is considered a trade secret. Since tobacco is not classified as a food or drug, there are no legal maximums on agricultural chemicals or chemical additives cigarettes may contain.

Cigarette butts accumulate in the environment due to the popularity of plastic cigarette filters and the habit of some to "toss their butt" rather than use ashtrays. Prior to 1954, most cigarettes were non-filtered. In the mid-1950s, sales of filtered cigarettes increased dramatically as the cause-effect relationship between smoking and cancer was reported extensively in the press. The recent bans on indoor smoking have also appeared to cause a shift in cigarette butt deposition. Circumstantial evidence indicates that more cigarette butts are accumulating outside of buildings due to the popularity of indoor smoking bans.

How many discarded cigarette butts are there? Trillions. Global tobacco consumption has more than doubled in the last 30 years, and world cigarette production reached a record high in 1997 according to the US Department of Agriculture (USDA).

The USDA estimated that in 1998, 470 billion cigarettes were consumed in the US; world cigarette production was 5.608 trillion. The World Health Organization estimates that 1.1 billion people in the world smoke—that is one third of all people on earth over the age of 15.



The 470 billion cigarettes smoked in the United States in 1998 translates to a total of 176,250,000 pounds of discarded butts in one year in the United States alone. The filters from 5.608 trillion cigarettes (approximate world production) would weigh more than 2.1 billion pounds.

The filters on one pack of 20 cigarettes weigh 0.12 ounces (with no tobacco attached) and displace a volume of 10 ml. With annual worldwide production of cigarettes at 5.608 trillion, the potential weight and volume of cigarette butts becomes enormous. Similarly, cigarette butts take up a large volume of space. If one person smokes a pack and a half a day, he will consume more than 10,000 cigarettes in a year. This number of cigarette butts (filters only—not including remnant tobacco) will fill a volume of five liters. Worldwide annual consumption of cigarettes creates enough cigarette butt waste to fill more than 2,800,000,000 liters.

Number of Filters

There is one measure as to how many cigarette butts are finding their way into streams, rivers, and coastal environments. The International Coastal Cleanup Day, organized annually by the Center for Marine Conservation, involves more than 500,000 volunteers picking up debris from beaches, rivers, and streams around the world.

Volunteers complete Marine Debris Data Cards indicating the quantity and type of litter they pick up. Cigarette butts were the most common debris item collected during the international cleanup, numbering 1,616,841 in 1998. Cigarette butts have topped the list in all CMC International Coastal Cleanups since they were added to the Data Cards as a separate item in 1990.

Because of the vast inflow of cigarette butts into the environment, experiments were conducted to determine if cigarette butts as litter present an environmental problem beyond aesthetics and have a measurable toxic effect when they enter the aquatic environment.

A series of bioassays (tests which use the response of a living organism to determine the effective level of a chemical in the environment) were conducted. One of the organisms most studied in aquatic bioassays is the planktonic animal *Daphnia magna*, often called a water flea. In aquatic ecosystems, water fleas occupy a critical position as they transfer energy and organic matter from primary producers (algae) to higher consumers such as fishes. Water fleas are small transparent crustaceans, have one central black compound eye, and swim in jerky motions. They feed by rhythmically beating their legs, collecting algae or bacteria on the filter-like bristles on their thoracic legs, and passing the food toward their mouths.



Water Flea, *Daphnia magna*

The Experiments

The large number of chemicals in used cigarette filters precluded toxicity testing of each chemical. Thus, a test that can estimate aquatic toxicity from the composite of chemicals and compounds found in cigarette butts was used. Using the US Environmental Protection Agency's 1996 "Aquatic invertebrate acute toxicity test for freshwater daphnids" standardized toxicology protocols and procedures, water fleas were introduced to petri dishes filled with dilution water and the test solution. For these experiments, the test solution was made by soaking the components of cigarette butts (remnant tobacco or the cellulose-acetate filters) in distilled, deionized water, and allowing the chemicals in the butts to leach into the water. Water fleas in the petri dishes were observed at 24 and 48 hours. In addition to death, any abnormal behavior or appearance was also recorded.

Experiment A - Used filters. To establish if the chemicals in used cigarette filters produce death in *Daphnia* after exposure to a specific concentration for a specified period of time. Remnant tobacco was removed from cigarette butts for this test. Filters from two cigarette butts were soaked in 500 ml of distilled, deionized water for one hour at room temperature.

Experiment B - Remnant tobacco. To establish if the chemicals in the tobacco found in smoked, discarded cigarette butts produce death in *Daphnia* after exposure to a specific concentration for a specified period of time. Remnant tobacco (totaling 28 mm) from two cigarette butts was soaked in 500 ml of water for one hour at room temperature.

Experiment C - New, unused filters. To establish if the chemicals in new, unused cigarette filters produce death in *Daphnia* after exposure to a specific concentration for a specified period of time. No tobacco was used in Experiment C. *Daphnia* were exposed to the chemicals that were leached out of new, unused filters to determine if any of the compounds in new filters were toxic to *Daphnia*. New filters were soaked in distilled, deionized water for one hour at room temperature.

Experiment D - Cigarette butts' effects on the pH of freshwater. To determine if the presence of cigarette butts in freshwater changes the pH of the water. pH is an important factor to aquatic animals, and can affect the toxicity of pollutants. For this experiment, one cigarette butt (the filter plus 28 mm of remnant tobacco) was soaked for one hour in 100 ml of spring water at room temperature. The pH of the water was measured before and after the one-hour soak using a Hach brand pH tester that had been calibrated just prior to the test.

Results

Experiment A (filter only). In this "filter only" experiment, 100% of the animals died after 48 hours in the concentrations that were equivalent to the chemicals found in two or more used cigarette filters per liter. In the 25% dilution, equivalent to one cigarette filter per liter of water, 20% of the Daphnia died within 48 hours.

Experiment B (remnant tobacco only). In this "tobacco only" experiment, 100% of the animals died after 48 hours in the concentrations that were equivalent to the remnant tobacco from 0.5 or more cigarette butts per liter. In the solution that represented the remnant tobacco from 0.25 cigarette butts per liter, 80% of the animals were dead after 48 hours. In the most dilute solution, representing 0.125 remnant tobacco cigarette butts per liter, 15% of the Daphnia died in the testing period.

Experiment C (new filters). The survival rates of the water fleas after 48 hours of emersion were poorest in the solutions with the higher concentrations of filters. But even at the highest concentrations of 16 new cigarette filters per liter of water, death rates were less than 50 percent. Findings in control animals. At the conclusion of Experiments A, B and C, all water fleas in the control groups were alive, maintained a vigorous swimming pattern, and did not whirl or accumulate a dark substance on their swimming hairs.

Experiment D (effects of cigarette butts on pH). The pH of the tested water was 6.6 before cigarette butts were added, and remained 6.6 after cigarette butts soaked in the water for one hour. The presence of cigarette butts did not change the pH of the water.

Conclusions

Cigarette butts are the most common type of litter on earth. Collected, they weigh in the millions of pounds. The toxic chemicals absorbed by cigarettes' cellulose acetate filters and found in butts' remnant tobacco, are quickly leached from the butts by water. The evidence indicates that the toxic chemicals leached from discarded cigarette butts present a biohazard to the water flea at concentrations of more than 0.125 butts per liter, or about one butt per two gallons of water. The leachate from the remnant tobacco portion of a cigarette butt is deadlier at smaller concentrations than are the chemicals that leach out of the filter portion of a butt.

"...toxic chemicals leached from discarded cigarette butts present a biohazard..."



Permission was granted to reprint this article with credit given to the author, Kathleen M. Register, and to "Underwater Naturalist, Bulletin of the American Littoral Society."

To read the full article, visit www.longwood.edu/cleanva/ciglitterarticle.htm

Volunteers Recognized at 2013 Watershed Stewardship Fair

Each year, the Watershed Stewardship Program hosts a special meeting to recognize the efforts of our volunteers. On February 26, three awards were presented to volunteers for their ongoing and consistent service in the community.

Lasster High School is our "School of the Year"

In addition to monitoring Rubes Creek since October 2010, students and teachers at Lassiter High have worked to enhance their local community by participating in privet pulls, stream clean ups, and in-class lessons.

Simon Locke was named "Volunteer of the Year"

Simon started monitoring his site on Butler Creek in 2009. He has obtained chemical, biological, and visual training and has consistently submitted data. He recently helped locate a sewer spill in his area, ensuring the problem was reported for repair.

The David Zandstra Group (Sharon & Ric Donato and David Zandstra) were named "Group of the Year"

Sharon, Ric, and David monitor the chemical and bacterial parameters of their site in the Rubes Watershed. Ric and Sharon also participate in our frog monitoring program, submitting weekly frog call observations.

**Congratulations to this year's recipients!
We appreciate your hard work.**

Our Local Native Rabbits



Eastern Cottontail

The eastern cottontail is the most common rabbit in Georgia - occurring throughout the entire state. It has dense brown to gray fur on its back, a white underside, a white (or cotton) tail, a white spot on its forehead, the nape of the neck is rusty in color, and the feet are whitish. From head to tail, adults measure 14-17 inches and weigh 2-4 pounds.

Cottontails breed from February to September. 80% of the young are born from April to July. Males are polygamous (i.e., have more than one mate at a time). Cottontails are very productive having 3-7 litters per year with 4-7 young offspring per litter. Their gestation period is 25-30 days. Young can start eating vegetation after 8 days and are weaned from their mother after 14 days.

The eastern cottontail is most active from dusk till dawn. Their home ranges cover 4-13 acres. Research has shown that cottontails use a variety of habitat types including crop fields, pastures, and briar and shrub thickets. Brush and briar thickets provide important cover from predators. Annual mortality rates average about 80% per year. Mammalian predators (coyotes, bobcats, foxes, etc.) account for the majority (55%) of cottontails mortality. Avian predators (owls and hawks) are second, at 25%. Most mortality of cottontails occurs during the breeding season and when rabbits venture into open areas with sparse ground cover.

Cottontails use a variety of habitats, but prefer early succession habitats (i.e., a mix of grasses, briars, forbs, and shrubs). Early succession habitat can be created or maintained by combinations of periodic ground disturbances that maintain ground vegetation in a 1-5 year old growth stage. Cottontails, as well as most rabbits, feed on a great variety of vegetation. However, rabbit management is targeted primarily at managing for quality cover and not food.

Swamp Rabbit

The Swamp rabbit, often called cane cutter, is the largest rabbit in Georgia and occurs mostly in the Piedmont region. It has coarse black to rusty-brown fur on its back with a white underside. The nape of the neck is small and indistinct. They have rust colored feet. From head to tail, adults measure 14-17 inches and weigh 3.5-6 pounds.

Swamp rabbits breed from January to August. Males are polygamous. The gestation period lasts 35-40 days. They have 2-5 litters per year, of 1-6 offspring. The two most important predators of swamp rabbits are domestic dogs and alligators. Other predators include bobcats, coyotes and owls. Swamp rabbits are good swimmers, taking to the water readily when pursued.

They will nest under logs, at the base of stumps, or in ground depressions. Unlike other rabbits in Georgia, swamp rabbits can be territorial. Swamp rabbits are found near water and wetlands, including beaver ponds, swamps, marshes, floodplains, canebrakes, and wet bottomlands. They can cover 5-19 acres over a year.



Finding young rabbits... A healthy looking baby rabbit with its eyes open and ears up, around 4-5 inches long, is able to survive on its own. It should not be disturbed. Rabbits in the nest are fed by their mothers during dawn and dusk hours, when they are less visible to predators. Finding a full nest without a mother is common; however it is not common for a mother to return to the nest when a human or their pet is hovering nearby. If a baby rabbit is injured and needs care, locate a local wildlife rehabilitator. To find more information about baby animals, visit: <http://www.schuylkillcenter.org/departments/wildlife/whattodoif/>

Sources: GA DNR Wildlife Resources Division <http://www.georgiawildlife.com/node/897> Photos: wikipedia

Stewardship Stars: Excellence in Data Collection

We would like to recognize the following volunteers who have monitored and submitted data every month during the previous quarter:



Rick & Sharon Donato - Anuran Monitoring in the Rubes Watershed
 Sierra Club Centennial Group - Chemical, Bacterial, & Biological Monitoring on Rottonwood Creek
 David Zandstra Group - Chemical & Bacterial Monitoring in the Rubes Watershed
 Simon Locke - Chemical & Bacterial Monitoring on Butler Creek
 Keep Smyrna Beautiful - Chemical Monitoring in the Nickajack Watershed
 Norm Fagge - Chemical Monitoring in the Willeo Watershed
 Girl Scout Troop 2910 - Chemical Monitoring on Rubes Creek
 Pam Subalusky - Chemical Monitoring in the Willeo Watershed
 Boy Scout Troop 995 - Chemical Monitoring on Sewell Mill Creek
 Girl Scout Troop 2193 - Chemical Monitoring in the Willeo Watershed
 Friends of Gable Creek - Chemical Monitoring in the Sope Creek Watershed
 Morning Washburn - Chemical & Bacterial Monitoring in the Chattahoochee Watershed
 Isabel Ott - Chemical Monitoring in the Sope Creek Watershed
 McClesky Middle School - Chemical, Bacterial, & Biological Monitoring on Rubes Creek
 Tritt Elelmentary School - Chemical Monitoring in the Willeo Watershed
 Anne Ledbetter - Chemical Monitoring on Popular Creek
 Sally Brooking - Chemical Monitoring on Sope Creek
 Donna-n-Carmen - Chemical Monitoring on Olley Creek

Thank you for heading out in our coldest months!!

ECOPEDIA

Fair Trade

Fair trade is a trading partnership, based on dialogue, transparency and respect, that seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers – especially in the South. Fair trade organizations, backed by consumers, are engaged actively in supporting producers, awareness raising and in campaigning for changes in the rules and practice of conventional international trade.

Fair trade products are produced and traded in accordance with these principles - wherever possible verified by credible, independent assurance systems.

Source: World Fair Trade Organization

REMINDERS

Amphibians are Indicators

Listen for frogs and toads... they are indicators of a healthy aquatic habitat- their absence or presence is telling us something about our environment.



Welcome Kathleen Lemley



We are pleased to introduce Kathleen, our new Watershed Stewardship educator.

Kathleen started in March as a part-time environmental programs specialist. Many of you may already know her from her work with Georgia Adopt-A-Stream, Project WET, and Rivers Alive. She brings a wealth of experience and knowledge to our program. We are thrilled to have her on board.

Please join us in welcoming Kathleen to Cobb Water!

OBSERVATIONS



male



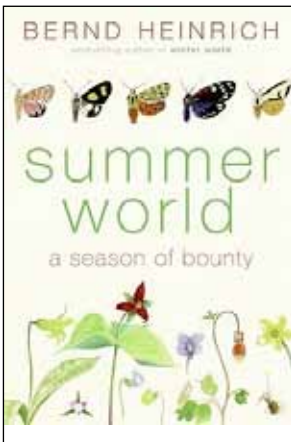
female

Ruby-throated Hummingbird (*Archilochus colubris*)

After wintering in Mexico and Central America, Ruby-throated Hummingbirds are on their way back in Georgia! Welcome them with some fresh sugar solution in a clean hummingbird feeder (basin style feeders are easier to keep clean than the inverted bottle kind). Just dissolve one part sugar in four parts water and cool before filling your feeder. You can also provide nutrition by planting nectar-producing flowers. Plants that have red or orange tubular-shaped blooms (like Trumpet Creeper, Crossvine, Coral Honeysuckle, and Salvia) are especially attractive. Hummingbirds also eat soft-bodied insects and spiders, so refrain from using pesticides in your yard if possible.

Bud Ellis, Georgia DNR, Wildlife Resources Division

RECOMMENDED RESOURCE

Summer World: A Season of Bounty by Bernd Heinrich

How can cicadas survive—and thrive—at temperatures pushing 115°F? Do hummingbirds know what they're up against before they migrate over the Gulf of Mexico? Why do some trees stop growing taller even when three months of warm weather remain? With awe and unmatched expertise, Bernd Heinrich's *Summer World* never stops exploring the beautifully complex interactions of animals and plants with nature, giving extraordinary depth to the relationships between habitat and the warming of the earth.

In *Summer World: A Season of Bounty*, Bernd Heinrich brings us the same bottomless reserve of wonder and reverence for the teeming animal life of backwoods New England that he brought us in *Winter World: The Ingenuity of Animal Survival*.

Now he is focusing on the animal kingdom in the extremes of the warmer months, with all its feeding, nesting, fighting, and mating. Whether presenting disquisitions on ant wars, the predatory characteristics of wasps, the mating rituals of woodpeckers, or describing an encounter with a road full of wood frogs, *Summer World* never stops observing the beautifully complex interactions of animals and plants with nature, giving extraordinary depth to the relationships between habitat and the warming of the earth.

Exquisitely illustrated with dozens of the author's own drawings, *Summer World* is Bernd Heinrich's most engaging book to date, a fascinating work from one of our very best science writers.

Source: Waratah Communications

CONSERVATION TIP

Buy Local

Farmer's Market vs. Supermarket...

Try doing some of your shopping at a local farmer's market, and if you can, walk or bike there. Of the total energy used in the United States per year, four percent is used to produce food, and between 10 and 13 percent is used to transport it. On average, U.S. supermarket food travels 1,500 to 2,500 miles before it reaches the family table. Buying local food can reduce the amount of petroleum consumed to transport your dinner by as much as 95 percent. Better yet, find a local farmer and go to the farm!

Source: *The Green Book 2007*

The Stream

The Stream, Gentle rapids
Fish swimming, Cool water
Slow and tiny turtles
Water rising
Leaves drifting
Water
Rapids gentle
Swimming fish
Water cool, Turtles tiny and slow
Rising water, Drifting leaves
The Stream

Cailyn Donahoo
Foundations for the Future Elementary, Kennesaw

w e l c o m e

Big Shanty Elementary**Stream Sentenials**

Noonday Watershed

Naimi Kai Strickland

Rottenwood Watershed

Don't forget...



we post twice weekly updates,
workshop information, natural history
tidbits, and more!

Cobb County Water System
Watershed Stewardship Program
662 South Cobb Drive
Marietta, Georgia 30060



Cobb County...Expect the Best!

This is an official publication of the Cobb County Water System, an agency of the Cobb County Board of Commissioners.

Calendar of Events

April

- 4 Garden Work Day • 9am - 11am • Cobb County Water Quality Laboratory
- 4 Watershed "Cigarette Butt Clean-up" Mob • 4pm - 6pm • Location TBD
- 11 Garden Work Day • 9am - 11am • Cobb County Water Quality Laboratory
- 18 Garden Work Day • 9am - 11am • Cobb County Water Quality Laboratory
- 25 Garden Work Day • 9am - 11am • Cobb County Water Quality Laboratory
- 25 Adopt-A-Stream Chemical Monitoring Workshop • 6pm - 8:30pm • Cobb County Water Quality Laboratory
- 26 Rain Barrel Workshop • 10am - 11am • Cobb County Water Quality Laboratory

May

- 2 Garden Work Day • 8:30am - 10:30am • Cobb County Water Quality Laboratory
- 2 Watershed "Stream Clean-Up" Mob • 4pm - 6pm • Location TBD
- 4 River Rendezvous • 8am - 1pm • Cobb County Water Quality Laboratory
- 9 Garden Work Day • 8:30am - 10:30am • Cobb County Water Quality Laboratory
- 11 Cobb County Master Gardener Plant Sale • 10am - 4pm • Cobb County Water Quality Laboratory
- 13 Rain Barrel Workshop • 3pm - 4pm • Cobb County Water Quality Laboratory
- 16 Garden Work Day • 8:30am - 10:30am • Cobb County Water Quality Laboratory
- 21 Adopt-A-Stream Bacterial Monitoring Workshop • 6pm - 8:30pm • Cobb County Water Quality Laboratory
- 23 Garden Work Day • 8:30am - 10:30am • Cobb County Water Quality Laboratory
- 30 Garden Work Day • 8:30am - 10:30am • Cobb County Water Quality Laboratory

June

- 5 Summer Family Program • Scavenger Hunt • 9am - 11am • Lost Mountain Park • contact: karen.faucett@cobbcounty.org
- 6 Garden Work Day • 8:30am - 10:30am • Cobb County Water Quality Laboratory
- 13 Garden Work Day • 8:30am - 10:30am • Cobb County Water Quality Laboratory
- 13 Rain Barrel Workshop • 12pm - 1pm • Cobb County Water Quality Laboratory
- 19 Summer Family Program • Fairy Houses • 9am - 11am • Wright Center • contact: karen.faucett@cobbcounty.org
- 19 Adopt-A-Stream Chemical Monitoring Workshop • 6pm - 8:30pm • Cobb County Water Quality Laboratory
- 20 Garden Work Day • 8:30am - 10:30am • Cobb County Water Quality Laboratory
- 27 Garden Work Day • 8:30am - 10:30am • Cobb County Water Quality Laboratory

Register for events in GREEN with Cobb County Watershed Stewardship Program.
 More information can be found on our Calendar at www.cobbstreams.org.



RECEPTACLE SPECIFICATIONS

RECTANGULAR POLE-MOUNTED RECEPTACLE

Capacity:

~ 700 cigarette butts

Dimensions:

3 1/8" x 3 1/8" x 19" high

Construction:

- Fire-safe aluminum
- 100% rust-resistant

Security:

Lockable

Ash Liner:

No

Installation:

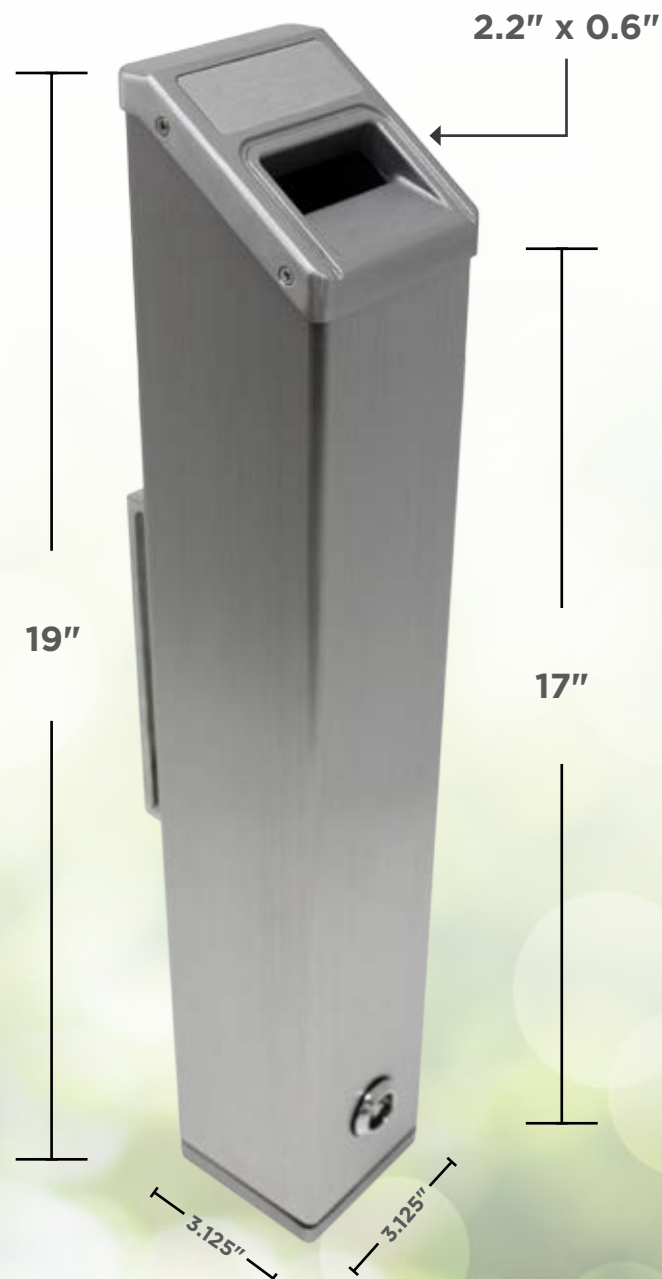
- Bolted (included)
- Steel-banded
(recommended, and instructions included)

Special Features:

- Rain gutter to reduce rain water into the unit
- Easy installation and servicing
- Weather resistant
- Customization available (vinyl stickers)

Purchase:

- To order a receptacle visit <https://zerowasteboxes.terracycle.ca/products/cigarette-waste-recycling-receptacle>
- For custom orders please email partners@terracycle.ca





PURCHASING OPTIONS

STANDARD ORDER:

- Includes one (1) standard sticker for each receptacle purchased

CUSTOM ORDER:

- Custom sticker orders for minimum order quantity of ten (10) stickers, with additional cost

STICKER OPTIONS:

STANDARD:

CUSTOM:

- Please email partners@terracycle.ca





STEEL-BANDING INSTALLATION

MATERIALS NEEDED:

Purchasable: https://www.uline.ca/BL_2905/Stainless-Steel-Strapping

ITEM #	DESCRIPTION	QUANTITY
S-14377	5/8" Stainless steel banding	Varies depending on number of receptacles and width of post
S-14378	5/8" Banding seals	Two seals per receptacle
H-1273	Tensioner to tighten bands around post	Varies on number of individuals installing

INSTALLATION INSTRUCTIONS:

1. One or three vinyl stickers should be applied to each receptacle (these stickers are customizable).
2. Check each lamp pole or post against the installation map (varies per location).
3. Measure 40 inches from ground level. The bottom of the receptacle should be 40 inches from ground level when installed.
4. Ensure that the receptacle is vertically level and the front faces the sidewalk.
5. Measure the stainless steel band on the circumference of the pole.
6. Pass the band through the top portion of the mounting bracket.
7. Tighten the band.
8. Repeat the steps above with the lower band.
9. Check that the receptacle is tightly mounted by alternately placing light pressure against the sides of the receptacle.
10. Cut off the excess banding.



SERVICING INSTRUCTIONS

INSTRUCTIONS:

1. Receptacles must not reach a fill rate of more than 85% (safety precaution).
2. Receptacles must be closed securely after emptying.
3. Place a bag or bucket beneath the receptacle, raising the rear edge at least two inches behind the receptacle between the receptacle and the pole.
4. Hold the bag/bucket with one hand.
5. With the other hand unlock the receptacle door with the receptacle key. Please note that the servicer will be required to keep and safeguard the receptacle keys.
6. Tap the side of the receptacle gently to dislodge any material lodged inside.
7. Close and lock the receptacle.
8. Aggregate all collected cigarette waste and seal in trash bags.





RECEPTACLE IN-USE EXAMPLES



Pole-mounted receptacle secured with bolts vs. bands



A bottom latch of the receptacle opens using a skeleton key for easy servicing



Pole-banded receptacle installed for the Vancouver Cigarette Recycling Program (Customized receptacle sticker)



Pole-banded receptacle installed for the New Orleans Cigarette Recycling Program (Customized receptacle sticker)

CIGARETTE WASTE RECYCLING PROGRAM

ACCEPTED WASTE



See the picture above for what you can send in through this program. Then, every time your ash tray or ash receptacle is full, save your cigarette waste and send it in to TerraCycle.

Cigarette Waste Recycling Program accepted waste:

1. Extinguished cigarettes
2. Cigarette filters
3. Cigar stubs
4. Outer plastic packaging
5. Inner foil packaging
6. Rolling paper
7. Ash

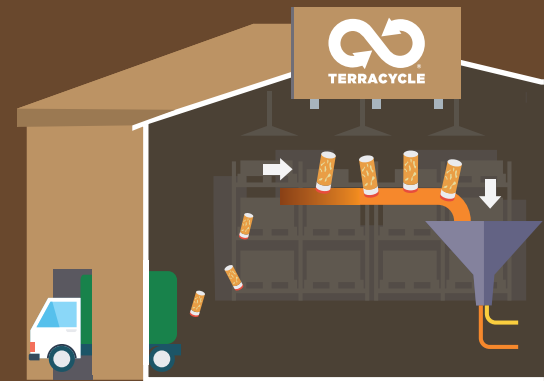


HOW ARE CIGARETTE BUTTS RECYCLED?

If you are a member of the Cigarette Waste Recycling Program, then you've probably asked yourself at one point or another: how in the world do you recycle a cigarette butt? Well, the answer may surprise you! Cigarettes are comprised of multiple components, and require a unique process for recycling.

Collection

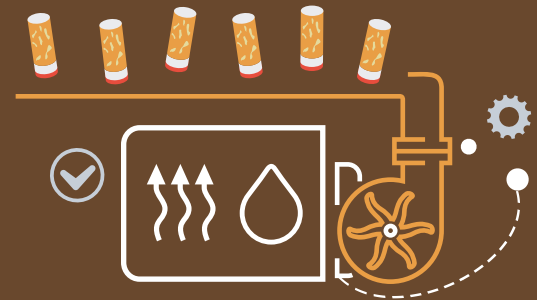
Cigarette butts are collected and shipped to TerraCycle by organizations and individuals like you. The collected butts are aggregated and stored in our local warehouse where they are prepared for processing.



Processing

Cigarettes butts are comprised of residual tobacco, paper, and a filter.

- The residual tobacco and paper are separated out and composted.
- The filter, which is made of a white synthetic fiber called cellulose acetate, is thoroughly cleaned, melted, and pelletized using a method called extrusion.



Conversion

The cellulose acetate pellets are then combined with other plastics, such as polyethylene or polypropylene, and used for new plastic products such as ashtrays, shipping pallets, or plastic lumber.





CIGARETTE RECYCLING PROGRAM



MUNICIPAL

—Litter Prevention—

Although it's one of the smallest pieces of litter, communities report that cigarette butts, including cigar tips, are the top item collected during local cleanups. Without recycling, anti-litter messaging is typically viewed as negative; as it focuses on the toxic and pervasive nature of butts as litter. Further, this type of messaging is not novel, thus making it less effective.

In contrast, recycling is new and positive. It can create buzz around a program that drives engagement and reduces litter by encouraging proper disposal through recycling. Recycling strengthens anti-litter messaging and it has been proven to drive litter reduction.

—Incentive—

For shipments that weigh over 3 pounds, TerraCycle® will credit your account with \$1.00 per pound of waste, which can be donated to any non-profit organization.

1LB=\$1* DONATION
TO ANY NON-PROFIT
ORGANIZATION

*for shipments over 3 pounds

how to get involved



1 sign up

Collecting agencies can sign up for the cigarette recycling program at www.terraCycle.com/en-CA/.



2 collect

Participants collect the cigarette waste with designated cigarette receptacles or any available container.



3 download & ship

When the container is full, the participant downloads a prepaid shipping label, affixes it to the shipping box and ships it to TerraCycle for recycling.

—Quick Facts—

65% of all cigarette butts are littered. Tobacco products make up **38%** of all roadway litter.

For every additional ash receptacle, the littering rate for cigarette butts decreases by...

9%

Most cigarette butts are littered on the ground (**85%**),



41.8% smokers who work, report that they do not have receptacles for cigarette butts at their work location.

—Success Stories—

New Orleans, LA -

TerraCycle partnered with the City of New Orleans to launch the first city-wide cigarette recycling program in the USA. After the first year of the program, the total cigarette litter was reduced by 13%. Receptacles on Canal Street, located adjacent to large hotels and street fronts, had a 75-95% fill rate. The city has now recycled over 500,000 cigarette butts that would otherwise be littered on the streets.



Pittsburgh, PA - TerraCycle partnered with Pittsburgh Downtown Partnership to launch their cigarette recycling program in August of 2015. With over 100 receptacles installed around the downtown area, more than 75,000 packs worth of cigarettes have been recycled. Leigh White, vice president of marketing and communications for the PDP explained that cigarette butts had been collected for four of five years before TerraCycle partnership, but they were merely thrown in with the rest of the trash; however, now all of the butts are sent to TerraCycle to be recycled.

CIGARETTE RECYCLING INSTRUCTIONS



STEP 1

Sign Up: Go to www.terracycle.ca to create a free TerraCycle account and sign up for the Cigarette Waste Recycling Program. From here, you may also purchase cigarette receptacles to facilitate your collections.



STEP 2

Collect: Place your collection bins or cigarette receptacles in areas where people smoke.



STEP 3

Pack for Shipping: Empty cigarette waste into an appropriately sized box for shipping. If you are using your own collection bin, make sure they are **FIRST** placed in a durable plastic bag, not directly into the box. Tape up your shipping box securely.



STEP 4

Ship to TerraCycle: Download a free UPS label from your TerraCycle account and affix it to your box. Have your shipment picked up or dropped off for UPS servicing.

TerraCycle sterilizes the cigarette waste and then shreds and separates it by material type. Tobacco and paper are composted and filters are turned into plastic pellets. These pellets can then be used in a wide variety of industrial applications including the creation of plastic shipping pallets.



Strategic Partnerships Canada
partners@terracycle.ca

FOR OFFICE USE ONLY

MEETING DATE YYYY/MM/DD 2019/09/26	MEETING NAME
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Attention: Regional Clerk
Regional Municipality of Peel
10 Peel Centre Drive, Suite A
Brampton, ON L6T 4B9
Phone: 905-791-7800 ext. 4582
E-mail: council@peelregion.ca

DATE SUBMITTED YYYY/MM/DD 2019/09/13
--

NAME OF INDIVIDUAL(S) RoseMarie Pazzelli, Maygan Thimio and Dilraj Soor

POSITION(S)/TITLE(S) Principal and Public Health Nurse
--

NAME OF ORGANIZATION(S) Our Lady of Providence School and Peel Public Health
--

E-MAIL rosemarie.pazzelli@dpcdsb.org and dilraj.soor@peelregion.ca	TELEPHONE NUMBER (905) 458-7080	EXTENSION 43002
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REASON(S) FOR DELEGATION REQUEST (SUBJECT MATTER TO BE DISCUSSED) On September 26, 2019, Peel Public Health will be presenting to Regional Council a report on the HEALTHY Pledge Program. Our Lady of Providence School is a partnering school that has truly benefited from our partnership in the HEALTHY Pledge Program this past year. The school's Principal, RoseMarie Pazzelli, and lead teacher, Maygan Thimio would like to share her experience in partnering with Peel Public Health with the goal of improving the health of the students in her school.

A formal presentation will accompany my delegation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Presentation format: <input type="checkbox"/> PowerPoint File (.ppt) <input type="checkbox"/> Adobe File or Equivalent (.pdf) <input checked="" type="checkbox"/> Video File (.avi,.mpg) <input checked="" type="checkbox"/> Other Verbal and video file
Additional printed information/materials will be distributed with my delegation : <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Attached

Note:
Delegates are requested to provide an electronic copy of all background material / presentations to the Clerk's Division at **least seven (7) business days prior** to the meeting date so that it can be included with the agenda package. **In accordance with Procedure By-law 9-2018 delegates appearing before Regional Council or Committee are requested to limit their remarks to 5 minutes and 10 minutes respectively (approximately 5/10 slides).**
Delegates should make every effort to ensure their presentation material is prepared in an [accessible format](#).
Once the above information is received in the Clerk's Division, you will be contacted by Legislative Services staff to confirm your placement on the appropriate agenda.

Notice with Respect to the Collection of Personal Information
(Municipal Freedom of Information and Protection of Privacy Act)

Personal information contained on this form is authorized under Section 5.4 of the Region of Peel Procedure By-law 9-2018, for the purpose of contacting individuals and/or organizations requesting an opportunity to appear as a delegation before Regional Council or a Committee of Council. The Delegation Request Form will be published in its entirety with the public agenda. The Procedure By-law is a requirement of Section 238(2) of the *Municipal Act, 2001*, as amended. Please note that all meetings are open to the public except where permitted to be closed to the public under legislated authority. All Regional Council meetings are audio broadcast via the internet and will be posted and available for viewing subsequent to those meetings. Questions about collection may be directed to the Manager of Legislative Services, 10 Peel Centre Drive, Suite A, 5th floor, Brampton, ON L6T 4B9, (905) 791-7800 ext. 4462.

Please complete and return this form via email to council@peelregion.ca

FOR OFFICE USE ONLY

MEETING DATE YYYY/MM/DD 2019/09/26	MEETING NAME
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Attention: Regional Clerk
Regional Municipality of Peel
10 Peel Centre Drive, Suite A
Brampton, ON L6T 4B9
Phone: 905-791-7800 ext. 4582
E-mail: council@peelregion.ca

DATE SUBMITTED YYYY/MM/DD 2019/09/13
--

NAME OF INDIVIDUAL(S) Michelle Curry-Sharples, Sam Bennett and Kimberley Wallace
--

POSITION(S)/TITLE(S) Principal, Teacher and Public Health Nurse

NAME OF ORGANIZATION(S) Flordale Public School and Peel Public Health and Peel Public Health
--

E-MAIL michelle.currysharples@peelsb.com and kimberley.wallace@peelregion.ca	TELEPHONE NUMBER (905) 275-1090	EXTENSION
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REASON(S) FOR DELEGATION REQUEST (SUBJECT MATTER TO BE DISCUSSED) On September 26, 2019, Peel Public Health will be presenting to Regional Council a report on the HEALTHY Pledge Program. Flordale Public School is a partnering school that has truly benefited from our partnership in the HEALTHY Pledge Program this past year. The school's Principal, Michelle Curry-Sharples, and lead teacher, Sam Bennett, would like to share their experience in partnering with Peel Public Health with the goal of improving the health of the students in their school.
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A formal presentation will accompany my delegation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Presentation format: <input type="checkbox"/> PowerPoint File (.ppt) <input type="checkbox"/> Adobe File or Equivalent (.pdf) <input type="checkbox"/> Picture File (.jpg) <input type="checkbox"/> Video File (.avi,.mpg) <input checked="" type="checkbox"/> Other <input type="text" value="Verbal"/>
Additional printed information/materials will be distributed with my delegation : <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Attached

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Please complete and return this form via email to council@peelregion.ca

FOR OFFICE USE ONLY

MEETING DATE YYYY/MM/DD 2019/09/26	MEETING NAME REGIONAL COUNCIL
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Attention: Regional Clerk
Regional Municipality of Peel
10 Peel Centre Drive, Suite A
Brampton, ON L6T 4B9
Phone: 905-791-7800 ext. 4582
E-mail: council@peelregion.ca

DATE SUBMITTED YYYY/MM/DD
2019/09/24

NAME OF INDIVIDUAL(S)
Abid Arif

POSITION(S)/TITLE(S)

NAME OF ORGANIZATION(S)

E-MAIL [REDACTED]	TELEPHONE NUMBER [REDACTED]	EXTENSION
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REASON(S) FOR DELEGATION REQUEST (SUBJECT MATTER TO BE DISCUSSED)
Excessive water bill, \$5000.00 refund requested, will discuss the details in person

A formal presentation will accompany my delegation Yes No

Presentation format: PowerPoint File (.ppt) Adobe File or Equivalent (.pdf)
 Picture File (.jpg) Video File (.avi,.mpg) Other

Additional printed information/materials will be distributed with my delegation : Yes No Attached

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Please complete and return this form via email to council@peelregion.ca

DATE: September 24, 2019

REPORT TITLE: **UTILITY BILLING RESOLUTION PROCESS**

FROM: Andrew Farr, Acting Commissioner of Public Works

RECOMMENDATION

That the current approach to utility billing issue resolution, including offering flexible payment plan options, where appropriate, as a means of assisting customers with high utility bills, be continued.

REPORT HIGHLIGHTS

- Council has long endorsed the foundational principles of user pay and conservation regarding the supply of water and wastewater services.
- Annually, 1.3 million utility bills are issued of which 0.2 percent (or 2,800) receives inquiries from customers.
- The Region has a meter testing program that is consistent with industry practice, to ensure the registered water flows are within American Water Works Association specifications. It is rare for a meter to over-register water flows. Out of 126 water meters tested over the last five years from customer requests, only one was found to be over reporting water volumes.
- In the event of a high bill inquiry, Regional staff work closely with customers to understand the source of the high water consumption. Ninety-eight percent of the time, the cause of the high utility bill is detected, or the customer has already addressed the issue.
- Aligned to Council's direction to support customers, as needed, Regional staff offer flexible payment plans, often ranging from three to 12 months to assist when high water consumption has occurred for a property. There are currently over 400 customers successfully addressing their debt under flexible payment plans.
- To minimize customer impacts, several proactive testing processes are in place. These include flagging over 24,000 high meter reads annually for further review and engagement with customers where needed and visiting properties to troubleshoot and educate on common causes for high water consumption.
- The program is currently in year eight of a 20-year water meter replacement initiative to a radio frequency meter technology that could provide real time water reading and leak detection features. All new meters are tested prior to installation to ensure they meet American Water Works Association specifications.
- Current Regional by-laws do not have specific provisions for waiving or adjusting invoice amounts. Implementing bill waivers could result in higher utility rates for all customers to ensure the costs of operating the water and wastewater system are fully recovered. This deviates from the user pay and conservation principles historically endorsed by Council.

UTILITY BILLING RESOLUTION PROCESS

- Preliminary estimates, based on the current number of annual inquiries, suggest the lost revenue to support a program to waive or adjust utility bills for high consumption could initially cost \$1 million annually. This represents a 0.3 percent utility rate increase to recover this lost revenue, and could continue to increase over time.

DISCUSSION

1. Background

a) How the Region bills for water and wastewater services:

The Region's water and wastewater system costs are recovered through the utility rates, which is largely comprised of water and wastewater services billed to residents and businesses.

Annually, approximately \$400 million is billed to customers, funding both current water and wastewater operations and future State of Good Repair. Currently, there are over 334,000 water and wastewater residential and Industrial, Commercial and Institutional (ICI) customers. Over 99 percent of these customers are billed quarterly, based on quarterly meter readings, resulting in over 1.3 million invoices issued annually.

Each utility bill has a separate rate for water and wastewater services. The water rate component of the bill is based on actual water consumption, which is determined through the water meter read. Since wastewater cannot be metered, the wastewater component of the invoice uses water consumption as a proxy. This is a common industry practice.

For residential customers connected to the wastewater system with metered water service, the wastewater rate is applied to 85 percent of total water consumption throughout the year. The remaining 15 percent is discounted, recognizing activities such as lawn watering and swimming pool maintenance where water may not be returned to the wastewater system.

Council has long endorsed user pay and conservation as two foundational principles regarding the supply of water. Since the Water By-law was first passed in 1973, these principles have been embodied in the requirement that all services have a water meter and that the read of the water meter is the primary source of evidence for the quantity of water supplied by the Region. Of the 1.3 million invoices issued, only 0.2 percent (2,800) receives customer inquiries for high utility bills. This number can fluctuate in years with hot and dry summers since this typically results in higher water consumption.

Although the amount of customer inquiries is fairly low, for those customers that do experience higher consumption, the financial impact can be substantial. As a result, Regional staff work closely with customers to identify sources of higher consumption. There are several causes that result in high bill complaints, common causes include:

- A plumbing problem which can often be attributed to a toilet leak;

UTILITY BILLING RESOLUTION PROCESS

- A customer would like an adjustment above the 15 percent reduction for the wastewater portion based on the water not being returned to the wastewater system. This largely stems from filling a swimming pool, the use of an irrigation system to water lawns, or undetected leaks in an irrigation system;
- The property is a tenanted property where high water use has occurred, and the landlord is seeking a write-off because the tenant has not paid the bill; or
- A customer does not believe there is a plumbing problem and therefore believes the meter must be over-registering water volumes.

Generally, it is rare for a water meter to over-register water volumes. However, if an investigation finds fault with the meter, excess charges will be removed from the utility bill. Over the last five years, only one water meter out of 126 tested was found to over-register water volumes. In these rare circumstances Council has supported offering flexible payment plans to assist customers as opposed to waiving billed amounts.

b) **Auditing of the Region's utility billing process:**

In October 2011, an internal audit review of the Region's utility billing process was conducted. The final report confirmed that risks associated with the water and wastewater billing functions are being effectively controlled. No major opportunities for improvement were identified at that time. Recommendations from the audit were limited to process improvement opportunities. These opportunities have since been implemented to the water and wastewater billing processes.

Internal Audit conducted another review through 2018 and 2019 and the preliminary findings continue to be that effective controls are in place to manage the risks associated with utility billings. The formal report is not yet finalized but will be reported to the Audit and Risk Committee in October 2019.

As per Council's direction at its meeting held on July 11, 2019 (Resolution 2019-696), Enterprise Risk and Audit Services will conduct an audit of the water meter system and upon completion will be reporting to a future meeting of Regional Council with the findings.

c) **High Water Bill Resolution Process:**

i. **Customer Contact and Resolution Process – Residential:**

In the event a customer contacts the Region with a concern over a high utility bill, there are steps in place which attempt to alleviate customer concerns as quickly as possible:

1. During the initial call from the resident, the customer service representative will perform a leak audit over the telephone by providing instructions on how to read the leak detection on the water meter,

UTILITY BILLING RESOLUTION PROCESS

2. If further assistance is required, an appointment is made with the resident to visit the home and troubleshoot the situation. The representative will make three attempts over three days to book a visit. While this has been a successful approach, to further improve the process contacting customers by email, where available, has been added.
3. During the appointment, the representative verifies the meter read and conducts an in-home leak audit. The common findings for a leak are:
 - Flapper in toilet sticks open periodically or is worn;
 - Additional people are now living in the home;
 - Water level in tank set too high with water continually flowing into the overflow tube;
 - Humidifier on furnace never shutting off;
 - Sewer trap line from laundry taps continually running water to floor drain;
 - Water filtration unit on backwash;
 - Outside taps freeze and split by not being appropriately winterized; and/or
 - Underground irrigation system has an undetected leak, not winterized properly with split pipes, or zones are turned on for too long.

Once the audit is completed and a cause for the high bill is determined, the representative reviews the findings with the customer and suggests repairs needed, if any, to correct leaks. In some cases, the customer has already repaired leaks (by the observation of new parts during the audit). After spending time discussing the source of the high consumption, the customer is asked to sign off on the findings.

The process has been successful to date, with only two percent of the 2,800 total inquiries requiring further investigation.

4. If no leaks are found at the time of the audit, occasionally the customer is still not confident that the meter read is accurate. To alleviate this concern, customers are offered to have the meter tested from a third party. Over the last five years, 126 tests have been requested by customers and only one meter was found to be over-registering water volumes. In this case, the utility bill was adjusted.

These processes in place are intended to assist customers in identifying possible causes of high water consumption. However, the Region does not control and hence is not responsible for how water is used in residential properties. It remains the customers' responsibility to monitor their own water consumption and usage and make any necessary repairs to plumbing issues that may cause unnecessary use of water.

UTILITY BILLING RESOLUTION PROCESS

ii. **Customer Contact and Resolution Process – Industrial, Commercial and Institutional (ICI):**

For ICI customers, the process is far more complex, given the unique infrastructure for each business. In the event of a high meter read, Regional staff will confirm the meter is correct and within America Water Works Association specifications. Subsequently, staff work with the customer to review possible scenarios that could increase water consumption patterns, such as:

- Changes in manufacturing processes;
- Changes in staffing requirements;
- Water-cooled equipment; and/or
- Solenoids that are sticking or stuck in the open position or valves left open.

If the customer does not believe these scenarios are the source of the issue, the customer will be asked to check the meter while water is not being used (i.e. overnight) to ensure there is no water flow. As Regional staff are not familiar with each ICI customer's unique plumbing configurations and processes, Regional staff will recommend that the customer use their existing maintenance staff or plumber when looking into increased water consumption. This helps to ensure any leaks or issues are identified accurately and quickly for the customer, and the most expedient approach to resolving the issue is considered.

iii. **Customer Payment Options:**

Regional staff work collaboratively with the customer to determine and validate the root causes of water leaks that result in a high utility bill.

In the event that the high bill is a result of meter malfunction, the meter is repaired or replaced and the utility bill is corrected to remove excess volumes. As mentioned earlier, in the event the customer does not trust or agree with meter readings, a meter test by a third party is offered.

After review of the potential causes of a high utility bill, and if there are no issues associated with meter accuracy, the customer is considered to be liable for the full bill payment. In the past, customers with high bills have at times approached Regional Council to request consideration toward their high utility bills.

Council historically has not supported waiving fees, but rather supported working with customers on payment plans. Staff also understands that higher utility bills are often unplanned, so flexible payment plans are offered, suitable to the customers' financial needs. Typically, the Region offers payment arrangements between three to 12 months with no interest. In exceptional situations, payment arrangements over 12 months are offered. In these cases, late payment fees are also waived. Currently there are 400 customers on payment plans successfully addressing their debt.

UTILITY BILLING RESOLUTION PROCESS

An industry scan was conducted to determine if any organization offers insurance coverage for high utility bills, and no insurance offering was found.

iv. **Proactive Reviews:**

Several initiatives are in place to identify and minimize financial strain on customers by proactively attempting to identify unintended higher water consumption and continue to look for improvement opportunities to assist customers. These initiatives include:

1. As meter readings are completed, they are monitored to track consumption that is significantly different than historical consumption for a specific household. On average, there are 24,000 occurrences that are flagged annually and reviewed by Regional staff.

Of those flagged, some need further engagement with the customer. In these cases, a Regional representative will visit the home within two days, and conduct another meter read to validate the water consumption. Once complete, the representative will attempt to speak to the customer directly at the home. If the resident is not home, an orange card with an "Urgent Notice" message is left in the door which refers to the high water consumption concern and contact information for the Region. Staff will attempt to contact the customer a second time on the same day, and will leave a message if possible. If the customer does not return the call and the water read is extremely high, the representative will visit the customer's home a second time, perform another meter read, and attempt to speak to the customer again.

Through these attempts, contact with the customer is made the majority of the time. In the event these steps are unsuccessful, an opportunity to improve the customer experience is to add a third phone call prior to returning to the home again, and also notifying the customer by email, if available.

Once customer contact is made, the representative will educate the customer on how to read the leak detection feature on the meter, and how to perform their own leak audit. This will also help the customer detect potential leaks independently in the future. Reference is also made to the Region's website which provides the same information. If the customer still has concerns, the representative will conduct a leak audit immediately if time permits or schedule a separate appointment.

2. In addition to proactive consumption monitoring, 140 water meters are randomly selected annually to test their accuracy. These meters are sent to the manufacturer for testing. The results of these tests have always been within American Water Works Association specifications with 96 percent to 102 percent accuracy.
3. The top 150 water consumers are also tested annually to validate the accuracy of their meter read. In addition, a preventative maintenance truck tests other ICI meters throughout the Region daily.

UTILITY BILLING RESOLUTION PROCESS

v. Meter Changeout Program:

The Region continues to look for opportunities to improve customer service and to deliver its service in a more efficient manner. The current meter technology in use across much of the Region identifies abnormal water consumption on a reactive basis after the water reads takes place.

One of the initiatives underway is the replacement of water meters at the end of their service life to a new technology that contains a radio frequency remote. This allows Regional staff to data log related to a customer's usage for the previous 96 days and also enables staff to present consumption trends for that period.

This technology also allows meter readers to walk or drive by a customer's home to obtain a read instead of having to plug a reading device at the home. This enables meter reads to be conducted more efficiently and could allow for a higher frequency of reads and utility billing in the future.

The changeout program is currently in year eight of a 20-year meter replacement initiative. Of the 334,000 water accounts, 140,000 accounts now have the radio frequency installed. The remaining meters will be replaced as they reach their end of service life.

To ensure the new meter functions properly and to avoid customer issues, a flush test is completed when the new meter is installed. The flush tests ensure that reads on the old and new meter are the same. New meters are also tested by the manufacturer to ensure they meet American Water Works Association specifications.

vi. Private Fire Hydrant Water Theft:

The potential for water theft from private fire hydrants exists, but the likelihood is extremely low. ICI properties are serviced by two water lines, a domestic line and a fire line. The Region of Peel separately meters both lines. These customers have private hydrants on their property which are owned and maintained by the property owner. If there is theft on a private hydrant, the water flow will be detected on the meter that is located on the fire line and the customer will be billed for it.

The Region is not responsible for how water is used on the private side, and it is the customers' responsibility to monitor their own water consumption and hydrant usage. Over the past 30 years, only three cases of water theft have been uncovered.

UTILITY BILLING RESOLUTION PROCESS**2. Best Practices****a) Radio Frequency Technology:**

As mentioned earlier, a more current meter technology is being installed under the meter changeout program which uses radio frequency remotes and offers greater efficiency in the reading of water meters.

Once the new radio frequency technology is installed across the Region, there are available features at additional costs to obtain real time water consumption using an online portal. This technology can also set alerts on leak detection, back flow issues and meter tampering. This would enable customers to have the ability to view abnormally high consumption on a real time basis so that corrective action can take place in a timely manner, if necessary. Further, monthly invoicing would be available.

To achieve these enhanced benefits, approximately 200 data collection devices would need to be installed across the Region (estimated at \$50,000 each) to obtain the data, along with creating a portal for the customer to view their information. Preliminary estimates for this new technology range from \$10 to \$15 million.

b) Customer Resolution Practices Comparison:

From a customer dispute resolution perspective, eight neighbouring municipalities were surveyed to understand their practices and processes for dealing with high bill inquiries. This was compared to the Region's current approaches. It was found that the processes to inform customers, detect leaks, perform meter tests along with the offering of flexible payment plans are very similar to the Region of Peel.

The only distinction is that some municipalities waive high bills at times or provide each household a one-time credit for high bills. Five neighbouring municipalities have developed formal programs related to high bill forgiveness caused by undetected leaks. The majority of these programs are only available to residential customers and are offered on a one-time basis. These programs have varying criteria specific to the municipality on how the amount of forgiveness is determined and how customers must demonstrate that issues have been addressed.

Presently, the Region of Peel does not offer a formal program to waive any portion of a utility bill. In addition, current policies and by-laws do not have specific provisions to waive or adjust high bills due to undetected leaks.

If the Region were to introduce a program related to high bill forgiveness similar to some neighbouring municipalities, a preliminary estimate of the potential cost impact is in excess of \$1 million annually, or a utility rate increase equivalent of 0.3 percent.

Potential changes to the policy could also open up the likelihood of both a higher number of high bill inquiries and increased requests for bill waivers in the future if introduced.

UTILITY BILLING RESOLUTION PROCESS

3. Next Steps

The journey to continuously improve customer service related to water and wastewater billing issues is ongoing. Planned initiatives include:

- The use of email as another source to notify customers of high meter reads if an email address is on file for the account.
- In addition, as part of the proactive reviews of the 24,000 high meter reads flagged annually, for those that require engagement with the customer, the Region is adding a third attempt to notify the customer.

As part of the development of a long term utility financial plan, staff will return to Council in 2020 to review options on the structure of the water and wastewater rates. Part of the rate review will assess the opportunities and drawbacks in accelerating the meter changeout program to take advantage of the new meter technology efficiencies sooner. Any recommendations from this review will be captured in the 2021 budget process.

FINANCIAL IMPLICATIONS

The waiving of invoiced amounts on the utility bill will result in the Region not fully recovering all operational costs to support the water and wastewater system. In order to achieve full cost recovery, the water and wastewater rates would need to increase across all customers to offset waived amounts.

Preliminary estimates, based on the current number of customer billing inquiries, suggest that this amount could be in excess of \$1 million annually, or an additional 0.3 percent increase to utility rates.

RISK CONSIDERATIONS

Current Regional by-laws do not have specific provisions for waiving or adjusting invoice amounts. Implementing a bill waiver program could result in higher utility rates for all customers to ensure the costs of operating the water and wastewater system are fully recovered.

This is a financial risk as the initial estimates suggest up to \$1 million dollars annually could be expected under a program for bill waivers, or the equivalent of a 0.3% utility rate increase. This also deviates from the user pay and conservation principles historically endorsed by Council.

Over time, the request for partial or full bill waivers can be expected to increase from current levels as customers become more aware of any potential program, rather than utilizing flexible payment plans.

UTILITY BILLING RESOLUTION PROCESS

CONCLUSION

In conclusion, staff recommends Regional Council approve the continuation of the current approach to utility billing issue resolution offering flexible payment plan options as a means of assisting customers with high utility bills, where applicable. This is consistent with Regional Council's endorsed principles, user pay and conservation, and will prevent upward pressure on utility rates over time.



Andrew Farr, Acting Commissioner of Public Works

Approved for Submission:



N. Polsinelli, Interim Chief Administrative Officer

For further information regarding this report, please contact Steven Fantin, Director of Operations Support, extension 4438.

Authored By: Khawer Rauf

*Reviewed in workflow by:
Financial Support Unit*



Utility Billing Resolution Process

September 26, 2019
Regional Council

Steven Fantin,
Director, Operations Support
Region of Peel



Background

- Foundational principles historically endorsed by Council:
 - User Pay
 - Conservation
- 1.3 million invoices sent annually
 - Under 0.2% or 2,800 complaints on high utility billings
- Quarterly meter reads and customer invoicing



Background (Cont'd)

- Water billing based on actual consumption
- Wastewater billing uses water volume as a proxy
 - Industry standard
- Meter accuracy compliant within AWWA specifications



Common Causes for Bill Inquiries

- Excess water usage from:
 - Plumbing issues inside the home or from irrigation system
 - Water level in toilet tank set too high
 - Humidifier on furnace never shuts off
 - Water filtration unit on backwash
- Wastewater not returning to the system (swimming pool, irrigation systems)
- Landlords seeking reprieve due to tenant non-payment



Proactive Meter Testing

- Lower the likelihood of unintended higher consumption
- Testing takes place to ensure meter meets all AWWA specifications:
 - ✓ Meter reads are monitored daily and abnormally high or low reads are investigated
 - Visit customer home if needed
 - Notification of high water read left in the door
 - Customer notified by phone
 - Second visit and customer notification as required
 - ✓ 140 meters randomly selected and tested annually
 - ✓ Top 150 to 200 consumption meters tested annually



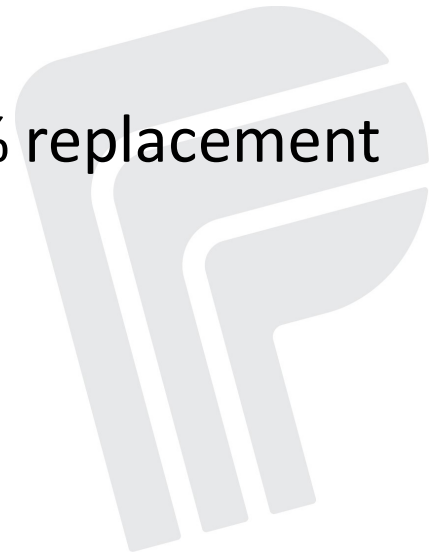
Customer Resolution Process

- Work closely with customers to identify sources of higher consumption
- Leak audit performed over the phone
- Verification staff conduct a leak audit at the resident's home
- Third party meter test (if requested)
- Source of the leak is uncovered 98% of the time
- Meter exchange to new technology and water theft not an issue



Radio Frequency Technology

- Meters changing to new technology which could enable real time customer viewing of water consumption, and alerts for leak detection, backflow issues, tampering
 - Additional \$10 to \$15 million investment
- Existing meters replaced at end of life...100% replacement expected to be complete in 10 years
- Potential for monthly billing in the future

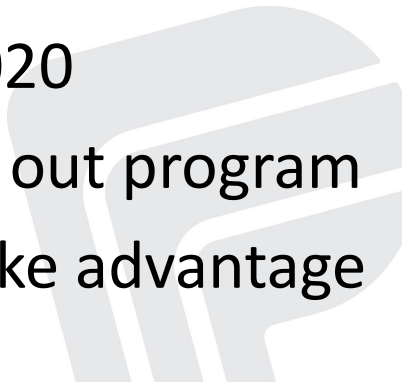


Customer Resolution

- Eight neighbouring municipalities surveyed
- Customer investigation and resolution processes very similar
- 5 of the 8 municipalities offer bill waiver programs to residential customers in addition to flexible payment options
- Lost revenue needs to be absorbed by all customers through higher water and wastewater rate increases
 - \$1 million or 0.3% rate increase
- Deviates from 'User Pay' and 'Conservation' principles
- Increases the likelihood of more complaints



Next Steps

1. Include email as an additional means to notify customers
 2. Add third attempt to reach customer if a high meter read is identified
 3. Council review of Utility rate structure in 2020
 4. Assess option of accelerating meter change out program
 5. Council review of investment required to take advantage of all features of new meter technology
- 



Questions?

Contact info:
Steve Fantin
Director, Operations Support
(905) 791-7800, ext. 4438
Steven.Fantin@peelregion.ca



For Information

DATE: September 18, 2019

REPORT TITLE: **TRANSITIONING TO THE NEW ONTARIO SENIORS DENTAL CARE PROGRAM**

FROM: Cathy Granger, Acting Commissioner of Health Services
Jessica Hopkins, MD MSc CCFP FRCPC, Medical Officer of Health

OBJECTIVE

To provide an update on the transition from the current Region of Peel Seniors' Dental Program to the new Ontario Seniors Dental Care Program.

REPORT HIGHLIGHTS

- The new Ontario Seniors Dental Care Program for low income seniors is expected to launch in fall 2019 providing more Peel seniors with continued access to dental care while reducing the impact to the Regional tax levy.
- The Ministry of Health estimates that this program will provide 6,938 eligible Peel seniors with continued access to dental treatment each year. Peel Public Health is anticipating the demand to be greater than this Ministry-provided estimate.
- To prepare for the new program, Peel Public Health has created a list to refer and navigate seniors with oral health needs to the Provincial program in anticipation of it starting.
- Seniors currently enrolled or on the waitlist for the Regional program, and who are ineligible for the Provincial program, will receive services through the Regional program until their treatment is complete.
- The estimated cost to complete the Regional program for seniors currently enrolled or waitlisted and who are not eligible for the Provincial program, and to accommodate medical extensions and denture relines is \$475,000.
- Peel Public Health is committed to providing a seamless transition for seniors currently enrolled in or on the waitlist for the Regional program.

DISCUSSION
1. Background

Since 2008, the Region of Peel Seniors' Dental Program ('Regional program') has provided access to free dental treatment to eligible low income seniors. The provision of a dental program for vulnerable seniors aligns with the new 2018-2022 Term of Council Priority to enhance seniors' supports and services to optimize quality of life. Every year, approximately 800 seniors are provided access to one full course of dental treatment, available once per lifetime. The program provides services through two Community Health Centres and private

TRANSITIONING TO THE NEW ONTARIO SENIORS DENTAL CARE PROGRAM

dental providers. Services include those that help remove pain and infection, reduce complications of untreated dental conditions and restore reasonable function (e.g., dentures). The program is fully-funded by the Region with a 2019 approved budget of \$1,678,819. As of July 11, 2019, there were 668 seniors on the program waitlist with an approximate wait time of five months.

In April 2019, the province announced the new Ontario Seniors Dental Care Program ('Provincial program') for low income seniors. There are some key differences between the two programs (see Appendix I). For instance, the Provincial program:

- Uses the Ontario Drug Benefit low income thresholds to determine eligibility, instead of the low-income cut-off (after-tax) threshold for the Regional program;
- Requires eligible clients to pay a 10 per cent co-payment on the total cost of the prosthodontics (e.g., dentures) to the Board of Health;
- Nonetheless, the Provincial program will provide more Peel seniors with access to dental care, remove the once in a lifetime limit, and reduce the impact to the Regional tax levy; and,
- The Ontario Ministry of Health ('Ministry') will be providing additional Provincial program details (e.g., service schedule, service delivery, navigation and monitoring) in the coming months.

The Provincial program is expected to launch in fall 2019. The Ministry estimates that 6,938 eligible Peel seniors will receive dental services through the Provincial program annually. This estimate is based on the Ministry applying a 40 per cent utilization rate to the number of seniors who meet the Provincial program's eligibility (i.e., the Ontario Drug Benefit low income threshold) and are uninsured. However, the details of how these estimates were calculated were not publicly released.

Peel Public Health anticipates the demand for the Provincial program to be greater than the Ministry-provided number. Utilizing Canada Revenue Agency estimates of Peel seniors who meet the Ontario Drug Benefit eligibility, the per cent of uninsured seniors in Peel, and applying a 40 per cent utilization rate, approximately 16,391 seniors could receive dental services through the program annually. The demand for the program may be even greater than this estimate in the first year of implementation.

In the report presented to Regional Council on July 11, 2019, titled "New Ontario Seniors Dental Care Program," Peel Public Health provided information on the Provincial program. Council approved the following Resolution (2019-701):

That the Region of Peel Seniors' Dental Program continue to collect names and create a list to refer to the Provincial program when it starts;

And further, that seniors, currently enrolled or on the program waitlist, who do not meet the provincial eligibility criteria be provided treatment through the Region of Peel Seniors' Dental Program;

And further, that the Region of Peel implement the new Ontario Seniors Dental Care program based on the Provincial implementation date;

And further, that staff continue to advocate for the private practitioner process available now in the Region of Peel.

TRANSITIONING TO THE NEW ONTARIO SENIORS DENTAL CARE PROGRAM

Several steps are currently underway to transition to the Provincial program.

2. Transition Plan

Peel Public Health is committed to providing a seamless transition for seniors currently enrolled in the Regional program and for those currently on the waitlist awaiting care. In addition, Peel Public Health will ensure that no seniors who are enrolled or on the waitlist lose access to care as a result of this transition.

As of July 15, 2019, Peel Public Health stopped accepting applications to the Regional program waitlist. A list has been created to refer and navigate seniors to the Provincial program. Peel Public Health will continue to provide access to oral health care for seniors on the Regional program waitlist until the Provincial program commences.

a) Eligibility

- Seniors currently enrolled or on the waitlist and who are eligible for the Provincial program would enroll into the Provincial program for continued dental care. Peel Public Health and partnering Community Health Centres will provide enrollment and navigation support to ensure easy transition.
- Seniors currently enrolled or on the waitlist and who are ineligible for the Provincial program will be provided services through the Regional program until their treatment is complete. Some of these seniors may continue to be provided services through the Regional program in 2020 and 2021 because of potential dental claim extensions for health-related reasons and access to denture relines.

b) Communication

The transition plan also includes a communication strategy for clients and stakeholders. Peel Public Health will communicate with the Seniors' Dental Program Stakeholders Group, including representation from service delivery partners, advocacy groups, dental provider associations, etc., to keep them informed of the Provincial program and changes to the Regional program. Private dental providers for the Regional program will also be informed of the next steps for the program.

c) Capacity

Peel Public Health anticipates a significant capacity constraint at the Community Health Centres as there will be an overlap of the Regional and Provincial programs during transition. There may also be a potential influx of seniors from outside of Peel choosing to access services in Peel given that Peel has established dental infrastructure. This may cause a delay in eligible seniors being able to access dental care and result in a waitlist to access the Provincial program. Peel Public Health is considering options to alleviate this delay including funding the dental clinic at Malton's Four Corners Health Centre, which is currently not operational due to insufficient funding. On Council's direction, Peel Public Health has also continued to advocate to the Ministry for service delivery through private dental providers alongside public dental clinics (See Appendix II).

TRANSITIONING TO THE NEW ONTARIO SENIORS DENTAL CARE PROGRAM

In August 2019, Peel Public Health applied to the Ministry for one-time capital funding to develop dental infrastructure to increase capacity in underserved areas. In response to Peel's growing senior population, the project's proposed aim is to meet both current and future seniors' needs. Further details will be shared in a future council report.

d) Regional Program Administration

The Regional program will continue to require dedicated resources from the Region to support ongoing program implementation, administration and management until it is replaced by the Provincial program.

The transition plan is based on current program information. The plan will be adjusted as more information becomes available from the province.

FINANCIAL IMPLICATIONS

For 2019, Peel Public Health received \$2,934,000 in base funding (which is a pro-rated amount for April 1, 2019 to December 31, 2019) to implement the new Provincial program. In 2020, base funding in the amount of \$3,912,800 is expected to implement the program over a full calendar year. The 2019 Region of Peel Seniors' Dental Program budget is expected to be spent in full.

The estimated cost to complete the Regional Program for those currently enrolled but not eligible for the Provincial program is \$475,000. This cost will be managed through the existing 2019 Regional tax base.

CONCLUSION

The Ontario Seniors Dental Care Program is expected to launch in fall 2019. In preparation, Peel Public Health has stopped accepting applications to the Regional program waitlist and has created a list to refer and navigate seniors to the Provincial program. Seniors currently enrolled or on the waitlist, and who are ineligible for the Provincial program, will be provided services through the Regional program until their treatment is complete. Peel Public Health is committed to providing a seamless transition for seniors currently enrolled or on the Regional program waitlist and to ensuring that no seniors lose access to dental care as a result of this transition. Overall, transitioning to the Provincial program will provide more Peel seniors with continued access to dental care.



Cathy Granger, Acting Commissioner of Health Services



Jessica Hopkins, MD MHS Sc CCFP FRCPC, Medical Officer of Health

TRANSITIONING TO THE NEW ONTARIO SENIORS DENTAL CARE PROGRAM

Approved for Submission:



N. Polsinelli, Interim Chief Administrative Officer

APPENDICES

Appendix I – Comparison of Peel Seniors’ Dental and the Ontario Seniors Dental Care Programs

Appendix II – Letter to the Ministry Advocating for Service Delivery through Private Dental Providers Alongside Public Dental Clinics

For further information regarding this report, please contact Paul Sharma, Director, Chronic Disease and Injury Prevention Division, Ext. 2013.

Authored By: Sebastian Van Gilst, Dr. Faahim Rashid, Chronic Disease and Injury Prevention

Reviewed in workflow by: Financial Support Unit

8.2-6

APPENDIX I

TRANSITIONING TO THE NEW ONTARIO SENIORS DENTAL CARE PROGRAM

A brief comparison of the Region of Peel Seniors' Dental Program and the Ontario Seniors Dental Care Program

	Region of Peel Seniors' Dental Program	Ontario Seniors Dental Care Program
Funding	100% Regionally-funded	100% Provincially-funded
Eligibility	<ul style="list-style-type: none"> • Resident of Peel • Canadian citizen or permanent resident • Meet the low income cut-offs after-tax <ul style="list-style-type: none"> Singles - \$21,481 or less Couples - \$26,143 or less • No access to dental benefits 	<ul style="list-style-type: none"> • Resident of Ontario • Meet the Ontario Drug Benefit low income thresholds <ul style="list-style-type: none"> Singles - \$19,300 or less Couples - \$32,300 or less • No access to dental benefits
Enrolment	Application in person	Application submitted online or by mail
Administration	Administered by regional staff	Centrally administered by the province
Access	Once-per-lifetime	Automatic annual financial eligibility re-assessment
Service Delivery	Services provided through: <ul style="list-style-type: none"> • Community Health Centres • Private Dental Providers 	Services provided through: <ul style="list-style-type: none"> • Public Health Units • Community Health Centres • Aboriginal Health Access Centres
Service Schedule	<ul style="list-style-type: none"> • Comprehensive schedule of services 	<ul style="list-style-type: none"> • Comprehensive service categories • Requires eligible clients to pay a 10% co-payment on the total cost of the prosthodontic (e.g. dentures) to the Board of Health

**APPENDIX II
TRANSITIONING TO THE NEW ONTARIO SENIORS DENTAL CARE PROGRAM**



**Health
Services**

Office of the
Medical Officer
of Health

PO Box 667
RPO Streetsville
Mississauga, ON
L5M 2C2
tel: 905-799-7700

peelregion.ca

August 28, 2019

Hon. Christine Elliott
Deputy Premier and Minister of Health
10th Floor, Hepburn Block
80 Grosvenor Street
Toronto, ON M7A 1E9

Dear Minister Elliott,

Re: Ontario Seniors Dental Care Program – Supporting Effective and Timely Service Delivery

I am writing to request flexibility in implementation of the new Ontario Seniors Dental Care Program (OSDCP) in order to support effective and timely service delivery.

I commend the Ministry of Health for creating a provincially-funded program for addressing an essential need and service gap in vulnerable seniors. This is an important step for reducing unnecessary trips to the hospital, preventing chronic disease and increasing quality of life for seniors.

Region of Peel Seniors' Dental Program

Since 2008, the Region of Peel Seniors' Dental Program (SDP) has been providing once-per-lifetime access to dental services to seniors who do not have dental insurance and cannot afford the cost of dental care. Peel has over ten years of experience providing more than 11,000 seniors access to dental care. The program's demand has been consistent, and the ongoing waitlist demonstrates a high need among residents. Services for the program are delivered using a mixed service delivery model that includes two Community Health Centres and private dental providers. The Region of Peel currently provides service to approximately 800 seniors annually, which is about one tenth of the Province's estimated annual numbers the Ontario Seniors Dental Care Program. Scaling-up capacity quickly will be a significant challenge.

Role of Private Dental Providers

Through our experience, we know that the delivery of services through private dental providers is important for several reasons:

1. *Continuity of Care:* Seniors are likely to have established relationships and a history of care with their private provider. Access to their existing provider ensures continuity of care and reduces duplication of efforts (e.g., history, exams, testing).

**APPENDIX II
TRANSITIONING TO THE NEW ONTARIO SENIORS DENTAL CARE PROGRAM**



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2. *Access to Care*: Seniors may have transportation limitations as a result of mobility and accessibility issues. Private providers may be close to the senior's home and allow for easier access.
3. *Cultural Needs*: Seniors often select providers that meet their unique cultural needs. For example, seniors whose first language is not English may select a provider with whom they can communicate in their first language.
4. *Capacity*: The delivery of services solely through public dental clinics can result in a waitlist for seniors to access oral health services given the limited capacity within the current public dental care system.

Request

For these reasons, I am requesting flexibility in implementing the OSDCP using a mixed-service delivery model that includes private dental providers along with publicly funded dental clinics to ensure that seniors' needs are met, and that care is received in a timely manner. Should the Province desire services be delivered only through Public Health, Community Health Centres, and Aboriginal Health Access Centres, flexibility to allow for private dental providers during the transition period as new facilities for service delivery are being built would best meet the needs of Ontario's seniors. Private dental providers could then be phased out over time.

Thank you for the opportunity to provide feedback on this great initiative to improve the oral health of seniors in Ontario and we look forward to supporting you in ensuring its success.

Sincerely,

Jessica Hopkins, MD MHSc CCFP FRCPC
Medical Officer of Health, Peel Public Health

Transitioning to the new Ontario Seniors Dental Care Program

September 26, 2019
Regional Council

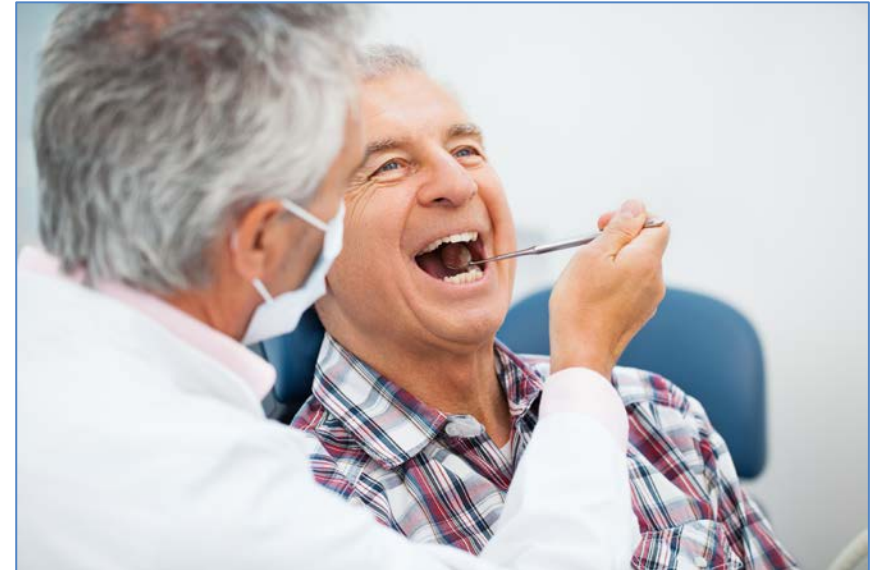
Jessica Hopkins, MD MHScc CCFP FRCPC
Medical Officer of Health, Region of Peel

Dr. Faahim Rashid, DDS MSc FRCDC
Dental Consultant, Region of Peel



Region of Peel Low Income Seniors' Dental Program

- Provides once per lifetime access to one full course of dental treatment for 800 seniors annually
- 2019 approved budget is \$1,678,819
- Services provided through:
 - Two Community Health Centres
 - Private dental providers
- As of July 11, there were 668 seniors on the waitlist with an approximate wait time of five months



Ontario Seniors Dental Care Program

- In April 2019, a \$90M provincial investment in a new publicly-funded dental program for low income seniors was announced
- Expected launch date is fall 2019
- One-time opportunity to apply for capital funding in 2019 for new dental infrastructure to meet current and future needs



Comparison of Regional and Provincial Programs

	Region of Peel Seniors' Dental Program	Ontario Seniors Dental Care Program
Funding	100% Regionally funded	100% Provincially funded
Eligibility	Singles - \$21,481 or less Couples - \$26,143 or less	Singles - \$19,300 or less Couples - \$32,300 or less
Enrolment	Application in person	Application submitted online or by mail
Administration	Administered by regional staff	Centrally administered by the Province
Access	Once-per-lifetime	Automatic annual financial eligibility re-assessment
Service Delivery	<ul style="list-style-type: none"> Community Health Centres Private Dental Providers 	<ul style="list-style-type: none"> Public Health Units Community Health Centres Aboriginal Health Access Centres
Service Schedule	Comprehensive schedule of services	Comprehensive service categories Requires eligible clients to pay a 10% co-payment on the total cost of the prosthodontic (e.g. dentures) to the Board of Health
Public Health role	Planning, administration, management, program evaluation, reporting	Management, client navigation, service delivery and reporting

Regional Council Meeting (July 11)

Council approved the following recommendations (Resolution 2019-701):

- That the Region of Peel Seniors' Dental Program continue to collect names and create a list to refer to the Provincial program when it starts;
- And further, that seniors, currently enrolled or on the program waitlist, who do not meet the provincial eligibility criteria be provided treatment through the Region of Peel Seniors' Dental Program;
- And further, that the Region of Peel implement the new Ontario Seniors Dental Care program based on the provincial implementation date;
- And further, that staff continue to advocate for the private practitioner process available now in the Region of Peel.

Transition Plan

Peel Public Health is committed to:

Providing a **seamless transition** for seniors currently enrolled in the Regional program and those on the waitlist

Ensuring that seniors who are enrolled or on the waitlist for the Regional program **do not lose access to care** as a result of the transition

- As of July 15, Peel Public Health stopped accepting seniors to the Regional program waitlist and created a list to refer and navigate seniors to the Provincial program.
- Peel Public Health will continue to provide access to oral health care for seniors on the Regional waitlist.

Transition Plan

a. Eligibility

- Seniors eligible for the Provincial program will be provided navigation and enrolment support
- Waitlisted or currently enrolled seniors who are ineligible will complete treatment through the Regional program

b. Communication

- Peel Public Health will keep seniors and the Seniors Dental Program Stakeholders Group informed about program changes

Transition Plan

c. Capacity

- Potential capacity constraint at Community Health Centres due to overlap of Regional and Provincial programs, and influx of seniors from outside Peel
- Peel Public Health is considering options to increase capacity
- Peel Public Health applied for one time capital funding to develop dental infrastructure in underserved areas

d. Regional Program Administration

- The Regional program will continue to require dedicated resources from the Region to support ongoing program implementation, administration and management until it is replaced by the Provincial program

Financial Implications

- For 2019, Peel Public Health received \$2,934,000 in base funding (which is a pro-rated amount for April 1, 2019 to December 31, 2019) to implement the new Provincial program. In 2020, base funding in the amount of \$3,912,800 is expected to implement the program over a full calendar year.
- The 2019 budget is expected to be spent in full.
- In 2020 and 2021, the Regional program will continue to phase out using the Regional tax base.
- If the provincial program is launched in fall 2019, the Regional program will require a budget of \$475,000 in 2020.

Questions?



DATE: September 18, 2019

REPORT TITLE: **SERVICE LEVEL IMPLICATIONS FOR PEEL PROGRAMS IMPACTED BY PROVINCIAL ENVELOPE FUNDING REDUCTIONS**

FROM: Cathy Granger, Acting Commissioner of Health Services
 Janice Sheehy, Commissioner of Human Services
 Stephen VanOfwegen, Commissioner of Finance and Chief Financial Officer

RECOMMENDATION

That Peel Paramedics maintains service levels for 2020 with the resources required to meet community needs included as part of the proposed 2020 Budget;

And further, that Public Health maintains core service levels for 2020;

And further, that Long Term Care maintain service levels for 2020 and a mitigation strategy for the Long Term Care shortfall be presented to Council as part of the proposed 2020 Regional budget;

And further, that Council approve \$5.6 million in discretionary cost share to offset a 20 per cent reduction in provincial funding for the Child Care Expansion Plan;

And further, that given the Province's introduction of the Childcare Access and Relief from Expenses (CARE) tax credit, that staff end the Region's Child Care Fee Reduction Initiative to ensure that affordability funds are being used most efficiently.

REPORT HIGHLIGHTS

- The 2019 Provincial Budget has introduced funding changes for municipalities, including a change in cost share for Public Health, the introduction of a discretionary cost share for Child Care and overall reductions in funding for municipally-provided and provincially-mandated services including Long Term Care.
- Savings identified through annual service reviews have partially mitigated the impact of these funding reductions but there are still service risks to the reduced funding. Over the past five years, Peel's robust continuous improvement program has saved more than \$50 million.
- Due to Council's advocacy, the Province reversed its funding freeze for Peel Paramedics. Therefore, no service reductions will be required for 2020 but additional resources will be proposed through the budget to address the 2020 service demand.
- There are no core service implications for cost-share changes to Public Health in 2020 based on Council direction from July 11, 2019. Although savings were identified, additional resources are required to maintain service levels for 2020.

SERVICE LEVEL IMPLICATIONS FOR PEEL PROGRAMS IMPACTED BY PROVINCIAL ENVELOPE FUNDING REDUCTIONS

- Reduced funding for Long Term Care could include delays in the introduction of more Butterfly Homes, reduced hours of care for residents and the inability to meet the Council-directed objectives of the Aging Population Steering Committee of Council therefore funding to maintain service levels is recommended.
- Reduced funding for Child Care could result in the creation of significant wait lists for child care fee subsidy and/or children with special needs, and the need to end supports that make child care more affordable for working families that don't qualify for subsidy. Therefore, staff recommends the addition of \$5.6 million in discretionary cost sharing to ensure that there will not be a wait list for fee subsidy or special needs services.
- Looking beyond 2020, it is anticipated that Child Care will see additional pressures in future budget years due to the deferral of cuts to 2021 and 2022. Public Health will see additional shift to a 60/40 cost share model in 2021, but this has not been confirmed.
- At the Association of Municipalities of Ontario (AMO) conference, the Province announced several of these revised positions, although the appropriate Ministries have not yet officially confirmed all proposed changes. This report describes what is known at the time of writing and is subject to change as funding letters are received.

DISCUSSION

1. Background

On April 11, 2019, the Province released its 2019 Budget with additional details in the weeks that followed. There has been a significant impact on municipalities across Ontario as the Province works to lower its deficit. Significant funding reductions and/or freezes, as well as changes in cost share arrangements, were announced for Paramedics, Early Years and Child Care, Long Term Care, Public Health and Employment Support.

On June 27, 2019, Regional Council directed staff to develop and implement a communications campaign to communicate to Peel residents the scope of public health and paramedic services currently available in Peel, as well as the potential impact of the proposed Provincial changes to these sectors.. A summary report on this campaign will be brought to Regional Council on October 10, 2019.

At its July 11, 2019 meeting, Regional Council addressed budget implications related to increases in the provincial cost share for Peel. Council directed staff to work toward a revised 3.9 per cent budget and report back on strategies to address significant provincial funding envelope reductions, specifically in the areas of Paramedics, Long Term Care and Early Years and Child Care. Funding envelope reductions related to Employment Support were presented to Regional Council on July 11, 2019 in the report "Addictions Services Initiative" and will not be addressed further within this report.

Table 1 below provides the estimated financial impact to Peel resulting from the changes in Provincial funding for the 2020 Budget and from 2021 to 2022. These figures have continued to evolve since last reported to Council on September 12 and will likely continue to evolve over the coming months. For Public Health, the impact of the shift to a 60/40 cost share model for 2021 is still not clear and likely won't be clear until the 2021 funding letter is received.

8.3-3

SERVICE LEVEL IMPLICATIONS FOR PEEL PROGRAMS IMPACTED BY PROVINCIAL ENVELOPE FUNDING REDUCTIONS

Table 1: Updated Provincial Funding Impacts

Region of Peel Service	Provincial Funding Envelope Reduction/ Shortfall 2020 (\$ millions)	Shift in Cost Share from the Province to Peel 2020 (\$ millions)	Total Provincial Funding Impact 2020 (\$ millions)	Additional Provincial Funding Impact 2021 to 2022 (\$ millions)
Child Care	17.8*	0.0	17.8	6.0
Paramedic Services	0.0	0.0	0.0	0.0**
Long Term Care	0.9	0.0	0.9	0.0**
Employment Support	0.8	0.0	0.8	0.0
Public Health (For formerly 100 per cent Provincially-funded programs)	0.9	2.4	3.3	4.3
Provincial Funding Impact – Region Controlled Services	\$20.4M	\$2.4M	\$22.8M	\$10.3M
Peel Regional Police	2.6	0.0	2.6	0.0**
Conservation Authorities	0.6	0.0	0.6	0.0**
Provincial Funding Impact – External Agencies	\$3.2M	\$0.0M	\$3.2M	\$0.0**M
Provincial Funding Impact – Total Region of Peel	\$23.6M	\$2.4M	\$26.0M	\$10.3

* The \$17.8 million includes a \$5.6 million (20 per cent) reduction in provincial funding for the Child Care Expansion Plan. This \$5.6 million was originally presented as a mandatory cost share required to receive any expansion funding, but subsequently changed to a non-mandatory or discretionary support for 2020. It may be requested in 2021 and beyond. Without these funds, there will be service impacts which are outlined in this report under Early Years and Child Care section.

** Forecast year reductions, if any, have not been provided by the Province.

As reported to Council with each annual budget, the Region has a robust continuous improvement program in place. Tactics include LEAN process improvement, program

SERVICE LEVEL IMPLICATIONS FOR PEEL PROGRAMS IMPACTED BY PROVINCIAL ENVELOPE FUNDING REDUCTIONS

evaluation and review of service delivery models. Over the past five years, these efforts have resulted in cost savings and/or avoidance of over \$50 million across the Region or the equivalent of 5 per cent of the net tax levy.

In the years prior, the Region also made several Council-directed changes to improve efficiency and service outcomes in the areas affected by Provincial cuts and/or freezes, including the:

- Introduction of the divisional model in Peel Paramedics (2007; completed 2019)
- Closure of Region of Peel operated child care centres and transition to a system that subsidized more children in less-costly private/commercial and not-for-profit child care settings (2012)
- Focus on the delivery of high-quality, sustainable services for seniors that are “regularly reviewed to reduce duplication, identify efficiencies and ensure outcomes are achieved.” (2013; Aging Population Steering Committee of Council)

The purpose of this report is to provide Council with a summary of potential service implications or risks related to Provincial envelope funding changes and an update on the impact of changes to provincial funding.

2. Peel Regional Paramedic Services

Due in part to municipal advocacy efforts, the Province reversed its previous decision to freeze Paramedic funding at 2017 service levels. At the recent Association of Municipalities of Ontario (AMO) Conference, the Province announced it would provide an additional 4 per cent in funding to land ambulance across Ontario for each of 2019 and 2020. As a result, there will not be any service reductions for Paramedic Services for 2020 due to Provincial changes. Paramedic Services will be proposing through the 2020 Budget, additional resources to address the 2020 service demand.

3. Public Health

While transformation of Public Health across Ontario continues, municipal advocacy efforts have helped influence the direction of some of these changes. At the Association of Municipalities of Ontario (AMO) conference, the Province announced the 70/30 provincial/municipal cost share for programming, which was scheduled to be retroactive to April 1, 2019, will now become effective on January 1, 2020. The Province has not yet confirmed the details to reduce its cost share to 60 per cent in 2021.

The current cost share for all mandatory public health programs between the Province and the Region is approximately 66 per cent and 34 per cent, respectively. Public Health received the same funding from the Province in 2019, as in 2018 (\$54 million) (see letter from the Minister of Health, Regional Council September 12, 2019), and expects to receive this same amount in 2020 which represents a potential funding shortfall of \$0.9 million depending on how the Province implements the cost share shift for the 100% funded programs.

SERVICE LEVEL IMPLICATIONS FOR PEEL PROGRAMS IMPACTED BY PROVINCIAL ENVELOPE FUNDING REDUCTIONS

As in previous years, the funding does not fully recognize population growth and other unique health needs in Peel, so the service demand is not completely funded. This funding also does not address cost of living increases.

These changes affect all programs, including those already cost-shared and currently 100 per cent provincially funded programs. In addition to changes in existing funding, the Province also announced the new Ontario Seniors Dental Care Program, for which the Region received \$3.9 million, will be 100 per cent provincially funded.

3.1 Service Risks

Should the Province choose to continue with 2018 funding levels in 2020, this will result in, as mentioned earlier, a potential \$0.9 million shortfall in funding. As in previous years, the funding does not fully recognize population growth and other unique health needs in Peel, so the service demand is not completely funded. This funding also does not address cost of living increases. Staff will report back as further information on 2020 provincial funding becomes available.

3.2 Potential Efficiencies to Offset Known Reductions

Public Health reviewed its budget for low-risk areas where in-year financial efficiencies could be found following the spring Provincial budget announcement. Staff was able to find efficiencies across program areas through a combination of \$0.2 million in savings and additional cost-avoidance by delaying or deferring some work, allowing Public Health to maintain service levels in the short-to-medium term despite growth and cost of living and salary increases.

Efficiencies of \$0.2 million have already been identified in low-risk areas and will be built into the base budget for 2020 and future years. However, there is a risk that reducing Public Health's approved budget for 2020 could compound the potential remaining decrease (\$0.7 million) in the Province's funding share.

3.4 Recommendation

Staff's recommendation is to maximize chances for more external funding and to include the additional \$0.7 million in the 2020 Budget to maintain core service levels for 2020.

4 Long Term Care

As described in the July 11, 2019 Council Report, *Strategies to Address the Provincial Funding Cuts*, Long Term Care has an expected shortfall of \$0.9 million due to Provincial cuts to its funding envelope. This includes the removal of two key funds:

- Structural Compliance Premium Fund, which supported facilities maintenance, and
- High Wage Transition Fund, which helped address higher than average wage costs.

SERVICE LEVEL IMPLICATIONS FOR PEEL PROGRAMS IMPACTED BY PROVINCIAL ENVELOPE FUNDING REDUCTIONS

4.1 Service Risks

The people who live in Peel's five Long Term Care homes, as well as their families, would experience significant service impacts with a \$0.9 million shortfall. This includes high risk areas such as:

- Delays in the implementation of the Butterfly Model, which would reduce the level of emotional care for residents and delay associated reductions in falls, responsive behaviours, staff sick time, use of psychotropic medication and other outcome measures.
- Reductions in individual care hours due to hiring freezes or unfilled staff positions.
- Inability to meet Council's direction related to the objectives of the Aging Population Steering Committee of Council.

4.2 Efficiencies to Offset Known Reductions

Long Term Care has a long-standing commitment to continuous quality improvement as part of its fulfilment of the Ontario *Long Term Care Homes Act (2007)*.

As referenced above, Regional Council directed staff, through the Aging Population Steering Committee of Council (2013), to focus on the delivery of high-quality, sustainable services for seniors that are "regularly reviewed to reduce duplication, identify efficiencies and ensure outcomes are achieved."

Upon notification of funding envelope cuts, Long Term Care reviewed its budget to identify any financial efficiencies in low-risk areas. While minimal cost-savings were found, Long Term Care did identify approximately \$0.4 in cost avoidance measures associated with decreased resources needed for Butterfly implementation. This was made possible through a partnership with Mississauga-Halton LHIN and the use of a different staffing model. Staff will continue to review and enhance the Butterfly staffing model to maximize resources while ensuring Butterfly outcomes are attained.

4.3 Options to Offset Remaining Provincial Cuts

Long Term Care could not find \$0.9 million to offset the remaining shortfall due to Provincial funding cuts to its funding envelope. This shortfall will be reviewed and analyzed as part of the Region's annual budget process and a mitigation strategy will be presented to Council as part of the proposed 2020 Regional budget.

4.4 Recommendation

Staff's recommendation is to maintain service levels for 2020 as staff believe the risk to the quality of service is too high. However, staff will continue to focus efforts on identifying efficiencies and cost avoidance measures through their continuous quality improvement work.

SERVICE LEVEL IMPLICATIONS FOR PEEL PROGRAMS IMPACTED BY PROVINCIAL ENVELOPE FUNDING REDUCTIONS

5 Early Years and Child Care

The priorities that Regional Council endorsed for the Early Years and Child Care system for the next five years are: affordability, inclusivity, quality, accountability and accessibility. Earlier this year, the Province announced cuts that would result in a \$17.8 million shortfall in program funding that had the potential to seriously impact achievement of these priorities. At the July 11 meeting, Council approved the cessation of the Fee Stabilization program. The program's \$4.9 million in costs were 100 per cent funded by the Province. The remaining funding cut of \$12.9 million includes a \$5.6 million reduction in provincial funding for the Child Care Expansion Plan. The service impacts of the funding cuts are outlined in Section 5.1.

Due in part to municipal advocacy efforts, the Province recently deferred some of the expected reductions in funding that were originally planned for 2020:

- Effective January 1, 2021, the Province will implement a 50/50 cost share with the Region for administrative expenses.
- Effective January 1, 2022, in addition to the 50/50 cost share, the Province will cap the amount of provincial funding the Region can spend on administration to five per cent (from 10 per cent).

5.1 Service Risks

While the deferral of some of the funding cuts provides a degree of relief for the Child Care program and the Region's 2020 budget, the remaining reduction in provincial funding related to the Child Care Expansion Plan would immediately impact children and families accessing child care in Peel. Specifically:

- **Multiple Wait Lists:** The Region currently has no wait lists for child care or special needs services. This reduction would create significant wait lists for fee subsidy (approx. 1,000 children) and/or special needs support (approx. 1,100 children) effective December 2020. Wait lists can represent a barrier to parents and guardians returning to the workforce or remaining in it.
- **End Affordability Support for Working Families:** Elimination of the Region's Child Care Fee Reduction Initiative, thus ending supports that help make child care more affordable for working families that do not qualify for subsidy. Families may be forced to redirect money from their household budgets to pay the high cost of licensed child care.

To partially offset the impact of the reduced funding however, parents and guardians will be eligible for some financial relief with the Province's new refundable *Childcare Access and Relief Expenses (CARE)* personal tax credit, which was announced in the April 2019 budget. The Province anticipates that this credit, which will be available for the 2019 tax period, will provide eligible low- and moderate-income families with up to 75 per cent of their eligible child care expenses.

SERVICE LEVEL IMPLICATIONS FOR PEEL PROGRAMS IMPACTED BY PROVINCIAL ENVELOPE FUNDING REDUCTIONS

5.2 Efficiencies to Offset Known Reductions

Program Efficiencies

Upon notification of funding cuts in the Spring Provincial budget announcement, Early Years and Child Care reviewed its budget for low-risk areas where savings could be found and identified \$2 million through attrition and internal efficiencies.

Fee Subsidy Review

In July 2019, the Region applied for the Province's new Audit and Accountability Funding. In August, the Region was approved and hired a consultant to complete a review of the Child Care Fee Subsidy Program. This review will find efficiencies and outline specific and actionable recommendations to save costs and strengthen accountability. This report will be delivered by year-end and the findings will be shared with Regional Council.

Redesign Child Care Rate Reduction Supports for Families

Based on the reductions in provincial funding and introduction of the Provincial Childcare Access and Relief from Expenses (CARE) tax credit, staff will redesign the Region's Child Care Fee Reduction Initiative. A new strategy for rate reduction will ensure that affordability funds are being used most efficiently to target high child care rates in Peel. Staff will be returning to Council with details of this strategy as part of a broader model that redesigns the way licensed child care providers are funded. In 2018, approximately 12,000 children aged zero to four were supported through the Child Care Fee Reduction Initiative, which reduced child care costs for families at all income levels.

These financial efficiencies will help Peel reshape its programming in preparation for future budget years when deferred cuts are re-introduced.

5.3 Recommendations to Offset Remaining Provincial Cuts

Staff recommends the following to help mitigate the \$12.9 million in Provincial reductions:

- That Council approve \$5.6 million in discretionary funding to offset a 20 per cent reduction in provincial funding for the Child Care Expansion Plan.
- That the remaining \$7.3 million not be funded by additional Regional investment. Instead, the Region will prioritize fee subsidy and special needs services, and end the Child Care Fee Reduction Initiative. The Province's new CARE tax credit is expected to provide low- and moderate-income families with additional relief of up to 75 per cent of their eligible child care expenses.

Council's approval of these recommendations would ensure that:

- Families in Peel will be able to access fee subsidy without being on a lengthy wait list.
- Children who benefit from special needs resourcing will continue to receive the support they need.

8.3-9

SERVICE LEVEL IMPLICATIONS FOR PEEL PROGRAMS IMPACTED BY PROVINCIAL ENVELOPE FUNDING REDUCTIONS

- The existing program which provides special needs supports to children in before-and-after-school licensed child care programs will continue.
- Staff can continue to explore the most effective ways to make child care more affordable for working families that don't qualify for child-care subsidy.

In addition, Regional staff will continue to look for further efficiencies as Peel prepares for the Provincial funding reductions in 2021 and 2022.

6. Anticipated Funding Changes for Future Budget Years

This report addresses the immediate impacts of funding changes for the 2020 budget year and addresses possible changes to provincial funding from a late August announcement from the Province.

Since the Province only provides allocations one year at a time, staff cannot anticipate if further Provincial cuts may be made to funding envelopes for 2021 and beyond.

The Region will continue to demonstrate leadership in the delivery of effective and tax-efficient programs in all areas and advocate to the Province for appropriate funding levels to support the residents of Peel.

FINANCIAL IMPLICATIONS

The total estimated 2020 provincial funding impact to Peel, based on what was known at the time of the writing of this report including external agencies, is \$26.0 million; \$23.6 million for funding envelope reductions/freezing and \$2.4 million for shifts in cost share to Peel. There is also an additional impact of \$10.3 million for 2021 and 2022, bringing the total impact to Peel to \$36.3 million.

On July 11, 2019, Council approved the inclusion of the cost share shift as part of the 2020 Budget target. Council also requested that staff report back to Council with the risks to 2020 service demands resulting from the funding change and strategies to mitigate those risks. The following table summarizes the recommended strategies and associated financial impacts:

The recommendations proposed in the report, "Service Level Implications for Peel Programs Impacted by Provincial Funding Envelope Reductions" have a total budget impact, as outlined in the table below, of \$7.4 million.

Service	Recommendation	Proposed Budget Approach	Financial Impact to the 2020 Budget
Paramedics	Maintain service levels for 2020 with no decrease in service levels as funding is no longer frozen for 2020.	Resources to meet the service demands for 2020 to be included as part of the 2020 Budget proposal.	\$0 M
Public Health	Maintain core service levels for 2020 which will maximize chances for more external funding	After recognizing identified savings, the 2020 Budget would include additional resources to maintain	\$0.7 M

8.3-10

SERVICE LEVEL IMPLICATIONS FOR PEEL PROGRAMS IMPACTED BY PROVINCIAL ENVELOPE FUNDING REDUCTIONS

		service levels and to offset the risk of the potential funding shortfall.	
Long Term Care	Maintain service levels for 2020 by leveraging efficiencies to address part of the funding envelope shortfall of \$0.9 M	Continue to work on cost avoidance measures and Identify additional strategies through the budget to address funding shortfall.	\$0.9 M
Early Years and Child Care	Continue to deliver service with no wait list for fee subsidy or special needs by adding \$5.6 million to offset a 20 per cent reduction in provincial funding for the Child Care Expansion Plan. Reallocate and deploy existing non-mandatory Regional investment in child care, as required, to manage program and budget pressure. End the Region's Child Care Fee Reduction Initiative, which supports affordability.	Invest \$5.6 M to meet the 20 per cent funding reduction.	\$5.6 M
TOTAL			\$7.2M

CONCLUSION

The provincial funding changes have a significant impact on a number of Peel's key programs with reduced funding increasing the risks to current service levels. Due to Council's advocacy and Peel's ongoing continuous improvement efforts, part of the service level risks has been mitigated. To maintain service levels to Peel's community, staff have recommended increases to 2020 Budget to mitigate the impact of reduced in high risk areas. Strong planning and a continued focus on continuous quality improvement in all programs will help support changes related to future reductions and pressures from Peel's growth. Council's direction will support effective and appropriate service delivery to support Peel residents.

Cathy Granger

Cathy Granger, Acting Commissioner of Health Services

SERVICE LEVEL IMPLICATIONS FOR PEEL PROGRAMS IMPACTED BY PROVINCIAL ENVELOPE FUNDING REDUCTIONS



Janice Sheehy, Commissioner of Human Services



Stephen VanOfwegen, Commissioner of Finance and Chief Financial Officer

Approved for Submission:



N. Polsinelli, Interim Chief Administrative Officer

For further information regarding this report, please contact Cathy Granger, Acting Commissioner Health Services, Ext. 4901, Cathy.Granger@peelregion.ca, Janice Sheehy, Commissioner Human Services, Ext. 4939, janice.sheehy@peelregion.ca and Stephen VanOfwegen, Commissioner of Finance and Chief Financial Officer, Ext. 4759, Stephen.VanOfwegen@peelregion.ca.

Authored By: Janet Eagleson, Manager, Strategic Client Communications, Health Services

Reviewed in workflow by: Financial Support Unit

Service Implications of Provincial Envelope Funding Reductions

Norman Lum, Director of Finance

Cathy Granger, Acting Commissioner, Health Services

Suzanne Finn, Director, Early Years and Child Care Services

Region of Peel

Provincial Funding Impact

Funding shortfall of \$35.8M is an improvement of \$9.3M over the initial \$45.1M shortfall

Year	Decreased Funding	Net Tax Levy Impact	Impact to Typical Home Owner
2020	\$25.5M*	2.3%	+\$45/ year
2021 - 2022	\$10.3M*	1.0%	+\$18/year
Total Impact	\$35.8M*	3.3%	+\$63/year

Note: Figures are estimated based on what is understood at the time the report was written

Updated Financial Impact of Provincial Funding Changes


Provincial Funding Impact

Region of Peel Service	Envelope Reduction/Shortfall 2020	Cost Share Shift 2020	Total Funding Impact 2020	Additional Future Impact 2021 - 2022
Child Care	\$17.8	\$ -	\$17.8	\$6.0
Paramedic Services	-	-	-	-
Long Term Care	0.4*	-	0.4	-
Employment Support	0.8	-	0.8	-
Public Health	0.9	2.4	3.3	4.3**
Total Region Controlled Impact	\$19.9M	\$2.4M	\$22.3M	\$10.3M

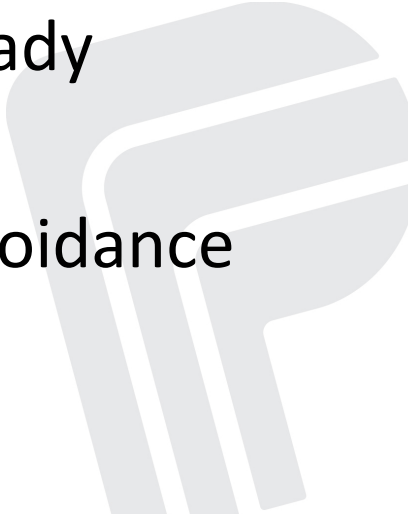
*Figures reflect the recent Provincial announcement for additional funding to Long Term Care changing the reduction from \$0.9M to \$0.4M till the end of 2020

** not confirmed

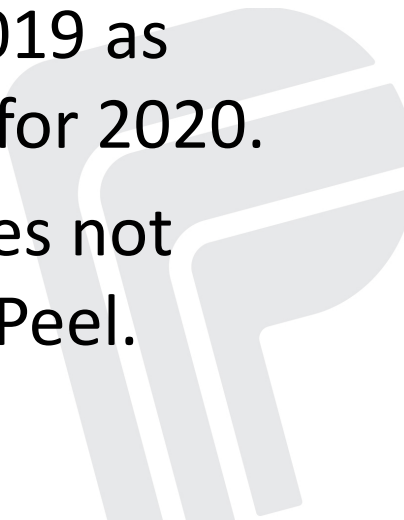
Paramedic Services

- Funding freeze at 2017 level reversed.
 - Province pledged 4 per cent increase in funding for land ambulance across Ontario for 2019. We are still waiting for confirmation about 2020 and 2021 funding.
 - No immediate service implications, but this funding does not address growth in calls.
- 

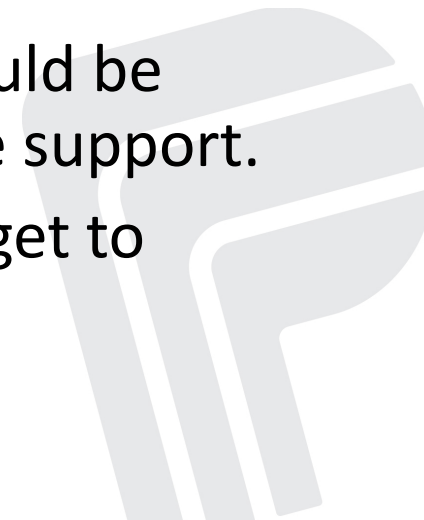
Long Term Care

- Province postponed known cuts last Friday.
 - Expected shortfall now \$0.4 million till the end of 2020.
 - \$0.4 million cost-avoidance measures already found.
 - No service risks. Continue focus on cost avoidance and efficiencies.
- 

Public Health

- 70/30 cost share starts Jan. 1, 2020. Includes most 100 per cent funded programs, except seniors dental.
 - Public Health received same funding for 2019 as received in 2018. Expect continued freeze for 2020.
 - As in previous years, provincial funding does not address growth or unique health needs in Peel.
- 

Public Health

- Potential shortfall of \$0.9 million, offset by \$0.2 million in low-risk efficiencies and cost avoidance.
 - Risk to community health, as Public Health must delay or defer work to avoid costs.
 - Additional risk that any budget reduction would be compounded by Province in future cost share support.
 - Recommend \$0.7 million added to 2020 budget to maintain core service levels.
- 

Early Years and Child Care

Provincial funding reduction:	\$17.8 million
End of Fee Stabilization Supports	<u>-\$4.9 million</u>
Shortfall for 2020:	12.9 million
Recommendations:	
Request for funding	5.6 million
End Fee Reduction Initiative	7.3 million

Early Years and Child Care


Recommendation:

- Invest \$5.6 million to address shortfall
- Avoid waitlists for fee subsidy (up to 1000 children) or special needs services (up to 1,100 children)



Early Years and Child Care

Recommendation:

- With introduction of Childcare Access and Relief from Expenses tax credit, end Rate Reduction Initiative (\$12/day for FT, \$6/day for PT children)
 - \$7.3M shortfall is not funded through Regional tax dollars.
- 

Questions?

Contact info:

Region of Peel

Cathy Granger, Interim Commissioner, Health Services, Ext. 4901

Norman Lum, Director, Finance, Ext. 3567

Suzanne Finn, Director, Early Years and Child Care Services, Ext. 7242



**ITEMS RELATED TO
HUMAN SERVICES**

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THE REGIONAL MUNICIPALITY OF PEEL
STRATEGIC HOUSING AND HOMELESSNESS COMMITTEE
MINUTES

SHHC - 4/2019

The Region of Peel Strategic Housing and Homelessness Committee met on September 19, 2019 at 9:35 a.m., in the Regional Council Chambers, 5th Floor, Regional Administrative Headquarters, 10 Peel Centre Drive, Suite A, Brampton, ON.

Members Present: G.S. Dhillon; A. Groves; N. Iannicca; C. Parrish;

Members Absent: G. Carlson, due to illness; M. Medeiros, due to other municipal business; P. Vicente, due to other municipal business

Also Present: N. Polsinelli, Interim Chief Administrative Officer; J. Sheehy, Commissioner of Human Services; S. VanOfwegen, Commissioner of Finance and Chief Financial Officer; C. Granger, Acting Commissioner of Health Services; A. Warren, Acting Commissioner, Public Works; P. O'Connor, Regional Solicitor; A. Baird, Director, Director Housing Services; K. Lockyer, Regional Clerk and Director of Legal Services; H. West, Legislative Specialist; S. MacGregor, Legislative Assistant; A. Dhindsa, Legislative Assistant

Chaired by Councillor A. Groves.

1. DECLARATIONS OF CONFLICTS OF INTEREST -Nil

2. APPROVAL OF AGENDA

RECOMMENDATION SHHC-11-2019

That the agenda for the September 19, 2019 Strategic Housing and Homelessness Committee meeting, be approved.

3. DELEGATIONS – Nil

4. REPORTS

* See text for arrivals

♦ See text for departures

4.1. **Housing Master Plan Financing Strategy Update (For information)**

Received

5. **COMMUNICATIONS - Nil**

6. **IN CAMERA MATTERS**

At 9:37 a.m., in accordance with section 239(2) of the *Municipal Act, 2001*, as amended, a motion was placed, and was carried, to move into closed session to consider the following subject matter:

- Housing Master Plan Update (A position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local Board)

Committee moved out of In Camera at 10:13 a.m.

RECOMMENDATION SHHC-12-2019

That the In Camera report from the Commissioner of Human Services and the Commissioner of Finance and Chief Financial Officer, titled "Housing Master Plan Update" be referred to the September 26, 2019 Regional Council meeting.

7. **OTHER BUSINESS - Nil**

8. **NEXT MEETING**

The next meeting of the Strategic Housing and Homelessness Committee is scheduled for Thursday, November 21, 2019 at 9:30 a.m., Regional Administrative Headquarters, Council Chamber, 5th floor, 10 Peel Centre Drive, Suite A, Brampton, ON.

Please forward regrets to Helena West, Committee Clerk, (905) 791-7800, extension 4697 or at Helena.west@peelregion.ca.

9. **ADJOURNMENT**

The meeting adjourned at 10:15 a.m.

September 23, 2019

Region of Peel
Attn: Helena West
helena.west@peelregion.ca

Sent via e-mail

RECEIVED
September 23, 2019

REGION OF PEEL
OFFICE OF THE REGIONAL CLERK

Re: Public Safety in Downtown Brampton.

The Council of The Corporation of the City of Brampton passed the following resolution at its meeting of September 11, 2019:

C338-2019 Moved by Regional Councillor Medeiros
Seconded by Regional Councillor Santos

WHEREAS there has been a negative impact on businesses and residents in the downtown Brampton area due to an increase in prohibited activities i.e. drug use, prostitution, trespassing, loitering, littering, theft, etc.;

WHEREAS there has been a noticeable increase in criminal activity in downtown Brampton;

WHEREAS there has been an increase of community safety and security concerns raised by businesses and residents of the downtown Brampton area;

WHEREAS addressing crime, safety & security, and related social challenges requires collaboration and outreach by the City of Brampton, the Region of Peel, Peel Regional Police, Brampton residents, land/property owners, business operators, community agencies, and all stakeholders;

WHEREAS the majority of community safety issues related to criminal activity are under the jurisdiction of Peel Regional Police;

REFERRAL TO Human Services and Public Works

RECOMMENDED _____

DIRECTION REQUIRED _____

RECEIPT RECOMMENDED _____

THEREFORE BE IT RESOLVED THAT:

1. Regional Councillors request the Region of Peel develop a community outreach strategy for downtown Brampton to support individuals with mental health and addiction issues, homelessness, and request the Region of Peel Waste Management staff consult with the BIA regarding the cleanliness of downtown Brampton;
2. Region of Peel staff ensure all businesses in the downtown Brampton area are operating in accordance with health and safety standards;
3. Staff report back on increasing safety and security measures in all City of Brampton facilities and public spaces in the downtown area, where applicable and feasible, by increasing lighting, ensuring cleanliness, installing appropriate signage, increase security foot and mobile patrols and uniformed presence, and ensuring security cameras are functional;
4. City of Brampton staff collaborate with the BIA and other downtown organizations to develop short-term and long-term plans to enhance the image and brand of Downtown Brampton to encourage the public to frequent the downtown for shopping, attend events, and improve and increase community pride to make downtown Brampton a premium destination of choice;
5. That any required funding to achieve recommendations developed to support this resolution be brought forward for Council's consideration and approval, and
6. That a copy of this Council Resolution be forwarded to the Region of Peel.

Yours truly,

Terri Brenton

Terri Brenton
Legislative Coordinator, City Clerk's Office
Tel: 905.874.2106 / Fax: 905.874.2119 / TTY: 905.874.2130
e-mail: terri.brenton@brampton.ca

(CL- 17.2)

**ITEMS RELATED TO
PLANNING AND GROWTH
MANAGEMENT**

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For Information

DATE: September 19, 2019

REPORT TITLE: **PEEL 2041 OFFICIAL PLAN REVIEW – IMPLICATIONS OF THE NEW GROWTH PLAN 2019 AND STATUS UPDATE**

FROM: Andrew Farr, Acting Commissioner of Public Works

OBJECTIVE

To provide an update on the ongoing Peel 2041: Official Plan Amendment proceeding by means of a Municipal Comprehensive Review, including process implications of the new Growth Plan, 2019: “A Place to Grow”.

REPORT HIGHLIGHTS

- The Peel 2041: Regional Official Plan Amendment (“Peel 2041”) is being undertaken in order to comprehensively update the Regional Official Plan and deal with the planning required by 2041 projected growth.
- The work has been underway for several years with original timelines extended as a result of Provincial planning policy changes.
- Most of its remaining focus areas are being undertaken as a Municipal Comprehensive Review under the authority of section 26 of the *Planning Act*.
- This means that these will not be subject to appeal to the Local Planning Appeal Tribunal but will require approval by the Province.
- The new Growth Plan, 2019 requires that these must proceed as a single Regional Official Plan Amendment.
- The few policy areas that are permitted to move forward prior to a Municipal Comprehensive Review (i.e. that could proceed in a phased manner by means of multiple amendments) can be appealed, thereby potentially delaying conformity and not significantly advancing the Peel 2041 work plan.
- The Peel 2041 work plan will, for this reason, now shift from multiple amendments, to a single amendment meeting the Municipal Comprehensive Review requirements.
- Staff will also continue to pursue the potential of the Province to make an enabling regulation under the *Places to Grow Act, 2005* to permit existing work and strategic amendments to move forward ahead of the Municipal Comprehensive Review by means of one or more separate amendments, such as the Ninth Line Lands and Mayfield West Phase 2 Stage 2 settlement expansions.
- The approach outlined in this report allows for an effective public consultation process, streamlined and integrated policy development, and a comprehensively updated Regional Official Plan.
- Peel staff will continue to coordinate the Peel 2041 work plan with the local municipal official plan reviews underway in Brampton, Caledon and Mississauga.

PEEL 2041 OFFICIAL PLAN REVIEW – IMPLICATIONS OF THE NEW GROWTH PLAN 2019 AND STATUS UPDATE

DISCUSSION

1. Background

The Peel 2041 Official Plan Review and Municipal Comprehensive Review (MCR) process is being undertaken to ensure consistency and conformity with Provincial plans and policies under Section 26 of the *Planning Act*. Since this process began, the Province has introduced multiple new plans, policies, guidance and regulations that have impacted progress.

On May 16, 2019, *A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2019* (Growth Plan, 2019) came into effect. This report provides an overview of the implications of the Growth Plan, 2019 on the Peel 2041 process and identifies the approach needed to comply with the Provincial deadline to achieve Regional Official Plan conformity by July 1, 2022.

2. Growth Plan, 2019 Process Implications

A summary of the new Growth Plan, 2019 changes can be found in Appendix I. The Province has advised that further policy updates and guidance material are expected in the coming months, which may impact the Region's Official Plan review including:

- guidance materials such as an updated land needs assessment methodology;
- Bill 108 regulations;
- updated mapping for Provincially significant employment zones;
- potentially new growth forecasts; and,
- review of the Provincial Policy Statement issued under the *Planning Act*.

Staff will continue to monitor any changes and provide updates as necessary.

Single Amendment Municipal Comprehensive Review

Provincial staff have recently provided confirmation that, at this time, the new Growth Plan, 2019 requires a single amendment MCR (either a new Official Plan or an Official Plan Amendment), to be initiated by the Region covering most of the outstanding MCR planning matters. However, the Growth Plan, 2019 permits some planning initiatives to proceed in advance of an MCR including:

- major transit station areas delineation and densities;
- settlement boundary expansions less than 40 hectares;
- minor settlement boundary adjustments;
- natural heritage and agricultural system mapping; and,
- employment conversions outside of the Provincially significant employment zones.

Among these policies permitted to proceed in advance of the MCR, only major transit station areas are protected from appeal.

Regional staff are not currently working towards multiple amendments in advance of the single MCR amendment because these could be appealed, and potentially add unnecessary delays to Peel 2041. Given the timelines involved in completing the work and the overall anticipated deadline of a Regional Council adopted MCR amendment by Q4 2021, it is not

PEEL 2041 OFFICIAL PLAN REVIEW – IMPLICATIONS OF THE NEW GROWTH PLAN 2019 AND STATUS UPDATE

expected that individual amendments for most of these policy areas would significantly advance the Peel 2041 work plan.

Consideration of Existing Planning Work in Growth Plan 2019 Transition Regulations

Regional staff will continue to pursue the opportunity for strategically significant initiatives to be addressed in advance of an MCR, should Provincial direction allow for the policy area to move forward. Specifically, the Region has outstanding requests to the Province to provide Growth Plan transition regulations that would allow settlement expansions for the Ninth Line Lands (Proposed Regionally Initiated Regional Official Plan Amendment 33) and Mayfield West Phase 2 Stage 2 (Proposed Regionally initiated Regional Official Plan Amendment 34), to move forward in advance of the MCR.

The statutory public meeting was held on October 26, 2017 for the Ninth Line Lands as the population allocation for that settlement boundary expansion is included within the existing 2031 targets. In order to hold the statutory public meeting for the Mayfield West Phase 2 Stage 2 lands, the Province would need to put in place transition regulations under the 2019 Growth Plan to allow the Regional Official Plan Amendment (ROPA) for the settlement area boundary expansion to proceed.

Staff previously received Council direction to proceed to hold the statutory meeting for Mayfield West Phase 2 Stage 2, through the recommendations of a report to Council on October 26, 2017. However due to changes in the Provincial policy framework, only an open house was held, but the statutory public meeting was cancelled. Upon confirmation from the Province the requisite transition regulation will be forthcoming, staff will schedule the Mayfield West Phase 2 Stage 2 statutory public meeting, and bring forward both that amendment and the Ninth Line Lands amendments for Council approval. It is expected that adoption could occur within several months of hearing from the Province as technical documentation is compiled, public meeting notice timelines are met and Council report scheduling requirements are addressed.

Potential for Updated Population Projections

The Ministry of Finance is currently updating the 2018 population projections for Ontario. The updated projections will utilize data from the 2016 Census and extend the planning horizon from 2041 to 2046. The Ministry of Finance population projections are technical documents used for research and analysis. They are one input into the Ministry of Municipal Affairs and Housing Growth Plan forecasts that also incorporate broad Provincial policy directions and direct how growth must be planned by municipalities across the Greater Golden Horseshoe Area.

Preliminary indications are that new population projections for Peel may be higher than previous projections. Staff will monitor the release of the updated Ministry of Finance projections. If the Province updates the Growth Plan population and employment forecasts, staff will have to determine the impacts on the allocation of growth within Peel, the Peel 2041 work plan and the ongoing Development Charges By-law update.

3. Peel 2041 Work Plan Update

The updated Peel 2041 Official Plan Review work plan will bring forward a ROPA meeting, the requirements of an MCR. An updated work plan has been developed to allow for

PEEL 2041 OFFICIAL PLAN REVIEW – IMPLICATIONS OF THE NEW GROWTH PLAN 2019 AND STATUS UPDATE

effective public consultation, meet study timelines and deliverables, adapt to anticipated Provincial changes, and harmonize the overall Regional Official Plan look and feel. It is anticipated that a final Peel 2041 Amendment and updated Regional Official Plan recommended for Council adoption will be completed by Q4 2021. The Province has 120 days to review and provide a decision before the July 1, 2022 conformity deadline.

Council will receive draft policies in four stages. The four stages will include three informal public consultations, and a final statutory consultation as prescribed by the *Planning Act*. Each one of the public consultation sessions will provide an update on all elements of the Peel 2041 work plan, obtain public feedback on available draft policies, and share supporting studies. Updates on studies and policies based on consultations will be brought to Council to inform staff's final recommended amendment. Ongoing engagement with stakeholders, agencies, Indigenous communities, the planning advisory committee and local municipalities will continue throughout this process. Appendix II provides approximate timelines of how the focus areas and consultations come together to achieve the overall Peel 2041 work plan.

Notwithstanding the uncertainty associated with outstanding Provincial work, it is important for the Peel 2041 work plan to continue to move forward to ensure the Region achieves conformity by July 1, 2022 and support other Regional initiatives, including the Growth Management Strategy. An approach has been coordinated with the local municipalities to ensure conformity for both Regional and local official plan reviews underway. An update on the status of the various focus area policies and supporting studies can be found in Appendix III.

CONCLUSION

Staff will bring forward draft policies in Q4 2019 for the first round of informal public consultations, with the public consultations beginning in early 2020. These will also include updates on the status of other focus areas, supporting studies and inputs.



Andrew Farr, Acting Commissioner of Public Works

Approved for Submission:



N. Polsinelli, Interim Chief Administrative Officer

**PEEL 2041 OFFICIAL PLAN REVIEW – IMPLICATIONS OF THE NEW GROWTH PLAN 2019
AND STATUS UPDATE**

APPENDICES

Appendix I - Summary of Growth Plan, 2019

Appendix II - Updated Peel 2041 Work Plan

Appendix III - Focus Area Status Update

For further information regarding this report, please contact Adrian Smith, RPP, Acting Chief Planner & Director, Regional Planning and Growth Management, Extension 4047, Adrian.smith@peelregion.ca

Authored by: Virpal Kataure

Growth Plan, 2019: New Policies

A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2019

- References to ‘Places to Grow’ is replaced throughout with ‘A Place to Grow’
- New effective date of May 16, 2019 with *Growth Plan Act* transition regulations available

Employment Planning (s.2.2.5)

- Removal of the optional Prime Employment Areas provincial policy framework and designation
- Allow employment conversions between May 16, 2019 and the next MCR, subject to specific criteria:
 - justifying whether there is a need for the conversion
 - would not negatively affect the achievement of minimum intensification and density targets
 - have existing or planned infrastructure and public service facilities
 - maintain a significant number of jobs on those lands through the establishment of development criteria
- Designate “employment area” in upper- and single-tier municipal official plans at any time in advance of the next MCR
- Stronger direction to designate and preserve employment areas adjacent to major goods movement facilities and corridors
- Development of sensitive land uses, major retail uses, or major office uses will be in accordance with provincial guidelines, and avoid or minimize and mitigate adverse impacts on industrial, manufacturing or other uses vulnerable to encroachment
- Requirement for a similar number of jobs when redeveloping employment lands
- Minimum density targets (jobs per hectare) for each employment area (rather than a single overall regional employment density target), to be implemented through official plan policies and zoning by-law designations

Provincially Significant Employment Zones (PSEZ) (s.2.2.5 and s.5.2.2)

- Minister may identify PSEZ and may provide specific direction for planning in those areas
- Embedded [link](#) to PSEZ mapping and [new process](#) for refinement through an ongoing process
- Zones in Peel: (13) 427 QEW, (14) Pearson Airport Hub (Airport), (15) Pearson Airport Hub (Airport Hwy 50), (16) Mavis and Burnhamthorpe, (17) Oakville East and (18) 401 407 (Meadowvale)
- Require protection through official plan designations and cannot be converted outside of an MCR

Settlement Area Boundaries (s.2.2.8)

- Allow adjustments to settlement area boundaries outside of/prior to an MCR, subject to criteria:
 - no net increase of land within the settlement area
 - planned to achieve the minimum designated greenfield area density target
 - satisfy policy 2.2.8.3 (comprehensive criteria for expansions)
 - lands are not a rural settlement or in the Greenbelt Area
 - can be serviced by municipal water/wastewater systems with sufficient capacity
 - lands no larger than 40 hectares

Intensification Targets (Delineated Built-Up Areas) (s.2.2.2)

- New minimum intensification target of 50% of all residential development occurring annually in the delineated built-up area by the time the next MCR is approved and in effect, and for each year thereafter (it was 50% from the MCR to 2031, and 60% from 2031 to 2041)

Appendix I: Summary of Growth Plan, 2019

Peel 2041 Official Plan Review – Implications of the New Growth Plan 2019 and Status Update

- Applies to Peel, Waterloo, York, Durham, Niagara, Halton, Hamilton, Barrie, Brantford, Guelph, Orillia and Peterborough (City) (other municipalities will establish minimum intensification targets at the time of the next MCR)

Designated Greenfield Area (DGA) Density Targets (s.2.2.7)

- New minimum designated greenfield area (DGA) density target of 50 residents and jobs combined per hectare to take effect at the next MCR and apply to the entire DGA (reduced from 80 in new DGA)
- Applies to Peel, Waterloo, York, Durham, Niagara, Halton, Hamilton, Barrie, Brantford, Guelph, Orillia, Peterborough (City) (other municipalities will plan to achieve a minimum density target not less than 40 residents and jobs combined per hectare within the horizon of this plan)

Major Transit Station Areas (MTSA) (s.2.2.4)

- Simplified process and criteria for approval of a lower alternative MTSA density targets:
 - Minister can approve a lower target by demonstrating that development is prohibited by provincial policy or severely restricted
 - there are a limited number of residents and jobs associated with the built form, but can sustain high ridership due to it being *major trip generator*
 - no longer a need to justify conversion based on various criteria (i.e. target is premature, alternatives other benefits, the average of four or more stations along the same corridor would meet or exceed the minimum target)
- Boundary delineation and the establishment of density targets permitted for MTSA in advance of an MCR, provided the Protected MTSA tool under the *Planning Act* is used

Agricultural System and Natural Heritage System (NHS) (s.4.2.6 and s.4.2.2)

- Provincial mapping of the Agricultural System and the NHS (outside of the Greenbelt Area) for the Growth Plan will not apply until the mapping has been implemented in upper- and single-tier official plans; prior to this, Growth Plan policies for protecting these areas will apply to the NHS as mapped in municipal official plans outside of settlement areas
- Refinement and implementation of provincial mapping is permitted in advance of the MCR by municipalities; however, once provincial mapping has been implemented in official plans, further refinements may only occur through an MCR

New/Revised Definitions

- New:
 - Provincially Significant Employment Zones
 - Rural Settlements
 - Natural Heritage System for the Growth Plan
- Deleted:
 - Undelineated Built-Up Areas, Innovation Hubs, Prime Employment Area
- Revised:
 - Office Parks: employment areas or areas where significant concentration of offices with high employment densities (was previously designated in official plans)
 - MTSA: to allow boundaries to be planned within a range (appx. 500-800m radius)
 - Major Trip Generators: include large parks, rec destinations, post-secondary institutions
 - Other minor amendments to update terminology and ministries

Other Matters

Appendix I: Summary of Growth Plan, 2019

Peel 2041 Official Plan Review – Implications of the New Growth Plan 2019 and Status Update

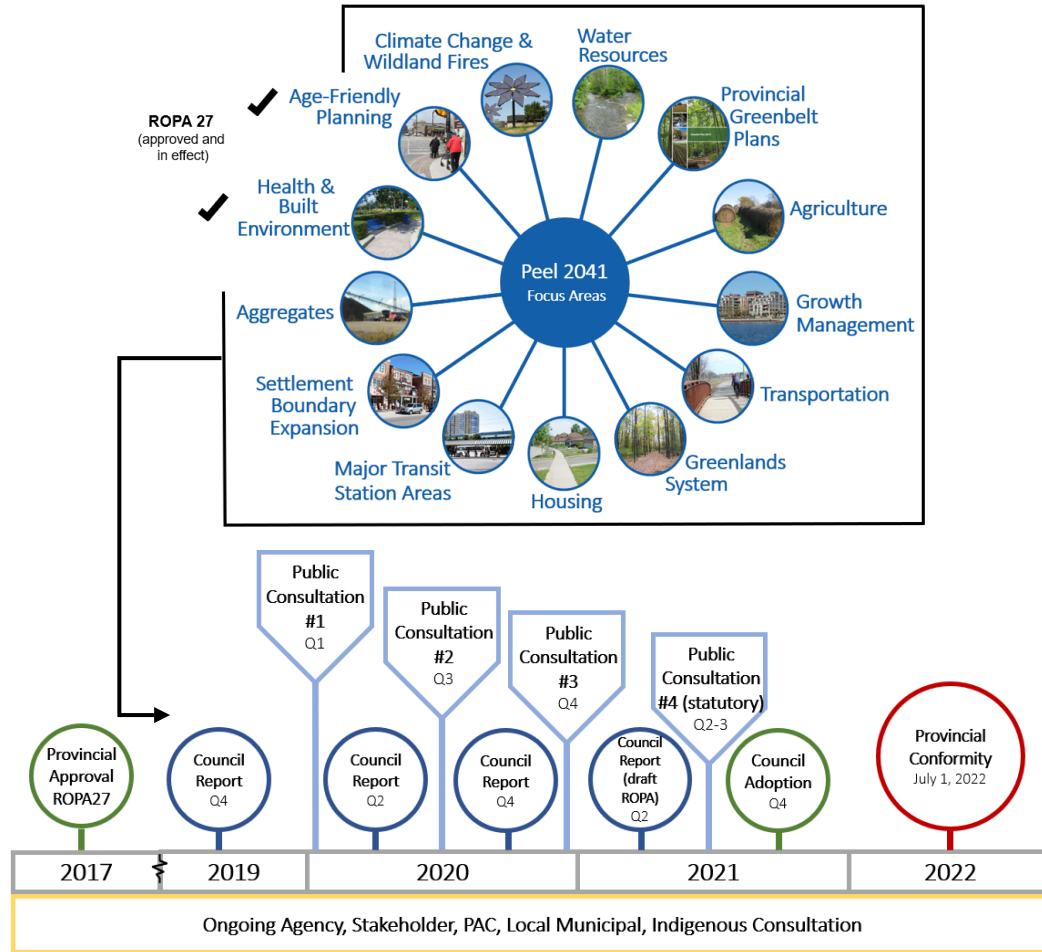
- Removal of a required housing strategy, employment strategy and innovation hubs, and some excess lands policies
- Addition of “or equivalent” for watershed planning and stormwater master plan
- No proposed revisions to the definition of an MCR (a new official plan or an official plan amendment under s.26 of the Planning Act, initiated by the upper or single-tier municipality, that comprehensively applies the policies and schedules of the Growth Plan)

Appendix II: Updated Peel 2041 Work Plan

Peel 2041 Official Plan Review – Implications of the New Growth Plan 2019 and Status Update

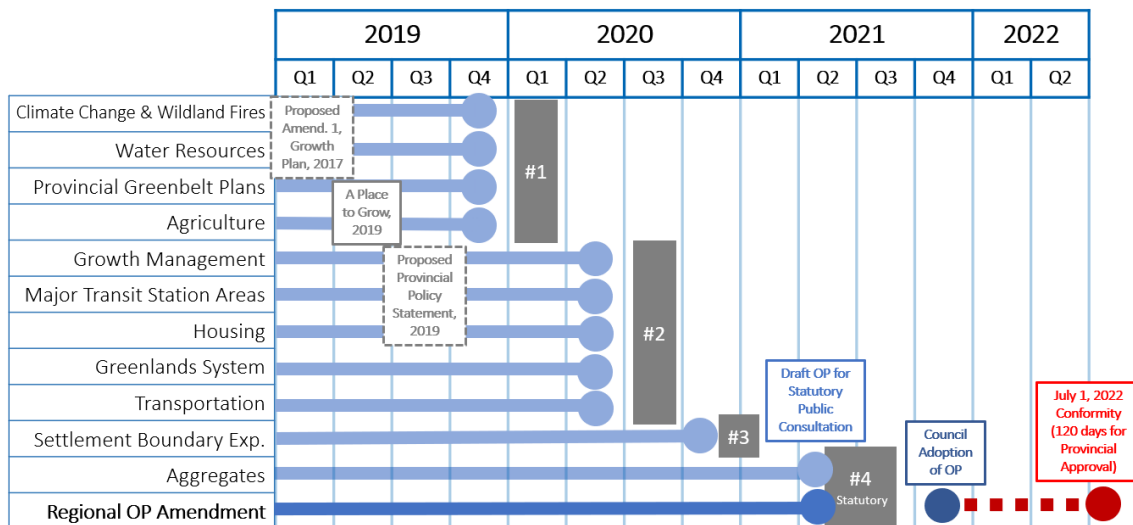
Updated Peel 2041 - Regional Official Plan Review Work Plan:

Single Amendment Municipal Comprehensive Review



Note: Estimated timelines based on current information


Targeted Focus Area Staging



*Estimated timelines based on current information

- Council Report on Draft Policies
- Public Consultation
- Draft Regional OP




Peel 2041: Official Plan Review Focus Area Updates

Focus Area	Climate Change & Wildland Fires	Water Resources	Provincial Greenbelt Plans	Agriculture
Summary	<p>Rising GHG emissions and changing weather will have significant impacts on human and natural systems. Land use planning has a role in addressing this by supporting compact growth, transportation options, and encouraging the reduction of water and energy use.</p> <p>This theme area also includes policy conformity on wildland fires.</p>	<p>Peel and its partners protect, manage and conserve the Region's water resources to ensure clean drinking water for residents and environmental well-being.</p>	<p>The province has updated various plans affecting Peel which will be updated in this focus area: Greenbelt Plan, Niagara Escarpment Plan and Oak Ridges Moraine Conservation Plan.</p>	<p>Updated provincial policies and plans require significant changes in policy and mapping affecting agriculture and rural areas. Agriculture plays a significant role in Peel's economy, and in maintaining rural character and the natural environment.</p>
Study Inputs (Online Soon)	<ul style="list-style-type: none"> • Climate Change Discussion Paper • Wildland Fire Discussion Paper 	<ul style="list-style-type: none"> • Roles & Responsibilities Discussion Paper • Policy Options Discussion Paper • Source Protection Plan Implementation 	<ul style="list-style-type: none"> • Greenbelt Plan Discussion Paper • Niagara Escarpment Plan Discussion Paper • Oak Ridges Moraine Conservation Plan Discussion Paper 	<ul style="list-style-type: none"> • Edge Planning for Agriculture • Minimum Distance Separation Formulae & Guidance • Land Evaluation & Area Review
Policy Impact	<p>Climate change policies will add and/or strengthen existing policies to enhance the Region's ability to address predicted changes to the climate system.</p> <p>Wildland fire policies and mapping will be introduced with tools to ensure mitigation measures are required.</p>	<p>Policy changes implement current best practices in land use planning for water resource protection (e.g. water efficiency strategy) and conform to Provincial plans and policies.</p>	<p>Policy changes will refine existing land use designations and mapping to protect natural heritage lands, ecological and hydrological functions, agricultural and urbanized areas, and the natural environment.</p>	<p>Policy changes will introduce an agricultural system, mapping for prime agricultural areas, new policies to enhance the agricultural and rural systems, provide additional flexibility and protection for agricultural and related uses, and support urban agriculture.</p>
Next Steps	<p>Draft policies will be available online Q4 2019. Public consultation will take place in early 2020.</p>			
Consultation Update	 <p>Various studies and discussion papers will be available online in Q4 2019</p>	 <p>Targeted stakeholder meetings took place between 2017 and 2019</p> <p>Mapping will be available online in 2020</p>	 <p>Public consultations (open houses) will be held in 2020</p> <p>Stay tuned for notices on social media, website and newspapers</p>	

Focus Area	Growth Management	Transportation	Greenlands System	Housing	Major Transit Station Areas
Summary	Growth policies will set the planning framework to accommodate people and jobs to the year 2041. Guiding principles include efficiently using existing and planned infrastructure, protecting resources, creating densities that support transit, employment and complete communities where residents can live, work, play and age.	Transportation policies will set the framework for implementing a balanced approach that shifts 50 per cent of travel to modes such as transit, walking, cycling, and carpooling by 2041.	The Greenlands System is comprised of features (e.g. rivers and forests) and surrounding areas that link together. This connected natural system provides for clean water and air, habitat for plants and animals, and cultural, recreational and health benefits.	The Province has introduced various legislation and policy as part of the “Ontario’s Housing Supply Action Plan.” Housing policies will be framed with the objective to provide an appropriate range and mix of housing types, densities, sizes and tenure contribute to the support of affordable housing.	Major Transit Station Areas (MTSAs) are areas (500-800m radius) in and around existing or planned higher order transit stations or stops (e.g. GO Stations, Bus Rapid Transit). These areas are intended to be planned for higher density mixed-use growth.
Ongoing Study Inputs	<ul style="list-style-type: none"> • Employment Strategy Discussion Paper • Intensification Analysis • Updated Growth Allocations 	<ul style="list-style-type: none"> • Long Range Transportation Plan • Sustainable Transportation Strategy • Vision Zero Road Safety Strategic Plan • Goods Movement Strategic Plan 	<ul style="list-style-type: none"> • Greenlands System Discussion Paper • Natural Heritage System Integration Project 	<ul style="list-style-type: none"> • Peel Housing Strategy • Housing Needs Assessment • Affordable Housing Background Paper • Peel Housing & Homelessness Plan 	<ul style="list-style-type: none"> • Regional MTSA Study
Policy Impact	Policies will guide further work required to plan for population, housing and employment 2041, additional land required for new development, intensification and density targets, and strategic growth area and employment area mapping.	Policies will focus on improvements in safe, sustainable, and vehicular mobility. The updated policies are intended to establish a transportation network that continues to move people and goods safely and efficiently.	Policies will identify actions that are needed to achieve Peel’s natural heritage objectives and identify a Regional Natural Heritage System map and policies. These policies continue to protect, restore and enhance natural areas.	Policies will aim to increase affordable housing supply and options, updated minimum new housing unit targets. Updates will address retention of rental housing stock, secondary suites, and utilizing tools, incentives and the planning process to secure affordable housing.	New policy direction will align transit investment and land use planning by directing transit-supportive densities to MTSAs along priority transit corridors. Specific areas will be mapped and policies will guide how growth is accommodated.

Draft policies will be available online in early 2020. Public consultation will take place in summer 2020.
 Ongoing study updates will be provided with other focus area updates.

Note: Other policies may be reviewed to address Provincial conformity, including Indigenous communities and waste management.

Consultation Update
<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Various studies and discussion papers are being updated as a result of Provincial changes and will be available online in 2020</p> </div> <div style="text-align: center;">  <p>Targeted stakeholder meetings took place between 2015 and continue in 2019 A survey was recently available on MTSA criteria</p> </div> <div style="text-align: center;">  <p>An open house for MTSAs was held Q2 2019 Public consultations were planned for Growth Management & Transportation in 2018 but cancelled due to Provincial changes; consultations will start again in 2020</p> </div> </div>

Peel 2041: Official Plan Review Focus Area Updates

Focus Area	Settlement Area Boundary Expansion	Aggregates
Summary	 <p>Settlement Area Boundary Expansions will need to be delineated and justified through the Municipal Comprehensive Review process. Inputs from Growth Management work will establish the population and employment targets for the Region to 2041. This study will determine how much and where new residential and employment land is needed for future growth.</p>	 <p>Aggregates are usually sand, gravel, clay, earth and bedrock used to make roads, subway tunnels, homes and other structures. Loose material, such as sand and gravel, is removed from a pit. Solid bedrock, such as limestone and granite, is removed from a quarry. Updated provincial policies and mapping and emerging best practices have prompted the need for revisions to the Regional official plan policies and mapping.</p>
Future Study Inputs	<ul style="list-style-type: none"> • Transportation • Health • Public Facilities • Cultural Heritage Resource • Employment & Commercial Opportunities • Agricultural Impact • Climate Change & Energy • Fiscal Impact • Mineral Aggregate Resource Impact • Scoped Subwatershed Study • Water and Wastewater 	<ul style="list-style-type: none"> • Joint Peel - Caledon Discussion Paper
Policy Impact	<p>Policy work will be split into 4 phases: A: Background Report and Identification of Focus Areas B: Technical Studies on Focused Study Area C: Identification of Expansion Areas and Draft Policies D: Recommendations and Final Policies New communities will be built in the designated areas after Provincial approval.</p>	<p>Updated policies will confirm the location of High Potential Mineral Aggregate Resources in the Region and enhance the framework for siting aggregate resources operations, including operations that contain aggregate recycling facilities. The policies will continue to protect environmental features such as core areas of the Greenland system and water resources. Changes will impact the area where aggregate extraction and aggregate recycling is permitted to occur.</p>
Next Steps	<p>Various phases noted above will be brought to Council for endorsement starting in 2020. It is expected that this focus area work will be completed in late 2021. Ongoing study updates will be provided with other focus area updates.</p>	<p>Ongoing progress of this focus area will be provided in 2020 as this topic is in the early stages of policy development.</p>
Consultation Update	   <p>Public consultations (open houses) will be begin in 2020</p> <p>Stay tuned for notices on social media, website and newspapers</p>	   <p>Stakeholder meetings will begin in 2020</p> <p>Stay tuned for notices on social media, website and newspapers</p>

**Ministry of
Municipal Affairs
and Housing**

Office of the Minister

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Affaires municipales
et du Logement**

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Tél. : 416 585-7000



RECEIVED

September 4, 2019

REGION OF PEEL 19-4093
OFFICE OF THE REGIONAL CLERK

Dear Head of Council:

Our government believes everyone deserves a place to call home. Inadequate supply and high housing costs have made housing unattainable for too many people in Ontario. We want to put affordable home ownership in reach of more Ontario families, and provide more people with the opportunity to live closer to where they work.

That is why I am pleased to provide you with an update on the [More Homes, More Choice Act, 2019](#), which was passed by the Legislature on June 6, 2019.

In Effect Date

Schedule 12 of the *More Homes, More Choice Act, 2019* makes changes to the *Planning Act*. All changes, except for those related to community benefits charges, came into force on September 3, 2019, as specified by proclamation. This includes changes to:

- Broaden the Local Planning Appeal Tribunal's jurisdiction over major land use planning matters (i.e., official plans and zoning by-laws) and give the Tribunal the authority to make a final decision on appeals of these matters based on the best planning outcome;
- Reduce timelines for municipalities to make planning decisions;
- Remove certain "third party" appeals;
- Authorize the Minister of Municipal Affairs and Housing to mandate the use of a community planning permit system in or around specific locations to promote intensification around transit;
- Require municipalities to authorize in their official plans and zoning by-laws additional residential units in both a primary dwelling and ancillary building or structure; and
- Promote the development of affordable housing near transit by focusing the use of inclusionary zoning.

Regulations

To help implement the *Planning Act* changes, amendments to existing regulations under the Act also came into force at the same time as the related legislative provisions.

These regulations were filed on August 29, 2019 and include changes to:

- Set out transition rules for planning matters that are in process;
- Remove or update certain redundant or out-dated provisions and references;
- Remove the ability to appeal (except by the province) the implementing by-law when a municipality is required to establish a community planning permit system through a Minister's order; and

REFERRAL TO _____
RECOMMENDED _____
DIRECTION REQUIRED _____
RECEIPT RECOMMENDED _____

.../2

- Clarify that the new community benefits charge by-law will not apply in areas within a municipality where a community planning permit system is in effect.

A new regulation for additional residential units (ARUs) was also filed on August 29, 2019 and helps remove certain zoning barriers to the creation of additional residential units by establishing the following requirements and standards:

- One parking space for each ARU, which may be provided through tandem parking as defined;
- Where a municipal zoning by-law requires no parking spaces for the primary residential unit, no parking space would be required for the ARUs;
- Where a municipal zoning by-law is passed that sets a parking standard lower than a standard of one parking space for each ARU, the municipal zoning by-law parking standard would prevail;
- An ARU, where permitted in a zoning by-law, may be occupied by any person regardless of whether the primary residential unit is occupied by the owner of the property; and
- An ARU, where permitted in a zoning by-law, would be permitted without regard to the date of construction of the primary or ancillary building.

Our proposal for the new and amended regulations was posted on the [Environmental Registry of Ontario](#). All comments received were carefully considered.

You can view copies of the new and amending *Planning Act* regulations on Ontario's e-Laws:

- [New Ontario Regulation 299/19](#) – “Additional Residential Units”
- [Ontario Regulation 296/19](#) – amending Ontario Regulation 174/16 “Transitional Matters - General”
- [Ontario Regulation 297/19](#) – amending Ontario Regulation 543/06 “Official Plans and Plan Amendments”
- [Ontario Regulation 298/19](#) – amending Ontario Regulation 544/06 “Plans of Subdivision”
- [Ontario Regulation 301/19](#) – amending Ontario Regulation 173/16 “Community Planning Permits”
- [Ontario Regulation 300/19](#) – amending Ontario Regulation 232/18 “Inclusionary Zoning”

If you have any questions about the changes to the *Planning Act* and related regulations, please email PlanningConsultation@ontario.ca.

Sincerely,



Steve Clark
Minister

c: Chief Administrative Officer

**ITEMS RELATED TO
ENTERPRISE PROGRAMS
AND SERVICES**

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DATE: August 22, 2019

REPORT TITLE: **2020 REGIONAL COUNCIL AND COMMITTEE MEETING SCHEDULE**

FROM: Catherine Matheson, Commissioner of Corporate Services

RECOMMENDATION

That the 2020 Regional Council and Committee meeting schedule attached as Appendix I to the report of the Commissioner of Corporate Services titled “2020 Regional Council and Committee Meeting Schedule”, be approved.

REPORT HIGHLIGHTS

- Attached as Appendix I is the proposed Council and Committee meeting schedule for the upcoming year, 2020.
- The proposed schedule has been circulated to the local municipalities for consideration.
- All Thursdays (with some exceptions during regular “holiday” periods) are reserved for Regional Business.

DISCUSSION

Background

Each year, a schedule of Regional Council and Committee meetings are prepared for approval by Regional Council, pursuant to Region of Peel Procedure By-law 9-2018, as amended.

1. March Break

The Peel District School Board and the Dufferin-Peel Catholic School Board have identified their scheduled March Breaks as being the week of March 16 – 20, 2020.

2. Summer Months

In accordance with Procedure By-law 9-2018, as amended, a Regional Council meeting has been scheduled for July 9, 2020.

Pursuant to By-law 62-2014, as amended, Regional Council established the Interim Period Approvals Committee comprised of the Chairs and Vice Chairs of the Enterprise Programs

2020 REGIONAL COUNCIL AND COMMITTEE MEETING SCHEDULE

and Services, Public Works, Health, Human Services and Planning and Growth Management sections of Regional Council, and the Regional Chair, *ex-officio*. The Committee is authorized to meet when there is no regular meeting of Council scheduled for a period of more than 21 days after the date of the previously scheduled regular meeting or a period of restricted acts in the year of an election. The Committee was created for the purpose of overseeing any matters requiring Council's approval, as authorized by section 23.1 or section 275 (6) of the *Municipal Act, 2001*, as amended, and to provide assurance to the public that the continuity of conduct of regional business is administered in an efficient, effective and economical manner.

3. Local Municipal Meeting Schedules

The Regional Clerk has shared the draft 2020 meeting schedule with local municipal staff and there are no conflicts with the proposed schedule.

4. Committee Meetings

The 2020 Regional Council and Committee schedule attached as Appendix I is not a complete list of all meetings that may be scheduled during 2020. Certain committees meet on an irregular basis or at the call of the Chair and as such, not all meeting dates have been finalized at the time of this report. Staff will make every effort to ensure that Councillors are advised of these meetings in a timely manner.

5. Workshops

On occasion, Council may request or it may be deemed valuable to hold workshops for Council members on particular matters. These are conducted on an as needed basis and, as such, cannot be scheduled in advance.

6. Scheduled Meeting Information

Current information regarding scheduled meetings and cancellations are available on the Region of Peel website, www.peelregion.ca.

7. Other Conferences

In developing the draft 2020 Council and Committee Meeting Schedule, the following schedules were considered and have been highlighted on the meeting schedule:

- Rural Ontario Municipal Association Annual Conference – January 18, 2020 to January 21, 2020
- Ontario Good Roads Association Annual Conference – February 23, 2020 to February 26, 2020
- Federation of Canadian Municipalities Annual Conference – June 4, 2020 to June 7, 2020
- Association of Municipalities of Ontario Annual Conference – August 16, 2020 to August 19, 2020

2020 REGIONAL COUNCIL AND COMMITTEE MEETING SCHEDULE

8. Thursdays as Regional Business Days

In order to ensure availability of Council members for Special Council or Committee meetings, all Thursdays (with some exceptions during regular “holiday” periods) shall be reserved for Regional Business. Members are reminded that the Procedure By-law stipulates that Regional Council meetings may continue until 3:30 p.m. on such meeting days. At the request of the Chair, exceptions may occur resulting in meetings being scheduled on a day other than a Thursday.

CONCLUSION

Pursuant to Procedure By-law 9-2018, as amended, the 2020 Regional Council and Committee meeting schedule is hereby presented to Regional Council for consideration and approval.



Catherine Matheson, Commissioner of Corporate Services

Approved for Submission:



N. Polsinelli, Interim Chief Administrative Officer

APPENDICES

Appendix I – 2020 Regional Council and Committee Meeting Schedule

For further information regarding this report, please contact Kathryn Lockyer, Regional Clerk and Director, Legal Services at ext. 4325 or email to kathryn.lockyer@peelregion.ca.

Authored By: Christine Thomson

APPENDIX I
2020 REGIONAL COUNCIL AND COMMITTEE MEETING SCHEDULE



2020

Regional Council and Committee Schedule

JANUARY				
MON	TUE	WED	THU	FRI
		1 Holiday	2 R	3
6	7	8	9 RC	10
13	14	15	16 WMSAC	17
20 ROMA	21 ROMA	22	23 RC	24
27	28	29	30 R	31

FEBRUARY				
MON	TUE	WED	THU	FRI
3	4	5	6 SHHC ARC PPC	7
10	11	12	13 RC	14
17 Holiday	18	19	20 HSIC AAC	21
24 OGRA	25 OGRA	26 OGRA	27 RC	28

MARCH				
MON	TUE	WED	THU	FRI
2	3	4	5 DEAR GRC	6
9	10	11	12 RC	13
MARCH BREAK				
23	24	25	26 COR WMSAC	27
30	31			

APRIL				
MON	TUE	WED	THU	FRI
		1 SHHC	2	3
6	7	8	9 RC	10 Holiday
13	14	15	16 ARC AAC	17
20	21	22	23 RC	24
27	28	29	30 R	

MAY				
MON	TUE	WED	THU	FRI
				1
4	5	6	7 EMPC ARC PPC	8
11	12	13	14 RC	15
18 Holiday	19	20	21 HSIC WMSAC SHHC*	22
25	26	27	28 RC	29

JUNE				
MON	TUE	WED	THU	FRI
1	2	3	4 FCM	5 FCM
8	9	10	11 RC	12
15	16	17	18 DEAR GRC AAC	19
22	23	24	25 PLAGM RC	26
29	30			

JULY				
MON	TUE	WED	THU	FRI
		1 Holiday	2 R	3
6	7	8	9 RC	10
13	14	15	16 R	17
20	21	22	23 R	24
27	28	29	30 R	31

AUGUST				
MON	TUE	WED	THU	FRI
3 Holiday	4	5	6 R	7
10	11	12	13 R	14
17 AMO	18 AMO	19 AMO	20 R	21
24	25	26	27 R	28
31				

SEPTEMBER				
MON	TUE	WED	THU	FRI
	1	2	3 R	4
7 Holiday	8	9	10 R	11
14	15	16	17 SHHC AAC	18
21	22	23	24 RC	25
28	29	30		

OCTOBER				
MON	TUE	WED	THU	FRI
			1 HSIC ARC PPC	2
5	6	7	8 RC	9
12 Holiday	13	14	15 DEAR GRC	16
19	20	21	22 RC	23
26	27	28	29 R	30

NOVEMBER				
MON	TUE	WED	THU	FRI
2	3	4	5 EMPC ARC	6
9	10	11	12 RC	13
16	17	18	19 SHHC WMSAC AAC	20
23	24	25	26 RC RCB*	27
30				

DECEMBER				
MON	TUE	WED	THU	FRI
	1	2	3 RCB	4
7	8	9	10 RC RCB*	11
14	15	16	17 RCB	18
21	22	23	24 R	25 Holiday
28 Holiday	29 Holiday	30 Holiday	31 Holiday	

RC	Regional Council	9:30 a.m. - 3:30 p.m.
RCB	Regional Council Budget	9:30 a.m. - 3:30 p.m.
RCB*	Regional Council Budget	Immediately following Regional Council
R	Reserved for Regional Business	9:30 a.m. - 3:30 p.m.
AAC	Region of Peel Accessibility Advisory Committee	1:30 p.m. - 3:30 p.m.
ARC	Audit and Risk Committee	11:00 a.m. - 12:30 p.m.
COR	Committee of Revision	9:30 a.m. - 11:00 a.m.
DEAR	Diversity, Equity and Anti-Racism Committee	9:30 a.m. - 11:00 a.m.
EMPC	Emergency Management Program Committee	9:30 a.m. - 11:00 a.m.
GRC	Government Relations Committee	11:00 a.m. - 1:00 p.m.
HSIC	Health System Integration Committee	9:30 a.m. - 11:00 a.m.
PLAGM	Peel Living Annual General Meeting	9:00 a.m. - 9:30 a.m.
PPC	Regional Council Policies and Procedures Committee	1:00 p.m. - 2:30 p.m.
SHHC	Strategic Housing and Homelessness Committee	9:30 a.m. - 11:00 a.m.
SHHC*	Strategic Housing and Homelessness Committee	1:00 p.m. - 2:30 p.m.
WMSAC	Waste Management Strategic Advisory Committee	11:00 a.m. - 1:00 p.m.
AMO	Association of Municipalities of Ontario Annual Conference	August 16 - August 19, 2020
FCM	Federation of Canadian Municipalities Annual Conference	June 4 - June 7, 2020
OGRA	Ontario Good Roads Association Annual Conference	February 23 - February 26, 2020
ROMA	Rural Ontario Municipal Association Annual Conference	January 18 - January 21, 2020

DATE: September 18, 2019

REPORT TITLE: **EXTERNAL LEGAL COUNSEL FOR EXPROPRIATION MATTERS
DOCUMENT NUMBER 2013-718P**

FROM: Catherine Matheson, Commissioner of Corporate Services
Nancy Polsinelli, Interim Chief Administrative Officer

RECOMMENDATION

That the contracts (Document 2013-718P) awarded to Borden Ladner Gervais LLP and Scargall Owen-King LLP (the “Service Providers”) for External Legal Counsel for Expropriation Matters, each be increased by \$400,000, for a new total commitment of \$650,000 each (exclusive of applicable taxes) and extended until the completion of all required expropriation and related legal services for which the Service Providers have been retained in accordance with Procurement By-law 30-2018;

And further, that the Director of Procurement, upon the advice of the Regional Solicitor, be authorized to approve further increases to the contracts as may be required to the limit of the approved project budgets to ensure the completion of all required expropriation and related legal services for which the Service Providers have been retained in order to achieve the completion of all related expropriation matters.

REPORT HIGHLIGHTS

- The Region of Peel expropriates land required for capital projects where negotiated settlements cannot be reached.
- Request for Proposal Document 2013-718P (the “RFP”) was issued in order to establish a list of vendors to provide legal counsel for expropriation matters.
- The RFP was publicly bid and Borden Ladner Gervais LLP and Scargall Owen-King LLP (the “Service Providers”) were recommended for award under a competitive process.
- An increase and extension is required to the contracts awarded to the Service Providers under the RFP to have them continue their respective representation of the Region to completion for various expropriation matters for which they have been retained. An estimate of the remaining costs for each contract is \$400,000.

**EXTERNAL LEGAL COUNSEL FOR EXPROPRIATION MATTERS – DOCUMENT NUMBER
2013-718P**

DISCUSSION

1. Background

a) Procurement

The Region expropriates land required for capital projects where negotiated settlements cannot be reached with the owner. This type of legal work is highly specialized and the work has to be completed by lawyers that are experienced in the field of expropriation.

On behalf of Legal Services, Purchasing issued Request for Proposal Document 2013-718P on December 17, 2013 (the “RFP”). The objective of the RFP was to establish a list of vendors to provide legal counsel for expropriation matters. The Region evaluated eight submissions. Borden Ladner Gervais LLP and Scargall Owen-King LLP (formerly Rueter Scargall Bennett LLP) were successful vendors and subsequently entered into contracts with the Region.

b) Current Expropriation Matters

There have been a number of capital projects requiring expropriation of lands since the award of the contracts under the RFP. The Region’s normal process in acquiring lands is to attempt to negotiate with the subject owner first, failing which the Region would proceed with the expropriation process.

Borden Ladner Gervais LLP, Scargall Owen-King LLP and WeirFoulds LLP, being the successful proponents to the RFP have ably represented the Region to-date.

During the contract, Borden Ladner Gervais LLP and Scargall Owen-King LLP both began providing legal advice on several projects involving numerous matters of expropriation in various stages of completion and complexity. Some of these projects are still active. Some expropriation matters can be settled in a less complex process of having the owner consent to the acquisition of land by the Region subject to the Board determining the compensation for the land, to more complex matters that involve hearings of necessity and arbitration. Depending on the complexity of the file and position taken by the owner of the lands, the time to finalize the expropriation process for a property varies and can be lengthy.

There are approximately 100 outstanding expropriation settlements over 19 different Public Works projects. The expropriation process can take several years to complete. Currently, Borden Ladner Gervais LLP is completing expropriations for major capital projects such as the Gore Road Widening, Mayfield Road Widening and Hanlan Feedermain; and Scargall Owen-King LLP is completing expropriations for Mayfield Road (Highway #10 to Chinguacousy Road), Airport Road Corridor and East-West Diversion Sewer Pumping Station projects.

At the beginning of any expropriation, the length and complexity of the process is unknown and estimates are provided by phases. Due to the nature of the expropriation process, the original estimated legal fees are based on the preferred course of action, reaching a negotiated settlement on an uncontested basis, phase one. Should a negotiated settlement not be reached, the process moves to the next phase, dealing with the land acquisitions through further negotiations with the owners, hearings of necessity,

**EXTERNAL LEGAL COUNSEL FOR EXPROPRIATION MATTERS – DOCUMENT NUMBER
2013-718P**

and other processes to complete the expropriation. This next phase of expropriation requires further expenditure of legal resources.

FINANCIAL IMPLICATIONS

There are sufficient funds available in the approved budget to carry out the direction recommended in this report.

CONCLUSION

It is recommended that the contracts competitively awarded to Borden Ladner Gervais LLP and Scargall Owen-King LLP, under the RFP each be increased and extended in the amount of \$400,000 in order to complete the expropriation matters currently being undertaken on behalf of the Region by those firms.



Catherine Matheson, Commissioner of Corporate Services

Approved for Submission:



N. Polsinelli, Interim Chief Administrative Officer

For further information regarding this report, please contact Patrick O'Connor, Regional Solicitor, extension 4319, patrick.oconnor@peelregion.ca .

Authored By: Steve Dickson, Senior Legal Counsel

Reviewed in workflow by:
Procurement
Legal Services



THE REGIONAL MUNICIPALITY OF PEEL

REGIONAL COUNCIL POLICIES AND PROCEDURES COMMITTEE

MINUTES

PPC - 4/2019

The Region of Peel Regional Council Policies and Procedures Committee met on September 5, 2019 at 11:00 a.m., in the Council Chamber, Regional Administrative Headquarters, 5th Floor, 10 Peel Centre Drive, Suite A, Brampton, Ontario.

Members Present: P. Brown; P. Fortini; N. Iannicca; J. Innis*; S. McFadden; C. Parrish; P. Saito; I. Sinclair; A. Thompson

Members Absent: B. Crombie; G.S. Dhillon; M. Palleschi

Also Present: N. Polsinelli, Interim Chief Administrative Officer; C. Matheson, Commissioner of Corporate Services; J. Sheehy, Commissioner of Human Services; S. Baird, Commissioner of Digital and Information Services; A. Farr, Acting Commissioner of Public Works; C. Granger, Acting Commissioner of Health; J. Pittini, Acting Commissioner of Finance and Chief Financial Officer; P. O'Connor, Regional Solicitor; K. Lockyer, Regional Clerk and Director of Legal Services; J. Jones, Committee Clerk; S. MacGregor, Legislative Assistant

Chaired by Councillor Parrish.

1. DECLARATIONS OF CONFLICTS OF INTEREST - Nil

2. APPROVAL OF AGENDA

RECOMMENDATION PPC-8-2019

That the agenda for the September 5, 2019 Regional Council Policies and Procedures Committee meeting include a motion from Councillor Parrish regarding procurement policy amendments to Schedule "B" - Approval Authorities under Part V of Procurement By-law 30-2018, to be dealt with under Other Business - Item 7.1;

And further, that the agenda for the September 5, 2019 Regional Council Policies and Procedures Committee meeting, be approved as amended.

* See text for arrivals

◆ See text for departures

3. DELEGATIONS

- 3.1. **Integrity Commissioners, Jeffrey Abrams and Janice Atwood-Petkovski, Principles Integrity**, Presenting an Overview of the Principles Integrity Recommended Code of Conduct

This item was dealt with later in the meeting

4. REPORTS

- 4.1. **Designated Enhanced Voting Member**

RECOMMENDATION PPC-9-2019

That the City of Mississauga proposed voting model, as outlined in the report of the Commissioner of Corporate Services titled "Designated Enhanced Voting Member", be approved;

And further that the Regional Solicitor report back to the Committee regarding the triple majority process outlining the requirements to give effect to the additional vote with respect to the recommended Designated Enhanced Voting Member process.

In response to questions from Councillor Parrish and Councillor Fortini, Kathryn Lockyer, Regional Clerk and Director of Legal Services, clarified that Mississauga would appoint one designated alternate voting member per term and that an appointed alternate member may be changed by amending the appointment by-law.

Councillor Brown stated that Brampton is 90 per cent the size of Mississauga and based on growth projections will at some point surpass Mississauga in population based on developable land and current growth forecast. He stated that in terms of population, Brampton should have 10.5 Councillors and is therefore under-represented. He noted that providing the alternate to Mississauga would be a step backward in achieving equity for Brampton.

Councillor Saito noted that the current issue is to address Mississauga's diminished representation when a member is absent. She asked that the same fairness and opportunity be given to Mississauga as is currently provided to Brampton and Caledon, through their alternate member appointments.

Councillor Thompson noted that the *Municipal Act, 2001*, as amended, currently provides for municipal representation by area not by population.

The Regional Clerk requested that a report be brought back to the Committee regarding the triple majority process outlining the requirements to give effect to the additional vote.

4.2. **Amendments to the Region of Peel Procedure By-law 9-2018**

RECOMMENDATION PPC-10-2019

That the proposed revisions to the Region of Peel Procedure By-law 9-2018, as generally outlined in the report of the Commissioner of Corporate Services titled "Amendments to the Region of Peel Procedure By-law 9-2018", be approved;

And further, that Region of Peel Procedure By-law 9-2018, and its amending By-law 52-2018, be repealed;

And further, that the necessary by-law to amend the Procedure By-law be presented for enactment.

4.3. **Council Expense Policy, Conference Reporting**

Councillor Innis arrived at 11:20 a.m.

RECOMMENDATION PPC-11-2019

That the Conference Registration Notification form included as Appendix I to the Report of the Commissioner of Corporate Services, titled "Council Expense Policy, Conference Reporting", be approved;

And further, that the Conference Summary form included as Appendix II to the subject report, be approved;

And further, that the Business Expense Accounts – Members of Council Policy - F30-02 (the "Policy") be amended to exempt the Federation of Canadian Municipalities and the Association of Municipalities of Ontario from conference reporting requirements;

And further, that section 2 of the Policy be amended to include that the policy applies to Members of Council, which also includes the Regional Chair, as defined under section 5.2 of the Policy;

And further, that section 6.2.2 a) of the Policy be amended to include that Members of Council and the Regional Chair are required to provide notice to Council with information about the conference, including where, when and the agenda topics prior to conference attendance, or when possible, prior to conference registration.

In response to a question from Councillor Innis regarding the possibility of expensing conference costs through program accounts rather than Councillor expense accounts, the Regional Clerk responded that staff will bring a report back to the next Policies and Procedures Committee meeting for consideration.

Item 3.1 was dealt with

- 3.1. **Integrity Commissioners, Jeffrey A. Abrams and Janice Atwood-Petkovski, Principles Integrity**, Presenting an Overview of the Region of Peel Code of Conduct Review

Received

Jeffrey A. Abrams, Integrity Commissioner, Principles Integrity, provided an overview of the draft Code of Conduct (the Code). He advised that the purpose of the Code is to serve as a guide for ethical behavior and that a robust Code should: include an effective table of contents and guidance and commentary to help members of council avoid ethical mis-steps; signal to the community that there is a proper framework in place; provide a mechanism for the review of concerns as they arise; and, provide a basis for the Integrity Commissioner to give advice. The Integrity Commissioner further noted that, as requested by the Committee, a comparative review of the local municipalities was included in the presentation materials and a more in-depth conversation can take place if requested.

In response to a concern raised by Councillor Saito with respect to Rule 2 (Gifts, Benefits and Hospitality) regarding the difficulty in differentiating between Regional and local gift and expense reporting, the Integrity Commissioner noted that where it is clear the gift or expense is a local or regional issue, the respective code will apply; in addition, the draft Regional this code states that the more stringent Code applies. He noted that legislation requires that a provision for gift benefits be included in the Code.

Councillor Brown noted that the code should reflect the reality of the Councillors' workload. The current draft, on the basis of event tickets, would put Councillors in breach of the Code for acting in their capacity as elected officials performing their weekly duty to celebrate the accomplishments of local charities.

In response to a request from Councillor Innis to create a working group to review the draft Code phrase by phrase, Kathryn Lockyer, Regional Clerk and Director of Legal Services noted that it is the role of the Committee to review the draft Code. She proposed that a Policies and Procedures Committee workshop be scheduled and, as quorum is not required for a workshop, those members in attendance could review the Code with the Integrity Commissioner and the results of the workshop could be forwarded to the full Committee prior to its next meeting.

Councillor Parrish agreed that a workshop be scheduled and requested that members send any comments regarding the draft Code to the Integrity Commissioner, copying the Regional Clerk.

5. COMMUNICATIONS - Nil

6. IN CAMERA MATTERS - Nil

7. OTHER BUSINESS

7.1. Motion from Councillor Parrish Regarding Procurement Policy Amendments to Schedule "B" of Procurement By-law 30-2018

In response to a question from Councillor Parrish regarding the placement of a motion regarding amendments to Schedule "B" - Approval Authorities under Part V of Procurement By-law 30-2018, Kathryn Lockyer, Regional Clerk and Director of Legal, noted that a report regarding delegated authorities will be forthcoming to the Policies and Procedures Committee on November 7, 2019 and suggested the motion could be held until that meeting date.

8. NEXT MEETING

The next meeting of the Regional Council Policies and Procedures Committee is scheduled for November 7, 2019 at 9:30 a.m. to 11:00 a.m. in the Council Chamber, 5th floor, Regional Administrative Headquarters, Suite A, 10 Peel Centre Drive, Brampton, Ontario.

A committee workshop will be scheduled at the Call of the Chair to review and provide input to the Integrity Commissioner regarding the draft Code of Conduct.

Please forward regrets to Jill Jones, Committee Clerk, (905) 791-7800, extension 4330 or at jill.jones@peelregion.ca.

9. ADJOURNMENT

The meeting adjourned at 12:26 p.m.

DATE: September 24, 2019

REPORT TITLE: **UPDATE: 2019 BORROWING LIMIT**

FROM: Stephen VanOfwegen, Commissioner of Finance and Chief Financial Officer

RECOMMENDATION

That the Commissioner of Finance and Chief Financial Officer (CFO) be authorized to negotiate the issuance of debentures in the maximum principal amounts, as updated from the February 14, 2019 report to Regional Council (Resolution 2019-153) of \$48.15 million on behalf of the City of Mississauga, for a term not to exceed 16 years, as well as \$3.9 million on behalf of the Town of Caledon, for a term not to exceed 11 years, all to be issued in 2019;

And further, that the Treasurer and CFO be authorized to negotiate and sign the Syndicate Agreement, including the percentage allocated to each of the different groups and participants.

REPORT HIGHLIGHTS

- The City of Mississauga has requested debenture financing not to exceed \$48.15 million to be issued in 2019, for a term not to exceed 16 years. This has been revised from an amount not to exceed \$48.0 million, and a term not to exceed 11 years, per the February 14, 2019 report to Regional Council (Resolution 2019-153).
- The Town of Caledon has requested debenture financing not to exceed \$3.61 million to be issued in 2019, for a term not to exceed 11 years. This has been revised from an amount not to exceed \$3.9 million, and a term not to exceed 11 years, per the February 14, 2019 report to Regional Council (Resolution 2019-153).
- The Region of Peel (Region), City of Mississauga and Town of Caledon remain within their Annual Repayment Limit (ARL).

UPDATE: 2019 BORROWING LIMIT**DISCUSSION****1. Background**

In the Region's most recent credit rating reviews, both Standard & Poor's (S&P) and Moody's Investment Services affirmed the Region's Triple A credit rating. Both agencies have maintained a stable outlook for the Region reflecting the expectation that the Region's economy will not encounter a prolonged slump and that it will continue to maintain strong cash and liquid investment balances.

One of the Region's roles is to issue debt on behalf of the local municipalities, so the municipalities will also benefit from the Region's strong credit rating when issuing debt on their behalf.

Each year Regional Council approves limits for the debenture amounts and term in a Debenture Borrowing Approval report. Since 2011, this has provided the Debt Issuance Committee with the parameters in which to exercise their delegated administrative responsibility to approve debenture by-laws in order to facilitate the completion of debt issues and mitigate against interest rate premiums for long closing periods.

2. Area Municipalities 2019 Borrowing Requirements

The Region has received a request for debenture financing from the City of Mississauga for a total amount not to exceed \$48.15 million, to be issued in 2019. The Region has also received a request for debenture financing from the Town of Caledon for a total amount not to exceed \$3.61 million, to be issued in 2019.

With a debenture issue, the municipal treasurer is required to certify that the municipality's ARL of 25 per cent of own source revenues has not been exceeded (exceeding the limit would require approval from the Local Planning Appeal Tribunal (LPAT) before issuing the debt). The Treasurers of the City of Mississauga and the Town of Caledon have all confirmed that their respective recalculation of the ARL is within their limits.

Staff continues to monitor announcements with respect to senior governments' lending programs and due consideration will be given to all options prior to the issuance of debt. The Regional Treasurer has confirmed that the recalculation of the ARL is within the Region's limits

CONCLUSION

To meet the funding requirements requested by the City of Mississauga, and the Town of Caledon, Council is requested to authorize the issuance of debentures for the Region of Peel.



Stephen VanOfwegen, Commissioner of Finance and Chief Financial Officer

UPDATE: 2019 BORROWING LIMIT

Approved for Submission:



N. Polsinelli, Interim Chief Administrative Officer

For further information regarding this report, please contact Julie Pittini, Director, Treasury Services, x7120, julie.pittini@peelregion.ca.

Authored By: Scott Hodgson

**ITEMS RELATED TO
PUBLIC WORKS**

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For Information

DATE: September 12, 2019

REPORT TITLE: **LAKEVIEW VILLAGE COMMUNITY - SUSTAINABLE DEVELOPMENT TOUR IN SWEDEN SUMMARY**

FROM: Andrew Farr, Acting Commissioner of Public Works

OBJECTIVE

To provide Regional Council with an update on the outcomes of the sustainable development tour in Sweden

REPORT HIGHLIGHTS

- A sustainable development tour in Sweden to explore innovative energy and waste collection solutions similar to those proposed within the Lakeview Village community took place in May 2019. As authorized by Council, three staff participated.
- A presentation to the Waste Management Strategic Advisory Committee on June 20, 2019 provided general highlights and discussion of waste collection methods seen on the tour.
- This report provides further information regarding the outcomes of the tour and a breakdown of final expenses as committed to in the February 28, 2019 Regional Council report.
- Staff will report back to Regional Council before the end of 2019 to recommend a path forward on the Lakeview proposals.

DISCUSSION
1. Background

In February 2019, Regional Council approved three Regional staff (General Manager of Water and Wastewater, Director of Waste Management and Director of Development Services) to participate in a sustainable development tour in Sweden along with the Lakeview Community Partners, City of Mississauga Staff and members of Regional Council. The intent of the tour was to learn more about Swedish developments in the field of sustainability that directly relate to the new Lakeview Village community.

The proposed Lakeview Village community plan envisions the lands owned by Lakeview Community Partners to be developed in a series of districts that collectively provide for townhouse and apartment residential uses, park and open spaces, a retail commercial market area and a portion of the innovation corridor is envisioned to be home to employment and institutional uses. A high level plan of the site is provided in Appendix I.

LAKEVIEW VILLAGE COMMUNITY - SUSTAINABLE DEVELOPMENT TOUR IN SWEDEN SUMMARY

In the report considered by Regional Council on February 28, 2019 (Resolution 2019-218) staff committed to report back to Waste Management Strategic Advisory Committee and Regional Council with the outcomes and costs. Regional staff provided the Waste Management Strategic Advisory Committee with a presentation on June 20, 2019, which included an overview of the tour and the vacuum waste collection systems explored.

This report provides additional overview of the outcomes of the tour and further information regarding the final costs associated with the tour.

2. Sustainable Urban Development Tour – Sweden

Business Sweden and the Consulate General of Sweden proposed a Sustainable Urban Development tour to demonstrate developments in three cities in Sweden that have implemented district energy, vacuum waste systems and other innovative approaches to community design.

There were a significant number of organized discussions and site visits with Swedish municipalities, organizations, suppliers and developers. A Sustainable Urban Development tour was suggested as a suitable way to learn more about Swedish developments in the field of sustainability that directly relate to the new Lakeview community to inform progressive approaches to community development and related infrastructure delivery.

The format of the tour was as follows:

- Five full day tour from Sunday, May 5 to Friday, May 10, 2019
- Visits to Gothenburg, Stockholm and Malmö
- Presentations by government experts from all levels, authorities involved in urban development, architects, planners, developers, companies and their stakeholders
- The program included site visits to relevant projects in the cities visited

Sample site visit locations included:

- Hammarby Sjöstad, Stockholm:
 - Community developed for the 2004 Summer Olympics.
 - Includes underground waste collection and district energy as well as an information centre to educate residents about the recycling and waste program in the community.
- Eskiltuna, Stockholm:
 - Town of 100,000 residents.
 - Tour of Optibag waste processing facility – a vacuum waste system using different coloured bags to collect and sort waste.
 - Town uses low-carbon heat and power plants, which uses the thermal energy from electricity production to heat water.
- Royal Seaport, Stockholm:
 - Largest Urban development in Stockholm.
 - 12,000 new homes and 35,000 new jobs.
 - Locally produced renewable energy.
 - Innovation Centre to include an arena, universities and private sector industries.

LAKEVIEW VILLAGE COMMUNITY - SUSTAINABLE DEVELOPMENT TOUR IN SWEDEN SUMMARY

- River City, Gothenburg:
 - Urban development to increase density by the water for 150,000 new residents.
 - Redevelopment of inner-city lands, a former shipyard and industrial lands.
 - District energy system.
- Western Harbour, Malmö:
 - Old industrial shipyard converted to an eco-system.
 - The Western Harbour has underground waste collection system and district energy throughout the site.
 - Home to Malmö University and many cleantech sector companies.

3. Learning Outcomes – Practical applications in Peel

The initial application of lessons learned, and knowledge gained from this study tour is being focused on the Lakeview community proposal. As other new development areas and proposals advance across Peel, additional benefits will be achieved. In particular, proposals related to the potential development of district energy and vacuum waste systems are unique to the Region.

District Energy: In order to provide for a District energy system in the community, the Lakeview Community Partners are proposing to use water from the Region of Peel's G.E. Booth Wastewater Treatment Plant and is currently envisioned to be operated through a central District Energy building to be located within the Innovation Corridor. The tour provided a number of opportunities to visit neighbourhoods in Sweden that benefit from using district energy system and staff were able to see firsthand the implementation of such a system and assess how it could translate into a Peel Region context.

Vacuum Waste: Proposed within the Lakeview Village community is a network of vacuum waste pipes within the right of ways that lead to a central waste collection facility – to be located in the Innovation corridor area of the community. Vacuum waste collection is envisioned to be provided to all residential, commercial and public open spaces within the community. Lakeview Community Partners have engaged Envac to develop a plan for high-level network vacuum waste in the community. A number of sites visited while in Sweden included a vacuum waste collection system and staff was able to see how the systems were implemented (including visiting a sorting facility), appreciate the response from residents and businesses, and understand how the design of residential and commercial units promote appropriate use of these systems.

FINANCIAL IMPLICATIONS

The final cost of the trip for three Regional staff totaled \$24,913. The cost includes all travel to and within Sweden, accommodations, meals and meetings, tour fees and incidental costs.

**LAKEVIEW VILLAGE COMMUNITY - SUSTAINABLE DEVELOPMENT TOUR IN SWEDEN
SUMMARY**

CONCLUSION

Staff will continue to participate with the Lakeview Village Partners and City of Mississauga staff in the consideration of proposed innovative systems and the broader review of the associated applications. The Region has engaged with outside consultants to review the feasibility and operational and maintenance realities of both a District Energy and Vacuum Waste collection system. Staff will report back to the Waste Management Strategic Advisory Committee and Regional Council later this year to provide further updates on the work being undertaken to assess these technologies, as well as to provide recommendations for an implementation plan for these innovative technologies.



Andrew Farr, Acting Commissioner of Public Works

Approved for Submission:



N. Polsinelli, Interim Chief Administrative Officer

APPENDICES

Appendix I - Lakeview Village Community Master Plan

For further information regarding this report, please contact Andrea Warren, Director, Development Services, ext. 4355, email andrea.warren@peelregion.ca.

Authored By: Christina Marzo

Reviewed in workflow by:
Financial Support Unit

APPENDIX I
LAKEVIEW VILLAGE COMMUNITY – SUSTAINABLE DEVELOPMENT TOUR IN SWEDEN
SUMMARY

LAKEVIEW VILLAGE COMMUNITY OVERALL LAND USE PLAN



DATE: September 17, 2019

REPORT TITLE: **CLEAN WATER ACT REQUIREMENTS - REPLACEMENT OF ALTERNATE RISK MANAGEMENT OFFICIAL AND APPOINTMENTS PROCESS**

FROM: Andrew Farr, Acting Commissioner of Public Works

RECOMMENDATION

That Stefan Herceg be appointed as Alternate Risk Management Official for the Region of Peel under Part IV of the *Clean Water Act, 2006* (the *Act*);

And further, that the Commissioner of Public Works or his or her designate be delegated authority to appoint additional Risk Management Officials, into existing complement responsibilities for the Region of Peel under the *Act*, as needs arise;

And further, that the Regional Clerk issue a certificate of appointment bearing the Clerk's signature for each Risk Management Official appointed by Regional Council;

And further, that the Regional Clerk circulate the report of the Acting Commissioner of Public Works, titled "*Clean Water Act Requirements - Replacement of Alternate Risk Management Official and Appointments Process*", to the Clerks of local municipalities, the Town of Orangeville and Halton Region; to the Chairs of South Georgian Bay - Lake Simcoe Source Protection Committee, Credit Valley - Toronto and Region - Central Lake Ontario Source Protection Committee and Halton - Hamilton Source Protection Committee; and, the Ministry of the Environment, Conservation and Parks.

REPORT HIGHLIGHTS

- Under Part IV of the *Clean Water Act, 2006*, municipalities responsible for water production, treatment and storage are required to appoint Risk Management Officials and Risk Management Inspectors, as necessary, to administer and enforce Part IV policies related to significant drinking water threats in source protection plans.
- To facilitate ease of administration and streamline the appointment process for Risk Management Officials, staff recommends delegated authority to the Commissioner of Public Works, for the appointment of Risk Management Officials, particularly should staff changes occur in the future.
- The current Alternate Risk Management Official has changed roles within the Region and is no longer supporting the Source Protection Program.
- The appointment of a new designated Alternate Risk Management Official ensures the required back-up resource is available for the Risk Management Official position.

CLEAN WATER ACT REQUIREMENTS - REPLACEMENT OF ALTERNATE RISK MANAGEMENT OFFICIAL AND APPOINTMENTS PROCESS**DISCUSSION****1. Background**

The *Clean Water Act, 2006* (the Act) directed the preparation of science-based assessment reports and local source protection plans to protect existing and future municipal sources of drinking water. Under Part IV of the Act, municipalities responsible for water production, treatment and storage are required to appoint Risk Management Officials and Risk Management Inspectors, as necessary, to administer and enforce Part IV policies related to significant drinking water threats in the source protection plans. The Act also specifies the qualifications and requirements for appointment of Risk Management Officials and Risk Management Inspectors.

Council Resolution 2012-825, delegated authority to the Commissioner of Public Works, or his or her designate, to appoint additional Risk Management Inspectors into existing complement responsibilities for the Region under the Act. To facilitate ease of administration and streamline the appointment process for Risk Management Officials, staff recommends delegated authority to the Commissioner of Public Works, for the appointment of Risk Management Officials, particularly should staff changes occur in the future.

2. Replacement of Alternate Risk Management Official

A Risk Management Official, Alternate Risk Management Official, Risk Management Inspector and Secondary Risk Management Inspector are currently appointed to implement the Source Protection Program for the Region of Peel. The current Alternate Risk Management Official is Syeda Basira Banuri; however, Ms. Banuri has changed roles within the Region and is no longer supporting the Source Protection Program. The alternate Risk Management Official was originally appointed to ensure continuity and coverage during absences.

Stefan Herceg is recommended as the Alternate Risk Management Official. Mr. Herceg is currently the Risk Management Inspector and holds the position of Technical Specialist, within Water and Wastewater Infrastructure Planning. The appointment of a new designated Alternate Risk Management Official ensures the required back-up resource is available for the Risk Management Official position.

CONCLUSION

Staff will continue to ensure the objectives of the source protection plans are achieved and the Region's legislated obligations are met. Staff will report back to Council, as necessary, on any additional obligations or authorizations required under the Act.



Andrew Farr, Acting Commissioner of Public Works

**CLEAN WATER ACT REQUIREMENTS - REPLACEMENT OF ALTERNATE RISK
MANAGEMENT OFFICIAL AND APPOINTMENTS PROCESS**

Approved for Submission:



N. Polsinelli, Interim Chief Administrative Officer

*For further information regarding this report, please contact Therese Estephan, Advisor, Source
Water Protection / Risk Management Official at ext. 4339 or via email at
therese.estephan@peelregion.ca.*

Authored By: Therese Estephan

*Reviewed in workflow by:
Financial Support Unit*

**ITEMS RELATED TO
HEALTH**

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DATE: September 18, 2019

REPORT TITLE: **MEALS ON WHEELS FOR SENIORS**

FROM: Cathy Granger, Acting Commissioner of Health Services

RECOMMENDATION

That the Region of Peel continue to supply meals for the Brampton and Caledon Meals on Wheels (MoW) programs and to charge the fee for each meal as set out in the Region's Fees By-law;

And further, that the Region incrementally increase the fee for each meal as set out in the Fees By-law commencing in 2020 and in subsequent years to eventually reflect the actual cost of the meal preparation and full cost recovery;

And further, that the Region continue to provide office space for the Brampton MoW program without charge at the Peel Manor Long Term Care Centre ;

And further, that the Regional Corporation's duly authorized signing officers be authorized to execute agreements with MoW which outline the roles and responsibilities of the parties relating to the delivery of the MoW program.

REPORT HIGHLIGHTS

- In 2018, Peel Manor and Vera M. Davis Centre Long Term Care centres supplied over 32,000 hot meals for the Brampton and Caledon MoW programs.
- The last fee increase was in 2016, and since then the Region has charged \$7.30 per meal, as per the Fees By-law.
- On average it currently costs approximately \$10 to prepare each meal, resulting in a cost recovery gap for the Region.
- For 2020, staff recommend increasing the MoW meal fee to \$8.60 in Brampton and \$8.45 in Caledon and to further incrementally increase fees over the next three years to eventually reflect the actual costs of meal preparation and provide cost recovery.

DISCUSSION

1. Background

The Meals on Wheels (MoW) program provides meals to individuals who are 65 years of age and over and/or have difficulty providing for their own nutritional needs due to physical, cognitive or mental health disability, or a long-term or short-term illness or injury. In Peel, there are 176,815 older adults aged 65 years and older. Half of this population earns less

MEALS ON WHEELS FOR SENIORS

than \$22,488 (after-tax) per year. More than 85,000 of Peel's older adults have activity limitations that also affect their ability to shop or make meals.

For over 30 years, Peel Manor and Vera M. Davis Centre Long Term Care centres have supplied meals for MoW in Brampton and Caledon. This established program supports the Peel community with home delivery meal programs, independence, and helps to prevent social isolation. In 2018, 544 clients in Brampton and Caledon were provided with over 32,000 nutritious, hot meals prepared in the Region's Long Term Care centre kitchens. Brampton and Caledon MoW charge their clients \$5.75 and \$6.50 per meal. Caledon MoW subsidizes a portion of the meal fee based on their client's income through fundraising, private funders, and government and community grants. MoW clients receive the same menu choices as long-term care residents. Peel Manor Long Term Care centre provides office space for the Brampton MoW program at no additional cost. Caledon MoW has received \$619,791 from the Region's Community Investment Program since 2014 to support administrative costs of the program.

Historically, the Mississauga MoW program has partnered with other third parties to supply their meals. In 2018, the Mississauga MoW program trialed a partnership with Peel Manor Long Term Care centre, however, due to the distance of Mississauga clients, the hot meal program was not feasible. As a result, the Mississauga MoW program has once again partnered with another third-party meal supplier.

2. Findings

Currently, the Region has a service agreement in place with Caledon MoW. Service and use of space agreements with Brampton MoW are currently being developed. The Caledon MoW agreement identifies that Regional Council annually approves the set fee to be charged to the program for meals prepared by the Region's long-term care centres. Since 2016, the Region has charged \$7.30 per meal set out in the Region's Fee By-law. On average it currently costs about \$10 to prepare each meal, resulting in a cost recovery gap for the Region.

The 2019 Canada's Food Price Report expects food prices to rise by 3.5% this year. Additionally, there is a wage increase of 1.75% for dietary staff based on their collective agreements. The rising food prices and labour costs will increase the cost to prepare each meal.

3. Proposed Direction

For the remainder of 2019, staff recommend that the Region continues to charge \$7.30 per meal which is outlined in the Region's Fees By-law. This will give the providers and clients time to adjust to the proposed fee increase for 2020.

Over the next three years, staff recommend incremental fee increases to adjust for the rising cost of food and labour, reflect the actual costs of meal preparation, and provide cost recovery to the Region. For 2020, staff recommend increasing the MoW meal fee to \$8.60 in Brampton and \$8.45 in Caledon. The fee discrepancy between Brampton and Caledon MoW programs is due to different food and packaging requests, as well as staffing levels required to prepare the amount of meals.

MEALS ON WHEELS FOR SENIORS

Based on fees assessed in 2019, staff recommend the following meal fee increases to enable cost recovery by 2022 including future projected inflationary increases. The projected cost assumes annual raw food inflation at 3.5% and wages increases at 1.75% based on past cost increases which are subject to annual update during budget process. Future increases will become part of the Fees By-law.

	MoW Fee per meal	2019 Costs per Meal	Proposed 2020 Fee	Proposed 2021 Fee	Proposed 2022 Fee
Brampton Meals on Wheels meal fee	\$7.30	\$10.23	\$8.60	\$9.90	\$11.20
Caledon Meals on Wheels meal fee	\$7.30	\$9.82	\$8.45	\$9.60	\$10.75

RISK CONSIDERATIONS

The Meals on Wheels programs may need to identify funding sources to further subsidize the increased meal costs as this fee increase may not be attainable for clients to pay. Most MoW programs, including Mississauga, charge clients under \$8.00 for meals. If Council approves increasing meal prices in Brampton and Caledon, MoW may seek other third-party supplier options for 2020 or subsequent years. This would have an impact on the number of long-term care centre kitchen staff required for food preparation. However, if the price per meal is not adjusted, the Region will continue to experience a cost recovery gap.

FINANCIAL IMPLICATIONS

The current fee of a MoW meal at \$7.30 is below the average cost of \$10 spent to prepare the meal. Based on the number of about 32,000 meals provided annually, there is an approximate cost recovery gap of \$86,000 in 2019, which is currently covered by the regional net tax levy. This gap is expected to increase in future years due to inflation if not addressed.

By 2022, based on the fee increase schedule, the full cost recovery gap is expected to be eliminated.



Cathy Granger, Acting Commissioner of Health Services

Approved for Submission:


N. Polsinelli, Interim Chief Administrative Officer

For further information regarding this report, please contact Susan Griffin Thomas, Director, Long Term Care, 905-791-7800 x2000, susan.griffinthomas@peelregion.ca.

Authored By: Daiva Tirilis

Reviewed in workflow by: Financial Support Unit

For Information

DATE: September 17, 2019

REPORT TITLE: **CREATING AND SUPPORTING HEALTHY SCHOOLS: THE HIGH-IMPACT, EASY APPROACH LEADING TO HEALTHIER YOUTH (HEALTHY) PLEDGE PROGRAM**

FROM: Cathy Granger, Acting Commissioner of Health Services
Jessica Hopkins, MD MHScc CCFP FRCPC, Medical Officer of Health

OBJECTIVE

The purpose of this report is to provide an update on the new High-impact, Easy Approach Leading to Healthier Youth (HEALTHY) Pledge Program, a collaboration between Peel Public Health and the Peel District and Dufferin-Peel Catholic District School Boards.

REPORT HIGHLIGHTS

- In alignment with the new Ontario Public Health Standards, Peel Public Health is working in partnership with the Peel District School Board and Dufferin-Peel Catholic District School Board to implement the HEALTHY Pledge Program to address unhealthy eating and physical inactivity among Peel students.
- The HEALTHY Pledge Program is a comprehensive initiative consisting of four independent pledges. The whole school implements the pledges to create sustainable school-level changes which promote student well-being. The four independent pledges include:
 - HEALTHY Beverages Pledge;
 - Physical Activity Programs Pledge;
 - Daily Physical Activity Pledge; and
 - HEALTHY Fundraising Pledge.
- As of July 1, 2019, 178 schools (44 per cent) implemented 326 HEALTHY pledges in creating sustainable, health-promoting infrastructure for school communities in 2018.

DISCUSSION
1. Background

Under the Ontario Public Health Standards, Peel Public Health is required to work with school boards to improve the health of school-aged children and youth.¹ Peel Public Health

¹ Ministry of Health and Long-Term Care. (2017). Protecting and Promoting the Health of Ontarians – Ontario Public Health Standards: Requirements for Programs, Services, and Accountability. Available from: http://www.simcoemuskokakealth.org/docs/default-source/hu-aboutus/standards_2018.pdf?sfvrsn=0_

CREATING AND SUPPORTING HEALTHY SCHOOLS: THE HEALTHY PLEDGE PROGRAM

has a formal agreement, the Peel Healthy Schools Partnership Declaration, with the Peel District and Dufferin-Peel Catholic District School Boards to work together to create healthy schools that improve the well-being of children and youth in Peel. Together, this agreement positively impacts more than 236,000 students (more than 90 per cent of all students in Peel). Peel Public Health is exploring opportunities to engage the two French school boards and private boards to prioritize areas of greatest need.

2. Student Health Issues in Peel

At the beginning of the 2018/19 school year, more than 236,000 students were enrolled in the 406 elementary and secondary Peel District School Board and Dufferin-Peel Catholic District School Board schools in Peel. The well-being of a significant proportion of these children and youth is negatively impacted by unhealthy eating and physical inactivity. The complex relationship that exists between a student's mental and physical health can influence how one may think, feel, and act as well as his or her ability to succeed in school, at work, and in society.²

Regular engagement in healthy eating and physical activity helps youth to maintain good physical health while also reducing their risk of developing various, later-life chronic diseases.³ Table 1 outlines the proportion of Peel students who met the recommended standards for healthy eating and physical activity in 2017 according to the Ontario Student Drug Use Health Survey. Changes in student health behaviours will continue to be monitored using this bi-annual health survey.

Table 1: Healthy Eating and Physical Activity among Peel Youth, 2017

Health Behaviour	Recommended Standard for Optimal Health among Children and Youth	Proportion of Grade 7-12 Students in Peel engaging in the health behaviour in 2017
Healthy Eating – Fruit and Vegetable Consumption	Consuming a minimum of 5 or more servings of vegetables and fruit per day ^a	1 in 7 (15 per cent) students met the recommended standard ⁴
Healthy Eating – Sugar-Sweetened Beverage	Making water the drink of choice while limiting sugary drinks ⁵	More than 7 in 10 (72 per cent) students drank sugar-sweetened beverages ^b at

² American Psychological Association. (2019). Children's Mental Health – Why Is Children's Mental Health Important? Available from: <https://www.apa.org/pi/families/children-mental-health>

³ Dietitians of Canada. (2016). Taxation and Sugar-Sweetened Beverages. Available from: <https://www.dietitians.ca/Downloads/Public/DC-Position-SSBs-and-taxation.aspx>.

⁴ Ontario Student Drug Use and Health Survey, 2017, Centre for Addiction and Mental Health. Region of Peel - Public Health.

⁵ Government of Canada. (2019). Canada's Food Guide – Make water your drink of choice. Available from: <https://food-guide.canada.ca/en/healthy-eating-recommendations/make-water-your-drink-of-choice/>

^a This standard is consistent with the 2007 Edition of Eating Well with Canada's Food Guide⁴ and is consistent with Canada's Food Guide, 2019 that recommends consuming “plenty of vegetables and fruit”

^b Regularly drinking sugar-sweetened beverages is a concerning health behaviour given its association with the development of dental caries, excess weight, obesity, and chronic diseases³

CREATING AND SUPPORTING HEALTHY SCHOOLS: THE HEALTHY PLEDGE PROGRAM

Health Behaviour	Recommended Standard for Optimal Health among Children and Youth	Proportion of Grade 7-12 Students in Peel engaging in the health behaviour in 2017
Consumption		least once per week ⁴
Physical Activity – Time Spent in Moderate to Vigorous Physical Activity	Engaging in a minimum of 60 minutes per day of moderate to vigorous physical activity involving a variety of aerobic activities ⁶	1 in 5 (19 per cent) students met the recommended standard ⁴

3. The HEALTHY Pledge Program

In the Region of Peel, over 90 per cent of youth attend Peel District or Dufferin-Peel Catholic District School Board schools where they spend an average of 1,164 hours per year.⁷ The school setting can strongly influence the formation of youth health behaviours such as healthy eating and physical activity. Schools can do this by means of regular exposure to healthy food and beverages and physical activity opportunities.⁸

Peel Public Health has developed and implemented the High-impact, Easy Approach Leading to Healthier Youth (HEALTHY) Pledge Program ('Program') comprised of multiple, evidence-based, impactful interventions leading to sustainable healthy eating and physical activity changes in schools.⁹ The Program is composed of four different pledges (Appendix I) that are made up of in- and out-of-class healthy eating and physical activity interventions tailored to meet specific schools' needs. Table 2 summarizes the four different pledges and the resources provided to support their implementation.

Table 2: HEALTHY Pledges and Resources Provided

Pledge	Objective	Program Resources provided
HEALTHY Beverages Pledge	Creates a school environment where the only beverages that can be served or sold at school are water and unsweetened milk. Public Health provides eligible schools with refillable	<ul style="list-style-type: none"> • 34 eligible schools were provided a refillable water station purchased by Peel Public Health and School Boards paid for installation. • 72 eligible schools were provided with refillable water bottles using

⁶ Canadian Society for Exercise Physiology. (2019). Canadian 24-Hour Movement Guidelines for Children and Youth (ages 5-17 years): An Integration of Physical Activity, Sedentary Behaviour and Sleep. Available from: <https://csepguidelines.ca/children-and-youth-5-17/>

⁷ National Center on Education and the Economy. (2019). *Statistic of the Month: How much Time Do Students Spend in School?* Available from: <http://ncee.org/2018/02/statistic-of-the-month-how-much-time-do-students-spend-in-school/>.

⁸ Freeman, J., King, M., Al-Haque, R. & Pickett, W. (2012). Health and Health-Related Behaviours Among Young People: Ontario. Available from: <http://www.edu.gov.on.ca/eng/healthyschools/hbscreportjan2013.pdf>

⁹ Frieden, T.R. (2010). A Framework for Public Health Action: The Health Impact Pyramid. *Am J Public Health, 100*(4), 590-595. DOI: 10.2105/AJPH.2009.185652.

CREATING AND SUPPORTING HEALTHY SCHOOLS: THE HEALTHY PLEDGE PROGRAM

Pledge	Objective	Program Resources provided
	water stations and bottles.	health equity criteria. Schools with higher rates of dental caries and student populations received more water bottles than schools with lower rates of dental caries and student populations. <ul style="list-style-type: none"> • 124 schools were provided with healthy beverage programming and curriculum support.
Physical Activity Programs Pledge (out of class)	Creates more opportunities for students to regularly participate in various physical activity programs before and after school, and during recess.	<ul style="list-style-type: none"> • 16 schools met the eligibility criteria and were provided with a Painted Playground. • 78 schools were supported with the Playground Activity Leaders in Schools program. • 95 schools were provided with physical activity programming support.
Daily Physical Activity Pledge (in class)	Encourages and support students to move for a minimum of 20 minutes each day while in class, allowing them to have fun and support mental and physical health by engaging in exercise breaks during learning time.	<ul style="list-style-type: none"> • 74 schools were provided with daily physical activity programming and activity support.
HEALTHY Fundraising Pledge	Offers students healthier food and more physical activity opportunities during school fundraisers (Appendix I).	<ul style="list-style-type: none"> • 33 schools were provided with healthy fundraising programming and resource support.

Public Health provides the Peel District and Dufferin-Peel Catholic District School Board schools with services that support them to implement one, two, three or four pledges based on their level of need and readiness. If beneficial, schools that have not already committed to all four pledges are able to begin working on more pledges at any time throughout the school year.

The implementation of the Program began in September 2018. As of July 1, 2019, there were 178 Peel schools (44 per cent) implementing a total of 326 pledges (124 Healthy Beverages, 95 Physical Activity Programs, 74 Daily Physical Activity, and 33 Healthy Fundraising Pledges) which impacted a total of over 94,000 students (Appendix II).

CONCLUSION

By working together with school boards to implement the Program, Public Health has embraced the Regional brand of “Working with You” to support healthy students in Peel. Based on the initial success of the Program in the 2018/2019 school year, Public Health will continue to work with the Peel District and Dufferin-Peel Catholic District School Boards to implement the Program in the future. Moving forward, Peel Public Health will use the 2018/19 implementation results, staff and school board feedback, and available funds to monitor, evaluate, and improve

CREATING AND SUPPORTING HEALTHY SCHOOLS: THE HEALTHY PLEDGE PROGRAM

the Program in collaboration with its school board partners. In the future, Peel Public Health will also explore how to best engage the two French school boards and private schools in the HEALTHY Pledge Program.



Cathy Granger, Acting Commissioner of Health Services



Jessica Hopkins, MD MHS CCFP FRCPC, Medical Officer of Health

Approved for Submission:



N. Polsinelli, Interim Chief Administrative Officer

APPENDICES

Appendix I – Sample Pledge Contracts and Alternate Fundraisers
Appendix II – HEALTHY Pledge Program Progress to Date

For further information regarding this report, please contact Paul Sharma, Director, Chronic Disease and Injury Prevention Division, Ext. 2013.

Authored By: Alin Herciu-Ivascu, Chronic Disease and Injury Prevention

APPENDIX I
CREATING AND SUPPORTING HEALTHY SCHOOLS: THE HEALTHY PLEDGE PROGRAM

Sample Pledge Contracts and Alternative Fundraisers

Healthy Beverages Pledge



This pledge supports the Ministry of Education School Food and Beverage Policy (PPM 150) and the Healthy Schools components of Ontario's Well-Being Strategy for Education, specifically related to healthy eating and mental health topics.



Purpose: The Healthy Beverages in Schools Pledge creates a school environment that provides access to healthy beverage choices (water and/or unsweetened milk only). Regular consumption of healthy beverages may enhance student mental well-being and improve academic achievement.

Healthy Beverages in Schools Pledge specific guidelines:

As part of this Pledge, schools are encouraged to:

- Offer water and/or unsweetened milk only
- Ensure water and/or unsweetened milk are accessible to all students in the school
- Track water and/or unsweetened milk access using tools provided

Peel Public Health Responsibilities

(flexible; may be adapted on a school by school basis)

- Provide incentives to support implementation of Pledge
- Tailor communication plan with school staff and students
 - Attend staff meeting to present on pledge
 - Attend school council meeting to present on pledge
 - Provide information to students, parents, and teachers about the Pledge
- Facilitate implementation of Healthy Beverages Challenges throughout the year
- Review and assist school representatives in grant writing for funding opportunities to support the Pledge
- Provide curriculum supports to align with the Pledge
- Track ongoing participation in the Pledge

Insert Name of School

School and Principal/VP Responsibilities

(flexible; may be adapted on a school by school basis)

- Champion the Pledge to support school-wide engagement
- Ensure water and/or unsweetened milk are accessible to all students in the school
- Track ongoing participation in the Pledge
- Meet with Peel Public Health staff for a minimum of two additional meetings to receive updates on participation in the Pledge

By signing this Pledge I, (insert name) _____, the principal of _____ agree to implement the **Healthy Beverages in Schools Pledge**.

Principal signature _____

By signing this Pledge I, (insert name) _____, the Peel Public Health staff working with _____ School agree to support the school with implementing the **Healthy Beverages in Schools Pledge**.

PPH signature _____

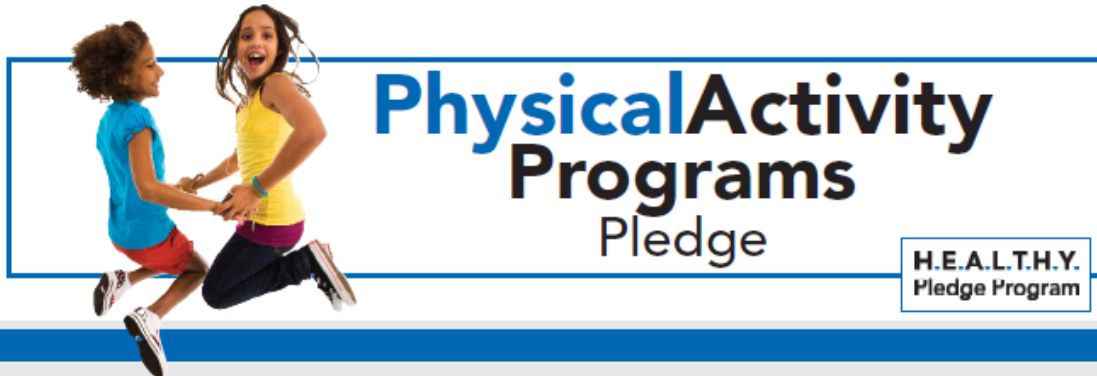
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APPENDIX I
CREATING AND SUPPORTING HEALTHY SCHOOLS: THE HEALTHY PLEDGE PROGRAM

Physical Activity Programs Pledge



This pledge supports the Healthy Schools components of Ontario's Well-Being Strategy for Education, specifically related to physical activity and mental health topics.

Purpose: The Physical Activity Programs in Schools Pledge offers all students more opportunities to engage in moderate-to-vigorous physical activity (MVPA) throughout the day. Accumulating at least 60 minutes of MVPA per day, according to the Canadian Society for Exercise Physiology (CSEP) 24-Hour Movement Guidelines, may enhance student mental well-being and improve academic achievement.

As part of this Pledge, the school and Peel Public Health will work together to offer physical activity programs to students before, during, and/or after school at no cost.



Physical Activity Programs in Schools Pledge specific guidelines:

Physical activity programs should:

- Be composed of a significant amount of aerobic activities that result in MVPA (i.e., running, jumping, skipping, etc.)
- Not apply to competitive school teams
- Include opportunities that are open to individuals and/or teams (i.e., intramurals, yoga, drop-in activities, recess activities, etc.)
- Be tracked using tools provided

Peel Public Health Responsibilities

(flexible; may be adapted on a school by school basis)

- Provide incentives to support implementation of Pledge
- Tailor communication plan with school staff and students
 - Attend staff meeting to present on pledge
 - Attend school council meeting to present on pledge
 - Provide information to students, parents, and teachers about the Pledge
- Review and assist school representatives in grant writing for funding opportunities to support the Pledge
- Work with school staff and students to select and/or adapt physical activity programs to implement
- Provide PA Facilitator training to school staff and/or volunteers to carry out the Pledge
- Provide P.A.L.S. training to school staff and students
- Track ongoing participation in the Pledge
- Report ongoing participation in the Pledge to the principal/vice-principal during additional meetings (two).

Insert Name of School

School and Principal/VP Responsibilities

(flexible; may be adapted on a school by school basis)

- Champion the Pledge to support school-wide engagement
- Ensure that participation in all physical activity programs is available to all students
- Track ongoing participation in the Pledge
- Meet with Peel Public Health staff for a minimum of two additional meetings to receive updates on participation in the Pledge

By signing this Pledge I, (insert name) _____, the principal of _____ agree to implement the **Physical Activity Programs Pledge**.

Principal signature _____

By signing this Pledge I, (insert name) _____ the Peel Public Health staff working with _____

School agree to support the school with implementing the **Physical Activity Programs Pledge**.

PPH signature _____

Date: _____



**APPENDIX I
CREATING AND SUPPORTING HEALTHY SCHOOLS: THE HEALTHY PLEDGE PROGRAM**

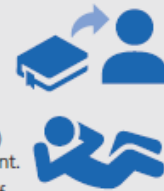
Daily Physical Activity Pledge



This pledge supports the Ministry of Education revised Daily Physical Activity (DPA) policy and the Healthy Schools components of Ontario’s Well-Being Strategy for Education specifically related to physical activity and mental health topics.

Purpose: The Daily Physical Activity Pledge is to support the successful implementation of the Daily Physical Activity (DPA) policy during instructional time. This will support students to accumulate at least 60 minutes of physical activity per day which, according to the Canadian Society for Exercise Physiology (CSEP) 24-Hour Movement Guidelines, may enhance student mental well-being and improve academic achievement.

As part of this Pledge, the school and Peel Public Health will work together towards allocating a minimum of 20 minutes of instructional time towards engaging students in in-class physical activities.



Daily Physical Activity Pledge specific guidelines:

Daily physical activity should:

- Be administered by educational professionals during instructional time.
- Be tracked using tools provided.
- Be delivered for a minimum of 20 minutes per day, and can be split into intervals of at least 5 minutes.

Peel Public Health Responsibilities

(flexible; may be adapted on a school by school basis)

- Provide incentives to support implementation of the Pledge
- Tailor communication plan with school staff and students
 - Attend staff meeting to present on pledge
 - Attend school council meeting to present on pledge
 - Provide information to students, parents, and teachers about the Pledge
- Review and assist school representatives in grant writing for funding opportunities to support the Pledge
- Work with school staff and students to select and/or adapt DPA activities to implement
- Provide training to staff and students to carry out the Pledge
- Track ongoing participation in the Pledge
- Report ongoing participation in the Pledge to the principal/vice-principal during additional meetings (two)

Insert Name of School

School and Principal/VP Responsibilities

(flexible; may be adapted on a school by school basis)

- Champion the Pledge to support school-wide engagement
- Ensure that participation in all daily physical activities is available to all students
- Track ongoing participation in the Pledge
- Meet with Peel Public Health staff for a minimum of two additional meetings to receive updates on participation in the Pledge

By signing this Pledge I, (insert name) _____, the principal of _____ agree to implement the **Daily Physical Activity Pledge**.

Principal signature _____

By signing this Pledge I, (insert name) _____, the Peel Public Health staff working with _____ School agree to support the school with implementing the **Daily Physical Activity Pledge**.

PPH signature _____

Date: _____

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APPENDIX I
CREATING AND SUPPORTING HEALTHY SCHOOLS: THE HEALTHY PLEDGE PROGRAM

Healthy Fundraising Pledge



This pledge supports the Ministry of Education School Food and Beverage Policy (PPM 150) and the Healthy Schools components of Ontario’s Well-Being Strategy for Education, specifically related to healthy eating, physical activity and mental health topics.

Purpose: The Healthy Fundraising Pledge creates a school environment that reduces students’ access to unhealthy food and increases access to healthy food and/or physical activity during school fundraisers. Regular consumption of healthy foods and participation in physical activity may enhance student mental well-being and improve academic achievement.



Healthy Fundraising Pledge specific guidelines:

- As part of this Pledge, schools are encouraged to:
- Have physical activity fundraisers
 - Have healthier food fundraisers
 - Have non-food fundraisers (i.e., gift wrap, glow sticks, etc.)
 - Track the number of and participation in healthy fundraisers using tools provided

Peel Public Health Responsibilities

(flexible; may be adapted on a school by school basis)

- Review existing fundraisers to identify opportunities for implementing this Pledge
- Tailor communication plan with school staff and students
 - Attend staff meeting to present on pledge
 - Attend school council meeting to present on pledge
 - Provide information to students, parents, and teachers about the Pledge
- Track the number of healthy fundraisers using tools provided
- Support the planning of fundraisers by providing recommendations for healthier options, problem-solving, and resources
- Report ongoing participation in the Pledge to the principal/ vice-principal during additional meetings (two)

Insert Name of School _____

School and Principal/VP Responsibilities

(flexible; may be adapted on a school by school basis)

- Champion the Pledge to support school-wide engagement
- Provide a list of existing fundraisers to Peel Public Health to identify opportunities for implementing this Pledge
- Track ongoing participation in the Pledge
- Meet with Peel Public Health staff for a minimum of two additional meetings to receive updates on participation in the Pledge

By signing this Pledge I, (insert name) _____, the principal of _____ agree to implement the **Healthy Fundraising Pledge**.
Principal signature _____

By signing this Pledge I, (insert name) _____, the Peel Public Health staff working with _____ School agree to support the school with implementing the **Healthy Fundraising Pledge**.

PPH signature _____

Date: _____

CD140703 15409



APPENDIX I

CREATING AND SUPPORTING HEALTHY SCHOOLS: THE HEALTHY PLEDGE PROGRAM

Tips for Healthier Fundraising

Healthy Fundraising Ideas

Healthy food items

- ✓ Low-fat and low-sodium popcorn
- ✓ Fruit grams
- ✓ Hummus and veggies
- ✓ Whole wheat pasta and sauce kits
- ✓ Soup kits
- ✓ Herbs and spices
- ✓ Cheese

Non-food items

- ✓ Cookbooks
- ✓ Calendars
- ✓ Jewelry
- ✓ Plants (e.g. Poinsettias in December)
- ✓ Gift baskets
- ✓ Candles
- ✓ Items with school logo (e.g. lanyards, mugs, t-shirts, caps, water bottles and stationary)

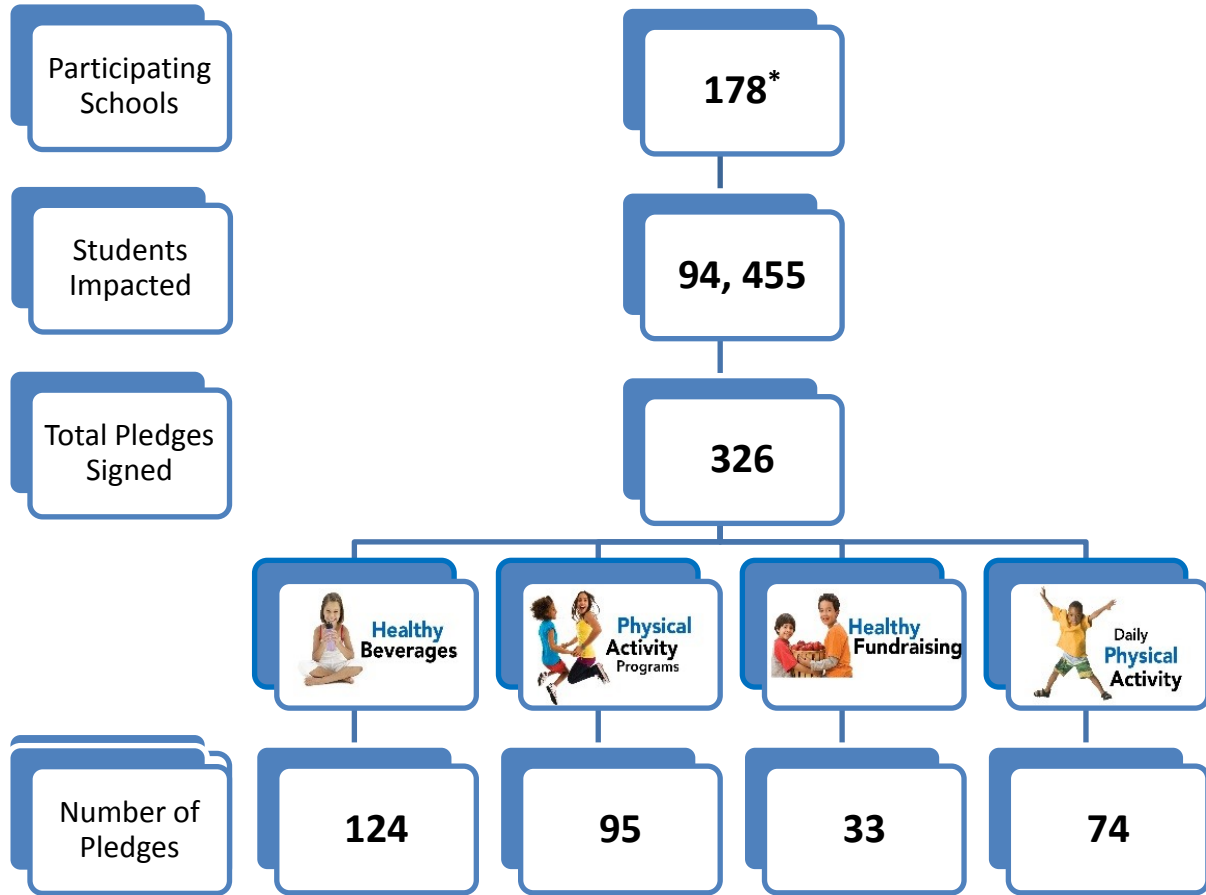
Fundraising Activities

Get Active	Provide a Service	Help the Environment	Spark Creativity
Bike-, walk-, jump-rope-, bowl-, skate-, hula-hoop-athons	Gift wrapping	Run a farmer's market with locally sourced produce	Organize a student art or craft fair
Zumba, dance, or yoga night	Car wash	Sell herbs, vegetables and/or flowers from a school garden	Wacky outfit or hat day
Teacher-student competitions (volleyball, softball, Frisbee)	Bike repair	Recycle cell phones, printer cartridges, coffee pods for a fee	Host a talent show, magic show or silent/live auction
Fun run/walk	Rent-a-helper; rake leaves, mow lawns, shovel snow	Sell garbage, recycling, or compost bags	Sell a cookbook with recipes from students and their families

APPENDIX II
CREATING AND SUPPORTING HEALTHY SCHOOLS: THE HEALTHY PLEDGE PROGRAM

HEALTHY Pledge Program Progress to Date

Total Schools – As of July 1, 2019



* The 178 schools are made up of 165 (93%) Elementary and 13 (7%) Secondary Schools

RECEIVED**September 11, 2019**

REGION OF PEEL

OFFICE OF THE REGIONAL CLERK

From: **Christine Massey** <[REDACTED]>

Date: Wed, Aug 7, 2019 at 12:46 PM

Subject: City of Calgary FOI response re: evidence on fluoride exposure during pregnancy (IQ, ADHD)

To: <Nando.Iannicca@peelregion.ca>, <annette.groves@caledon.ca>, Crombie, Bonnie <bonnie.crombie@mississauga.ca>, Carolyn Parrish <carolyn.parrish@mississauga.ca>, Chris Fonseca <chris.fonseca@mississauga.ca>, <dipika.damerla@mississauga.ca>, George Carlson <george.carlson@mississauga.ca>, <gurpreet.dhillon@brampton.ca>, [REDACTED], Jennifer Innis <Jennifer.Innis@caledon.ca>, Johanna Downey <johanna.downey@caledon.ca>, John Kovac <John.Kovac@mississauga.ca>, Karen Ras <karen.ras@mississauga.ca>, Medeiros, Martin - Councillor <martin.medeiros@brampton.ca>, Matt Mahoney <Matt.Mahoney@mississauga.ca>, Palleschi, Michael - Councillor <michael.palleschi@brampton.ca>, Iannicca, Nando <nando.iannicca@mississauga.ca>, Saito, Pat <pat.saito@mississauga.ca>, Pat Fortini Councillor <pat.fortini@brampton.ca>, <Patrick.Brown@brampton.ca>, <paul.vicente@brampton.ca>, Starr, Ron <ron.starr@mississauga.ca>, <rowena.santos@brampton.ca>, <stephen.dasko@mississauga.ca>, McFadden, Sue <sue.mcfadden@mississauga.ca>, Mayor Allan Thompson <mayor@caledon.ca>, <mayor_tory@toronto.ca>, <jbachetti@tecumseh.ca>, <andrew@andrewdowie.ca>, <rtonial@tecumseh.ca>, <baltenhof@tecumseh.ca>, <bhouston@tecumseh.ca>, <[REDACTED]>, Laura Moy <lmoy@tecumseh.ca>, <ffrancis@city.windsor.on.ca>, <jelliott@city.windsor.on.ca>, <rbortolin@city.windsor.on.ca>, <cholt@city.windsor.on.ca>, <esleiman@city.windsor.on.ca>, <joagnac@city.windsor.on.ca>, <irek@city.windsor.on.ca>, <bmarra@city.windsor.on.ca>, <hpayne@city.windsor.on.ca>, <pborrelli@city.windsor.on.ca>, <mayoro@city.windsor.on.ca>, <mayor@town.lasalle.on.ca>, <mbondy@town.lasalle.on.ca>, <makpata@town.lasalle.on.ca>, <tburns@town.lasalle.on.ca>, <sdesjarlais@town.lasalle.on.ca>, <cmeloche@town.lasalle.on.ca>, <jrenaud@town.lasalle.on.ca>, cc: ZZG-RegionalClerk <ZZG-Regionalclerk@peelregion.ca>, Szwarc, David <David.Szwarc@peelregion.ca>, <andrew.farr@peelregion.ca>, <ocwa@ocwa.com>, <alane@ocwa.com>, Aimee Hennessy <ahennessy@ocwa.com>, <nbaker@ocwa.com>, <tsmider@ocwa.com>, <jmuller@ocwa.com>, Canadian Waterman <jkingbury@ocwa.com>, <MPontone@ocwa.com>, <sbudden@ocwa.com>, ControlChem Info <info@controlchem.com>, Premier of Ontario | Première ministre de l'Ontario <premier@ontario.ca>, <dr.david.williams@ontario.ca>, Health Minister Jaczek Ontario <ccu.moh@ontario.ca>, <mcossinfo.css@ontario.ca>, Prime Minister/Premier ministre <pm@pm.gc.ca>

Dear Councillors, Mayors, Ministers, Premier, Prime Minister, etc.,

Attached you will find a Freedom of Information response letter dated July 26, 2019 from the City of Calgary (which is considering restarting water fluoridation), that reads "*Please find enclosed records responsive to your request*", along with the City's enclosed document.

The wording of my request was:

Description of Requested Items:

Primary, peer-reviewed scientific research studies on fluoride exposure during pregnancy, showing that fluoride exposure during pregnancy is safe with respect to IQ and ADHD symptoms in human offspring, in the City's possession (for example: downloaded to a computer, printed in hard copy, contained in an email attachment, etc.).

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18.1-2

[If any records match the above description and are currently available to the public elsewhere, please provide enough information about each record so that the public may identify and access each record with certainty (i.e. title, author(s), date, journal, where the public may access it).]

The City's "*responsive records*" consist of 39 pages, and every single one of them is marked as "**Non-Responsive**" in the bottom left-hand corner.

They include Public Health Ontario's narrow and biased Evidence Review published in 2018, Public Health Ontario's review of the 2017 Bashash et al. IQ study (which indicates lowered IQs), and the 2015 Newsweek article by Douglas Main ("*Fluoridation May Not Prevent Cavities, Scientific Review Shows*"). None of these documents cite a single responsive study.

Yours for Safe Water,
Christine Massey, M.Sc.
Brampton, ON
[Fluoride Free Peel](#)

September 11, 2019

REGION OF PEEL

OFFICE OF THE REGIONAL CLERK

From: Christine Massey [REDACTED]

Date: Mon, Aug 19, 2019 at 1:55 PM

Subject: new Canadian fluoride / IQ study confirms lower IQs with prenatal exposure

To: <Nando.Iannicca@peelregion.ca>, <annette.groves@caledon.ca>, Crombie, Bonnie <bonnie.crombie@mississauga.ca>, Carolyn Parrish <carolyn.parrish@mississauga.ca>, Chris Fonseca <chris.fonseca@mississauga.ca>, <dipika.damerla@mississauga.ca>, George Carlson <george.carlson@mississauga.ca>, <gurpreet.dhillon@brampton.ca>, [REDACTED], Jennifer Innis <Jennifer.Innis@caledon.ca>, Johanna Downey <johanna.downey@caledon.ca>, John Kovac <John.Kovac@mississauga.ca>, Karen Ras <karen.ras@mississauga.ca>, Medeiros, Martin - Councillor <martin.medeiros@brampton.ca>, Matt Mahoney <Matt.Mahoney@mississauga.ca>, Palleschi, Michael - Councillor <michael.palleschi@brampton.ca>, Iannicca, Nando <nando.iannicca@mississauga.ca>, Saito, Pat <pat.saito@mississauga.ca>, Pat Fortini Councillor <pat.fortini@brampton.ca>, <Patrick.Brown@brampton.ca>, <paul.vicente@brampton.ca>, Starr, Ron <ron.starr@mississauga.ca>, <rowena.santos@brampton.ca>, <stephen.dasko@mississauga.ca>, McFadden, Sue <sue.mcfadden@mississauga.ca>, Mayor Allan Thompson <mayor@caledon.ca>, <mayor_tory@toronto.ca>, <jbachetti@tecumseh.ca>, <andrew@andrewdowie.ca>, <rtonial@tecumseh.ca>, <baltenhof@tecumseh.ca>, <bhouston@tecumseh.ca>, [REDACTED], Laura Moy <lmoy@tecumseh.ca>, <ffrancis@city.windsor.on.ca>, <jelliott@city.windsor.on.ca>, <rbortolin@city.windsor.on.ca>, <cholt@city.windsor.on.ca>, <esleiman@city.windsor.on.ca>, <joagnac@city.windsor.on.ca>, <irek@city.windsor.on.ca>, <bmarra@city.windsor.on.ca>, <hpayne@city.windsor.on.ca>, <pborrelli@city.windsor.on.ca>, <mayoro@city.windsor.on.ca>, <mayor@town.lasalle.on.ca>, <mbondy@town.lasalle.on.ca>, <makpata@town.lasalle.on.ca>, <tburns@town.lasalle.on.ca>, <sdesjarlais@town.lasalle.on.ca>, <cmeloche@town.lasalle.on.ca>, <jrenaud@town.lasalle.on.ca>, cc: ZZG-RegionalClerk <ZZG-Regionalclerk@peelregion.ca>, Szwarc, David <David.Szwarc@peelregion.ca>, <andrew.farr@peelregion.ca>, <ocwa@ocwa.com>, <alane@ocwa.com>, Aimee Hennessy <ahennessy@ocwa.com>, <nbaker@ocwa.com>, <tsmider@ocwa.com>, <jmuller@ocwa.com>, Canadian Waterman <jkingbury@ocwa.com>, <MPontone@ocwa.com>, <sbudden@ocwa.com>, ControlChem Info <info@controlchem.com>, Premier of Ontario | Première ministre de l'Ontario <premier@ontario.ca>, <dr.david.williams@ontario.ca>, Health Minister Jaczek Ontario <ccu.moh@ontario.ca>, <mcossinfo.css@ontario.ca>, Prime Minister/Premier ministre <pm@pm.gc.ca>, <themayor@calgary.ca>, <ward.sutherland@calgary.ca>, <joe.magliocca@calgary.ca>, <jyoti.gondek@calgary.ca>, Chu, Sean <sean.chu@calgary.ca>, <george.chahal@calgary.ca>, <jeff.davison@calgary.ca>, <Druh.Farrell@calgary.ca>, <Evan.woolley@calgary.ca>, <Gian-carlo.carra@calgary.ca>, <ray.jones@calgary.ca>, <Shane.keating@calgary.ca>, <Peter.demong@calgary.ca>, Ilone Harrison <Ilone.Harrison@oahpp.ca>
Cc: <newsroom@bramptonguardian.com>, <news@cbpost.com>, <news@windsorstar.com>

Dear Councillors, Mayors, Ministers, Premier, Prime Minister, etc.,

New study published in JAMA (Journal of the American Medical Association) Pediatrics, August 19, 2019:
<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2748634>

Association Between Maternal Fluoride Exposure During Pregnancy and IQ Scores in Offspring in Canada

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Key Points

Question *Is maternal fluoride exposure during pregnancy associated with childhood IQ in a Canadian cohort receiving optimally fluoridated water?*

Findings *In this prospective birth cohort study, fluoride exposure during pregnancy was associated with lower IQ scores in children aged 3 to 4 years.*

Meaning *Fluoride exposure during pregnancy may be associated with adverse effects on child intellectual development, indicating the possible need to reduce fluoride intake during pregnancy.*

<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2748634>

Reminder:

Every Ontario and Alberta institution that I have FOI'd, including but not limited to the Ontario and Alberta Ministries of Health, Public Health Ontario, the Region of Peel, and the Cities of Toronto and Calgary, have failed to provide, or cite, or point towards, even one primary study showing evidence of safety during pregnancy re childhood IQ or ADHD symptoms.

Those who go to great lengths to critique the mounting evidence of harm and have no proof (or even low quality evidence) of safety, but are quite comfortable with double standards and happy to encourage "community water fluoridation" anyways, argue for unlawful, unethical medical experimentation on other people's unborn children. Please don't listen to them.

"We're talking about the fetus and right now there is absolutely no benefit derived for the fetus" from fluoride, senior author Christine Till of York University in Toronto told Reuters Health in a telephone interview. "If anything, there is a potential for risk."

Thus, she said, the idea of limiting fluoride during pregnancy is "a no brainer" - and a major source is fluoridated water.

<https://www.newsmax.com/health/health-news/study-fluoride-pregnant-women/2019/08/19/id/929045/>

Christine Massey, M.Sc.
Brampton, ON
[Fluoride Free Peel](#)

September 11, 2019

REGION OF PEEL

OFFICE OF THE REGIONAL CLERK

From: Christine Massey <[REDACTED]>

Date: Wed, Aug 21, 2019 at 4:54 PM

Subject: Criticisms of Recent JAMA Fluoride/IQ Study Are Unfounded

To: <Nando.Iannicca@peelregion.ca>, <annette.groves@caledon.ca>, Crombie, Bonnie <bonnie.crombie@mississauga.ca>, Carolyn Parrish <carolyn.parrish@mississauga.ca>, Chris Fonseca <chris.fonseca@mississauga.ca>, <dipika.damerla@mississauga.ca>, George Carlson <george.carlson@mississauga.ca>, <gurpreet.dhillon@brampton.ca>, <[REDACTED]>, Jennifer Innis <Jennifer.Innis@caledon.ca>, Johanna Downey <johanna.downey@caledon.ca>, John Kovac <John.Kovac@mississauga.ca>, Karen Ras <karen.ras@mississauga.ca>, Medeiros, Martin - Councillor <martin.medeiros@brampton.ca>, Matt Mahoney <Matt.Mahoney@mississauga.ca>, Palleschi, Michael - Councillor <michael.palleschi@brampton.ca>, Iannicca, Nando <nando.iannicca@mississauga.ca>, Saito, Pat <pat.saito@mississauga.ca>, Pat Fortini Councillor <pat.fortini@brampton.ca>, <Patrick.Brown@brampton.ca>, <paul.vicente@brampton.ca>, Starr, Ron <ron.starr@mississauga.ca>, <rowena.santos@brampton.ca>, <stephen.dasko@mississauga.ca>, McFadden, Sue <sue.mcfadden@mississauga.ca>, Mayor Allan Thompson <mayor@caledon.ca>, <mayor_tory@toronto.ca>, <jbachetti@tecumseh.ca>, <andrew@andrewdowie.ca>, <rtonial@tecumseh.ca>, <baltenhof@tecumseh.ca>, <bhouston@tecumseh.ca>, <[REDACTED]>, Laura Moy <lmoy@tecumseh.ca>, <ffrancis@city.windsor.on.ca>, <jelliott@city.windsor.on.ca>, <rbortolin@city.windsor.on.ca>, <cholt@city.windsor.on.ca>, <esleiman@city.windsor.on.ca>, <joagnac@city.windsor.on.ca>, <irek@city.windsor.on.ca>, <bmarra@city.windsor.on.ca>, <hpayne@city.windsor.on.ca>, <pborrelli@city.windsor.on.ca>, <mayoro@city.windsor.on.ca>, <mayor@town.lasalle.on.ca>, <mbondy@town.lasalle.on.ca>, <makpata@town.lasalle.on.ca>, <tburns@town.lasalle.on.ca>, <sdesjarlais@town.lasalle.on.ca>, <cmeloche@town.lasalle.on.ca>, <jrenaud@town.lasalle.on.ca>, cc: ZYG-RegionalClerk <ZZG-Regionalclerk@peelregion.ca>, Szwarc, David <David.Szwarc@peelregion.ca>, <andrew.farr@peelregion.ca>, <ocwa@ocwa.com>, <alane@ocwa.com>, Aimee Hennessy <ahennessy@ocwa.com>, <nbaker@ocwa.com>, <tsmider@ocwa.com>, <jmuller@ocwa.com>, Canadian Waterman <jkingbury@ocwa.com>, <MPontone@ocwa.com>, <sbudden@ocwa.com>, ControlChem Info <info@controlchem.com>, Premier of Ontario | Première ministre de l'Ontario <premier@ontario.ca>, <dr.david.williams@ontario.ca>, Health Minister Jaczek Ontario <ccu.moh@ontario.ca>, <mcssinfo.css@ontario.ca>, Prime Minister/Premier ministre <pm@pm.gc.ca>, <themayor@calgary.ca>, <ward.sutherland@calgary.ca>, <joe.magliocca@calgary.ca>, <jyoti.gondek@calgary.ca>, Chu, Sean <sean.chu@calgary.ca>, <george.chahal@calgary.ca>, <jeff.davison@calgary.ca>, <Druh.Farrell@calgary.ca>, <Evan.woolley@calgary.ca>, <Gian-carlo.carra@calgary.ca>, <ray.jones@calgary.ca>, <Shane.keating@calgary.ca>, <Peter.demong@calgary.ca>, Ilone Harrison <Ilone.Harrison@oahpp.ca>, <ray.copes@oahpp.ca>
Cc: <newsroom@bramptonguardian.com>, <news@cbpost.com>, <news@windsorstar.com>, <cweeks@globeandmail.com>, <apicard@globeandmail.com>

Dear Councillors, Mayors, Ministers, Premier, Prime Minister, etc.,

PR Newswire:

NEW YORK, Aug. 21, 2019 /PRNewswire/ -- A newly published carefully-researched and meticulously peer-reviewed US government-funded study published in [JAMA Pediatrics](#) reports maternal fluoride levels are linked to offspring's lower IQ. But the same

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day the study was released, many fluoridation proponents erroneously dismissed it, reports the Fluoride Action Network (FAN).

Critics claim: "It is only one study." The truth is that **over 50 studies have found a lowering of IQ** associated with fluoride exposure including another high-quality US-government funded study ([Bashash et al., 2017](#)) using similar methodology as the JAMA study. (Also, Thomas et al. 2018 [Occupational & Environmental Medicine](#); Valdez Jiménez et al. [Neurotoxicology 2017](#) and Li et al [Fluoride 2008](#))

Critics claim: "It doesn't prove cause and effect." No epidemiological study can. However, over 400 animal and cell studies underline the JAMA study's biological plausibility.

Critics claim: "A loss of 3-4 IQ points is not enough to be concerned." This is a predicted average drop for the whole population – **such a shift could dramatically reduce the percentage of very bright children and increase the number of mentally handicapped.**

Critics claim: "Loss of IQ cannot be sex-related." This claim ignores what the authors state about these sex differences. Christine Till the lead author responds to this and other criticisms in an interview on [Canadian TV](#)

Contradicting other claims, **the mothers were *not* exposed to high fluoride levels and the study *did* control for lead, mercury, manganese, perfluoro-octanoic acid, and urinary arsenic.**

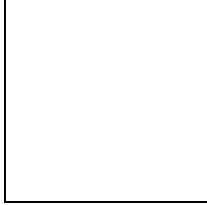
Claims that thousands of studies show fluoridation is safe are not true. In fact, **public health has been negligent about examining the health of people living in fluoridated communities.**

Paul Connett, PhD, FAN Director says, "It is sickening to hear promoters tout the benefits of swallowing fluoride when confronted with such serious evidence of harm. You can repair a child's tooth but you can't repair a child's brain if it is harmed during fetal development."

"It is fine to ask for more studies. But, **the only reasonable course of action is to place a moratorium on fluoridation** until the matter has been resolved. Meanwhile, pregnant women should be warned to avoid fluoride as much as they can," says Connett.

Connett's video response to criticisms of the JAMA/IQ study <https://www.youtube.com/watch?v=hjKUqf85E6Q&feature=youtu.be>

SOURCE Fluoride Action Network



Related Links

<http://FluorideAction.Net>

FOI responses reveal: Ontario and Alberta institutions have zero fluoride / pregnancy studies to suggest safety with respect to childhood IQ or ADHD

<https://www.fluoridefreepeel.ca/no-fluoride-pregnancy-studies-suggest-safety-re-iq-or-adhd/>

Christine Massey, M.Sc.

Brampton, ON

[Fluoride Free Peel](#)

September 11, 2019

REGION OF PEEL

OFFICE OF THE REGIONAL CLERK

From: Christine Massey <[REDACTED]>

Date: Fri, Aug 30, 2019 at 1:11 PM

Subject: Several In Utero Fluoride/IQ Studies Should Provoke Moratorium

To: <Nando.Iannicca@peelregion.ca>, <annette.groves@caledon.ca>, Crombie, Bonnie <bonnie.crombie@mississauga.ca>, Carolyn Parrish <carolyn.parrish@mississauga.ca>, Chris Fonseca <chris.fonseca@mississauga.ca>, <dipika.damerla@mississauga.ca>, George Carlson <george.carlson@mississauga.ca>, <gurpreet.dhillon@brampton.ca>, [REDACTED], Jennifer Innis <Jennifer.Innis@caledon.ca>, Johanna Downey <johanna.downey@caledon.ca>, John Kovac <John.Kovac@mississauga.ca>, Karen Ras <karen.ras@mississauga.ca>, Medeiros, Martin - Councillor <martin.medeiros@brampton.ca>, Matt Mahoney <Matt.Mahoney@mississauga.ca>, Palleschi, Michael - Councillor <michael.palleschi@brampton.ca>, Iannicca, Nando <nando.iannicca@mississauga.ca>, Saito, Pat <pat.saito@mississauga.ca>, Pat Fortini Councillor <pat.fortini@brampton.ca>, <Patrick.Brown@brampton.ca>, <paul.vicente@brampton.ca>, Starr, Ron <ron.starr@mississauga.ca>, <rowena.santos@brampton.ca>, <stephen.dasko@mississauga.ca>, McFadden, Sue <sue.mcfadden@mississauga.ca>, Mayor Allan Thompson <mayor@caledon.ca>, <mayor_tory@toronto.ca>, <jbachetti@tecumseh.ca>, <andrew@andrewdowie.ca>, <rtonial@tecumseh.ca>, <baltenhof@tecumseh.ca>, <bhouston@tecumseh.ca>, [REDACTED], Laura Moy <lmoy@tecumseh.ca>, <ffrancis@city.windsor.on.ca>, <jelliott@city.windsor.on.ca>, <rbortolin@city.windsor.on.ca>, <cholt@city.windsor.on.ca>, <esleiman@city.windsor.on.ca>, <joagnac@city.windsor.on.ca>, <irek@city.windsor.on.ca>, <bmarra@city.windsor.on.ca>, <hpayne@city.windsor.on.ca>, <pborrelli@city.windsor.on.ca>, <mayoro@city.windsor.on.ca>, <mayor@town.lasalle.on.ca>, <mbondy@town.lasalle.on.ca>, <makpata@town.lasalle.on.ca>, <tburns@town.lasalle.on.ca>, <sdesjarlais@town.lasalle.on.ca>, <cmeloche@town.lasalle.on.ca>, <jrenaud@town.lasalle.on.ca>, cc: ZYG-RegionalClerk <ZYG-Regionalclerk@peelregion.ca>, Szwarc, David <David.Szwarc@peelregion.ca>, <andrew.farr@peelregion.ca>, <ocwa@ocwa.com>, <alane@ocwa.com>, Aimee Hennessy <ahennessy@ocwa.com>, <nbaker@ocwa.com>, <tsmider@ocwa.com>, <jmuller@ocwa.com>, Canadian Waterman <jkingsbury@ocwa.com>, <MPontone@ocwa.com>, <sbudden@ocwa.com>, ControlChem Info <info@controlchem.com>, Premier of Ontario | Première ministre de l'Ontario <premier@ontario.ca>, <dr.david.williams@ontario.ca>, Health Minister Jaczek Ontario <ccu.moh@ontario.ca>, <mccsinfo.css@ontario.ca>, Prime Minister/Premier ministre <pm@pm.gc.ca>, <themayor@calgary.ca>, <ward.sutherland@calgary.ca>, <joe.magliocca@calgary.ca>, <ivyoti.gondek@calgary.ca>, Chu, Sean <sean.chu@calgary.ca>, <george.chahal@calgary.ca>, <jeff.davison@calgary.ca>, <Druh.Farrell@calgary.ca>, <Evan.woolley@calgary.ca>, <Gian-carlo.carra@calgary.ca>, <ray.jones@calgary.ca>, <Shane.keating@calgary.ca>, <Peter.demong@calgary.ca>, Ilone Harrison <Ilone.Harrison@oahpp.ca>, <ray.copes@oahpp.ca>
Cc: <newsroom@bramptonguardian.com>, <news@cbpost.com>, <news@windsorstar.com>, <cweeks@globeandmail.com>, <apicard@globeandmail.com>, <dickinsj@ucalgary.ca>

Dear Councillors, Mayors, Ministers, Premier, Prime Minister, etc.,

Several In Utero Fluoride/IQ Studies Should Provoke A Nation-Wide Fluoridation Moratorium

REFERRAL TO _____
 RECOMMENDED _____
 DIRECTION REQUIRED _____
 RECEIPT RECOMMENDED _____

NEW YORK, Aug. 30, 2019 /PRNewswire/ -- Critics of the fluoride-IQ study published this month in *JAMA Pediatrics* claimed it needed replication. However, the Canadian study by Green (2019) was already a replication of another U.S. government-funded study published in 2017 by Bashash which found similar effects, reports the [Fluoride Action Network](#) (FAN).

Both were Mother-Offspring studies that used urinary fluoride levels during pregnancy to assess cognition in the paired offspring.

Both studies have shown a strong relationship between maternal exposure to fluoride and lowered IQ in offspring. Each revealed that the fetal stage appears to be the most vulnerable time period for fluoride's neurotoxicity.

Actually, FAN points out that there have been five studies that have found this relationship between maternal exposure and lowered IQ in children (see listing below). However, the Canadian study is the first to compare fluoridated vs non-fluoridated cities. The pregnant women in Canada with higher urinary fluoride levels had offspring with lower IQs and were from the fluoridated cities.

Paul Connett, PhD, FAN Executive Director, says, "For years promoters of fluoridation have argued that there is no harm from fluoridation; these and other studies indicate that there is potential harm and it is serious. It is unconscionable to continue fluoridation until this is resolved. For those who doubt the current findings more studies can be done once a moratorium on fluoridation is in place. To do otherwise is to condone a human experiment on millions of children."

Connett adds, "To ignore brain health and continue fluoridation in name of dental health is a huge disservice to the children of this country. FAN argues that there are more effective programs to reduce dental inequities (eg, '[Childsmile](#)' in Scotland) and communities can easily implement them."

The Mother-Offspring studies, listed below, can be accessed at <http://fluoridealert.org/issues/moms2b/mother-offspring-studies/>

[Green \(2019\)](#). Largest study with 512 mother-offspring. Lower IQ in children 3- 4 years of age.

[Bashash \(2017\)](#). Longest study. 299 mother-offspring pairs in Mexico. Lower IQ in children 4 and 6-12 years of age.

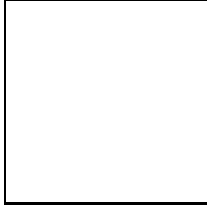
[Thomas \(2018\)](#). 401 mother-offspring pairs in Mexico. Lower IQ in children 1-3 years of age Only the abstract has been published.

[Valdez Jiménez \(2017\)](#). Lower IQ between the ages of 3-15 months with 65 mother-offspring pairs in Mexico.

[Li \(2004\)](#). Significant differences in the neonatal behavioral neurological assessment score in 91 offspring aged 1-3 days old.

SOURCE Fluoride Action Network

ZERO is the number of such studies indicating safety, as confirmed by FOI requests to Ontario and Alberta institutions.



Christine Massey, M.Sc.
Brampton, ON
[Fluoride Free Peel](#)

September 11, 2019

REGION OF PEEL
OFFICE OF THE REGIONAL CLERK

From: Christine Massey <[REDACTED]>

Date: Sat, Aug 31, 2019 at 12:52 PM

Subject: Open Letter to Public Health Deans & Directors re: Medical Assault and Battery

To: <dean.dlsph@utoronto.ca>, <dean@dentistry.utoronto.ca>, Eileen de Villa <Eileen.deVilla@toronto.ca>, Hopkins, Jessica <Jessica.hopkins@peelregion.ca>, Nancy Polsinelli <nancy.polsinelli@peelregion.ca>, Public Health <publichealth@toronto.ca>, Medical Officer of Health <medicalofficerofhealth@toronto.ca>, Melvin Hsu <melvin.hsu@toronto.ca>, Christopher Mackie <Christopher.Mackie@mlhu.on.ca>, Wajid Ahmed <wahmed@wechu.org>, Rosana Salvaterra <rsalvaterra@peterboroughpublichealth.ca>, <Jennifer.Gibson@utoronto.ca>, <pierrette.buklis@utoronto.ca>, <james.scott@utoronto.ca>, <dickinsj@ucalgary.ca>, <dr.david.williams@ontario.ca>, <joe.schwarz@mcgill.ca>

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WeToo: Medical Assault and Battery

Posted on:

Friday, August 30th 2019 at 11:00 am

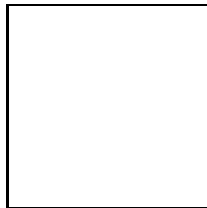
Written By:

[Karen Spencer](#)

Views 54

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The latest Canadian study finds that young children born to mothers living in fluoridated communities are at risk of having lower IQs. Sub-populations vulnerable to fluoride poisoning also include bottle-fed babies, the elderly and those in fragile health

The [study](#) published by JAMA Pediatrics is the latest in a series of recent studies from two projects, [MIREC](#) in Canada and [ELEMENT](#) in Mexico. Findings from both projects confirm 25 years worth of findings in dozens of human studies and hundreds of laboratory studies. Fluoridated water poisons brains as well as bodies and bones, and that poisoning begins in the womb. Although many [doctors](#) privately counsel their patients to avoid fluoride, organizational reluctance to acknowledge the implications of modern scientific evidence documenting harm allows fluoridation lobbyists to perpetuate medical assault and battery on consumers.

To: Leadership at American, Canadian, Mexican & other Schools of Public Health and Schools of Nutrition; and the Health & Medicine Division at the U.S. National Academies of Sciences

Dear Deans & Directors,

In a July 2019 report to the City of Calgary, the *O'Brien Institute of Public Health* at the University of Calgary acknowledged the high quality science that has consistently found a prenatal dose-response pattern of life-long adverse effects from maternal ingestion of low doses of [fluoride](#) consistent with 'optimal' fluoridation programs. Although not quite a reversal of their policy of aggressively promoting fluoridation as a public health initiative, the *O'Brien Institute* advised that fluoridation policy decision making belongs to legislatures. They also advised monitoring 'the issue' of prenatal neurological harm.

In August 2019, the highest ranking pediatric journal in the world published yet another study from the *Maternal-Infant Research on Environmental Chemicals* (MIREC) project

using Canadian data. The MIREC findings validate the findings of a series of similar high-quality longitudinal cohort studies of Mexican mother-child pairs. These recent Canadian and Mexican studies confirmed a pattern of significantly lowered IQ and increased risk of learning disabilities resulting from low fluoride doses during pregnancy. Studies in these series and other studies have also noted fluoride's impact on hormonal functioning. Therefore, whether from food or [water](#), maternal doses of fluoride endorsed by fluoridation proponents poison babies' bodies and brains in the womb.

The Mexican studies are part of the *Early Life Exposures in Mexico to ENvironmental Toxicants* (ELEMENT) project. They were conducted by expert researchers at the University of Toronto, the University of Michigan and Harvard University in collaboration with the Mexican government. Another major 2017 report from expert researchers in South America took it a step further. They advised that Chilean national water and food fluoridation policies were ineffective in preventing [dental decay](#) and "pose risks of various diseases in the asthmatic-skeletal, neurological, endocrine and skin systems" that disproportionately affect infants, children and adolescents due to timing of exposure.

Studies from the United States validate that bottle-fed babies and toddlers living in optimally fluoridated American communities routinely exceed the upper tolerable limits (UL) set by the *Food & Nutrition Board* of the National Academies of Science in a controversial 1997 decision that included fluoride as a non-nutrient element on a nutrient chart because of claims of apparent dental benefit and the faulty assumption that there were no adverse health effects up to the politically determined UL.

The resource section of this letter contains the citations to these and other valid studies documenting a range of harm that disproportionately affects consumers based on race, genetics and status. Documented neurological harm is most evident in the very young and the elderly but is by no means the only ill effect from chronic low dose exposure to fluoride. [Inflammatory](#), endocrine and renal diseases are also documented ill effects. Because of the disproportionate harm to Latinos, Indigenous Peoples and Blacks, fluoridation policy constitutes an environmental injustice as well as a medical assault and battery on vulnerable populations. On behalf of consumers who experience chronic disease, lifelong disability and premature death because of the hubris of authority intent on protecting its own professional image rather than public health, we say #WeToo.

The signatories of this statement along with thousands of other professionals are on record in their science-based opposition to fluoridation as a public harm policy. The politicized and immoral decision to fluoridate may rest with legislatures as noted by the *O'Brien Institute*, but those non-medical and non-scientific bodies are influenced by credentialed authorities in matters of nutrition and health.

It is time for Schools of Public Health, Schools of Nutrition, and credentialed individuals to go on record with statements of opposition to water and food fluoridation schemes as public harm policies. It is time to abandon misguided good intentions and dated dental dogma. It is time to take action based on evidence of harm. Failure to do so amounts to complicity in scientific fraud.

Respectfully,

Michael D. Kohn, JD - President, National Whistleblower Center
 Hardy Limeback, BSc, DDS, PhD - 2006 National Research Council on Fluoride in Drinking Water
 Stephanie Seneff, PhD - Senior Research Scientist, MIT
 Kilmer S. McCully, MD - former Chief of Pathology & Laboratory Medicine at VA, Boston HealthCare System
 Richard Shames, MD - Thyroid Health Specialist & Medical Author
 James Fredenberg, MD - Anesthesiologist
 Robert C. Dickson, MD, CCFP, FCFP - Founder of Safe Water Calgary
 David Egilman, MD, MPH - Clinical Professor at Alpert School of Medicine, Brown University
 Griffin Cole, DDS, NMD, MIAOMT - Clinical Instructor of Integrative Medicine & Dentistry
 Henry Rodriguez - League of United Latin American Citizens, Texas Chapter

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2. *Listen to August 19th [Podcast with JAMA Pediatrics Editors](#) re quality & controversy (12 min)*.
3. [Fluoride exposure and thyroid function among adults living in Canada: Effect modification by iodine status](#). Ashley J. Malin, Julia Riddell, Hugh McCague, Christine Till. *Environment International*. Volume 121, Part 1, December 2018, Pages 667-674.
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5. [Community Water Fluoridation: Prepared for the Calgary City Council](#). *O'Brien Institute of Public Health*. University of Calgary. July 2019.

Mexican References

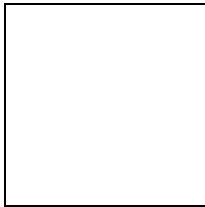
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4. [Fluoride exposure and pubertal development in children living in Mexico City](#). Yun Liu, Martha Téllez-Rojo, Howard Hu, et al. *Environ Health*. 2019 Mar 29;18(1):26.

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1. [Fluoride Intake of Infants from Formula](#). Claudia X Harriehausen, Fehmida Z Dosani, Brett T Chiquet, Michelle S Barratt, and Ryan L Quock. *Journal of Clinical Pediatric Dentistry*. Oct 2018.
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1. [[The impact of tap water fluoridation on human health](#)] (Article in Spanish). Verena Romero, Frances J. Norris, Juvenal A. Ríos, et al. *Rev. méd. Chile*. vol.145 no. 2 Santiago. Feb. 2017.



Currently a semi-retired consultant, Karen Spencer is a former analyst and project leader. She is adept at conducting research and analyzing trends. Her special interests include critical thinking, data-driven decision making, and organizational theory. She and others in her family are among the 15% of Americans with chemical sensitivities triggered by exposure to fluoridated food and drink. Karen became aware of the suppression of fluoride science in 2014. In 2015 and 2016, she compiled resources and drafted letters opposing fluoridation signed by consumer advocate Erin Brockovich and other national experts. She previously published fluoride articles on GreenMed in [2017](#) and in [2018](#).

Disclaimer: This article is not intended to provide medical advice, diagnosis or treatment. Views expressed here do not necessarily reflect those of GreenMedInfo or its staff.

Supreme Court of Canada, 1957:

water fluoridation is a form of "compulsory medication" (page 580, Toronto (Metro) v. Forest Hill (Village)): http://www.fluoridefreepeel.ca/wp-content/uploads/2016/02/1957scr_0569.pdf

R. v. Morgentaler. Collection Supreme Court Judgments:

"The law has long recognized that the human body ought to be protected from interference by others.

At common law, for example, any medical procedure carried out on a person without that person's consent is an assault."

<https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/288/index.do>

Canada's Food and Drugs Act:

drug includes any substance or mixture of substances manufactured, sold or represented for use in (a) the diagnosis, treatment, mitigation or prevention of a disease, disorder or abnormal physical state, or its symptoms, in human beings or animals

The following institutions have been [unable to cite](#) even one primary, peer-reviewed study indicating that fluoride exposure during pregnancy is actually safe with respect to childhood IQ or ADHD:

- Ontario Ministry of Health and Long Term Care
 - Alberta Ministry of Health
 - Public Health Ontario
 - City of Toronto
 - Region of Peel
 - City of Calgary
 - Windsor Essex County Health Unit
 - Town of Tecumseh

Christine Massey, M.Sc.
[Fluoride Free Peel](#)



Sub-populations vulnerable to fluoride toxicity include pregnant women & their fetuses, bottle-fed babies & young children, ethnic & low income groups, the elderly and those in fragile health.

August 30, 2019

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[We Too: Medical Assault & Battery](#)

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It is time for Schools of Public Health, Schools of Nutrition, and credentialed individuals to go on record with statements of opposition to water and food fluoridation schemes as public harm policies. It is time to abandon misguided good intentions and dated dental dogma. It is time to take action based on evidence of harm. Failure to do so amounts to complicity in scientific fraud.

Respectfully,

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Stephanie Seneff, PhD - Senior Research Scientist, MIT
Kilmer S. McCully, MD - former Chief of Pathology & Laboratory Medicine at VA, Boston HealthCare System
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Griffin Cole, DDS, NMD, MIAOMT - Clinical Instructor of Integrative Medicine & Dentistry
Henry Rodriguez - League of United Latin American Citizens, Texas Chapter

att: references

prepared by: KSpencer

[**We Too: Medical Assault & Battery**](#)

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RESOURCES

CANADIAN REFERENCES

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- Listen to August 19th Podcast with JAMA Pediatrics Editors re quality & controversy (12 min).

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MEXICAN REFERENCES

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CHILEAN REFERENCE

[The impact of tap water fluoridation on human health] (Article in Spanish). Verena Romero, Frances J. Norris, Juvenal A. Ríos, et al. *Rev. méd. Chile*. vol.145 no. 2 Santiago. Feb. 2017.

MORE STUDIES & REPORTS

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- Fluoride related changes in behavioral outcomes may relate to increased serotonin. Lu F, Zhang Y, Trevedi A, et al. *Physiology & Behavior*. 2019.
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September 11, 2019

REGION OF PEEL

OFFICE OF THE REGIONAL CLERK

From: Christine Massey <[REDACTED]>

Date: Thu, Aug 8, 2019 at 10:24 AM

Subject: Press Release, Mt Sinai Hosp: Fluoride may diminish kidney & liver function in adolescents, study suggests

To: <Nando.Iannicca@peelregion.ca>, <annette.groves@caledon.ca>, Crombie, Bonnie <bonnie.crombie@mississauga.ca>, Carolyn Parrish <carolyn.parrish@mississauga.ca>, Chris Fonseca <chris.fonseca@mississauga.ca>, <dipika.damerla@mississauga.ca>, George Carlson <george.carlson@mississauga.ca>, <gurpreet.dhillon@brampton.ca>, [REDACTED], Jennifer Innis <Jennifer.Innis@caledon.ca>, Johanna Downey <johanna.downey@caledon.ca>, John Kovac <John.Kovac@mississauga.ca>, Karen Ras <karen.ras@mississauga.ca>, Medeiros, Martin - Councillor <martin.medeiros@brampton.ca>, Matt Mahoney <Matt.Mahoney@mississauga.ca>, Palleschi, Michael - Councillor <michael.palleschi@brampton.ca>, Iannicca, Nando <nando.iannicca@mississauga.ca>, Saito, Pat <pat.saito@mississauga.ca>, Pat Fortini Councillor <pat.fortini@brampton.ca>, <Patrick.Brown@brampton.ca>, <paul.vicente@brampton.ca>, Starr, Ron <ron.starr@mississauga.ca>, <rowena.santos@brampton.ca>, <stephen.dasko@mississauga.ca>, McFadden, Sue <sue.mcfadden@mississauga.ca>, Mayor Allan Thompson <mayor@caledon.ca>, <mayor_tory@toronto.ca>, <jbachetti@tecumseh.ca>, <andrew@andrewdowie.ca>, <rtonial@tecumseh.ca>, <baltenhof@tecumseh.ca>, <bhouston@tecumseh.ca>, [REDACTED], Laura Moy <lmoy@tecumseh.ca>, <ffrancis@city.windsor.on.ca>, <jelliott@city.windsor.on.ca>, <rbortolin@city.windsor.on.ca>, <cholt@city.windsor.on.ca>, <esleiman@city.windsor.on.ca>, <joagignac@city.windsor.on.ca>, <irek@city.windsor.on.ca>, <bmarra@city.windsor.on.ca>, <hpayne@city.windsor.on.ca>, <pborrelli@city.windsor.on.ca>, <mayoro@city.windsor.on.ca>, <mayor@town.lasalle.on.ca>, <mbondy@town.lasalle.on.ca>, <makpata@town.lasalle.on.ca>, <tburns@town.lasalle.on.ca>, <sdesjarlais@town.lasalle.on.ca>, <cmeloche@town.lasalle.on.ca>, <jrenaud@town.lasalle.on.ca>, cc: ZZG-RegionalClerk <ZZG-Regionalclerk@peelregion.ca>, Szwarc, David <David.Szwarc@peelregion.ca>, <andrew.farr@peelregion.ca>, <ocwa@ocwa.com>, <alane@ocwa.com>, Aimee Hennessy <ahennessy@ocwa.com>, <nbaker@ocwa.com>, <tsmider@ocwa.com>, <jmuller@ocwa.com>, Canadian Waterman <jkingbury@ocwa.com>, <MPontone@ocwa.com>, <sbudden@ocwa.com>, ControlChem Info <info@controlchem.com>, Premier of Ontario | Première ministre de l'Ontario <premier@ontario.ca>, <dr.david.williams@ontario.ca>, Health Minister Jaczek Ontario <ccu.moh@ontario.ca>, <mcssinfo.css@ontario.ca>, Prime Minister/Premier ministre <pm@pm.gc.ca>

Dear Councillors, Mayors, Ministers, Premier, Prime Minister, etc.,

Please be advised of the following.

August 8, 2019, Press Release from Mount Sinai Hospital. NY:

Fluoride may diminish kidney and liver function in adolescents, study suggests

Fluoride exposure may lead to a reduction in kidney and liver function among adolescents, according to a study published by Mount Sinai researchers in Environment International in August.

REFERRAL TO _____

RECOMMENDED

DIRECTION REQUIRED _____

RECEIPT RECOMMENDED _____

The study examined the relationship between fluoride levels in drinking water and blood with kidney and liver health among adolescents participating in the National Health and Nutrition Examination Survey, a group of studies that assess health and nutritional well-being in the United States. The findings showed that exposure to fluoride may contribute to complex changes in kidney and liver function among youth in the United States, where 74 percent of public water systems add fluoride for dental health benefits. Fluoridated water is the main source of fluoride exposure in the U.S.. The findings also suggest that adolescents with poorer kidney or liver function may absorb more fluoride in their bodies.

While fluoride exposure in animals and adults has been associated with kidney and liver toxicity, this study examined potential effects of chronic low-level exposure among youth. This is important to study because a child's body excretes only 45 percent of fluoride in urine via the kidneys, while an adult's body clears it at a rate of 60 percent, and the kidneys accumulate more fluoride than any other organ in the body.

*"While the dental benefits of fluoride are widely established, recent concerns have been raised regarding the appropriateness of its widespread addition to drinking water or salt in North America," said **the study's first author Ashley J. Malin, Ph.D.**, postdoctoral fellow in the Department of Environmental Medicine and Public Health at the Icahn School of Medicine at Mount Sinai. "This study's findings suggest that there may be potential kidney and liver health concerns to consider when evaluating fluoride use and appropriate levels in public health interventions. Prospective studies are needed to examine the impact of chronic low-level fluoride exposure on kidney and liver function in the U.S. population."*

The study analyzed fluoride measured in blood samples of 1,983 adolescents and the fluoride content of the tap water in the homes of 1,742 adolescents. Although the tap water fluoride concentrations were generally low, there are several mechanisms by which even low levels of fluoride exposure may contribute to kidney or liver dysfunction.

This study's findings, combined with previous studies of childhood exposure to higher fluoride levels, show there is a dose-dependent relationship between fluoride and indicators of kidney and liver function. The findings, if confirmed in other studies, suggest it may be important to consider children's kidney and liver function in drafting public health guidelines and recommendations.

Potential health side effects include renal system damage, liver damage, thyroid dysfunction, bone and tooth disease, and impaired protein metabolism.

<https://medicalxpress.com/news/2019-08-fluoride-diminish-kidney-liver-function.html>

Fluoride exposure and kidney and liver function among adolescents in the United States: NHANES, 2013–2016.

- *Author: Malina AJ, Lesseur C, Busgang SA, Curtin P, Wright RO, Sanders AP.*

Journal Name: Environment International

Publish Date: August 8, 2019

Volume/Page: [Epub ahead of print]

Type: Human Study

[Download PDF OF STUDY](#)

Abstract

Highlights

- Plasma fluoride concentrations are associated with kidney and liver parameters among United States (U.S.) adolescents
- Higher water fluoride concentrations are associated with lower blood urea nitrogen among U.S. adolescents
- Fluoride exposure may contribute to complex changes in kidney and liver related parameters among U.S. adolescents
- Altered kidney and/or liver function may impact bodily fluoride absorption and metabolic processes

Background: Hepato- and nephrotoxicity of fluoride have been demonstrated in animals, but few studies have examined potential effects in humans. This population-based study examines the relationship between chronic low-level fluoride exposure and kidney and liver function among United States (U.S.) adolescents. This study aimed to evaluate whether greater fluoride exposure is associated with altered kidney and liver parameters among U.S. youth.

Methods: This cross-sectional study utilized data from the National Health and Nutrition Examination Survey (2013–2016). We analyzed data from 1983 and 1742 adolescents who had plasma and water fluoride measures respectively and did not have kidney disease. Fluoride was measured in plasma and household tap water. Kidney parameters included estimated glomerular filtration rate (calculated by the original Schwartz formula), serum uric acid, and the urinary albumin to creatinine ratio. Liver parameters were assessed in serum and included alanine aminotransferase, aspartate aminotransferase, alkaline phosphatase, blood urea nitrogen, gamma-glutamyl transferase, and albumin. Survey-weighted linear regression examined relationships between fluoride exposure and kidney and liver parameters after covariate adjustment. A Holm-Bonferroni correction accounted for multiple comparisons.

Results: The average age of adolescents was 15.4 years. Median water and plasma fluoride concentrations were 0.48 mg/L and 0.33 $\mu\text{mol/L}$ respectively. A 1 $\mu\text{mol/L}$ increase in plasma fluoride was associated with a 10.36 mL/min/1.73 m² lower estimated glomerular filtration rate (95% CI: -17.50, -3.22; $p = 0.05$), a 0.29 mg/dL higher serum uric acid concentration (95% CI: 0.09, 0.50; $p = 0.05$), and a 1.29 mg/dL lower blood urea nitrogen concentration (95% CI: -1.87, -0.70; $p < 0.001$). A 1 mg/L increase in water fluoride was associated with a 0.93 mg/dL lower blood urea nitrogen concentration (95% CI: -1.44, -0.42; $p = 0.007$).

***Conclusions:** Fluoride exposure may contribute to complex changes in kidney and liver related parameters among U.S. adolescents. As the study is cross-sectional, reverse causality cannot be ruled out; therefore, altered kidney and/or liver function may impact bodily fluoride absorption and metabolic processes.*

First Author Ashley J. Malin's Sept 2015 letter to the Region of Peel's Water Fluoridation Committee about her fluoride / ADHD research findings (listed in Council's [Sept. 24 2015 agenda](#)):

Sept 9, 2015

Dear Chair Carolyn Parrish, Vice-Chair John Sprovieri and Councillors Frank Dale, Johanna Downey, Karen Ras and Michael Pelleschi:

I understand that Peel City Council has formed a Water Fluoridation Committee to review the current body of scientific research on water fluoridation, and that you are members of this committee.

*I would like to notify you about a recent study on water fluoridation that I published along with Dr. Christine Till in the journal *Environmental Health*. The study found that **greater exposure to fluoridated water was associated with increased ADHD** prevalence among children and adolescents in the United States after controlling for socioeconomic status (see <http://www.ehjournal.net/content/14/1/17>). The study received international media attention and was featured in Newsweek Magazine (<http://www.newsweek.com/water-fluoridation-linked-higher-adhd-rates-312748>).*

Other studies have also found associations between exposure to fluoridated water and adverse cognitive effects. These effects include: impaired visuospatial organization and visual memory during childhood (Rocha-Amador et al., 2009) and delayed orientation reactions in infancy (Li et al., 2004). Additionally, over 20 epidemiological studies have shown that exposure to fluoridated water is related to lower IQ in children. These were reviewed in a meta-analysis recently published by Harvard researcher Dr. Anna Choi (Choi et al., 2012). Furthermore, Ding et al. (2011) established a dose response relationship between exposure to fluoridated water and lowered IQ at relatively low fluoride concentrations (0.24 mg/L – 2.84 mg/L). They found that each 1mg/L increase in urinary fluoride was associated with a 0.59 point reduction in children's IQ.

*Consequently, Dr. Till and I are **concerned about the potential impact of exposure to artificially fluoridated water on the neurodevelopment of Canadian infants and children.** Infants consuming formula prepared with tap water in particular may be at a greater risk for negative cognitive effects due to fluoride overexposure. The adequate intake of fluoride for infants from birth to six months of age is 0.01 mg/day (the expected amount from mother's breast milk) (ADA, 2005; IOM, 1997; NRC, 2006). This is reached from one tablespoon of "optimally" fluoridated*

water. Therefore, infants fed formula made with fluoridated tap water would consume at least 50 tablespoons, grossly exceeding the adequate intake limit.

Please consider the information and research that I have provided you with as Members of the Water Fluoridation Committee continue to assess the emerging literature on water fluoridation.

Below are references for the cited studies. I have also attached them for your convenience. You are more than welcome to contact me if you have any questions.

Sincerely,

Ashley Malin, MA, Doctoral Candidate

References (please click the links below to view the facts)

[*Choi AL, Sun G, Zhang Y, Grandjean P. **Developmental fluoride neurotoxicity: a systematic review and meta-analysis.** Environ Health Perspect. 2012; 120:1362-8.*](#)

[*Ding Y, Yanhuigao Sun H, Han H, Wang W, Ji X, Liu X et al.. **The relation between low levels of urine fluoride on children's intelligence, dental fluorosis in endemic fluorosis areas in Hulunbuir, Inner Mongolia, China.** J Hazard Mater. 2011; 186:1942-6*](#)

[*Li J, Yao L, Shao Q-L. **Effects of high-fluoride on neonatal neurobehavioural development.** Chin J Endemiol. 2004; 23:464-5.*](#)

[*National research council. **Fluoride in drinking water: a scientific review of EPA standards.** Committee on fluoride in drinking water, board on environmental studies and toxicology, division on earth and life sciences. Washington, D.C.: The National Academies Press; 2006.*](#)

[*Rocha-Amador D, Navarro M, Trejo-Acevedo A, Carrizales L, Perez-Maldonado F, Díaz-Barriga F et al.. **Use of the Rey-Osterrieth Complex Figure Test for neurotoxicity evaluation of mixtures in children.** Neurotoxicology. 2009; 30:1149-54.*](#)

Best wishes,
Christine Massey, M.Sc.
Brampton, ON
[Fluoride Free Peel](#)

From: Roth, Julie <julie.roth@peelregion.ca> **On Behalf Of** Granger, Cathy

Sent: September 18, 2019 1:58 PM

To: Thompson, Allan <allan.thompson@caledon.ca>; Downey, Johanna <johanna.downey@caledon.ca>; Groves, Annette <annette.groves@caledon.ca>; Innis, Jennifer <jennifer.innis@caledon.ca>; Patrick Brown <sinthu@mayorpatrickbrown.com>; Gurpreet Dhillon <gurpreet.dhillon@brampton.ca>; Pat Fortini <pat.fortini@brampton.ca>; Medeiros, Martin <martin.medeiros@brampton.ca>; Palleschi, Michael <michael.palleschi@brampton.ca>; Rowena Santos <rowena.santos@brampton.ca>; Paul Vicente <paul.vicente@brampton.ca>; Iannicca, Nando <nando.iannicca@peelregion.ca>

Cc: Douglas, James <james.douglas@peelregion.ca>; ZTZ-ELT Executive Leadership Team <ZTZ-ELTExecutiveLeadershipTeam@peelregion.ca>; Griffin Thomas, Susan <susan.griffinthomas@peelregion.ca>; Kern, Donna <donna.kern@peelregion.ca>; Granger, Cathy <cathy.granger@peelregion.ca>

Subject: Meals on Wheels Council Report on September 26

Good Afternoon Members of Council,

You recently received a letter from the Executive Directors of the Brampton and Caledon Meals on Wheels (MoW). This message will provide you with background to the situation and information in advance of the Council Report on the same topic you will receive for the September 26 Regional Council.

The Council Report is bringing forward a recommendation to phase-in increases for meals provided to Meals on Wheels over three years. Budget pressure related to ongoing provincial funding changes make it difficult for the Region to continue to subsidize meals at the current level.

To achieve cost-neutral service delivery, the Region will need to increase the fees charged to Meals on Wheels to offset increases in food costs, as well as staffing costs to prepare the meals. If adopted, phased-in fee increases over several years would give Meals on Wheels some time to find additional fundraising streams to reduce costs they may choose to pass along to community members.

Meals on Wheels is an important service that helps support the Council-directed objectives of the Aging Population Steering Committee (2013). It helps seniors and those with different abilities stay in their homes and communities, supporting greater independence for this growing segment of the population.

We look forward to getting direction from Council on this important service on September 26.

Thank you,
Cathy

Cathy Granger
Acting Commissioner, Health Services
Health Services
Regional Municipality of Peel
Work: [905-791-7800](tel:905-791-7800) x 4901
Mobile: [416-271-7902](tel:416-271-7902)
cathy.granger@peelregion.ca

REFERRAL TO _____
RECOMMENDED _____
DIRECTION REQUIRED _____
RECEIPT RECOMMENDED _____



September 5, 2019

Dear Members of Regional Council,

As many of you are aware Meals on Wheels in Brampton and Caledon have been providing essential services to seniors and people with disabilities for over 50 years in our communities. These services are critical to ensuring the health, well-being and quality of life for our most vulnerable populations. Not only do we provide important nutrition but also the regular contact, socialization and safety checks that are lacking in many people's lives. These services are known to prevent hospitalizations and promotes independent living and successful aging at home.

Our partnership with the Region of Peel has been longstanding since the inception of both of our agencies and has been critical to our success in providing these services. The Region has provided meal services as well as in-kind donation of space through Peel Manor and the Vera Davis Long Term Care facilities. This has enabled both of our agencies to grow and meet the emerging needs of our community.

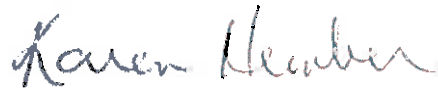
Unfortunately, it has recently come to our attention that recommendations from the Region of Peel's Health Services (Seniors Services/ Long-Term Care) Division will greatly impact our services to seniors and people with disabilities in our community, and put our organization's financial health at risk. We have been informed that there will be a 40% increase in our meal fees that will take effect on January 1, 2020. When we questioned this decision, we were informed that the Region has been subsidizing the cost of these meals for many years. Due to funding challenges at the Region this subsidy would no longer be possible. At no time has our agencies ever been informed or made aware that the Region has subsidized us in any capacity other than the in-kind donation of space.

After inquiries into their rationale, looking back into our historical documents, as well as research we have done with other meal providers, we are unable to substantiate nor agree with their calculations that would justify a 40% increase in meal fees. We do, however recognize that the cost of food and labour are going up, and do anticipate minor increases from time to time. In past years the prices have increased at rates of approximately 2% per year. Seniors Services staff did report to us that they anticipate their food costs will increase by 3.5% this year. We would find this a reasonable increase, which would have a minimal impact on our organization and our clients. A 40% increase in meal costs however, would result in a catastrophic impact on our clients, as our agencies are charitable organizations with limited/ finite government support and fundraising capacity.

Should these costs be implemented, we would have no choice but to pass on the full costs to our clients which would certainly result in clients cancelling much needed services, due to financial hardship. This increase would add on approximately \$4.00 onto the individual cost of each meal for our clients. For example, one client receiving 5 meals a week (at an average increase of \$4.00/ meal) would have to pay an additional \$1,040 that year.

We hope that members of Regional Council will support our efforts at maintaining and preserving these important health services for our community and protect the partnership that has been built over the past 50+ years. We ask that you limit the annual increases to our meals to an amount that is realistic and affordable so that the most vulnerable people in our community can maintain their nutrition, quality of life, and continue to live independently in their homes.

Sincerely,



Karen Humber
Executive Director
Brampton Meals on Wheels



Christine Seigny
Executive Director
Caledon Meals on Wheels

CC: Mayor Patrick Brown
Paul Vicente, Ward 1 & 5
Rowena Santos, Ward 1 & 5
Michael Palleschi, Ward 2 & 6
Martin Medeiros, Ward 3 & 4
Pat Fortini, Ward 7 & 8
Gurpreet Dhillon, Ward 9 & 10

Mayor Allan Thompson
Ian Sinclair, Ward 1
Joanna Downey, Ward 2
Jennifer Innis, Ward 3 & 4
Annette Groves, Ward 5

Mayor Bonnie Crombie
Stephen Desko, Ward 1
Karen Ras, Ward 2
Chris Fonesca, Ward 3
John Kovac, Ward 4
Carolyn Parrish, Ward 5
Ron Starr, Ward 6
Dipika Damerla, Ward 7
Matt Mahoney, Ward 8
Pat Saito, Ward 9
Sue McFadden, Ward 10
George Carlson, Ward 11



Resolution

Moved By: Councillor Medeiros	Date: September 26, 2019
Seconded By: Councillor Santos	Item Number

Whereas, both the October 12, 2017 and the April 5, 2018 reports on Community Hubs Development recognize the Region's role in community hub development — including evidence informed needs analysis, strong partnerships with shared vision, strong business planning and integrated service delivery;

And whereas, Brampton City Council has endorsed the development of community youth hubs in two (2) locations in Brampton, at the Century Gardens Lawn Bowling Clubhouse and South Fletcher's Sportsplex, where there exists surplus and dormant space wholly owned by the City of Brampton, and would be suitable for the social services a Youth Hub;

And whereas, based on a needs assessment, the City of Brampton has identified significant need for youth hubs in two high-priority areas;

And whereas, The Century Gardens Lawn Bowling Clubhouse currently sits vacant due to the need for extensive renovations, and is adjacent to both Gordon Graydon Senior Public School and Century Gardens Recreation Centre, and the site is located centrally within the City in an area that contains a large youth population under the age of 19;

And whereas, this community is considered to have a high social risk index according to the Region of Peel's Neighbourhood Information Tool, with 16.4% of 19,260 residents in this neighbourhood considered to be low-income;

And whereas, South Fletcher's Sportsplex is also located in a neighbourhood with a large youth population under the age of 19, and 18.5% of the 25,440 residents are considered to be low-income according to the Region of Peel's Neighbourhood Information Tool;

And whereas, community youth hub will support Brampton's youth by providing access to service providers and other supports;

And whereas, there are several youth organizations, youth agencies, and social services agencies that have indicated a willingness to operate and work with the City of Brampton in the provision of a youth hub facility;

Therefore be it resolved, that subject to the provision of a solid business case provided from the City of Brampton, Regional Council consider during their 2020 budget deliberations a request for a \$6 million grant to support the conversion of Century Gardens Lawn Bowling Clubhouse and the surplus space at South Fletcher's Sportsplex in to youth hub facilities that will house the social and health services agencies specifically focused on youth.

CARRIED	LOST	REFERRED
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Chair

THE REGIONAL MUNICIPALITY OF PEEL

BY-LAW NUMBER 56-2019

A by-law to govern the calling, place, and proceedings of the meetings of Council and its committees and the conduct of their members and to repeal By-laws 9-2018 and 52-2018.

WHEREAS, the Council of the Regional Corporation has by Resolution on the 26th day of September, 2019 authorized the passing of a by-law to govern the proceedings of Council and its committees pursuant to Section 238(2) of the *Municipal Act, S.O. 2001*, Chapter 25, as amended, and the *Regional Municipality of Peel Act, 2005*, S.O. 2005, Chapter 20;

NOW THEREFORE, the Council of the Regional Corporation enacts as follows:

1. GENERAL

1.1 RULES OF PROCEDURE

- 1.1.1 Subject to the provisions of any applicable statutes, the calling, place and proceedings of meetings of Council and its committees and the conduct of their members, shall be governed by the rules and procedures contained in this by-law and the provisions of this by-law may be referred to as the "Rules of Procedure".
- 1.1.2 Where any matter related to the conduct of meetings is not expressly or by necessary implication provided for in this by-law, the rules of procedure as contained in Robert's Rules of Order shall be followed for governing the proceedings of Council and its committees and the conduct of its members.
- 1.1.3 The Rules of Procedure, with the exception of Appendix 4, may be suspended with respect to the consideration of one or more matters or questions during the course of a single meeting by a two-thirds vote. Such a motion shall identify the basis of the request for the suspension of rules.
- 1.1.4 Informal meetings of Council or committee may be called so long as there is not a quorum of Councillors present; the meeting does not materially advance the business or decision making of Council, the local board or committee; and, during any such informal meetings, no motion may be presented, and no resolution or by-law may be passed. A notice of motion may be added to the agenda for consideration at a subsequent formal meeting of Council or committee.

1.2 DEFINITIONS

- 1.2.1 “by-law” means an enactment of Council in writing described on its face as a by-law of The Regional Municipality of Peel, the original of which has been authenticated by the signatures of the Regional Chair and the Regional Clerk and ‘by-law’ may be used to refer to the written document presented to Council for enactment as a by-law where the context requires.
- 1.2.2 “committee” means any advisory committee or other committee, subcommittee, task force or similar entity, of which at least 50 per cent of the committee members are members of Regional Council unless membership is otherwise provided for in the committee’s Terms of Reference. The members of the committee who are Regional Council members have the right to designate another member of Council, other than the Regional Chair, to attend and vote in that member’s absence.
- 1.2.3 “Committee Chair” means the member of a committee that was elected to preside over the committee meetings by the members of the committee.
- 1.2.4 "committee recommendation" means a recommendation passed by a committee that is presented for adoption as a resolution by Council.
- 1.2.5 “committee report” means the minutes of a committee meeting containing any committee recommendations.
- 1.2.6 “Council Section” means the portion of the agenda under which reports and correspondence are grouped; and shall include but not necessarily be limited to Health, Human Services, Enterprise Programs and Services, Public Works, and Planning and Growth Management but shall not include those matters to be considered In Camera.
- 1.2.7 “Council Section Chair” means the person elected to preside over a Council Section during a Council meeting.
- 1.2.8 “delivery” or “agenda delivery” means the manner of distributing the agendas to Members of Council, and the Regional Chair including hand-delivery, distribution via courier, use of electronic means and/or e-mail not less than 48 hours prior to a Council or committee meeting.

- 1.2.9 "eligible to vote" means having as a member the right to vote at a meeting. At a meeting of Council every member present, including the Section Chair, other than the Regional Chair, has the right to vote, except in the case of an equality of votes in which case the Regional Chair shall have a vote, and at any committee meeting every member present including the Presiding Officer and the Regional Chair has the right to vote.
- 1.2.10 "ex-officio" means by virtue of the office or position. The Regional Chair is an ex-officio member of all committees who shall have the full voting privileges and be counted for quorum.
- 1.2.11 "Inaugural Meeting" means the first meeting of Regional Council following a regular election.
- 1.2.12 "In Camera" means that part of a meeting that is closed to the public, other than those persons specifically invited by the Regional Chair, Council or committee members to remain and may also be referred to as "Closed Session".
- 1.2.13 "Investigator" means the person or agency retained by The Regional Municipality of Peel to conduct closed session investigations or appeals.
- 1.2.14 "local board" means any board, commission, committee, body or local authority established or exercising any power under any *Act* with respect to the affairs or purposes of the municipality; excluding the police services board, school boards, public library boards, any other local board as may be prescribed, and conservation authorities.
- 1.2.15 "majority vote" means more than half of the votes cast by the members who are present and eligible to vote.
- 1.2.16 "meeting" includes any regular, special or other meeting of Council or committee where a quorum of members is present and members discuss or otherwise deal with any matter in a way that materially advances the business or decision making of the council, local board or committee.
- 1.2.17 "member" means a Regional Councillor, or an alternate member appointed under Section 268 of the *Municipal Act, 2001* while in attendance at a Regional Council meeting (as outlined in Appendix 5 and subject to sections 5.3.5.a., b. & c.) and includes the Regional Chair, except that in respect of an advisory committee it shall also refer to committee members who are not members of Regional Council provided that any such committee member shall not have the right to designate another person or member of Council to attend and

vote in that member's absence, unless specifically permitted to do so by the Terms of Reference of said committee. (see section 2.3.7)

- 1.2.18 "Notice of Motion" means a motion provided by a member who shall be the owner of the motion to be brought forward at the next meeting and will be listed under the Notice of Motion section of a Council agenda.
- 1.2.19 "motion" means a proposal by a member presented in a meeting in accordance with the Rules of Procedure, that Council resolve and effect a decision and includes a committee recommendation contained in a committee report.
- 1.2.20 "other business" means new business or a matter not related to an item on the draft agenda pertinent to the business of the Region that may be of an urgent nature; require direction from Council or committee or report back to a future meeting of Council or committee.
- 1.2.21 "Presiding Officer" means the Regional Chair or the Council Section Chair or the Committee Chair while they are presiding at a meeting, and such other person as may be authorized or appointed to preside at a meeting in their absence under the Rules of Procedure, or as provided in the committee's Terms of Reference.
- 1.2.22 "public meeting" means a public meeting under the *Municipal Act, 2001, as amended*, or the *Planning Act*, or any other statute that requires or permits Council to hold a public meeting, in accordance with Appendix 3 – Public Meetings.
- 1.2.23 "quorum" means a majority of members representing all lower-tier municipalities at Council meetings or a majority of the total number of committee members or as provided in a committee's Terms of Reference.
- 1.2.24 "recorded vote" means a vote in which the votes of all members present for the vote are recorded showing the names, whether they voted in favour or opposed or abstained.
- 1.2.25 "Region" and "Regional Corporation" means The Regional Municipality of Peel.
- 1.2.26 "Regional Chair" means the head of Council.
- 1.2.27 "Regional Clerk" and "Clerk" means the Clerk of the Region appointed under the *Municipal Act, 2001, as amended*, and shall include the "Deputy Clerk" and any other employee of the Regional Corporation to whom the Regional Clerk has delegated any of the Clerk's powers and duties under the

Municipal Act, 2001, as amended, to the extent that they are authorized to perform any of the duties of the Clerk under this by-law.

- 1.2.28 “resolution” means the decision on any motion passed or committee recommendation adopted in a meeting of Council.
- 1.2.29 “special meeting” means a separate session of Council or committee held at a time different from that of any regular meeting; convened only to consider one or more items of business specified in the call of the meeting; and the reason for special meetings is to deal with matters that may arise between regular meetings; to dedicate an entire session to one or more particular matters; or to deal with a contentious item that could attract a significant number of delegation requests and discussions.
- 1.2.30 “two-thirds vote” means at least two-thirds of the votes cast by members who are present and eligible to vote.
- 1.2.31 “vacant” or “vacancy” means a vacant seat under the *Municipal Act, 2001, as amended*.
- 1.2.32 “Vice-Chair” refers to the Vice-Chair of a Council Section or the Vice-Chair of a committee who upon election has the function of presiding over a meeting or portion of a meeting in the absence of the Council Section Chair or the Committee Chair.
- 1.2.33 “workshop” means a meeting of Council, that may be conducted in accordance with section 5.10 of this by-law, intended for all members of Council, for the purpose of:
- a. receiving a briefing on municipal business;
 - b. discussing emerging priorities and issues, including strategic planning; and/or
 - c. training purposes.

2. REGIONAL CHAIR

2.1. GENERAL

- 2.1.1 The Regional Chair shall be appointed by Council at its Inaugural Meeting in accordance with the procedures as set out in Appendix 4 – Appointment of the Regional Chair. For the purpose of clarity, the Regional Chair appointed by the previous Council is not entitled to vote for the appointment of the Regional Chair at the Inaugural Meeting, under any circumstances.

- 2.1.2 It shall be the role of the Regional Chair to carry out the responsibilities set forth in the *Municipal Act, 2001*, sections 225 and 226.1, as amended from time to time, as well as the responsibilities outlined in this by-law.
- 2.1.3 The Regional Chair shall be an ex-officio member of all committees but shall not be counted in determining the size of the committees and shall have the full voting privileges and be counted for quorum.
- 2.1.4 The Regional Chair shall not be eligible to be a Council Section Chair or Vice-Chair but may preside in place of a Council Section Chair or Vice-Chair when both are absent from a meeting.
- 2.1.5 The Regional Chair shall not vote in a Council meeting except in the event of an equality of votes.

2.2. DUTIES

- 2.2.1 The Regional Chair shall be the Presiding Officer at meetings of Council and it shall be the duty of the Regional Chair:
 - a. to call the members to order, call the roll, announce the business before Council and conduct the meeting in accordance with the Rules of Procedure;
 - b. to enforce the Rules of Procedure;
 - c. to preserve order and decide points of order;
 - d. to expel or exclude from any meeting any person who has been determined to be guilty of improper conduct at the meeting;
 - e. where it is not possible to maintain order, the Regional Chair may, without any motion being put, adjourn the meeting to a time to be named by the Regional Chair;
 - f. to authenticate by signature all by-laws, resolutions, and minutes of Council;
 - g. to call upon the Council Section Chair to preside over their respective Council section;
 - h. to receive and put to a vote all motions, resolutions and by-laws presented by the members of Council and to announce the result when this function is not performed by a Council Section Chair or Vice-Chair; and
 - i. to preside over all in camera matters.

2.3. REGIONAL CHAIR ABSENT

- 2.3.1 During all absences of the Regional Chair, or if the Office of the Regional Chair becomes vacant, each member of Council in rotation is hereby appointed Acting Regional Chair from time to time in the place and stead of the Regional Chair during the

calendar month for which that member is designated on the Acting Regional Chair list prepared by the Regional Clerk.

- 2.3.2 At the beginning of each term of Council the Regional Clerk shall prepare an Acting Regional Chair list designating each member, other than the Regional Chair, for each calendar month during the term by first listing the members who were members of Council during the immediately preceding term in alphabetical order, then followed by the newly elected members in alphabetical order, then followed by all members in alphabetical order as are needed to complete designations for each calendar month during the term.
- 2.3.3 Should any member be unable to carry out the duties of Acting Regional Chair during the month for which the member is designated, the next member on the list is hereby appointed as Acting Regional Chair during such inability. At such time as the originally designated member is able to carry out the duties of Acting Regional Chair in that same month, the appointment shall return to that member.
- 2.3.4 If the Regional Chair is known to be absent or if the Regional Chair does not attend a meeting of Council within 15 minutes after the time appointed, the Acting Regional Chair shall call the members to order, and if a quorum is present, shall preside during the meeting or until the arrival of the Regional Chair.
- 2.3.5 The Acting Regional Chair is authorized to exercise the powers and carry out the duties of the Regional Chair while so acting, save and except that the Acting Regional Chair shall have one vote on any question at a meeting of Regional Council and shall not be permitted to have a casting vote following an equality of votes.
- 2.3.6 The Regional Chair shall formally advise Council of any intention to be absent from the office for a period longer than three consecutive weeks.
- 2.3.7 At no time shall an alternate member (as appointed by a lower-tier municipality under Section 268 of the *Municipal Act, 2001*, as amended) be appointed as an alternate Chair for the Region of Peel. If an alternate member is substituting for the Councillor who is the Acting Chair for that specified period, then the procedures outlined in Section 2.3.3 shall be followed)

3. PRESIDING OFFICERS OF A COUNCIL SECTION

- 3.1 The initial term of Council Section Chairs and Vice-Chairs shall be 24 months, unless superseded by a resolution of Council. The second term of Council Section Chairs and Vice-Chairs shall be for the

remainder of the term of Council, unless superseded by a resolution of Council.

- 3.2 The Council Section Chairs and Vice-Chairs shall be elected by Council, in accordance with Appendix 1 - Election of Council Section Chairs and Vice-Chairs. The election of Council Section Chairs and Vice-Chairs shall be conducted at the first Council meeting after the Inaugural Meeting, and at the meeting closest to, but not after, 24 months after the beginning of the term of Council.
- 3.3 A member shall only serve as a Chair or Vice-Chair of one section during a term of Council Section Chairs and Vice-Chairs.
- 3.4 If the position of Council Section Chair or Vice-Chair becomes vacant, Council shall appoint a member to fill the vacancy.
- 3.5 A Council Section Chair or Vice-Chair shall preside over their respective Council sections to receive and put to a vote all motions and resolutions presented by the members of Council and to announce the result.
- 3.6 A Council Section Chair or Vice-Chair will vote on all motions and resolutions even when they are presiding over an agenda section for their respective Council sections.

4. MEETINGS

- 4.1. INAUGURAL MEETING - Council
 - 4.1.1 The Inaugural Meeting shall be held after the councils of the local municipalities have held their first meetings, but in any event, not later than the 14th day following the day on which the term of office commences.
 - 4.1.2 The Regional Clerk shall call the Inaugural Meeting at such time as may be appropriate.
 - 4.1.3 The place of the Inaugural Meeting shall be the Region of Peel Council Chambers, unless otherwise determined by the Regional Clerk.
 - 4.1.4 The Regional Clerk shall preside at the Inaugural Meeting until the Regional Chair is appointed and has taken the required declaration of office.

4.2. REGULAR MEETINGS - Council and Committees

4.2.1 The schedule of regular meetings of Council and such other committees as have been struck by Council shall be established by Regional Council on an annual basis in September for the next calendar year. The Regional Clerk shall prepare and present a draft schedule of regular meetings to Regional Council in the month of September each year. Changes to the schedule may be made by the Regional Clerk by the addition or cancellation of meetings in accordance with this By-law or the Terms of Reference of a committee or by changing the times of meetings.

4.2.2 The draft schedule of regular meetings prepared by the Regional Clerk shall provide for the following:

- a. all regular Council meetings will be held on a Thursday beginning at 9:30 a.m., or at the call of the Regional Chair;
- b. there shall be a two week rotation of meetings of Council to be followed by committee meetings as follows:
 - i) Week 1 and Week 3 – Committee meetings
 - ii) Week 2 and Week 4 – Council meetings
 - iii) Week 5 – Regional business days;
- c. despite the two week rotation there shall be no Council or committee meetings during the one week designated by the Peel School Boards for the March break or during the week before or after Christmas or the week after New Year's or during the month of October in the year of a regular election;
- d. during July, there shall be only one meeting which shall be held on the first or second Thursday of the month in order to accommodate the Canada Day Statutory Holiday, which shall be a meeting of Council;
- e. no Council or committee meeting will be held during August, unless called by the Regional Chair; and
- f. public notice of all regularly scheduled meetings of Council and committees shall be given by posting on the Region of Peel website, the schedule of regular meetings as same may be amended from time to time, for the ensuing year as approved by Regional Council pursuant to Section 4.2 of this by-law.

4.2.3 Notwithstanding the foregoing, the schedule of regular meetings established by Council may vary from the requirements of clause 4.2.2 as Council may determine, or as the Regional Clerk may determine from time to time.

- a. public notice of all meetings not shown on the schedule of regular meetings shall be given by posting

on the Region of Peel website a Notice of the meeting in a form sufficient to indicate the date, time and location of the meeting and the nature of the matters to be considered, at least 48 hours before the meeting is to be held.

- 4.2.4 Unless otherwise directed by Council, all Thursdays shall be considered as Regional business days to be held available by members for meetings of Council or committee, workshops or other Regional business.
- 4.2.5 The Regional Chair, in consultation with the Regional Clerk, may at any time cancel or reschedule any regular meeting of Council or committee.
- 4.2.6 A Committee Chair, in consultation with the Regional Clerk, may cancel or reschedule his or her committee meeting.
- 4.2.7 In addition to the schedule of regular meetings, the Regional Chair may call a meeting of Council upon 48 hours notice to all members.
- 4.2.8 Committees shall meet at such date, time and place as Council or the committees decide or at the call of the Committee Chair with 48 hours notice, in accordance with Section 4.2.3.a.
- 4.2.9 No committee shall meet while Council is in session.
- 4.2.10 Seating at Council meetings shall be in alphabetical order of the members' surnames, with the first member seated closest to the left of the seat provided for the Regional Chair.
- 4.2.11 All meetings of Council and committees shall be held in the Council Chambers at 10 Peel Centre Drive, Suite A, Brampton or at such other place within the Region of Peel as is specified in the notice calling the meeting or as may be determined by Council or the committee.
- 4.2.12 A regular meeting of Council shall not carry on past 3:30 p.m. except that Council may pass a by-law confirming the proceedings of the meeting to that point of the meeting and may pass a resolution to carry on past that time. Subject to a resolution to the contrary, the meeting shall be adjourned at 3:30 p.m. and the business on the agenda for that meeting which was not dealt with at that meeting shall be placed on the agenda for the next regular meeting of Council.
- 4.2.13 When a meeting of Council commences before noon and carries on or is likely to carry on after noon, the Regional Chair shall call a recess approximately between noon and 12:30 p.m. for the purpose of a half hour lunch break.

4.2.14 Any meeting may by resolution by majority vote be recessed from time to time to resume at the location and at the time and date stated in the resolution.

4.3 SPECIAL MEETINGS – Council and Committees

4.3.1 Upon notice as set out in clause 4.3.3 the Regional Chair may at any time summon a special meeting of Council in which case the Regional Clerk shall provide notice in accordance with Section 4.3.3.

4.3.2 Upon notice as set out in clause 4.3.3 a Committee Chair may at any time summon a special committee meeting of the committee of which he or she is Committee Chair in which case the Regional Clerk shall provide notice in accordance with Section 4.3.3.

4.3.3 Special meetings summoned under clauses 4.3.1 and 4.3.2 shall not be held unless written notice of the special meeting detailing the date, time and place and the matters to be considered at the meeting is delivered not less than 48 hours before the time set for the meeting, to all members at the members' municipal offices or by electronic means.

- a. public notice of special meetings as set out in clause 4.3.1 and 4.3.2 shall be given by posting on the Region of Peel website a Notice of the meeting in a form sufficient to indicate the date, time and location of the meeting and the nature of the matters to be considered at least 48 hours before the meeting is to be held.

4.4. MEETINGS OF COUNCIL FOR EMERGENCIES

4.4.1 Despite any other provisions of this by-law, a meeting of Council for an emergency may be called by the Regional Chair, without written notice, to deal with an emergency, provided that an attempt has been made by the Regional Clerk to notify members about the meeting as soon as possible and in the most expedient manner available.

4.4.2 The only business to be dealt with at a meeting of Council to deal with an emergency shall be business dealing directly with the emergency.

4.4.3 The lack of receipt of a notice of, or an agenda for, a meeting of Council to deal with an emergency by any Member of Council shall not affect the validity of the meeting or any action taken at such meeting.

4.5. QUORUM - Council and Committees

- 4.5.1 Thirteen members of Council, including at least one member representing each local municipality, are necessary to form a quorum at a meeting of Council. The Regional Chair shall be counted in determining quorum.
- 4.5.2 A quorum for a committee is a majority of the total number of committee members or as provided in the Terms of Reference for that committee and does not require that all three local municipalities be represented, unless required under the committee's Terms of Reference as approved by Council.
- 4.5.3 No meeting shall commence or conduct business unless quorum is present.
- 4.5.4 If no quorum is present 30 minutes after the time appointed for a meeting of Council or committee, the Presiding Officer shall call the roll and the Regional Clerk shall record the names of the members present and the members shall then be discharged.
- 4.5.5 If during the course of a meeting quorum is lost, then the meeting shall be deemed to have recessed for 30 minutes to reconvene when quorum is regained. If quorum is not regained within 30 minutes then the Presiding Officer shall call the roll and the Regional Clerk shall record in the minutes the names of those present, and the meeting shall stand adjourned.
- 4.5.6 If a meeting of Council or committee stands adjourned for lack of quorum, the business on the agenda for that meeting which was not dealt with at that meeting shall be placed on the agenda for the next regular meeting of that body.
- 4.5.7 Notwithstanding clauses 4.5.3, 4.5.4 and 4.5.6, where no quorum is present, members who are present at the time and place set for the meeting may receive submissions or information from the public or staff unless the submissions or information are in respect of a hearing required under statute. The Regional Clerk shall prepare a report to Council which shall record:
- a. the place, date and time of meeting;
 - b. the name of the Presiding Officer and the record of attendance of the members; the name of senior staff and Clerk's staff present; and
 - c. the report of the Regional Clerk may contain such notes and annotations as may describe portions of the

submissions or information received from the public or staff.

5. MEETING PROCEEDINGS

5.1. AGENDA - Council and Committees

- 5.1.1 The Regional Clerk shall prepare a draft agenda for all meetings of Council and committees. The Regional Clerk may amend the draft agenda by adding matters to or deleting matters from the draft agenda at any time before the commencement of the meeting.
- 5.1.2 Before considering any business at a meeting for which a draft agenda or revised draft agenda has been prepared, Council or committee shall by resolution approve or amend and approve the draft agenda or revised draft agenda as the agenda for the meeting. A motion to further amend the agenda following its approval shall require a two-thirds vote. The order of the agenda can be changed at the direction of Council or of the Regional Chair and no vote shall be necessary for the giving of such direction.
- 5.1.3
 - a. Despite section 5.1.2 above, or any provision of this by-law to the contrary, any member of Council or committee, at any time whether before or after the approval of the agenda, may move a motion without the need for the motion to be seconded that the meeting be immediately closed to the public to receive advice that is subject to solicitor-client privilege as to whether any matter listed on the agenda to be considered in camera may properly be considered in closed session.
 - b. Any motion as outlined in Section 5.1.3.a above is not debatable and shall be immediately put to a vote and may be passed by a majority vote.
- 5.1.4. Despite section 5.1.2 above, a motion may be passed by a majority vote to amend the agenda to move any matter listed in the closed session portion of the agenda to the appropriate section of the public agenda.
- 5.1.5 The draft Council agenda shall be prepared with staff reports, and communications grouped under such Regional Council Section headings as in the opinion of the Regional Clerk may seem appropriate. Staff presentations and related staff reports shall be grouped under the heading "Staff Presentations", in accordance with Section 5.6 of this by-law.

- 5.1.6 Should Council or committee be unable to consider all agenda items in the allotted time before adjournment, all outstanding matters shall be placed on the draft agenda for the next regularly scheduled meeting of that body.
- 5.1.7 The order of consideration of Regional Council Sections in the draft agenda shall be rotated from meeting to meeting or as deemed appropriate by the Regional Clerk.

5.2. DELIVERY OF AGENDA TO MEMBERS - Council and Committees

- 5.2.1 The Regional Clerk shall cause to be delivered to each member, not less than 48 hours before the time appointed for the holding of a regular meeting of Council, the draft agenda and copies of related materials.
- 5.2.2 Any materials received in the Office of the Regional Clerk less than 48 hours prior to the time appointed for holding of a regular meeting of Council which relate to an item already listed on the draft agenda will be presented to Council at the time of the approval of agenda portion of the meeting. Any materials received in the Office of the Regional Clerk less than 48 hours prior to a meeting which do not relate to an item already listed on the draft agenda shall be added to the agenda at the next appropriate meeting, with the exception of requests for delegation which may be added to the agenda upon approval of committee or Council at the approval of the agenda.
- 5.2.3 The draft agenda and related materials shall be made available electronically to every member.
- 5.2.4 The draft agenda and related materials shall be made available to the public on the Region of Peel website 24 hours after the members of Council are provided with the agenda and materials.
- 5.2.5 Draft agenda and related materials provided to members of Council less than seven days before the time appointed for the holding of a regular meeting of Council shall be made available to the public on the Region of Peel website on the same day.

5.3. MINUTES - Council and Committees

- 5.3.1 The Regional Clerk shall prepare minutes of all meetings of Council and committees which shall record:
 - a. the place, date and time of meeting;

- b. the name of the Presiding Officer and the record of the attendance of the members; the name of senior staff and Regional Clerk's staff present; and
 - c. all resolutions, decisions and directives, recorded votes, and other proceedings;
 - d. the minutes of Council meetings shall record the resolutions, decisions and other proceedings without comment, whereas the minutes of any committee meeting may contain such notes and annotations as may describe portions of the debate.
- 5.3.2 The minutes of each Council meeting shall be presented to Council at the next regular meeting of Council for approval.
- 5.3.3 After the Council minutes have been approved by Council, they shall be signed by the Regional Chair and the Regional Clerk.
- 5.3.4 The committee report of each committee meeting be presented on the next appropriate regular meeting of Council for deliberation of committee recommendations contained in it.
- 5.3.5 The Members of Council shall inform the Office of the Regional Clerk in writing for which purpose, email shall be sufficient, of all planned absences, late arrivals and early departures from Council and committee meetings in order that the recording of such and the related reasons may be accurately reflected in the minutes.
- a. The office of a Member of Council shall not become vacant, and no resolution of Council is required, if a member is absent for twenty (20) consecutive weeks or less and the absence is a result of the member's pregnancy, the birth of the member's child or the adoption of a child by the member in accordance with Subsection 259(1.1) of the *Municipal Act, 2001*, as amended, and Section D of the Region of Peel Policy HR10-08 ("Parental Leave").
 - b. A Member of Council on pregnancy or parental leave reserves the right to participate as a Member at any time during their leave.
 - c. The Member shall provide advance written notice to the Regional Clerk and the Director, Human Resources outlining the expected duration of leave including the start date and the expected return date; information about which duties, if any, will continue to be undertaken by the Member of Council; and, indicate the Member(s) of Council whom he/she recommends Council appoint as a Member of any Committee(s) on which the Regional Councillor sits.

- 5.3.6 The Closed Session Report of each committee meeting shall be presented at the next appropriate regular meeting of Council for deliberation of in camera committee recommendations contained within it.
 - 5.3.7 The Regional Clerk shall have the authority to approve and implement any minor administrative changes to the minutes of any Council or committee meeting.
- 5.4. DELEGATIONS - Council and Committees
- 5.4.1 Persons desiring to address members on any matter may by written notice to the Regional Clerk request to be listed as a delegation on a draft agenda.
 - 5.4.2 Written notice from a delegation shall include the person's complete name, address, telephone number, reasons for the delegation, including the specific nature of their presentation, and if applicable, the name, address and telephone number of any person, corporations or organizations which he or she represents.
 - 5.4.3 Council/Committee Placement
 - a. Upon receipt of written notice requesting listing as a delegation, the Regional Clerk shall list the delegation requested on the draft agenda for the next appropriate meeting if such request is received by the Regional Clerk not less than 48 hours prior to the time of the committee meeting or Council meeting.
 - b. If the written notice requesting listing as a delegation is received by the Regional Clerk less than 48 hours prior to the time of the committee meeting or Council meeting, the delegation will be added to the agenda only upon the approval of Council or committee at the meeting.
 - 5.4.4 Delegations shall be received without comment or debate and the matter shall be referred to staff for a report, unless there is a resolution passed to simply "receive" the delegation.
 - 5.4.5 After a delegation has completed its presentation, members shall each have one opportunity to ask questions of the delegation for clarification purposes only, and without debate. If the delegate's answer to the clarifying question requires a further clarifying question, a member shall have one further opportunity to clarify. The clarifying question, answer and follow-up shall not exceed five (5) minutes. The Presiding

Officer may cut off the clarifying questions and answers at or after five (5) minutes. When all members who have indicated a desire to ask clarifying questions have finished, the persons appearing as a delegation shall withdraw from the place designated.

5.4.6 No persons addressing Council or committee as a delegation shall:

- a. speak disrespectfully of any person;
- b. use offensive words or unparliamentary language;
- c. engage in improper conduct;
- d. speak on any subject other than the subject for which they have received approval to address Council or committee; or
- e. disobey the Rules of Procedure or a decision of the Presiding Officer or of Council or committee.

5.4.7 Each delegation to Council shall be limited to speaking not more than five minutes in total, except that a delegation consisting of more than five persons shall be limited to two speakers, each limited to speaking not more than five minutes.

5.4.8 Each delegation to committee shall be limited to speaking not more than ten minutes in total, except that a delegation consisting of more than five persons shall be limited to two speakers, each limited to speaking not more than ten minutes.

If persons appearing as a delegation have not completed their presentation within the time allotted, the Presiding Officer or any member may make a motion, without a seconder, that the time be extended by a majority vote in which case the time shall be extended for such reasonable time as the Presiding Officer may determine.

5.4.9 The Presiding Officer may curtail any delegation or any questions of a delegation for disorder or any other breach of the Rules of Procedure or if in the Presiding Officer's discretion, the questions are not of a clarifying nature, and, if the Presiding Officer rules that the delegation is concluded, the persons appearing shall withdraw from the place designated for delegations.

5.4.10 Delegations may only appear once on the same matter within a one-year period, unless a recommendation pertaining to the same matter is included on the agenda within the one-year period and only to provide additional or new information.

5.6. STAFF PRESENTATIONS - Council

5.6.1 Staff presentations to Council and committee meetings shall not exceed 10 minutes, except during annual budget meetings; however, the Presiding Officer or any member may make a motion without a seconder, that the time be extended by a majority vote in which case the time shall be extended for such reasonable time as the Presiding Officer may determine.

5.7 EMERGENCY BRIEFING

5.7.1 When the Regional Emergency Operations Centre has been operating while Council is in session, senior staff is authorized to provide an immediate briefing to Council. This briefing takes precedence over all other agenda items and does not require suspension of the rules.

5.7.2 In the event of a public health emergency, enhanced response and/or communicable disease outbreak, particularly where Regional resources are required as part of the response, and with the consent of the Regional Chair, the Medical Officer of Health is authorized to brief Council or the relevant committee, without requiring suspension of the Rules of Procedure. Such briefings may take precedence over regular business on the agenda.

5.8. CORRESPONDENCE AND PETITIONS - Council and Committees

5.8.1 a. All correspondence within the jurisdiction of a committee shall be referred by the Regional Clerk directly to the appropriate committee, unless the communication relates to a subject that has been dealt with by Council or is to be placed on a draft agenda for a meeting of Council in which case it may be placed on the draft agenda for the Council meeting.

b. No motions other than motions for receipt or a motion directing staff to report to either Council or a committee on a matter contained within a correspondence shall arise from an item listed as correspondence, for receipt, except as provided in section 5.8.1.c.

c. Correspondence from local boards and community groups, requesting that a Councillor(s) be nominated to or appointed as a member(s) to the board or community group shall be listed as, direction required; and, motions for receipt, direction to staff, or for appointment may arise from the item.

- 5.8.2 All correspondence received from municipalities and local boards requesting endorsement or consideration of resolutions, or from other entities which are deemed by the Regional Clerk to be of interest to members of Regional Council, including notices of upcoming workshops, seminars and conferences, shall:
- a. be reported to each member of Council every two weeks or as warranted by the nature and volume of resolutions, as determined by the Regional Clerk without being placed on a draft agenda; and
 - b. be placed on a Council or committee draft agenda only at the request of a member.
- 5.8.3 Every petition to be presented to Council shall be legibly written or printed and shall be signed by at least two people and submitted to the Regional Clerk.
- 5.8.4 Any petition within the jurisdiction of a committee shall be referred by the Regional Clerk directly to the appropriate committee, unless the matter relates to a subject or a report already scheduled to be dealt with by Council.
- 5.8.5 Petitions will be placed on the appropriate Council or committee agenda for receipt, unless otherwise specified by Council or committee.
- 5.9. MOTIONS AND BY-LAWS - Council and Committees
- 5.9.1. A motion to adopt a committee report in whole or in part may be made and if carried, the committee recommendations contained in the report or the part adopted, except only those explicitly excluded, shall be adopted and passed as resolutions at the meeting.
- 5.9.2. The proceedings of every meeting of Council shall be confirmed by by-law so that every resolution and decision of Council passed at that meeting shall have the same force and effect as if each and every one of them had been the subject of a separate by-law duly enacted.
- 5.9.3. No by-law shall be presented to Council unless its enactment has been approved by resolution of Council except:
- a. a by-law to confirm the proceedings of Council;
 - b. a by-law to accept, assume and dedicate, pursuant to the *Municipal Act, 2001, as amended*, lands acquired by the Region for the purpose of widening the public highways forming part of the Regional Roads System or for the purpose of permitting an access to such highways at

locations approved pursuant to the Controlled Access By-law, as amended.

- 5.9.4. Copies of each by-law to be considered need not be distributed in advance to the members of Council provided such by-laws are available for examination by members of Council at least 48 hours in advance of the day of the meeting at which the by-law will be considered. Failure to observe this requirement shall not invalidate a by-law enacted despite not having been available for examination by members of Council 48 hours in advance of the day of the meeting at which the by-law shall be considered.
- 5.9.5. The Regional Clerk, in consultation with the Regional Solicitor, is authorized to make minor deletions, additions or other changes in form, to any by-law before same is signed, sealed and numbered, to ensure correct and complete implementation of the intention of Council, including without limiting the generality of the foregoing, the following:
 - a. Correction of spelling, punctuation or grammatical errors, or errors that are of a clerical, typographical or similar nature.
 - b. Alteration of the style or presentation of text or graphics to improve electronic or print presentation and accessibility.
 - c. Correction of errors in the numbering of non-operative provisions and any changes in cross-reference that are required as a result.
- 5.9.6. All amendments to any by-law approved by the Council shall be deemed to be incorporated into the by-law and if the amending by-law is enacted and passed by the Council as a by-law, the amendments shall be inserted.
- 5.9.7. By-laws listed on the agenda shall be taken as read, prior to being enacted.
- 5.9.8. Every by-law once enacted shall be signed by the Regional Chair and Regional Clerk, the corporate seal affixed thereto, and retained at the Office of the Regional Clerk.
- 5.10. CLOSED MEETINGS ("IN CAMERA")
 - 5.10.1 Except as provided in this section or in accordance with applicable legislation, all meetings shall be open to the public.
 - 5.10.2 Any member is entitled to be present at a meeting which has been closed to the public, unless that member has an interest which the member is obligated to disclose, in accordance with the *Municipal Conflict of Interest Act*.

5.10.3 A meeting or a part of that meeting may be closed to the public if the subject matter being considered is:

- a. the security of the property of the municipality or local board;
- b. personal matters about an identifiable individual, including municipal or local board employees;
- c. proposed or pending acquisition or disposition of land by the municipality or local board;
- d. labour relations or employee negotiations;
- e. litigation or potential litigation, including matters before administrative tribunals, affecting the municipality or local board;
- f. advice that is subject to solicitor-client privilege, including communications necessary for that purpose;
- g. a matter in respect of which a council, board, committee or other body may hold a closed meeting under another Act;
- h. information explicitly supplied in confidence to the municipality or local board by Canada, a province or territory or a Crown agency of any of them;
- i. a trade secret or scientific, technical, commercial, financial or labour relations information, supplied in confidence to the municipality or local board, which, if disclosed, could reasonably be expected to prejudice significantly the competitive position or interfere significantly with the contractual or other negotiations of a person, group of persons, or organization;
- j. a trade secret or scientific, technical, commercial or financial information that belongs to the municipality or local board and has monetary value or potential monetary value; or
- k. a position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local board.

5.10.4 A meeting or part of a meeting shall be closed to the public if the subject matter being considered is:

- a. a request under the *Municipal Freedom of Information and Protection of Privacy Act*, if the council, committee, board commissioner or other body is the head of an institution for the purposes of that Act; or
- b. an ongoing investigation respecting the municipality, a local board or a municipally-controlled corporation by the Ombudsman appointed under the *Ombudsman Act*, an Ombudsman referred to in subsection 223.13 (1) of the *Municipal Act, 2001, as amended*, or the investigator referred to in subsection 239.2 (1) of the *Municipal Act, 2001, as amended*.

- 5.10.5 A meeting held for the purpose of educating or training the members may be closed, provided that no member discusses or otherwise deals with any matter in a way that materially advances the business or decision-making of the Council, local board or committee.
- 5.10.6 Before holding a meeting or a part of a meeting that is to be closed to the public, a municipality or local board, or committee of either of them, shall state by resolution:
- a. the fact of the holding of the closed meeting or portion of the meeting; and
 - b. the general nature of the matter to be considered at the closed meeting.
- 5.10.7 Subject to clause 5.10.8, a meeting shall not be closed to the public during the taking of a vote.
- 5.10.8 Despite clause 5.10.7, a meeting may be closed to the public during the taking of a vote if:
- a. subsection 5.10.3 or subsection 5.10.5 permits or requires a meeting or a portion of a meeting to be closed to the public; and
 - b. the vote is for a procedural matter or for giving directions or instructions to officers, legal counsel, employees or agents of the Regional Corporation or persons retained by or under contract with the Regional Corporation.
- 5.10.9 Any request from a person for an investigation, under the *Municipal Act, 2001, as amended*, of whether a Council or committee meeting or part of a meeting, that was closed to the public, has complied with the relevant provisions of the *Municipal Act, 2001, as amended*, or this Procedure By-law, shall be referred by the Regional Clerk to the Investigator appointed by Council for that purpose.
- 5.10.10 If a report is received from a person referred to in clause 239.1 (a) or (b) of the *Municipal Act, 2001, as amended*, reporting his or her opinion, and the reasons for it, that a meeting or part of a meeting that was the subject-matter of an investigation by that person appears to have been closed to the public contrary to section 239 or to a procedure by-law under subsection 238 (2), Regional Council shall pass a resolution stating how it intends to address the report.

5.11. WORKSHOPS

- 5.11.1 All workshops or education sessions will be open to the public, unless permitted to be in closed session by the applicable legislation or section 5.10.5 of this by-law; and shall be coordinated through the Office of the Regional Clerk.
- 5.11.2 Upon confirmation that the workshop is to proceed, the Regional Clerk shall give notice to all members of Council in accordance with this by-law regarding the subject, date, time and location of the workshop.
- 5.11.3 Preparation of an “agenda” will be dependent on the subject of the workshop. Program staff hosting the workshop shall consult with the Regional Clerk and shall keep a copy for the public record and public inspection.
- 5.11.4 Notice of the workshop subject, date, time and location will be made available to the public in accordance with sections 4.2 or 4.3. and comply with any additional requirements set out in Council policy or in a by-law.
- 5.11.5 Quorum of Council is not required for the workshop to proceed.
- 5.11.6 Any member of the public who does attend, will be permitted to observe the workshop during public session.
- 5.11.7 Staff shall report the outcome of the workshop at a Council meeting. No decision shall be made at a workshop. Any matter requiring a decision shall be reported to Council or committee for consideration, debate and approval at a subsequent meeting of Council or committee.

5.12. CONFLICT OF INTEREST

- 5.12.1 Members shall declare conflicts of interest in accordance with the *Municipal Conflict of Interest Act*.
- 5.12.2 Members of Regional Council and Regional Council Committees shall file a written statement of the declaration of conflict of interest and its general nature with the Regional Clerk.
- 5.12.3 A copy of each statement of declaration conflict of interest shall be made available, in the form of a Registry, for public inspection on the Region of Peel web site in the manner and during the time that the Regional Clerk may determine.

5.13. RECORDING OF MEETINGS

5.13.1 Meetings of Council and committees shall be recorded by the Regional Clerk where possible and practical to do so.

5.13.2 Recordings of meetings made by the Regional Clerk shall be retained in accordance with the Region of Peel Records Retention By-law.

5.13.3 Audio and video recording equipment may be used by staff, the public and the media to record all or any portions of a meeting that is open to the public provided that it is not disruptive to the conduct of the meeting. The location and use of such recording equipment will be at the discretion of the Regional Clerk.

5.14. ACCESS TO COUNCIL FLOOR

5.14.1 Unless delegating, no members of the public or anyone other than members of Regional Council and Regional staff, delegates or invitees of the Presiding Officer shall be permitted on the Council floor during Council or committee meetings, except at the discretion of the Regional Chair or Regional Clerk.

5.15. OTHER BUSINESS

5.15.1 A member may, with the consent of majority vote of the members present, introduce a motion under Other Business which due to its urgent nature cannot properly be presented at a future meeting of Council or committee.

5.15.2 Items to be considered under Section 5.15 that may be pertinent to the business of the Region and are not related to a report, delegation, presentation, requests for information, request for staff to report back on Regional issues or items that are to be placed on the draft agenda for Council or committee shall be listed under Other Business upon approval of the Regional Chair and Regional Clerk, including new business or enquiries from Regional Councillors.

6. MOTIONS

6.1. GENERAL

6.1.1 The following ranking for matters and motions is in descending order, such that each matter or motion takes precedence (if moved, must be decided before others ranking below it) over

those that are below it in this list. For example, a motion to adjourn takes precedence over a motion to recess, which takes precedence over all matters and motions listed from question of privilege to the main motion.

- a. fix the time at which to adjourn;
- b. adjourn;
- c. recess;
- d. point of privilege;
- e. point of order;
- f. call the question;
- g. limit or extend limits of debate;
- h. postpone (defer) to a certain time;
- i. refer;
- j. amend;
- k. postpone (defer) indefinitely; and
- l. the main motion.

6.1.2 In Council, the following matters and motions may be introduced orally without notice or specific permission, except as otherwise provided by the Rules of Procedure:

- a. postpone (defer);
- b. refer;
- c. call the question;
- d. adopt or deny committee recommendations or reports;
- e. direct staff;
- f. presentation of a petition;
- g. suspend the Rules of Procedure;
- h. any other procedural motion; and
- i. adjourn.

6.1.3 Except as provided in subsection 6.1.2 or as permitted by the Regional Chair, all motions in Council shall be in writing.

6.1.4 In committee, motions do not require a seconder, and need not be in writing.

6.1.5 No member shall speak to any motion until it is first received by the Presiding Officer, and the mover is entitled to speak first.

6.1.6 Any motion may be put forth and considered during Council or committee, providing it relates to the subject of a motion, recommendation or report under debate by Council or committee and is presented at the time of such debate, otherwise previous notice of motion is required.

6.1.7 After a motion has been received by the Presiding Officer, it shall be deemed to be in possession of Council or committee and may be withdrawn by the mover and seconder, if

applicable, before decision or amendment only with the permission of Council or committee.

6.1.8 A motion which requires the exercise of a power or powers by Council or committee which are not within the jurisdiction of Regional Council (*ultra vires*), shall not be in order.

6.1.9 No matters can be added at a meeting except for Notices of Motion to be heard at the next or subsequent meetings or directions to staff to provide a report at a subsequent or future meetings of Council, except that a motion arising from a local municipal council of an urgent nature may be presented to Regional Council or committee and may be received without notice.

6.1.10 Directions to staff shall be in the form of a motion.

6.2. MOTION TO ADJOURN

6.2.1 A motion to adjourn:

- a. is neither debatable nor amendable, and cannot be reconsidered;
- b. without qualification, if carried, brings a meeting or session to an end; and
- c. if made with reference to a specific time or if made with a provision to reconvene upon the happening of a specific event, suspends the meeting to continue at the time specified.

6.3. MOTION TO AMEND A PENDING MOTION

6.3.1 A motion to amend a pending motion:

- a. is debatable only if the main motion being amended is debatable;
- b. if more than one, shall be voted on in reverse order to which they were put;
- c. shall not be amended more than once; and
- d. shall be relevant and not contrary to the motion under consideration.

6.4. MOTION TO CALL THE QUESTION (Call the Vote)

6.4.1 A motion that the question be called enables immediate closure of debate; and:

- a. is not allowable in committees;

- b. is not debatable, although reasons for moving the motion may be given;
- c. cannot be amended;
- d. cannot be moved on a main motion when there is an amendment to that motion under consideration;
- e. shall preclude all further amendments of the main motion;
- f. when resolved in the affirmative, the main motion is to be put forward without further debate or amendment;
- g. cannot be moved by the last member to debate the motion;
- h. requires a two-thirds vote.

6.5. MOTION TO POSTPONE (Defer) A PENDING MOTION

6.5.1 A motion to postpone is a motion by which action of a pending motion can be put off, within limits, to a definite day, meeting, or hour, or until after a certain event; and:

- a. shall only be to the pending motion;
- b. is not debatable although reasons for moving the postponement may be given;
- c. is amendable, as to the time to which the pending motion is to be postponed; and
- d. shall not include clauses for the purpose of amending the pending motion or making any statement on the merit of the pending motion.

6.6. MOTION TO RECONSIDER A DECISION MADE IN THE SAME MEETING

6.6.1. A motion to reconsider enables Council or committee to bring back for consideration the decision on a motion previously voted on during the same meeting, whether or not the previous motion was carried, and:

- a. can only be made by a member who voted with the prevailing side;
- b. can only be made during the same meeting in which the previous motion to be reconsidered was voted on;
- c. is debatable in all cases in which the previous motion was debatable, and when debatable, opens to debate the merits of the previous motion which is proposed to be reconsidered;
- d. is not amendable;
- e. requires a two-thirds vote regardless of the vote necessary to adopt the previous motion to be reconsidered; and

- f. prior to a vote being taken, temporarily suspends any action resulting from the decision on the previous motion that is proposed to be reconsidered.

6.6.2. A motion to reconsider is not in order when applied to the following:

- a. a vote on a motion to reconsider;
- b. when a motion to reconsider is practically the same as a motion to reconsider already decided; and
- c. when practically the same result can be obtained by some other parliamentary motion.

6.6.3. Should the motion to reconsider carry by a two-thirds vote, the motion to be reconsidered is called up, resulting in Council or committee voting again on the motion:

- a. does not require a seconder;
- b. shall be called up and voted on at the same meeting as the motion to reconsider was passed; and
- c. when requested by a member, the Presiding Officer shall state the previous motion as pending.

6.7. MOTION TO RECONSIDER A DECISION AT A SUBSEQUENT MEETING WITHIN THE SAME TERM OF COUNCIL

6.7.1. A motion to reconsider a decision from a previous meeting within the same term of Council:

- a. is amendable; and
- b. is debatable.

6.7.2. A motion to reconsider the decision on a previous motion adopted within the same term of Council requires a two-thirds vote to carry.

6.7.3. No matter, after being decided by Council, shall be reconsidered within the same term of Council without first passing a motion to reconsider.

- a. No discussion of the main question shall be allowed until the motion for reconsideration is carried.
- b. A motion to reconsider may not be introduced, without notice, unless the Council, without debate, dispenses with notice which requires a two-thirds vote to carry.
- c. Once the matter is opened for reconsideration, it is reopened in its entirety unless the motion to reconsider specifies otherwise.

- d. If the motion is reopened, all previous decisions of the Council remain in force unless the Council decides otherwise.
- e. No motion to reconsider may, itself, be the subject of a motion to reconsider.
- f. An amendment cannot be the subject of reconsideration independently of the motion, by-law or other matter amended.
- g. If a motion to reconsider is decided in the affirmative, such reconsideration shall become the next order of business, and debate on the question to be reconsidered shall proceed as though it had never previously been considered.

6.7.4 A motion to reconsider the decision on a previous motion within the same term of Council is not in order when applied to the following:

- a. when the previous motion was passed earlier in the same meeting in which case only a motion to reconsider in the same meeting may be allowed;
- b. when it has previously been moved to reconsider the vote on the previous motion, and the question can be reached by calling up the motion to reconsider in the same meeting;
- c. when something has been done pursuant to the decision on the previous motion that is impossible to undo (the unexecuted part of an order, however, can be rescinded or amended);
- d. when the previous motion authorized entering into a contract when that contract has been entered into;
- e. when a resignation has been acted upon, or a person has been elected to or expelled from membership or office, and the person was present or has been officially notified of the action.

6.8 MOTION TO RECONSIDER A PREVIOUSLY DECIDED MOTION NOT IN THE SAME TERM OF COUNCIL

6.8.1 A motion to reconsider a previously decided motion not in the same term of Council requires a majority vote to carry.

6.8.2 The provisions of Sections 6.7.1, 6.7.3 and 6.7.4 shall be applied to this section of the by-law.

6.9. MOTION TO REFER

6.9.1 A motion to refer is a motion by which a matter, action or a pending motion can be sent or directed to a Council or

committee, other body or official named in the motion specified, to report back to Council or committee; and:

- a. shall only be made in respect of a main motion or a report or matter listed on an agenda;
- b. shall include the name of the Council or committee, other body or official to whom the matter is to be referred;
- c. shall not include clauses for the purpose of amending the main motion;
- d. is debatable, subject to debate being confined to its merits of the referral only, and cannot go into the main motion; and
- e. is amendable.

6.10. MOTION TO AMEND

6.10.1 A motion to amend changes the wording of a motion before it is voted on.

6.10.2 A motion to amend must relate to the pending motion. No new business may be introduced by moving an amendment to a motion.

6.10.3 An amendment which, in effect, is nothing more than a rejection of the main Motion (i.e. a contrary motion) is not in order.

6.10.4 On an amendment, members may only debate the merits of the amendment, not the merits of the motion the amendment proposes to amend.

6.10.5. An amendment may only be amended once, and the amendments must relate to each other.

6.10.6. Voting on a motion to amend shall be in the following order:

- a. First vote – the amendment to an amendment;
- b. Next vote – the original amendment;
- c. Final vote – the main Motion (if an amendment is adopted, the final vote will be on the main Motion, as amended).

6.11 MOTION TO RESCIND

6.11.1 A motion to rescind a previous resolution of Council requires a two-thirds majority vote and can only be considered if notice has been given pursuant to section 6.12.

6.12. NOTICE OF MOTION

6.12.1. Notice of Motion is a written notice given by a member that the motion described in the Notice of Motion will be made or presented for adoption in accordance with Section 6.12.2.

6.12.2. Notice of Motion may be given in the following ways:

- a. contained in a committee report on a Council agenda;
- b. presented by a member at a meeting, for consideration at a subsequent meeting;
- c. delivered to the Regional Clerk not later than seven days preceding the specified meeting date at which it is to be considered for placement on the agenda. This action shall constitute the notice required by Section 6.12.1;
- d. oral motions presented at a meeting will be considered at the next Regional Council meeting.

6.12.3. A Motion shall be added to an appropriate agenda for the meeting specified in the Notice of Motion.

6.12.4. If the Motion is not dealt with at the appropriate meeting, then it shall be added to the agenda for each of the two succeeding meetings until the motion is considered or otherwise disposed of; and if in the two succeeding meetings it has not been disposed of, it shall be removed from the agenda by the Regional Clerk unless Council by resolution directs otherwise.

6.12.5. Prior to Council's consideration of a motion for which notice has been given previously, a revised motion on the same subject, approved by both the mover and seconder, may be substituted for the original one contained in the Notice of Motion.

7. VOTING

7.1. GENERAL - Council and Committees

7.1.1. Except as otherwise required under the *Municipal Act, 2001, as amended*, any other statute or this by-law, all motions, resolutions and by-laws shall be carried, passed and enacted by a majority vote.

7.1.2. Immediately preceding the taking of a vote, the Presiding Officer may restate the motion in the precise form in which it shall be recorded in the minutes; and shall do so if requested by a member.

- 7.1.3 Every member present and in his/her seat when a vote is called, shall vote on the motion unless prohibited by statute, in which case that fact shall be recorded.
 - 7.1.4 A member not in his/her seat at the call of the vote shall not be entitled to vote.
 - 7.1.5 A member who is present and in his/her seat and does not vote shall be considered as voting in the negative.
 - 7.1.6 All members eligible to vote shall vote yes, no or abstain. A member who refuses to vote (abstain) will be recorded as voting in the negative.
 - 7.1.7 Each member shall occupy his or her seat until the result of the vote has been declared.
 - 7.1.8 No vote may be taken by any method of secret voting.
 - 7.1.9 After a vote is called by the Presiding Officer, no member shall speak to the motion nor shall any motion be made until after the result is declared, and the decision of the Presiding Officer as to whether the vote has been called shall be final.
 - 7.1.10 Every member eligible to vote shall vote on every motion unless a member indicates a conflict of interest, in which case the member shall recuse themselves.
- 7.2. RECORDED VOTE - Council
- 7.2.1 Recorded votes may only be taken during a Regional Council meeting.
 - 7.2.2 Recorded votes will be conducted for all motions at Regional Council meetings, with the exception of the following, unless specifically requested by a member of Council:
 - a. Approval of the Agenda
 - b. Adoption of Minutes
 - c. Declaration of Conflict of Interest
 - d. Presentations for receipt
 - e. Delegations for receipt
 - f. Correspondence, for receipt or referral to staff
 - g. By-laws
 - h. Moving in and out of closed session
 - i. Calling a question
 - j. Recess
 - k. Deferral
 - l. Referral to Committee
 - m. Withdraw

- n. Amend
- o. Adjournment

7.2.3 Once a recorded vote is called, the Clerk shall conduct the vote by:

- a. electronic means; or
- b. asking the members in favour to indicate their vote and then those opposed to indicate their vote in the event the electronic system is not available.

7.2.4 The Regional Clerk shall display or announce the results and record the votes in the minutes.

7.3. DIVISION OF MOTION - Council and Committees

7.3.1 A motion containing distinct recommendations or propositions shall be divided at the request of any member, and a majority vote on each proposal shall be taken separately. The decision of the vote on whether the motion can be divided shall be final.

7.4. EQUALITY OF VOTES - Council and Committees

7.4.1 When a vote is taken and results in an equality of votes both for and against the motion, the motion shall be lost, unless during a Regional Council meeting where the Regional Chair, who otherwise does not have a vote, may cast a vote to decide the question.

7.5. DISPUTED VOTE - Council and Committees

7.5.1 The result of a vote is not a ruling and therefore cannot be appealed.

7.5.2 If a member doubts the result of a vote as announced by the Presiding Officer or Regional Clerk, the member may call for the vote to be taken again and members shall stand or indicate the vote during the retaking of the vote and the vote shall not be a recorded vote except in a meeting of Council where the vote shall be a recorded vote.

7.5.3 A member who was not in his or her seat at the time that a vote was taken may not vote in any retaking of the vote.

8. CONDUCT AND DEBATE - COUNCIL AND COMMITTEES**8.1. GENERAL****8.1.1 No member shall:**

- a. speak disrespectfully of any person;
- b. use offensive words or unparliamentary language;
- c. engage in improper conduct;
- d. speak on any subject other than the subject in debate;
or
- e. disobey the Rules of Procedure or a decision of the Presiding Officer on questions of order or practice or upon the interpretation of the Rules of Procedure.

8.1.2 Procedures that may be used by the Presiding Officer in the event of a breach of order are as follows, in increasing order of severity provided that the Presiding Officer may use any such procedure regardless of order of severity where circumstances warrant:

- a. advise and correct the member;
- b. request an apology or withdrawal of a remark by the member;
- c. warn the member;
- d. call the member to order, by which the member shall be seated and not speak further until recognized by the Presiding Officer;
- e. name the member, by which the member shall be called to order and further, that the member's name and offence shall be entered into the minutes; and
- f. the Regional Chair may expel or exclude the member.

8.2. RAISING A POINT OF PERSONAL PRIVILEGE

8.2.1 To raise a point of personal privilege is a device that permits a request or main motion relating to the rights and privileges of Council or committee (for example: to comfort of members with respect to heating, ventilation, lighting, noise; to conduct of its officers, employees or visitors; or to accuracy of published reports of its proceedings) or an individual member (for example: to an incorrect record of a member's participation in a meeting contained in minutes approved in a member's absence, or to charges circulated against a member's character).

8.2.2 When a member desires to address a point of personal privilege, the member shall ask permission of the Presiding Officer to raise a point of personal privilege; after permission is granted, the member shall state the point of personal privilege

to the Presiding Officer and the point of personal privilege shall be immediately decided by the Presiding Officer.

8.2.3 Thereafter, a member shall only address the Presiding Officer for the purpose of appealing the Presiding Officer's decision to Council or committee.

8.2.4 If no member appeals, the decision of the Presiding Officer shall be final.

8.3. POINT OF ORDER

8.3.1 A point of order is a device by which a member advises the Presiding Officer and Council or committee that the rules of procedure are being violated (for example: a member recognizing committee is continuing its business without quorum being present).

8.3.2 When a member desires to address a point of order, the member shall ask permission of the Presiding Officer to raise a point of order; after permission is granted, the member shall state the point of order to the Presiding Officer and the point of order shall be immediately decided by the Presiding Officer.

8.3.3 Thereafter, a member shall only address the Presiding Officer for the purpose of appealing the Presiding Officer decision to Council or committee.

8.3.4 If no member appeals, the decision of the Presiding Officer shall be final.

8.4. DEBATE

8.4.1 A member desiring to speak shall indicate by using the request to speak system. In instances where the request to speak system is unavailable a member desiring to speak shall indicate same. Upon being recognized by the Presiding Officer, the member shall address the Presiding Officer.

8.4.2 When two or more members indicate a desire to speak, the Presiding Officer shall recognize the member who, in the opinion of the Presiding Officer, so signified first and next recognize in order the other members.

8.4.3 Members may remain seated while speaking.

8.4.4 When a member is speaking, no other member shall interrupt the member except to raise a point of order or personal privilege.

- 8.4.5 In Council, no member shall speak more than twice to the same motion (including questions to or through the Presiding Officer) without the permission of the Presiding Officer, except that a member who has presented a substantive motion rather than an amendment may reply to questions.
- 8.4.6 In committee, there is no limit to the number of times a member may speak to the same motion.
- 8.4.7 In Council, no member shall speak to the same motion for longer than five minutes on each occasion that the member is recognized by the Presiding Officer without permission of the Presiding Officer.
- 8.4.8 A member may request the motion under discussion to be read at any time during the debate, but not so as to interrupt a member while speaking.
- 8.4.9 A member may ask a question of the Presiding Officer for the purpose of clarifying the motion, and in seeking the clarification, the member is not to debate the matter to which the question refers.

8.5. APPEAL RULING OF THE PRESIDING OFFICER

- 8.5.1 When a member appeals a ruling of the Presiding Officer, the member shall give notice to the Presiding Officer that his or her ruling is being appealed; after notice has been given to the Presiding Officer, the member shall state the nature of the appeal and the appeal shall be immediately decided by Council or committee by a majority vote.
- 8.5.2 If appealed, the Regional Clerk shall call a vote without debate on the following question; "Shall the decision of the Presiding Officer be sustained?", and the decision on that vote shall be final.
- 8.5.3 An appeal takes precedence over any question pending at the time.

9. COMMITTEES

9.1. GENERAL

- 9.1.1 Committees and Council Sections may be established by Council at any time as is deemed necessary for the consideration of matters within its jurisdiction.

- 9.1.2 By notifying the Regional Clerk (either orally or in writing) before the commencement of a meeting, a Council member of a committee may designate another Council member to attend such a committee meeting in his or her absence and the member so designated shall be deemed to be a member of such committee for the designated meeting and may vote at the meeting provided that the member making the designation remains absent from the meeting.
 - 9.1.3 Only members appointed to a committee and members designated by absent Council or committee members are entitled to vote on motions under consideration by that committee, unless otherwise provided for in the committee's Terms of Reference.
 - 9.1.4 Should any member appointed to a committee fail to attend three successive committee meetings of the same committee without authorization from the Committee Chair, that member's appointment to the committee is terminated and Council may appoint another member to take his or her place, unless the member is in a Parental Leave as described in Section 5.3.5.
 - 9.1.5 A non-Council member may only designate another non-Council member to attend in his or her absence if such designation is provided for in the committee's Terms of Reference.
 - 9.1.6 Upon resignation of a member from a committee, Council may appoint another member to take his or her place on the committee, unless otherwise provided for in the committee's Terms of Reference.
 - 9.1.7 The Regional Clerk, or an employee designated by the Regional Clerk, shall act as recording secretary to every committee.
- 9.2. COMMITTEES, TASK FORCES, AD HOC COMMITTEES AND ADVISORY COMMITTEES
- 9.2.1 All appointments to a committee shall be made by Council and unless otherwise specifically provided for in the appointment, or in the committee Terms of Reference, all appointments shall be for the term of Council, or, unless membership in the committee is ex-officio by reason of a member's position as Council Section Chair, in which case the appointments shall be for the duration of the member's tenure as the Council Section Chair', but not beyond the term of Council.

9.2.2 Ad hoc committee or task force means a special purpose committee of limited duration, created by Council to inquire into and report to either Council on a particular matter or concern and which dissolves automatically upon submitting its final report unless otherwise directed by Council or specified in the Ad hoc committee or task force Terms of Reference.

9.3 COMMITTEE CHAIRS AND VICE-CHAIRS

9.3.1 It shall be the duty of the committee Chairs and Vice-Chairs:

- a. to receive and put to a vote all motions presented by the members of a committee, and to announce the result;
- b. to enforce the Rules of Procedure;
- c. to preserve order and decide points of order;
- d. to expel or exclude from any meeting any person who has been guilty of improper conduct at the meeting; and
- e. where it is not possible to maintain order, the committee Chair or Vice-Chair may, without any motion being put, adjourn the meeting to a time to be named by the Presiding Officer.

9.3.2 The term of a committee Chair and Vice-Chair will be 24 months from the date of his or her election or appointment and shall terminate at the end of the 24 months, the end of term of Council or the end of the committee's mandate, whichever occurs first.

9.3.3 If the Committee Chair is known to be absent or is absent for a period of 15 minutes after the time appointed for the holding of a committee meeting, and a quorum is present, the Committee Vice-Chair shall preside during the meeting or until the arrival of the Committee Chair. If both the Committee Chair and Vice-Chair are absent for a period of 15 minutes after the time appointed for the holding of a committee meeting, the committee may appoint an Acting Presiding Officer who shall preside during the meeting or until the arrival of the Committee Chair or Vice-Chair.

9.3.4 The Chair and Vice-Chair of any committee shall be elected by the members of the committee from among the members of the committee, using the procedures for election of the Council Section Chairs and Vice-Chairs as contained in Appendix 1 – Election of Council Section Chairs and Vice-Chairs, with necessary modifications.

9.4. COMMITTEE EXCEPTIONS TO COUNCIL PROCEDURES

9.4.1 Committees shall conform to the rules governing procedure in Council, with the following exceptions:

- a. there is no limitation on the number of times a member may speak to a motion;
- b. there is no limitation on how long each member may take while speaking;
- c. recorded votes are not allowed;
- d. a motion to call the question is not allowed;
- e. a motion made in committee need not be seconded;
- f. a motion may be made orally;
- g. notices of motion are not required; and
- h. quorum does not require representation from all municipalities, unless required under the committee's Terms of Reference as approved by Council.

9.5. SPECIAL PURPOSE BODIES

9.5.1 Council shall appoint persons to any special purpose body as may be appropriate or in accordance with applicable legislation and the provisions of Appendix 2 – Appointments to Special Purpose Bodies shall apply to such appointments.

10. **REPEAL**

10.1. GENERAL

10.1.1 This by-law supersedes and repeals all conflicting by-laws and resolutions with respect to Rules of Procedure for Council and its committees, including By-laws 100-2012, 117-2013, 12-2016, 9-2018 and 52-2018.

READ THREE TIMES AND PASSED IN OPEN COUNCIL this 26th day of September, 2019.

Regional Clerk

Regional Chair

APPENDIX 1
BY-LAW 56-2019ELECTION OF COUNCIL SECTION CHAIRS AND VICE CHAIRS
VOTING PROCEDURES**1. DEFINITIONS**

- 1.1 "Lot" is the method of determining the nominee to either fill the vacancy or go on to the next ballot, as determined by the particular circumstance. The names of the tied nominees shall be placed on equal sized pieces of paper, placed in a container and one name shall be drawn by a person chosen by the Regional Clerk.
- 1.2 "Majority Vote" means more than half the votes cast by persons legally entitled to vote in a regular or properly called meeting at which quorum is present.

2. PROCEDURE FOR NOMINATIONS

- 2.1 Nominations shall be placed in the following manner:
 - a. The Regional Clerk or Regional Chair shall call for nominations.
 - b. Each nomination shall be moved and seconded by a member.
 - c. After nominations have been closed by a vote of Council, each nominee shall, prior to the vote being taken, be permitted to speak to the nomination for not more than two minutes.
 - d. The nominees shall be called upon in alphabetical order of surnames.
- 2.2 A nominee may withdraw his or her name at any time.

3. VOTING PROCESS

- 3.1 Nominees shall be voted on in alphabetical order of surnames.
- 3.2 If there is more than one nominee, votes shall be recorded and all members shall stand when voting to indicate their vote.
- 3.3 There shall be one nominee vote per member per round of voting for each office. A member's first vote is deemed to be the member's vote. If a member votes a second time in the same round of voting, the Regional Clerk shall advise the member and the member's vote shall not count.
- 3.4 Once the process commences, the only motion permitted will be a motion to recess.

3.5 **One Nominee:**

- a. The nominee requires a majority of votes to be elected. Voting may be by show of hands.

3.6 **Two Nominees Only:**

- a. The nominee who receives a majority of votes is elected.
- b. If there is a tie vote the Regional Clerk shall declare a ten minute recess to allow members time to consider the matter, after which the vote shall be retaken. If the vote is again tied, the Regional Clerk shall declare a second ten minute recess, after which the vote shall be retaken. If the vote is again tied then the vacancy shall be filled by the nominee selected by lot. The name drawn shall be the winner of the election.

3.7 **Three or More Nominees:**

- a. First and Successive Ballots:
 - i) A nominee who receives a majority of votes is elected.
 - ii) If no nominee receives a majority of votes, the nominee with the least number of votes shall be excluded from subsequent voting and Council shall proceed with the next ballot.
 - iii) If there is a tie vote with respect to the nominees receiving the least number of votes then a lot shall be conducted until there is one name not drawn, and the name (or names) drawn shall go forward to the next ballot, and the name not drawn shall be excluded from subsequent ballots.
 - iv) When there are only two nominees remaining, the procedure for two nominees [Procedure 3.6] shall apply.

APPENDIX 2
BY-LAW 56-2019APPOINTMENTS TO SPECIAL PURPOSE BODIES
VOTING PROCEDURES

1. DEFINITIONS

- 1.1 "Lot" is the method of determining the nominee to fill the vacancy or go onto the next ballot, as determined by the particular circumstance. The names of the tied nominees shall be placed on equal sized pieces of paper, placed in a container and one name shall be drawn by a person chosen by the Regional Clerk.

2. PROCEDURE FOR NOMINATIONS

- 2.1 Names for appointments shall be included in the staff report on Special Purpose Body appointments based on "Indication of Interest" forms returned to the Office of the Regional Clerk. Additional nominations received at the time of voting on appointments shall also be considered by Council for appointment to the Special Purpose Bodies. Voting shall be conducted for **ALL** vacancies on the special purpose body in question, and not just for vacancies for which nominations had not been received at the time of the staff report.
- 2.2 Nominations shall be placed in the following manner:
 - a. The Regional Clerk or Presiding Officer shall state which appointments require an election.
 - b. The Regional Clerk or Presiding Officer shall call for nominations.
 - c. Each nomination shall be moved and seconded by a member.
 - d. After nominations have been closed by a vote, each nominee may, prior to the vote being taken, be permitted to speak to the nomination for not more than two minutes.
 - e. The nominees shall be called upon in alphabetical order of surname.
- 2.3 Nominees may withdraw their name at any point in the voting process.

3. VOTING PROCESS

3.1 Once the process commences, the only motion permitted will be a motion to recess.

3.2 For One Vacancy:

- a. If there is just one nominee, the nominee requires a majority of votes to be appointed. Voting may be by show of hands.
- b. If there is more than one nominee, the Regional Clerk or Presiding Officer shall request each member, alphabetically, to stand and state the name of the nominee for whom they are voting. The nominee with the highest number of votes shall be appointed.

3.3 For Two or More Vacancies:

- a. The Regional Clerk or Presiding Officer shall request each member, alphabetically, to stand and state the names of the nominees for whom he or she is voting. For example, if there are three vacancies, each Council member shall be given only one opportunity to state the names of the nominees, up to and including three, for whom he or she is voting. The nominees with the highest number of votes shall be appointed.

3.4 In the case of an equality of votes, then the position shall be filled by the nominee selected by lot, conducted by the Regional Clerk.

APPENDIX 3
BY-LAW 56-2019
PUBLIC MEETINGS

1. PURPOSE

- 1.1 Public Meetings shall enquire into a matter over which Council has authority under the *Municipal Act, 2001, as amended*, the *Planning Act*, or any other statute that requires or permits Council to hold a public meeting.

2. DELEGATED HEARING OR MEETING

- 2.1 Where any statute confers a right for the public to be heard by Council before the passing of a by-law, or where Council by statute is required to hold a public meeting before the passing of a by-law, such a meeting or hearing may be held immediately prior to a Regional Council meeting

3. RULES OF PROCEDURE

- 3.1 Public Meetings shall be governed by all applicable rules and procedures of this by-law, save and except for Section 4.5 – Quorum at Council or committees and Section 5.9 – Motions and By-laws.

4. NOTICE OF MEETINGS

- 4.1 Notice of Public Meetings will be made available on the Region of Peel website.
- 4.2 Appropriate notice/advertising of a Public Meeting to advise interested persons shall be undertaken as required by any applicable legislation, by-law or Regional policy.

5. MEETING PROCEEDINGS

- 5.1 The date and time of when to hold a Public Meeting will be coordinated by the Regional Clerk or determined by Council, as required.

- 5.2 The place of the Public Meeting shall be in the Region of Peel Council Chambers, unless otherwise determined by Regional Council.
- 5.3 Quorum is not required for Public Meetings, unless required by legislation.
- 5.4 At the commencement of each Public Meeting, the Regional Chair shall explain that the intent of the meeting is to hear the views of the public, and the members shall not enter into discussion or debate on the subject.
- 5.5 The Regional Clerk shall prepare an agenda in the following order for the use of members at Public Meetings:
 - a. Declarations of Conflicts of Interest
 - b. Opening of Public Meeting
 - c. Confirmation of Notification
 - d. Further Notice Request
 - e. Staff Presentations
 - f. Public Participation (Oral Submissions)
 - g. Public Participation (Written Submissions)
 - h. Conclusion and Closing of Public Meeting
- 5.6 Delegations may submit a request to the Regional Clerk in order to speak at a Public Meeting.
- 5.7 The Regional Clerk shall not accept any form of submission that contains any obscene or improper language or content, as determined by the Regional Clerk in consultation with the Regional Chair.
- 5.8 No persons addressing Council as a delegation shall:
 - a. speak disrespectfully of any person;
 - b. use offensive words or unparliamentary language;
 - c. engage in improper conduct;
 - d. speak on any subject other than the subject for which they have received approval to address Council; or
 - b. disobey the Rules of Procedure or a decision of the Presiding Officer or of Council.

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- 5.9 The Presiding Officer may curtail any delegation or any questions of a delegation for disorder or any other breach of the Rules of Procedure or if in the Presiding Officer's discretion, the questions are not of a clarifying nature, and, if the Presiding Officer rules that the delegation is concluded, the persons appearing shall withdraw from the place designated for delegations.
- 5.10 After a delegation has completed its presentation, members shall each have one opportunity to ask questions of the delegation for clarification purposes only, and without debate. If the delegate's answer to the clarifying question requires a further clarifying question, a member shall have one further opportunity to clarify. When all members who have indicated a desire to ask clarifying questions have finished, the persons appearing as a delegation shall withdraw from the place designated.
- 5.11 The report of the Regional Clerk for each Public Meeting shall be presented to Council at the next appropriate meeting of Council, for receipt.
- 5.12 No decision shall be made at a Public Meeting. Any matter requiring a decision shall be reported to Council for consideration debate and approval at a subsequent meeting of Council.

APPENDIX 4
BY-LAW 56-2019
APPOINTMENT OF THE REGIONAL CHAIR

1. DEFINITIONS

- (a) "Inaugural Meeting" means the first meeting of Regional Council following a regular election at which Regional Council is obligated to appoint a Chair, and at which a sufficient number of Members are present to form a quorum.
- (b) "Lot" is the method of determining the nominee to either fill the vacancy or go forward to the next ballot, as determined by the particular circumstance. The names of the tied nominees shall be placed on equal sized pieces of paper, placed in a container and one name shall be drawn by a person chosen by the Regional Clerk.
- (c) "Majority Vote" means, for the purpose of the appointment of the Chair at the Inaugural Meeting, more than half the votes cast by all the Members present at the Inaugural Meeting.
- (d) "Member" means, for the purpose of the appointment of the Chair at the Inaugural Meeting, a person who is described in paragraphs 2, 3 and 4 of subsection (1) of the *Regional Municipality of Peel Act, 2005 S.O. 2005 c. 20* and who has taken the declaration of office required to take a seat on Regional Council;
- (e) "Nominee" is a person named in a motion at the Inaugural Meeting that he or she be appointed to the position of Regional Chair and who has consented in writing to take office as Regional Chair if appointed, and who is:
 - (i) eighteen years of age or older;
 - (ii) a Canadian citizen;
 - (iii) a resident of The Regional Municipality of Peel or is the owner or tenant of land in the Regional Area or is the spouse of such owner or tenant; and
 - (iv) not otherwise legally disqualified from holding such office.

2. MOTIONS FOR THE APPOINTMENT OF THE CHAIR

- (a) Following the organization of the new Regional Council at the Inaugural Meeting, the Regional Clerk, as Presiding Officer, shall call for motions to appoint the Chair. Each motion must be in writing, moved and seconded by a Member present.
- (b) Each Nominee named in a motion for appointment of the Chair must consent in writing to take office as Regional Chair if appointed.
- (c) The Regional Clerk shall take as many motions for the appointment of the Chair as may be made by Members present and after seeing no further motions shall call for a motion that no further motions for the appointment of the Chair be received which shall be carried by a Majority Vote.

- (d) Following the passing of a motion that no further motions for the appointment of the Chair be received, the Regional Clerk shall call upon the mover, seconder and Nominee of each motion to appoint the Chair, in the order that the motions were received, to speak to that motion, once, for no longer than five minutes each.
- (e) A Nominee may withdraw his or her name at any time up until a motion to appoint the Nominee as Chair has been passed and the Nominee has taken the required declaration of office as Chair.

3. VOTING PROCESS

- (a) Nominees shall be voted on in alphabetical order of surnames.
- (b) All votes shall be conducted in open Council by an open vote and shall be recorded.
- (c) There shall be one Nominee vote per member of Council per round of voting. A Councillor's first vote is deemed to be the Councillor's vote. If a Councillor votes a second time in the same round of voting, the Regional Clerk shall advise the Councillor and the Councillor's vote shall not count.
- (d) Once voting commences, the only motion permitted will be a motion to recess.
- (e) One Nominee:
 - (i) The Nominee requires a majority of votes to be elected to the position of Regional Chair.
- (f) Two Nominees Only:
 - (i) The Nominee who receives a majority of votes becomes the nominee named by resolution as the Nominee for appointment to the position of Regional Chair. A majority vote on this resolution appoints the Nominee to the position of Regional Chair.
 - (ii) If there is a tie vote, the Regional Clerk shall declare a 10 minute recess to allow Council time to consider the matter, after which the vote shall be retaken. If the vote is again tied, the Regional Clerk shall declare a second 10 minute recess, after which the vote shall be retaken. If the vote is again tied, the vacancy shall be filled by the Nominee selected by lot. The person whose name is drawn becomes the Nominee named by resolution as the Nominee for appointment to the position of Regional Chair. A majority vote on this resolution appoints the Nominee to the position of Regional Chair.
- (g) Three or More Nominees:
 - (i) First and Successive Ballots:
 - (1) A Nominee who receives a majority of votes becomes the Nominee named by resolution as the nominee for appointment to

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the position of Regional Chair. A majority vote on this resolution appoints the Nominee to the position of Regional Chair.

- (2) If no Nominee receives a majority of votes, the Nominee with the least number of votes shall be excluded from subsequent voting and Council shall proceed with the next round of voting.
- (3) If there is a tie vote with respect to the Nominees receiving the least number of votes, then a lot shall be conducted until there is one name not drawn, and the name (or names) drawn shall go forward to the next round of voting, and the name not drawn shall be excluded from subsequent rounds of voting.
- (4) When there are only two Nominees remaining, the procedure for two Nominees [Procedure (f)] shall apply.

APPENDIX 5
BY-LAW 56-2019

PROCESS FOR APPOINTING AN ALTERNATE MEMBER
TO ATTEND REGIONAL COUNCIL MEETINGS

1. One City Councillor to serve as an Alternate Council Member for the absence of a Regional Councillor at a meeting of the Regional Council for any reason. (*Municipal Act*, s. 268)
 - a. Only applies to absence from Region of Peel Council meetings
 - b. If more than one Regional Councillor is absent, the alternate member may only substitute for one of the absent Regional Councillors
 - c. The alternate member only applies to short-term substitutions when a Regional Councillor is absent from a Region of Peel Council meeting for any reason.
2. A Regional Councillor shall simultaneously notify (in writing) the City Clerk, Regional Clerk, alternate member and Regional Chair of the absence as soon as possible before the scheduled commencement of a Region of Peel Council meeting.
3. Only one designation of an alternate member replacement can occur for each Regional Council meeting.
4. The City Clerk shall notify (in writing) all Brampton or Caledon Regional Councillors of the designation of the alternate member for the Regional Council meeting.
5. If the Regional Councillor, who was to be absent, and after notification has been provided in writing:
 - a. Attends the Regional Council meeting before the start of the meeting, the alternate member shall immediately withdraw from the meeting and the Regional Councillor shall assume his or her seat at the Regional Council meeting, or
 - b. Attends the Regional Council meeting after the start of the meeting, will be subject to the rules of the Region of Peel Council in regard to the formal representation status of the Regional Councillor and alternate member at that meeting.
6. The alternate member, while serving on Regional Council, will not receive additional remuneration from the Region of Peel and will be subject to all the applicable Region of Peel policies and procedures at the discretion of the Regional Clerk.