



The Regional Municipality of Durham

Works Committee Revised Agenda

Wednesday, February 8, 2023, 9:30 a.m.

Regional Council Chambers

Regional Headquarters Building

605 Rossland Road East, Whitby

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

Note: This meeting will be held in a hybrid meeting format with electronic and in-person participation. Committee meetings may be [viewed via live streaming](#).

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*6.1 Linda Gasser, Whitby Resident Re: Update on the Proposed Clear Garbage Bag Pilot in the Municipality of Clarington (2023-WR-1) [Item 7.2 a.)]	
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*6.3 Wendy Bracken, Clarington Resident	

Re: Update on the Proposed Clear Garbage Bag Pilot in the Municipality of Clarington (2023-WR-1) [Item 7.2 a.)]

- *6.4 Wendy Bracken, Clarington Resident
Re: Organics Management Plan - Next Steps (2023-WR-3) [Item 7.2 c.)]

7. Waste

7.1 Correspondence

7.2 Reports

- | | | |
|----|---|----|
| a. | Report #2023-WR-1
Update on the Proposed Clear Garbage Bag Pilot in the Municipality of Clarington | 40 |
| | Deferred from the January 11, 2023 Works Committee Meeting | |
| b. | Report #2023-WR-2
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8. Works

8.1 Correspondence

8.2 Reports

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| a. | Report #2023-W-8
Outline of Noise Attenuation Guidelines and Policies for Regional Road Corridors | 73 |
| b. | Report #2023-W-9
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9. Advisory Committee Resolutions

10. Confidential Matters

There are no confidential matters to be considered

11. Other Business

11.1 Durham Vision Zero Taskforce Update

12. Date of Next Meeting

Wednesday, March 8, 2023 at 9:30 AM

13. Adjournment

Notice regarding collection, use and disclosure of personal information:

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The Regional Municipality of Durham

MINUTES

WORKS COMMITTEE

Wednesday, January 11, 2023

A regular meeting of the Works Committee was held on Wednesday, January 11, 2023 in Council Chambers, Regional Headquarters Building, 605 Rossland Road East, Whitby, Ontario at 9:30 AM. Electronic participation was offered for this meeting.

1. Roll Call

Present: Councillor Barton, Chair
Councillor Marimpietri, Vice-Chair
Councillor Crawford
Councillor Mulcahy
Councillor Nicholson
Councillor Yamada
Regional Chair Henry

Also

Present: Councillor Dies* attended for part of the meeting
Councillor Foster* attended for part of the meeting
Councillor Garrod
Councillor McDougall
Councillor Pickles* attended for part of the meeting
Councillor Schummer* attended for part of the meeting
Councillor Shahid* attended for part of the meeting
***denotes Councillors participating electronically**

Absent: Councillor Cook

Staff

Present: G. Anello, Director of Waste Management
E. Baxter-Trahair, Chief Administrative Officer
J. Demanuele, Director of Corporate Infrastructure and Strategic Business Services, Works Department
A. Evans, Manager of Waste Services
M. Hubble, Manager of Environmental Services Design
J. Hunt, Regional Solicitor/Director of Legal Services, Chief Administrative Office – Legal Services
R. Inacio, Systems Support Specialist, Corporate Services – IT
R. Jagannathan, Director of Transportation and Field Services
E. Lamain, Manager of Maintenance Operations
J. Presta, Commissioner of Works
P. Veiga, Manager of Waste Management Operations

L. Soto Maya, Committee Clerk, Corporate Services – Legislative Services
S. Ciani, Committee Clerk, Corporate Services – Legislative Services

2. Declarations of Interest

There were no declarations of interest.

3. Adoption of Minutes

Moved by Councillor Marimpietri, Seconded by Councillor Yamada,
(1) That the minutes of the regular Works Committee meeting held on
Wednesday, December 7, 2022, be adopted.

CARRIED

4. Statutory Public Meetings

There were no statutory public meetings.

Moved by Councillor Marimpietri, Seconded by Councillor Mulcahy,
(2) That the order of the agenda be altered to consider Item 6.1: Greg
Gordon, Energy from Waste – Waste Management Advisory Committee
(EFW-WMAC) Chair, and Phil Haylock, Energy from Waste – Waste
Management Advisory Committee (EFW-WMAC) Vice-Chair, re: EFW-
WMAC Annual Report next.

CARRIED

6. Delegations

6.1 Greg Gordon, Energy from Waste – Waste Management Advisory Committee
(EFW-WMAC) Chair, and Phil Haylock, Energy from Waste – Waste Management
Advisory Committee (EFW-WMAC) Vice-Chair, re: EFW-WMAC Annual Report

Greg Gordon, Chair, Energy from Waste-Waste Management Advisory
Committee (EFW-WMAC) appeared before the Committee with respect to the
EFW-WMAC Annual Report.

G. Gordon advised that there are nine members on the EFW-WMAC Committee.
He outlined topics that had been considered by the Committee at their meetings
that included:

- February 22, 2022 – Scheduled Meeting Q1
 - Long-Term Waste Management Plan – Presentation
 - Long-Term Plan – Targets, Measures and Actions
 - Durham Region's Organics Management Project Update
 - Extended Producer Responsibility (EPR) Update
 - Durham York Energy Centre (DYEC) Update

- May 24, 2022 – Scheduled Meeting Q2
 - Organics Management Project Update
 - Durham York Energy Centre Update
- September 27, 2022 – Scheduled Meeting Q3
 - Organics Management Project Update
 - Durham York Energy Centre Update
 - Extended Producer Responsibility (EPR) Update
 - Newtonville Road Rehabilitation Pilot Project
- November 7, 2022 – Educational Facilities Tour
- Other Topics Discussed:
 - Outreach to Durham Region Schools
 - Investigation of Polystyrene Recycling
 - Green Bin Program Expansion

Staff responded to a question from the Committee regarding receiving the annual report at the same time as the annual update from the Chair of the EFW-WMAC in order to allow Committee members time to review and prepare questions in advance of the meeting.

5. Presentations

5.1 Eric Lamain, Manager of Maintenance Operations, re: Regional Road Maintenance and Service Levels

Eric Lamain, Manager of Maintenance Operations provided a PowerPoint presentation regarding Regional Roadway Maintenance and Service Levels.

Highlights from the presentation included:

- Outline
- Regional Road Network
- Ontario Regulation 239/02 – Minimum Maintenance Standards
 - Winter Maintenance
 - Road Repairs & Maintenance
 - Traffic Signs, Signals & Illuminations
 - Emergencies
- Region of Durham Service Levels
 - Routine/Planned Maintenance
 - Non-Service Level Defined Activities
 - Deficiency/Complaint Maintenance
- Road Maintenance – Roles and Responsibilities
- Regional Right of Way Responsibilities by Others
- Innovation & Continuous Improvement

- Enterprise Maintenance Management System – Maximo
- Roadway Event Management System
- Remote Weather Information System
- Weed Control
- Road Patrol
- Significant Events

E. Lamain responded to questions from the Committee regarding better coordination of snow clearing activities on regional roads and local sidewalks during significant snow fall events; deficiencies in repairs made by contractors as opposed to Regional staff; developing a weed removal service level for medians and regional roads; concerns regarding road maintenance standards in Ward 5 in the City of Oshawa; establishing a policy standard with respect to grass cutting and graffiti removal; prioritizing the resurfacing of regional roads as opposed to reconstructing regional roads; and deficiency/complaint maintenance.

In response to a question from the Committee regarding whether there has been a comparison between the Region's service levels standards and the lower tier municipalities' service standards, staff advised an update would be provided to the Committee at a later date.

In response to a question from the Committee regarding where the road maintenance and policy standards can be found online, staff advised they would work on getting those documents published to the regional website.

6. Delegations

- 6.1 Greg Gordon, Energy from Waste – Waste Management Advisory Committee (EFW-WMAC) Chair, and Phil Haylock, Energy from Waste – Waste Management Advisory Committee (EFW-WMAC) Vice-Chair, re: EFW-WMAC Annual Report

This item was considered earlier in the meeting. See pages 2 and 3 of these minutes.

7. Waste

- 7.1 Correspondence

There were no communication items considered.

- 7.2 Reports

- A) Update on the Proposed Clear Garbage Bag Pilot in the Municipality of Clarington (2023-WR-1)

Report #2023-WR-1 from J. Presta, Commissioner of Works, was received.

Staff responded to questions from the Committee regarding whether there are best practices used by other municipalities on the use of clear garbage bags; the cost of the proposed clear garbage bag pilot project; and the reasons for staffs' recommendation to defer the implementation of the pilot project to 2025.

Detailed discussion ensued regarding a proposed amendment by Councillors Nicholson and Crawford (see page 7 of these minutes) that would terminate the proposed clear garbage bag pilot in the Municipality of Clarington instead of deferring it until 2025 due to the significant waste management programming changes scheduled to occur in 2024, and whether terminating the proposed pilot would procedurally be in order.

Moved by Councillor Yamada, Seconded by Councillor Mulcahy,
(3) That we recommend to Council:

- A) That the implementation of a clear garbage bag pilot program in the Municipality of Clarington be deferred to 2025 due to the significant waste management programming changes occurring in 2024;
- B) That the implementation of a clear garbage bag pilot program in the Municipality of Clarington be approved with the following implementation parameters:
 - i) That the clear garbage bag pilot be implemented for a period of six months;
 - ii) That the clear garbage bag pilot commences in the second quarter of 2025 and include a four-week transition period before participation in the program becomes mandatory;
 - iii) That the clear garbage bag pilot project be implemented in a manner that reflects how the clear garbage bag program would operate permanently, meaning that where any visible Blue Box material, food, household hazardous waste or any other material for which a diversion program is available, is detected in the garbage bag during the mandatory phase, that the bag will not be collected and will be left at the curb;
 - iv) That the clear garbage bag pilot project be conducted with the following performance measures with a comparison of the data pre and post pilot:
 - 1. Garbage generation rates;
 - 2. Quantity of Blue Box, Green Bin and/or household hazardous material found in the garbage bag;

3. Collection contractor injury rate;
 4. Collection route impacts (collection time, etc.);
 5. Impacts at Waste Management Facilities; and
 6. Incidence of illegal dumping complaints;
- C) That external resources to support the implementation of the clear garbage bag pilot project be retained to provide the following:
- i) An initial communication strategy and support in the planning and operating phases of the clear garbage bag pilot, including the distribution of educational material to residents in the pilot areas of the Municipality of Clarington and discussions with retail outlets and/or clear bag suppliers related to the supply of clear garbage bags to pilot project residents; and
 - ii) Waste audits to establish the baseline for the performance measures and to measure performance in the clear garbage bag pilot area in the Municipality of Clarington as compared to non-pilot areas located in other Regional Municipality of Durham municipalities during the pilot;
- D) That the pilot program costs, currently estimated at \$530,000 exclusive of taxes (2023 costs), be included in the proposed Business Plans and Budget for Waste Management Services in the applicable year and subject to the approval of Council; and
- E) That additional details regarding the Regional Municipality of Durham's waste management education programs in partnership with local school boards and details regarding the City of Orillia's clear garbage bag requirement be received for information.

DEFERRED LATER IN THE MEETING
(See Following Motions)

Moved by Councillor Nicholson, Seconded by Councillor Crawford,

- (4) That the main motion (3) of Councillors Yamada and Mulcahy be amended in Part A) by deleting the words "deferred to 2025 due to the significant waste management programming changes occurring in 2024" and replacing it with the word "terminated", and that Parts B) to E) inclusive, be deleted.

DEFERRED LATER IN THE MEETING
(See Following Motion)

Moved by Regional Chair Henry, Seconded by Councillor Marimpietri,
(5) That the main motion (3) of Councillors Yamada and Mulcahy, and the foregoing amending motion (4) of Councillors Nicholson and Crawford be deferred until the February 8, 2023 Works Committee meeting.

CARRIED

8. Works

8.1 Correspondence

There were no communication items considered.

8.2 Reports

A) Operational Plan for Water Supply Systems to Comply with the Safe Drinking Water Act (2023-W-1)

Report #2023-W-1 from J. Presta, Commissioner of Works, was received.

Moved by Councillor Marimpietri, Seconded by Councillor Mulcahy,
(6) That we recommend to Council:

That in accordance with the requirements of the Ministry of Environment, Conservation and Parks (MECP) approvals framework for municipal drinking water systems, Regional Council acknowledge and endorse the Operational Plan for the Regional Municipality of Durham's Water Supply Systems.

CARRIED

B) Tender Award and Additional Financing for Regional Municipality of Durham Contract #D2022-34 for Roundabout Construction on Bowmanville Avenue (Regional Road 57) at the Regional Road 3/Concession Road 8 Intersection, in the Municipality of Clarington (2023-W-2)

Report #2023-W-2 from J. Presta, Commissioner of Works, was received.

Moved by Councillor Marimpietri, Seconded by Councillor Mulcahy,
(7) That we recommend to Council:

A) That the low compliant bid of Hard-Co Construction Ltd. in the amount of \$4,960,341* be awarded for Regional Municipality of Durham Contract #D2022-34 for Roundabout Construction on Bowmanville Avenue (Regional Road 57) at the Regional Road 3/Concession Road 8 Intersection, in the Municipality of Clarington, resulting in a total estimated project cost of \$7,708,142;

- B) That the previously approved project budget of \$5,469,247 for Regional Municipality of Durham Contract #D2022-34 be increased by \$2,238,895 to a revised total project budget of \$7,708,142;
- C) That the funding for the additional project commitments in the amount of \$2,238,895 be provided as follows:

Previously Approved Financing

Municipality of Clarington	\$19,247
Roads Capital Budget (Project ID; R1603)	
Residential DC	\$3,413,700
Commercial DC	\$412,200
Industrial DC	\$219,600
Road Capital Reserve	<u>\$1,404,500</u>
Total Regional Financing	\$5,450,000

Total Previously Approved Financing **\$5,469,247**

Proposed Additional Financing

Municipality of Clarington	\$10,599
2022 Regional Road Program	
Residential DC, at the discretion of the Commissioner of Finance	\$1,395,731
Commercial DC, at the discretion of the Commissioner of Finance	\$168,533
Industrial DC, at the discretion of the Commissioner of Finance	\$89,786
Property tax sources, at the discretion of the Commissioner of Finance	<u>\$574,246</u>
Total Additional Regional Financing	\$2,228,296
Total Proposed Additional Financing	<u>\$2,238,895</u>
Total Revised Financing	<u>\$7,708,142</u>

(*) before applicable taxes
CARRIED

- C) Approval for the Regional Municipality of Durham's Ongoing Participation in the Toronto and Region Conservation Authority's Western Durham Nearshore Water Quality Monitoring Program (2023-W-3)
-

Report #2023-W-3 from J. Presta, Commissioner of Works, was received.

Moved by Councillor Marimpietri, Seconded by Councillor Mulcahy,
(8) That we recommend to Council:

- A) That the Regional Municipality of Durham continue participation as a municipal partner with Toronto and Region Conservation Authority's Western Durham Nearshore Water Quality Monitoring Program until the program ceases or the Regional staff of Durham and York determine that participation is no longer required; and
- B) That financing for the annual contribution to the program, currently set at \$135,000 and shared with York Region at the applicable cost-sharing ratio (currently shared at approximately 18 per cent Durham Region, 82 per cent York Region) be provided in the annual Business Plans and Budgets for the York Durham Sanitary Sewerage System.

CARRIED

- D) Declaration of Lands as Surplus and Approval to Transfer the Surplus Lands to the Town of Whitby as Part of an Agreement with the Ministry of Transportation (2023-W-4)
-

Report #2023-W-4 from J. Presta, Commissioner of Works, was received.

In response to a question from the Committee regarding what the "nominal sum" referenced in Recommendation Part C) of Report #2023-W-4 would be, staff advised that the cost would be \$0.

Moved by Councillor Marimpietri, Seconded by Councillor Mulcahy,
(9) That we recommend to Council:

- A) That property known as Old Lake Ridge Road, in the Town of Whitby and The Town of Ajax, legally described as Part 4 on 40R-30216 and all of PIN 26494-0745 in the Regional Municipality of Durham, Town of Whitby and Town of Ajax be declared as surplus to Regional Municipality of Durham requirements;
- B) That the requirements of Section 3 of Regional By-Law #52-95 be waived to facilitate the land transfer between the Regional Municipality of Durham and The Town of Whitby;

- C) That the Regional Municipality of Durham's solicitors be authorized to complete the transfer of lands as described, to the Town of Whitby for a nominal sum; and
- D) That authority be granted to the Commissioner of Works to execute any documents necessary to complete the conveyance to the Town of Whitby.

CARRIED

- E) Approval of Unbudgeted Capital Works to be Incorporated into a Subdivision Agreement with the Minto (Harmony Road) GP Inc., Including Cost Sharing in Accordance with the Region Share Policy, for the Extension and Oversizing of a Trunk Sanitary Sewer and Watermains Through the Minto Subdivision, North of Conlin Road East, West Side of Harmony Road North (Regional Road 33), in the City of Oshawa (2023-W-5)
-

Report #2023-W-5 from J. Presta, Commissioner of Works, was received.

Moved by Councillor Marimpietri, Seconded by Councillor Mulcahy,
(10) That we recommend to Council:

- A) That unbudgeted capital works estimated at \$1,804,900 for the Regional share of the trunk sanitary sewer and watermains in the Kedron Secondary Plan, in the City of Oshawa, be approved;
- B) That the Regional Municipality of Durham be authorized to enter into a Subdivision Agreement with Minto (Harmony Road) GP Inc. for the extension and oversizing of a trunk sanitary sewer and watermains through the Minto Subdivision, approximately 750 metres north of Conlin Road East, west of Harmony Road North (Regional Road 33), in the City of Oshawa, including a Regional share amount estimated at \$1,804,900, for an estimated total project cost of \$5,052,100; and
- C) That financing for the subdivision agreement, including the Regional Share amount be provided from the following sources:

Sanitary Sewer

Developer's Share – Sanitary Sewer

Minto (Harmony Road (GP) Inc.	<u>\$1,755,000</u>
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Total Developer's Sanitary Sewer Share	<u>\$1,755,000</u>
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Regional Costs – Sanitary Sewer

Reallocation of Funds

2022 Sanitary Sewerage System Capital Budget	
Item No. 79: Thickson Rd. Sub-trunk sanitary sewer	
From Glengowan St. to Conlin Rd. (Project ID: D2103)	
Residential Development Charge Reserve Fund	\$1,023,901

Commercial Development Charge Reserve Fund	63,821
User Rate	<u>299,678</u>
Total Regional Share – Sanitary Sewer	<u>\$1,387,400</u>
Total Sanitary Sewer	<u>\$3,142,400</u>
Watermain:	
Developer's Share - Watermain	
Minto (Harmony Road) GP Inc.	\$1,492,200
Total Developer's Watermain Share	<u>\$1,492,200</u>
Regional Costs – Watermain	
2022 Water Supply System Capital Budget	
Item No. 304 Allowance for Regional share for works in conjunction with residential subdivision development (Project ID: M2210)	
Residential Development Charge Reserve Fund	\$365,730
Commercial Development Charge Reserve Fund	9,185
User Rate	<u>42,585</u>
Total Regional Share – Watermain	<u>\$417,500</u>
Total Watermain	<u>\$1,909,700</u>
Total Developer's Share	<u>\$3,247,200</u>
Total Regional Share	<u>\$1,804,900</u>
Total Project Financing	<u>\$5,052,100</u>
CARRIED	

- F) Adoption of the Regional Legacy Area Servicing Policy and Update on Servicing Options for Property Owners on Bickle Drive and Roselawn Avenue, including the Sun Valley Heights Homebuilders Co-op, in the City of Oshawa (2023-W-6)

Report #2023-W-6 from J. Presta, Commissioner of Works, was received.

Detailed discussion ensued regarding the benefits that the Regional Legacy Area Servicing Policy will have on future homeowners; the low success rate of the current petition process; how many unserviced streets are within the urban boundary and what it would cost for the Region to complete all of the work; and whether the Region has conversations with the local municipalities in order to coordinate the local road program with watermain and sanitary sewer services.

Staff responded to a question from the Committee regarding the remaining areas in Durham Region that would be affected by the Regional Legacy Area Policy and the current number of properties and total frontage that would be similar to the Sun Valley Heights community. J. Presta advised that a memo could be provided

to Council that would provide the number of streets and property frontage. In addition, a high-level estimate of the cost to service all of those areas and property frontage of all of those properties could be provided.

Moved by Councillor Marimpietri, Seconded by Councillor Mulcahy,
(11) That we recommend to Council:

- A) That the Regional Legacy Area Servicing Policy included as Attachment #1 to Report #2023-W-6 of the Commissioner of Works be approved and adopted;
- B) That a review of payment terms related to frontage charges for the extension of water supply and sanitary sewerage services to service legacy areas be reviewed as part of the 2024 User Rate Study; and
- C) That a copy of Report #2023-W-6 be provided to the residents of Bickle Drive and Roselawn Avenue, Sun Valley Heights Homebuilders Co-op in the City of Oshawa, and the York Durham Ministry of the Environment, Conservation and Parks office.

CARRIED

- G) Tender Award and Additional Financing for Regional Municipality of Durham Contract #D2022-16 for the Highway 401 Tunnel Liner Decommissioning at Merritt Street, in the City of Oshawa (2023-W-7)

Report #2023-W-7 from J. Presta, Commissioner of Works, was received.

Staff responded to questions from the Committee regarding the costs of decommissioning the Highway 401 Tunnel Liner at Merritt Street, in the City of Oshawa; and why the Ministry of Transportation (MTO) would not cover the cost of decommissioning the tunnel liner; and why the tunnel liner has to be abandoned as opposed to leaving it in place.

Moved by Councillor Marimpietri, Seconded by Councillor Mulcahy,
(12) That we recommend to Council:

- A) That the low compliant bid of Tydon Contracting Ltd. in the amount of \$1,686,076*, be awarded for Regional Municipality of Durham Contract #D2022-16 for the Highway 401 Tunnel Liner Decommissioning at Merritt Street, in the City of Oshawa, resulting in a total estimated project cost of \$2,260,000;
- B) That the previously approved project budget of \$1,350,000 for Regional Municipality of Durham Contract #D2022-16 be increased by \$910,000 to a revised total project budget of \$2,260,000, with the increase in financing to be provided from sanitary sewer user rate sources at the discretion of the Commissioner of Finance; and

- C) That the Commissioner of Finance be authorized to execute any documents related to the award of the tender.
(*) before applicable taxes

CARRIED

9. Advisory Committee Resolutions

There were no advisory committee resolutions to be considered.

10. Confidential Matters

There were no confidential matters to be considered.

11. Other Business

11.1 Garbage Collection in Durham Region

In response to a question from Councillor Nicholson regarding who pays for garbage collection in Durham Region, staff confirmed that the Region covers 100% of the cost of garbage collection in all municipalities except for the Town of Whitby and the City of Oshawa.

In response to a further question from Councillor Nicholson regarding whether the Region would be covering the full or partial cost of the year end reconciliation in the Town of Whitby and the City of Oshawa, staff advised that they would contact the finance staff at the City of Oshawa for a further discussion and would report back to Councillor Nicholson and the Committee.

11.2 Durham Vision Zero Taskforce

Councillor Crawford advised that the Durham Vision Zero Taskforce met in December and has been actively putting in leading pedestrian intervals (LPI) across the Region in order to give pedestrians a head start before the traffic moves. She further advised that the taskforce will be meeting in January and a verbal update will be provided at the February 8, 2023, Works Committee meeting.

12. Date of Next Meeting

The next regularly scheduled Works Committee meeting will be held on Wednesday, February 8, 2023 at 9:30 AM in Council Chambers, Regional Headquarters Building, 605 Rossland Road East, Whitby.

13. Adjournment

Moved by Councillor Marimpietri, Seconded by Councillor Yamada,
(13) That the meeting be adjourned.

CARRIED

The meeting adjourned at 11:04 AM

Respectfully submitted,

D. Barton, Chair

S. Ciani, Committee Clerk



Organics Management Plan Next Steps

Waste Management Services

Re: Report #2023-WR-3

Works Committee

February 8, 2023

Short-term Organics Management Solution

- The proposal to build a Region-owned Mixed Waste Pre-sort(MWP) and Anaerobic Digestion (AD) facility was postponed due to the current inflationary environment resulting in significantly higher project cost.
- Short-term solution is a 10-year AD processing contract with a 3rd party organics processing provider.
- Food and Organic Waste Policy Statement
 - 70 per cent diversion in single family homes by 2023
 - 50 per cent diversion in multi-residential buildings by 2025

Enhanced Green Bin

- Wet AD processing of the Region's organic waste will allow additional materials to be accepted in the Green Bin.
- The Enhanced Green Bin will accept diapers, adult incontinence products, personal sanitary products, pet waste and pet litter and other materials.
- The Enhanced Green Bin will benefit residents by accepting more odorous waste weekly in the Green Bin program.



Garbage Bag Limit Reduction

- Currently, 80 per cent of residents set out three garbage bags or fewer every other week.
- The service improvement associated with the Enhanced Green Bin will move more odorous diapers and pet waste out of the garbage for weekly collection in the Green Bin.
- A garbage bag limit reduction from 4 bags every other week to 3 bags will reflect the shift of additional organic waste streams from disposal (garbage bag) to diversion (Green Bin).
- Extensive education on the limit reduction will be undertaken and the enforcement of the reduction will be phased in. Garbage bag tags will continue to be available.



Multi-residential Organics Program



- The Region currently services 415 multi-residential developments with garbage and blue box collection. Significant growth is occurring for in this type of development.
- Program and technology changes allow the Region to introduce a source separated organics program in multi-residential developments. Approximately 40 per cent of the multi-residential garbage stream is acceptable in an Enhanced Green Bin program.
- A multi-residential organics program will be phased in over several years and may require unique collection solutions for existing multi-residential developments.

Potential Financial Implications

- Total costs are dependent on a range of factors including:
 - Overall organics tonnage growth, capture rates and household participation rates under an Enhanced Green Bin program
 - Organics contract processing rate under an Enhanced Green Bin program (using AD technology) versus Status Quo of food and soiled paper waste only in the current Green Bin program.
- An Enhanced Green Bin program is estimated to have a net operating cost impact between \$0.4 million to \$1 million subject to implementation plan
- Financial implications of Enhanced Green Bin program for multi-residential properties will be further assessed to determine logistical and financial implications

Long-term Organics Management Solution

- MWP with AD
 - Interim solution will further inform development of long-term objective and project concept(s)



Timing

- Notice of Planned Procurement posted December 15, 2022
 - Outlines the Region's intent to seek a 3rd party AD organic processing contract.
- Request for Prequalification in Q1 2023.
- Planned Contract Tendering process in late 2023.
- Award and launch of new contract by July 1, 2024 (existing organics processing contract ends on June 30, 2024). Launch Enhanced Green Bin at the same time.
- Implement the Region's long-term solution by 2035



Thank you

durham.ca

@RegionofDurham





Outline of Noise Attenuation Guidelines and Policies for Regional Road Corridors

Transportation and Field Services

Re: Report # 2023-W-8

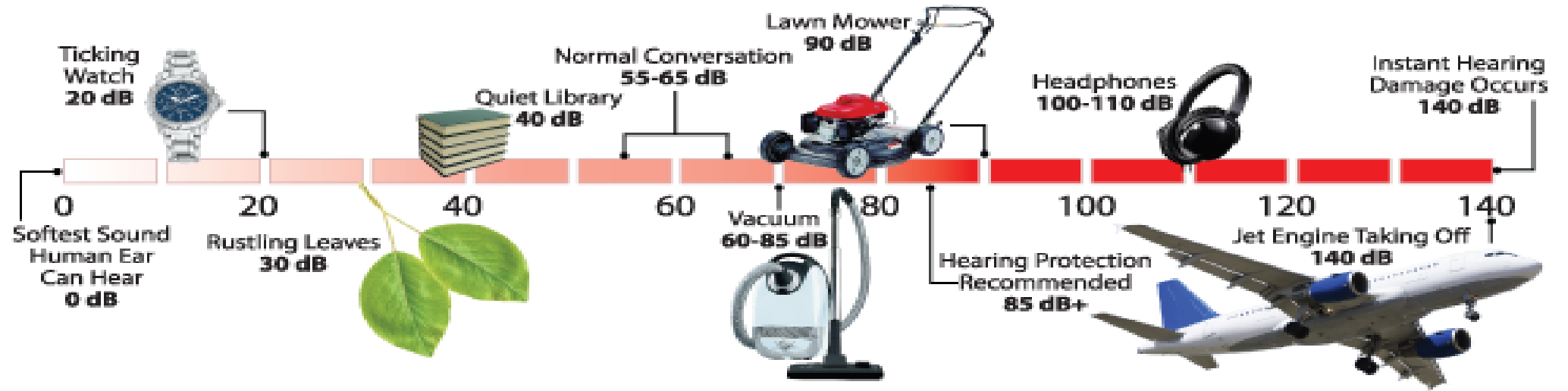
Works Committee

February 8, 2023

Outline

- ☐ **General Noise Information**
- ☐ **Noise Mitigation and Related Regional Policy and Guidelines**
- ☐ **Typical Costs**
- ☐ **Summary**

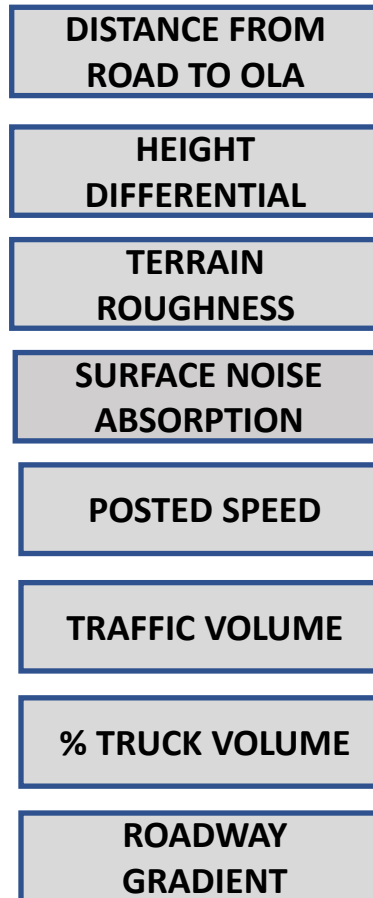
How Loud are Things?



60 dBA - Threshold for traffic noise attenuation at rear yard patio location/Outdoor Living Area (OLA)

How do we Calculate Noise Levels from Traffic?

INPUT

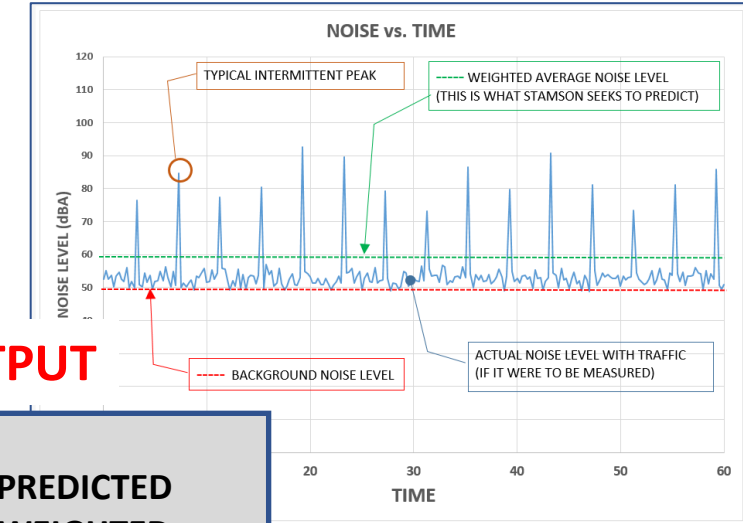


Computer Model used by the Region of Durham and endorsed by the Ontario Ministry of Environment and Climate Change (MECP)

STAMSON
Model

OUTPUT

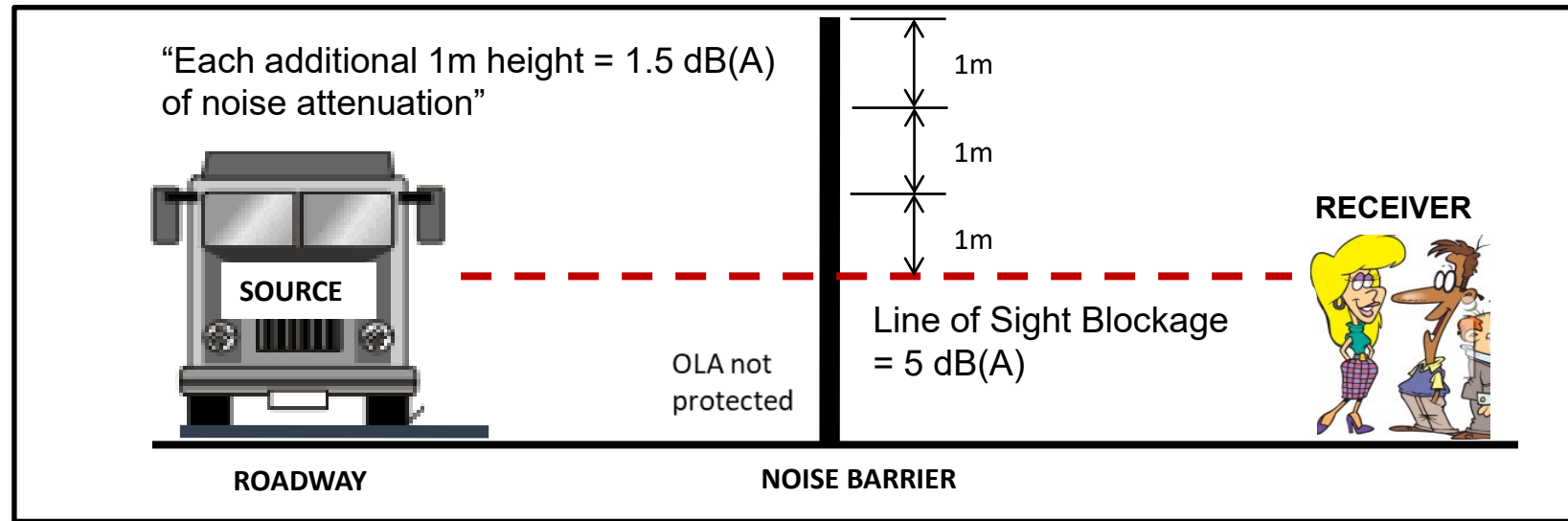
**PREDICTED
WEIGHTED
AVERAGE NOISE
LEVEL AT THE OLA**



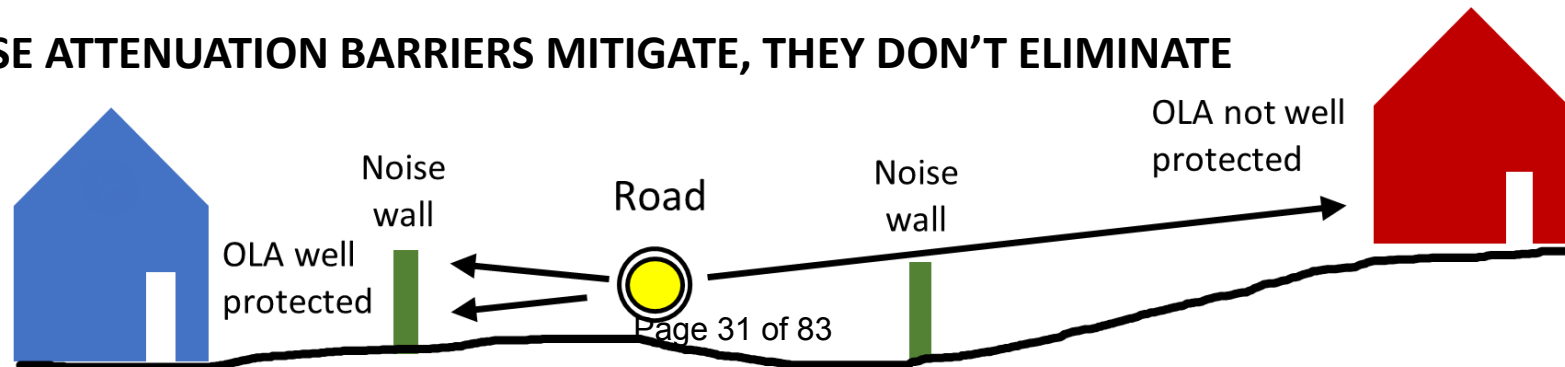
OLA is defined as 3 m from back of house and 1.5 m high

Stamson Noise Modelling analysis provides a consistent and fair approach to all residents of Durham Region and is used throughout Ontario and Canada

How does a Noise Attenuation Barrier Work?



- A barrier (wall, berm, wall/berm, etc.) must be tall enough and long enough to block the view of a roadway from the area that is to be protected
- Barriers provide very little benefit for backyards on a hillside overlooking a roadway or for porches and decks which rise above the barrier
- **NOISE ATTENUATION BARRIERS MITIGATE, THEY DON'T ELIMINATE**



Noise Mitigation and Related Regional Policy and Guidelines

The four situations related to noise mitigation:

New Residential Development

Assessment & mitigation for new developments along road rights-of-way

Regional Road Expansion

Assessment & mitigation for Regional road expansion projects

Retrofit of Privacy Fences to Noise Walls

Regional policy for existing residential properties adjacent to Regional roads where no new expansion work is planned

Replacement of Private Noise Walls

Regional policy for dealing with private noise walls that were built through earlier developments

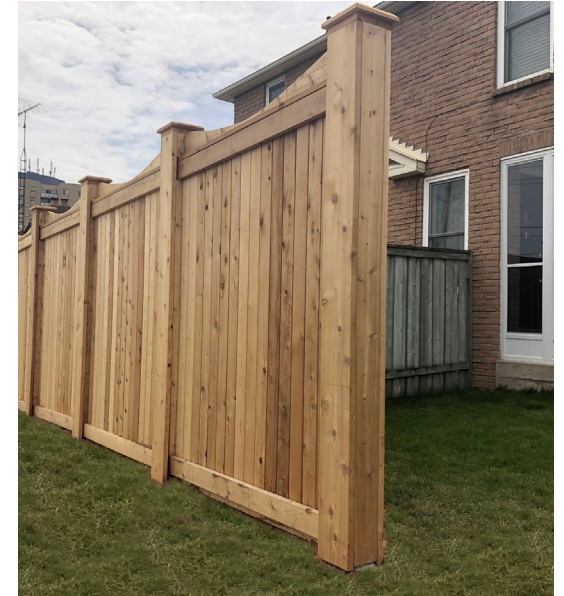
New Residential Development

- In 1991, Regional Council adopted a Policy that the impacts of noise, based on traffic volumes projected for the mature state of development, on residential development be a factor in the design of residential developments.
- Developer's engineer provides a noise study for developments close to an arterial roadway.
- Developer may be required to implement noise mitigation measures that may include a noise barrier.
- Notices of some noise warnings and mitigation requirements are included in developer agreements and individual purchase agreements.
- Noise walls are typically constructed entirely on private property (not always been the case).
- Changing development styles, such as laneway access townhomes, are resulting in minimal use of noise barriers.



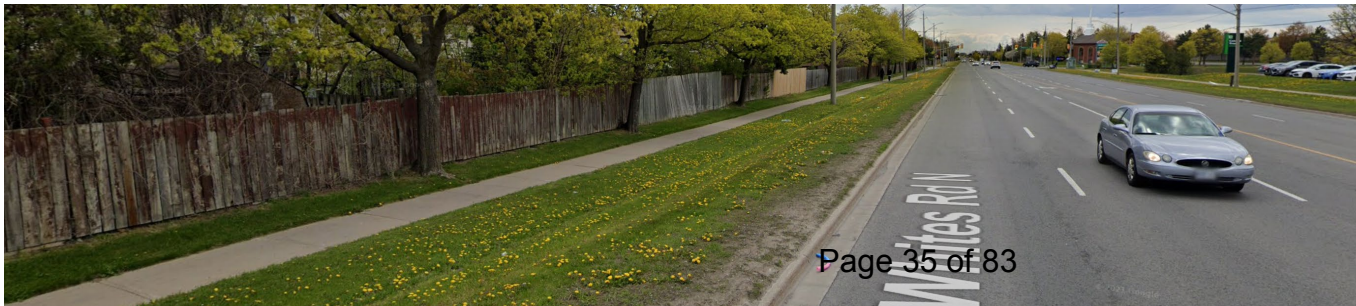
Regional Road Expansion

- Regional road expansions often increase noise levels in adjacent rear yard Outdoor Living Areas (OLA).
- Municipal Class Environmental Assessment (EA) process includes noise study.
- Study follows Ministry of Environment, Conservation and Parks (MECP) methodology for noise modelling and not measurement of existing noise.
- In 2012, Regional Council approved a policy which identifies that a noise level threshold of 60 dBA within an OLA, using traffic volumes based on the mature state of development, will trigger the installation of a noise attenuation barrier for new road expansion construction projects.
- Barrier must achieve a minimum sound level reduction of six decibels.
- Barrier must be technically and economically feasible.
- Barriers mandated by road expansion are constructed within the Regional right-of-way (ROW) or on an easement and are owned by the Region.
- Occasionally, walls which must be located outside of a Regional ROW shall be owned and maintained by the Local Area Municipality (LAM) or the private property owner.



Retrofit of Privacy Fences to Noise Walls

- Residents with backyards on Regional Roads but not having a noise wall have requested that the Region replace their privacy fence with a noise wall (e.g., Bayly, Harmony, Westney).
- In many locations, a noise study would confirm OLA noise levels warrant a noise wall.
- There is no legislation requiring the Region to replace fencing with noise walls on a retrofit basis.
- Some municipalities have a retrofit policy in place using a mechanism in the Municipal Act, including a cost-sharing between the municipal agency and the benefiting property owner(s).
- Such cost-shared programs have had very limited success due to various factors, primarily the cost, and not getting the required number of adjacent neighbours to commit to a continuous wall.
- York Region advises that since their policy, which includes a 50/50 cost-sharing, was put in place in 2006, no retrofit noise attenuation barriers have been constructed.
- Durham Region does not have a retrofit policy. Given the success rate in other jurisdictions, a cost-shared policy can create unrealistic expectations and be a frustrating experience for homeowners, along with requiring significant staff resources.
- A very preliminary high-level estimated cost to retrofit Regional Road rear lot properties is \$100 million.



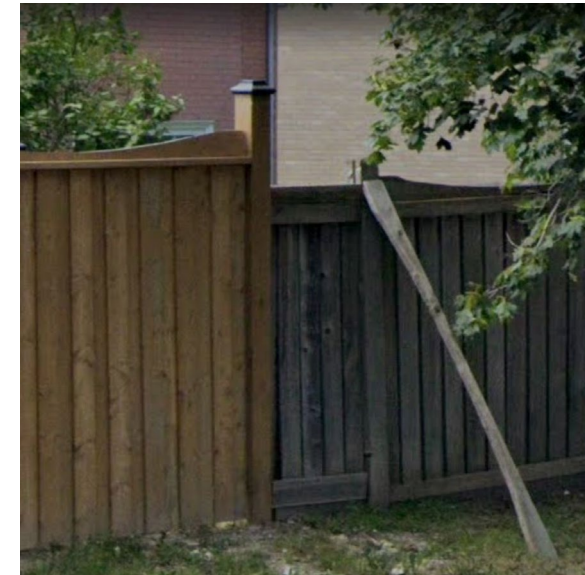
Replacement of Private Noise Walls

- As communities age, noise walls need to be replaced.
- The Region has had requests to construct and pay for these replacements.
- In 2009, Regional Council confirmed that the Region's core maintenance responsibilities continue to exclude maintenance and replacement of rear lot fencing, including noise attenuation barriers.
- As a result, the Region has taken the position that private noise attenuation walls, along with privacy fencing, are the responsibility of adjacent property owners.
- Some existing noise walls have been constructed in landscape strips and are owned by LAMs. These will be maintained or replaced by the LAM, unless they have given responsibility to the adjacent property owner.



Typical Costs

- Region standard noise walls are estimated to cost \$4,800/m for a typical 2.4 m high wall
- Concrete/composite and cedar wood walls have comparable costs
- Included costs – design, grading, drainage, restoration, very durable long-life noise wall
- Homeowner's noise wall construction might be lower design standard and therefore lower cost



Summary

The Region's current noise attenuation guidelines and policies for the installation and maintenance of noise barriers on or adjacent to Regional road rights-of-way, as detailed in Works Committee Report 2023-W-8, continue to be followed:

- 1) New Residential Development – Developer constructs, Property Owner or LAM owns**
- 2) Regional Road expansion – Region constructs and owns**
- 3) Retrofit of Privacy Fences to Noise Walls – Property Owner constructs and owns**
- 4) Replacement of Private Noise Walls – Property Owner or Local Area Municipality replaces**



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Transportation Design
james.garland@durham.ca

Questions?

durham.ca
[@RegionofDurham](https://www.instagram.com/RegionofDurham)



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



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: #2023-WR-1
Date: January 11, 2023

Subject:

Update on the Proposed Clear Garbage Bag Pilot in the Municipality of Clarington

Recommendations:

That the Works Committee recommends to Regional Council:

- A) That the implementation of a clear garbage bag pilot program in the Municipality of Clarington be deferred to 2025 due to the significant waste management programming changes occurring in 2024;
- B) That the implementation of a clear garbage bag pilot program in the Municipality of Clarington be approved with the following implementation parameters:
 - i) That the clear garbage bag pilot be implemented for a period of six months;
 - ii) That the clear garbage bag pilot commences in the second quarter of 2025 and include a four-week transition period before participation in the program becomes mandatory;
 - iii) That the clear garbage bag pilot project be implemented in a manner that reflects how the clear garbage bag program would operate permanently, meaning that where any visible Blue Box material, food, household hazardous waste or any other material for which a diversion program is available, is detected in the garbage bag during the mandatory phase, that the bag will not be collected and will be left at the curb;

-
- iv) That the clear garbage bag pilot project be conducted with the following performance measures with a comparison of the data pre and post pilot:
1. Garbage generation rates;
 2. Quantity of Blue Box, Green Bin and/or household hazardous material found in the garbage bag;
 3. Collection contractor injury rate;
 4. Collection route impacts (collection time, etc.);
 5. Impacts at Waste Management Facilities; and
 6. Incidence of illegal dumping complaints.
- C) That external resources to support the implementation of the clear garbage bag pilot project be retained to provide the following:
- i) An initial communication strategy and support in the planning and operating phases of the clear garbage bag pilot, including the distribution of educational material to residents in the pilot areas of the Municipality of Clarington and discussions with retail outlets and/or clear bag suppliers related to the supply of clear garbage bags to pilot project residents; and
 - ii) Waste audits to establish the baseline for the performance measures and to measure performance in the clear garbage bag pilot area in the Municipality of Clarington as compared to non-pilot areas located in other Regional Municipality of Durham municipalities during the pilot.
- D) That the pilot program costs, currently estimated at \$530,000 exclusive of taxes (2023 costs), be included in the proposed Business Plans and Budget for Waste Management Services in the applicable year and subject to the approval of Council; and
- E) That additional details regarding the Regional Municipality of Durham's waste management education programs in partnership with local school boards and details regarding the City of Orillia's clear garbage bag requirement be received for information.
-

Report:**1. Purpose**

- 1.1 This report provides an outline and timing of a proposed pilot project to study the impact of using clear garbage bags on waste diversion and driver safety in the Municipality of Clarington (Clarington).
- 1.2 In addition, this report also provides an update on the education program delivered by Waste Management Services staff in the Regional Municipality of Durham (Region) school boards and on the implementation of a clear garbage bag requirement in the City of Orillia (Orillia).

2. Background

- 2.1 At its meeting on January 26, 2022, Regional Council passed a motion directing staff to implement a one-year clear garbage bag pilot program in Clarington, and to report on the details of “how the clear bag program will be done, when, what the cost is, etcetera” at the April 2022 Regional Council meeting.
- 2.2 Report [#2022-WR-3](#) “Proposed Pilot of Mandatory Clear Garbage Bag Use in the Municipality of Clarington” was presented at the April 6, 2022, Works Committee meeting included the following information:
 - a. The previous clear garbage bag pilot conducted in the City of Pickering (Pickering) and Clarington in 2009 resulted in an approximately three per cent increase in diversion and a 14 per cent increase in the Green Bin participation rate. However, based on the extensive promotion and education program provided to residents participating in the pilot, the impact of clear garbage bags could not be distinguished from the impact of the additional resident education and awareness.
 - b. Results from other municipalities with clear garbage bag programs vary, with diversion rate increases that are temporary or inconclusive.
 - c. Conducting another clear garbage bag pilot will require significant effort, cost, and staff time, including consultant support to conduct the required waste audits and impact analysis.
 - d. Clear garbage bags are not an effective diversion tool in multi-residential buildings where garbage from all residents is comingled in common

collection bins and cannot be traced to a specific unit for compliance with diversion programs.

- e. The results of the pilot will be one of several considerations in the staff's recommendation to Council on whether or not to expand the program permanently throughout Durham Region. Implementing a clear bag program in one municipality alone will produce a negligible impact on the Region's overall diversion rate.

- 2.3 The Works Committee referred Report #2022-WR-3 back to staff until the September 7, 2022 Works Committee meeting.
- 2.4 At the September 7, 2022 Works Committee meeting, Report [#2022-WR-4](#) titled "Update on the Proposed Clear Garbage Bag Pilot in the Municipality of Clarington" was referred back to staff for a further report at the January 11, 2023 Works Committee meeting, the second committee meeting under the newly elected Council.
- 2.5 Modifications to the original recommendations adjust the timing of the budget request and pilot to accommodate the referral of Report #2022-WR-3 to the September 2022 Works Committee. The further referral of consideration of the clear garbage bag pilot to the January 2023 Works Committee meeting has also impacted program budget and schedule.

3. Revised Timing for Clear Garbage Bag Pilot

- 3.1 The proposed operation parameters for the clear garbage bag pilot are provided in Report #2022-WR-3. The timing of the pilot has been adjusted as outlined below to reflect the referral of consideration of the clear garbage bag pilot to the January 2023 Works Committee meeting and the 2023 Waste Management Business Plans and Budget process.
- 3.2 Preparatory work for the clear garbage bag pilot in Clarington was initially proposed to begin in fall 2022 with waste audits to establish baseline quantities of Blue Box, Green Bin and household hazardous waste in the garbage bags of the proposed pilot area and a control area of non-pilot homes. Communications with retailers regarding the upcoming pilot and the need for increased retail stock of clear garbage bags were also anticipated to take place in fall 2022. The schedule for the clear garbage bag pilot has been adjusted to commence in 2025 due to the significant changes in waste management services in 2024.

- 3.3 The budget for the clear garbage bag pilot will be refined in the future 2025 Waste Management Services Business Plans and Budgets and will include planning, communication and consultant support. The estimated total cost for the clear garbage bag pilot is \$530,000 (excluding applicable taxes, 2023 projection). Work on the clear garbage bag pilot is anticipated to proceed as follows:
- a. Late 2024/First Quarter 2025 – Planning for waste audits in coordination with the auditing program developed as part of the Long-term Waste Management Plan (baseline and operating). A Communications Plan will be developed to support the pilot. The audit results will need to identify potential changes in habits as a result of the 2024 program changes;
 - b. Second quarter of 2025 - Conduct the baseline waste audit in the pilot area(s) and in non-pilot communities that will act as the control;
 - c. Second quarter of 2025 – Commence communication with retailers and residents regarding the clear garbage bag pilot and timing;
 - d. Third quarter of 2025 - Launch clear garbage bag pilot and conduct waste audits to measure the impact of the program;
 - e. Fourth quarter of 2025 – Conduct additional waste audits to measure the impact of clear garbage bag requirements; and
 - f. First/Second quarter of 2026 - Compile pilot data and report to Regional Council on results of the clear garbage bag pilot.
- 3.4 If retailers in Clarington and the surrounding area are unable to stock an adequate supply of clear garbage bags to support the timing of the pilot, the Region may need to provide clear garbage bags to every household in the pilot area. The additional cost of supplying clear garbage bags is unknown at this time and will be included in the proposed 2025 budget request, if necessary. It is anticipated that the delay of the commencement of the pilot may allow for additional communication time, reducing the likely need to incur this expense.
- 3.5 The objectives and measurements for the clear garbage bag pilot as originally outlined in Report #2022-WR-3 remain unchanged.

Implications of Revised Timing

- 3.6 Waste management services will see significant changes to its operations in the 2024 calendar year due to new regulatory requirements and contract expirations.
- 3.7 The transition of the Region's Blue Box Program to producer responsibility is scheduled to occur on July 1, 2024. This timing is determined by regulations and is not anticipated to change.
- 3.8 Although intended to be a seamless Blue Box Program transition for residents, staff are planning extensive, Region-wide communications with residents to ensure they are aware of the shift of responsibilities and potential changes to the collection vehicles on residential routes.
- 3.9 The Region's organic processing contract also expires on June 30, 2024, meaning the Region's Green Bin Program may be changed as of July 1, 2024, to align with programming changes that may be possible under a new organic processing contract.
- 3.10 The Region's most visible and high-volume diversion programs will undergo significant changes in mid-2024 which could impact the value of a clear garbage bag pilot based on the extensive promotion being planned to accompany changes to the Blue Box and Green Bin programs. Due to the changes occurring in 2024, the clear garbage bag pilot is planned to be deferred until 2025.

4. Additional Details and Clarification of the Proposed Clear Garbage Bag Pilot

- 4.1 The baseline waste audits, and follow-up audits will be conducted on select collection routes in Clarington that are in the pilot area and on select routes in non-pilot municipalities (i.e., Pickering and Township of Scugog). The same routes will be audited before and during the pilot to establish the baseline and measure changes in residents' behaviour after the implementation of a clear garbage bag requirement.
- 4.2 There will be a phase-in period at the start of the pilot to allow residents to adjust to the new requirements as has been done with previous waste collection program changes. During this time, additional education will be provided to non-compliant households to encourage proper participation in the program.

- 4.3 Measurement of any increased use by Clarington residents of the Region's Waste Management Facilities for garbage disposal during the pilot will be necessary. The approach for obtaining this measurement is being investigated but will be designed to minimize the impact on residents use and access to the Waste Management Facility.

Zero Tolerance

- 4.4 A zero-tolerance approach is not intended to be punitive to residents but serves to reinforce the Region's waste diversion requirements. Zero-tolerance is already used when residents use non-compostable plastic bags in the Green Bin, place grass clippings in the garbage or leaf and yard waste or have more than four garbage bags out for collection without tags for additional bags. Enforcing collection requirements incentivizes residents to use diversion programs and provides collection contractors with clear procedures that reinforce Regional waste reduction initiatives.
- 4.5 The Clear Garbage Bag pilot does not introduce any new diversion opportunities for residents who already use all Region diversion programs. Instead, clear garbage bags make it easier for collectors to see divertible material in the garbage and leave non-compliant bags at the curb. Collecting garbage bags with visible diversion items negates this benefit of clear garbage bags.
- 4.6 Collection contractors work efficiently to collect materials to complete all routes within the Region's designated collection hours. With recent labour shortages, collection contractors have been more pressed to complete routes within the required collection hours. Given the time constraints on collection contractors, simple and quick (pass/fail) parameters for collection are necessary.
- 4.7 The communities listed in the [Continuous Improvement Fund Clear Garbage Bag Program Implementation Toolkit](#) (CIF Toolkit) were reviewed to confirm the approach to prohibited materials in the clear garbage bag. All the communities indicate that recyclables and household hazardous wastes are not permitted in clear garbage bags. Food waste is also prohibited in communities that have an organics diversion program. Any bags containing materials which are prohibited may not be collected.

- 4.8 None of the CIF Toolkit communities indicate a permissible level of contamination below which the clear garbage bag may be collected. Every participating community indicated that garbage in opaque bags will be left at the curb. A zero-tolerance approach is not unique to the Region's pilot and, in most communities, any leeway for contamination provided to residents is not publicized.
- 4.9 Orillia published a Frequently Asked Questions page for the recent launch of their clear bag program. It indicates that soiled recycling, such as soiled tin foil, will be accepted in the clear garbage bags if it is less than 10 per cent of the garbage and the resident has also placed recycling containers for collection.

5. Waste Management Education Program in Durham School Boards

- 5.1 For several years Regional staff has delivered school education programs to engage Durham students in a fun and interactive manner on the importance of proper waste management practices and the impact of their choices on the environment. Engaging students also serves as a means for those students to advocate for proper waste practices in their own homes and workplaces.
- 5.2 These presentations were initially geared toward elementary schools and focused on the proper sorting of paper and packaging for inclusion in the Blue Box. Over time, the focus has shifted to include older students in secondary and post-secondary schools and to cover more complex waste management topics.
- 5.3 Currently, waste management education is offered in all four English-speaking school boards in Durham Region. The development of French language education modules is a priority for the 2022-2023 school year.
- 5.4 Waste management education has evolved to focus on complementing the Ontario Ministry of Education curriculum. With limited staff resources to provide in-person programming, video and online modules were developed for teachers to access and present independently of Regional staff. This shift pre-dated the pandemic but was beneficial with the shift to online school and virtual learning during the COVID-19 pandemic.

- 5.5 At the elementary school level, teachers can request virtual presentations that can be provided as pre-recorded videos or in real-time to allow more interaction with students. These have been available for the 2020-2021 and 2021-2022 school years and cover topics such as the 5Rs (Rethink, Reduce, Reuse, Recycle and Recover) and food waste. For the 2022-2023 school year, more detailed education modules are being developed on the 5Rs, composting, household hazardous waste and careers in waste management.
- 5.6 For secondary students, a virtual education program was launched in September 2021 to provide education modules on several waste management topics. These include Landfills and Perpetual Care, Integrated Waste Management, Energy from Waste and Careers in Waste Management. Education modules include background on the topic, lesson plans to help deliver course material in the classroom, videos and resources, and interactive activities.
- 5.7 The education modules for elementary and secondary students are available on an updated [School Programs](#) webpage.
- 5.8 In addition to the classroom resources outlined above, staff are developing a video library to support the general promotion and education program and diversify the resources provided to teachers and students. Completed videos are posted on the [#DurhamWaste - YouTube](#) channel and include topics such as Durham's Integrated Waste Management System; How to properly participate in the Green Bin program – "the Basics"; Benefits of Recycling; Safe with Your Waste Topics on medical sharps, batteries and others; Careers in Waste Management Series such as Waste Disposal Clerk, Landfill Management, and Waste Management Policy Planner; and Food Waste Reduction.
- 5.9 In 2021, the Waste Management education program reached over 4,000 Kindergarten to Grade 8 students in the Region's school boards and the virtual education program for high school was launched. Private schools are also included in the Region's education program.

6. Update on Orillia Clear Garbage Bag Requirement

- 6.1 Table 1 below outlines key aspects of waste management programs in the Region, Orillia and the Town of Markham (Markham). The comparison is provided to highlight commonalities and differences between the Region and two nearby municipalities requiring clear garbage bags.

- 6.2 The 2020 diversion rates as calculated by the Resource Productivity and Recovery Authority (RPRA) for all three communities are between 60 and 65.8 per cent. York Region's diversion rate is used as a proxy for Markham to ensure a common calculation method for diversion. A key factor in York Region's higher diversion rate is that diapers and pet waste are accepted in their Green Bin program. The Region estimates up to 10 per cent increased diversion is possible if contaminated organics, such as diapers and pet waste, are accepted in the Green Bin.
- 6.3 Both the Region and Orillia impose a garbage bag limit for curbside collection. However, Orillia allows only 20 free bags annually, while the Region allows 104 free bags annually with four bags permitted each collection period. Orillia residents must purchase bag tags for each bag exceeding the 20-bag limit. Markham does not impose a garbage bag limit.
- 6.4 In addition to garbage, the Markham instructs residents to place overflow Green Bin material in plastic bags for collection. York Region staff have indicated that all bagged material received from the local area municipalities that complete curbside collection is considered waste and sent for disposal.
- 6.5 Markham does not operate a Waste Management Facility for residents to drop off items for disposal that are not collected at the curb. Residents are directed to a private waste transfer station where tonnages are not included in Markham's or York Region's waste generation numbers.

Table 1 Waste Management Programs Comparison

	Region of Durham	City of Orillia	Town of Markham
Population	696,992	31,166	338,503
Area, km²	2,537	28.61	210.9
2020 RPRA Diversion Rate	62.8%	60.0%	65.8% (York Region)

	Region of Durham	City of Orillia	Town of Markham
Curbside Garbage Collection	Four bag limit with collection every other week at no charge	20 free bags per year with collection every other week; residents purchase additional bag tags for more than 20 bags per year	No garbage bag limit with collection every other week
Curbside Blue Box	Dual stream collected weekly	Dual stream collected weekly; includes Styrofoam packaging and trays in clear bags and plastic shopping bags	Single stream collected weekly in large boxes (not totes); cardboard bundled separately; excess recycling can be placed in clear bags
Curbside Green Bin	Weekly; limited to food waste and other 'clean' organics such as hair and tissues	Weekly; limited to food waste and other 'clean' organics such as hair and tissues	Weekly; includes diapers and pet waste and allows plastic bags; Overflow organics collected in clear bags
Curbside Bulky Items	Curbside collection by appointment	No curbside collection	Curbside collection of carpet and bulky items with garbage; appliances and metal items collected by appointment; fees may apply

	Region of Durham	City of Orillia	Town of Markham
Grass Clippings	Prohibited for disposal in any Region program	Collected as yard waste but must be tagged with garbage bag tag (i.e.: collected for a fee)	Prohibited for disposal in garbage or yard waste
Garbage Disposal Method	Durham York Energy Centre	City-owned landfill	Managed by York Region at various locations including Durham York Energy Centre, private EFW, and landfill
Garbage Bag Tag availability and cost	Sold as packs of 5 for \$12.50	Sold as packs of 5 for \$10.00	Not Applicable
Waste Management Facility	Three resident drop-off locations for \$5 minimum; sliding scale up to \$125/tonne for waste; \$250/tonne for fill material	One resident drop-off location for \$20 minimum; \$185/tonne for waste; \$370/tonne for construction and demolition waste	Residents directed to privately owned transfer station for garbage disposal where fees apply
Stated Goal of Clear Garbage Bag	Proposed pilot to measure impact on diversion	To divert additional Blue Box and Green Bin material and extend the life of the City landfill	To reduce risk of injury to collection workers and generate clean waste for EFW

	Region of Durham	City of Orillia	Town of Markham
Contamination/Privacy Policy	Proposed: Opaque bags not collected; Zero visible contamination; one privacy bag	Opaque bags not collected; up to 10% visible contamination allowed if recycling containers are out; two privacy bags	Opaque bags not collected; no publicized allowable contamination amount but collector discretion allowed; four privacy bags per clear bag

- 6.6 Orillia implemented a clear garbage bag requirement on February 7, 2022. A Council Information Report comparing waste tonnage for the first five weeks of the clear bag requirement to the same time the previous year was released on April 1, 2022.
- 6.7 The 46 per cent decrease in garbage tonnage year over year is attributed primarily to an increase in organics diversion which rose by 21 per cent. The impact of additional waste generation in 2021 due to COVID-19 stay-at-home orders is not discussed.
- 6.8 Based on the experience of other municipalities as detailed in the Attachment to Report #2022-WR-3, garbage generation generally decreases, and diversion increases in the first months to one year after the implementation of a clear garbage bag requirement. However, diversion numbers generally return to pre-clear bag levels after the first year.

7. Financial Implications

- 7.1 Costs for a clear garbage bag pilot commencing in 2025 will need to be developed closer to the timing for the preparation of the new budget. Anticipated costs include consultant support for communication and auditing, a promotion and education campaign and contractor collection costs. Estimates developed previously for the program totalled approximately \$530,000 and included funding related to additional audit, communication strategy development and implementation, as well as additional fees incurred related to the collection contract.

- 7.2 Costs will be included in the applicable Business Plans and Budget for Waste Management Services and subject to Council approval.
- 7.3 Staff will endeavour to reduce waste auditing costs by coordinating with other planned curbside audits where possible.

8. Relationship to Strategic Plan

- 8.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
 - a. Environmental Sustainability:
 - Goal 1.2: Increase waste diversion and resource recovery.

9. Conclusion

- 9.1 The proposed timing of planning activities for the clear garbage bag pilot must be revised to reflect the referral of the initial report to the September Works Committee and further referral of consideration of the clear garbage bag pilot to the January 2023 Works Committee.
- 9.2 Due to significant changes to waste management services occurring in 2024 the clear garbage bag pilot should be planned for 2025 with the program to be included in the proposed 2025 Waste Management Services Business Plans and Budget for Council approval.
- 9.3 An extensive and expanding waste education program in partnership with the four English school boards operating in Durham Region is supported. The French language programming to allow partnership with the two French language school boards is currently being developed for future implementation.
- 9.4 Clear garbage bag programs, like other waste management services, vary by municipality in the scope and purpose of the requirement. The proposed pilot for Clarington is designed to reflect the Regional Municipality of Durham's integrated waste management system, collection options and contracts and does not introduce any new diversion opportunities for residents.
- 9.5 This report has been reviewed by the Finance Department.

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

Respectfully submitted,

Original signed by:

John Presta, P.Eng., MPA
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: #2023-WR-2
Date: February 8, 2023

Subject:

Energy from Waste–Waste Management Advisory Committee (Host Community Agreement Committee) Membership Appointments

Recommendations:

That the Works Committee recommends to Regional Council:

- A) That the five applicants selected by members of the Works Committee be appointed for membership on the Energy from Waste-Waste Management Advisory Committee for a two-year term (2023-2024); and
 - B) That a copy of this report be forwarded to the Municipality of Clarington for information.
-

Report:

1. Purpose

- 1.1 The purpose of this report is to facilitate the appointment of individuals to serve as members on the Energy from Waste-Waste Management Advisory Committee (EFW-WMAC) (Host Community Agreement Committee (HCA)) for a two-year term (2023 to 2024 – Term Six).

2. Background

- 2.1 The HCA between the Regional Municipality of Durham (Region) and Municipality of Clarington (Clarington) required the establishment of a public advisory committee.

- 2.2 The Terms of Reference (ToR) for the EFW-WMAC were developed in collaboration with Clarington.

3. Previous Reports and Decisions

- 3.1 Report #2021-WR-2 dated February 3, 2021, EFW-WMAC (HCA Committee) Membership Appointments recommended Term Five (2021-2022) EFW-WMAC members.

4. Energy from Waste-Waste Management Advisory Committee

- 4.1 The purpose of the EFW-WMAC is to provide a forum for public and other stakeholders to monitor, review, learn and liaise with the Region about the Region's integrated waste management system.
- 4.2 Key topics anticipated to be addressed during the upcoming term include:
- a. Organics management program development;
 - b. Green Bin program expansion;
 - c. Transition to extended producer responsibility;
 - d. Long-term Waste Management Plan implementation activities;
 - e. Transfer station infrastructure improvements and service level optimization; and
 - f. Energy from waste performance updates from staff
- 4.3 The EFW-WMAC will meet on a quarterly basis and meetings will be open to the public.

5. Soliciting, Screening and Evaluation of Applicants

Advertising Campaign

- 5.1 The Region initiated a media advertising campaign using print and electronic media to ensure that Regional residents were aware of the opportunity to apply for membership to the next term of the EFW-WMAC (2023 to 2024 – Term Six). The submission deadline to submit applications was October 27, 2022.

Screening and Evaluation

- 5.2 The advertisement for membership stipulated that persons interested in membership on this committee must submit their resume and covering letter detailing their interest in this committee, previous committee experience, other relevant experience including details on their knowledge of waste management practices and energy-from-waste processes, and why they should be considered for this membership role.
- 5.3 The Region received five applications from residents living in Durham Region, listed in Attachment #1.

6. Relationship to Strategic Plan

- 6.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
- a. Environmental Sustainability
 - Goal #1.2 – Increase waste diversion and resource recovery.
 - Goal #1.3 – Protect, preserve and restore the natural environment including greenspaces, waterways, parks, trails, and farmlands.
 - Goal #1.4 – Demonstrate leadership in sustainability and addressing climate change.
 - b. Service Excellence
 - Goal #5.3 – Demonstrate commitment to continuous quality improvement and communicating results.

7. Conclusion

- 7.1 In accordance with the EFW-WMAC's ToR, Works Committee is requested to consider recommending to Regional Council five applicants for appointment to the next term (2023 to 2024 – Term Six) of the EFW-WMAC. Clarington Council has approved four members (Attachment #2). Once both Councils have approved their respective applicants, nine Regional residents will form the EFW-WMAC.

7.2 Regional staff has approved the five applicants for the EFW-WMAC members to serve as the Region's Council appointees. The selected applicants include:

- a. Ginette Best (Town of Whitby)
- b. Greg Gordon (Town of Whitby)
- c. Karissa Palinka (City of Oshawa)
- d. Matthew Cannon (City of Oshawa)
- e. Rochelle Fleming (City of Pickering)

7.3 It is recommended that the five applicants, outlined in Attachment #1, be selected by members of the Works Committee for appointment to the Energy from Waste-Waste Management Advisory Committee.

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

8. Attachments

Attachment #1: Regional Municipality of Durham Table of Recommended Applicants to the 2023 to 2024 – Term Six EFW-WMAC

Attachment #2: Municipality of Clarington Resolution #GG-013-23 dated January 23, 2023, for the appointment of EFW-WMAC members to the next term (2023 to 2024 – Term Six)

Respectfully submitted,

Original signed by:

John Presta, P.Eng., MPA
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer

**Recommended Applicants to the 2022 – 2023 Term Six of the
Energy from Waste–Waste Management Advisory Committee (EFW–WMAC)**

Name	Municipality	Committee Experience	Practical Experience	Other Information
Ginette Best	Town of Whitby	Yes	Yes	Environmental Science Technology - Durham College Environmental Advisor – IBM Program Owner for IBM's Waste program Experience with ISO 14001 Implements waste programs at various IBM locations in Canada Knowledge of Office Waste and Hazardous Waste, and Environmental Legislation.
Greg Gordon	Town of Whitby	Yes	Yes	Professional Engineer – Mechanical Engineering Water and Wastewater experience Ontario Power Generation and Kinectrics Received Award for waste diversion — low-cost diversion with high impact Advisory Board Work – Product development input for integrated inspection technology Direct experience with energy production
Karissa Palinka	City of Oshawa	Yes	Yes	Root Cause Evaluator, Performance Improvement – OPG PNGs Technical Engineer, Design Engineering – OPG DNNP Section Manager – Performance Engineering – OPG M.ENG (Thesis), Nuclear Engineering (publication 2022) (Ontario Tech University) BSc, Chemical Engineering (Queen's University)

**Recommended Applicants to the 2022 – 2023 Term Six of the
Energy from Waste–Waste Management Advisory Committee (EFW–WMAC)**

Name	Municipality	Committee Experience	Practical Experience	Other Information
Matthew Cannon	City of Oshawa	No	Yes	<p>Director, Facilities Operations and Business Development – Lakeridge Health</p> <p>Bachelor of Engineering and Applied Science – Mechanical Engineering, University of Ontario Institute of Technology</p> <p>Association of Energy Engineer – Certified Energy Manager, CEM</p>
Rochelle Fleming	City of Pickering	Yes	Yes	<p>Bachelor of Sc. Ed (on-going)</p> <p>Teaching in Higher Learning Certificate (on-going)</p> <p>Environmental Technology Advanced Diploma – Centennial College</p>



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

January 24, 2023

Melodee Smart, Administrative Assistant
Energy from Waste - Waste Management Committee
Via Email: melodee.smart@durham.ca; efw-wmac@durham.ca

To Melodee Smart:

Re: Appointments to the Energy from Waste - Waste Management Committee

File Number: AA.18.03 Energy from Waste - Waste Management Committee

Please be advised that, at the January 23, 2023, Council Meeting, resolution #GG-013-23 was approved; an excerpt of the resolution is as follows:

That the following individuals be appointed to the Energy from Waste – Waste Management Advisory Committee for a term ending December 31, 2024, or until a successor is appointed:

Cara Des Granges
Philip Haylock
Tenzin Shomar
Jim Vinson

Please find enclosed the applications for the appointed citizens so that you may contact them regarding meeting dates and times. The applicants have already been notified by us that their application to the Committee was successful.

Yours truly,



John Paul Newman
Deputy Clerk

JPN/cm

Encl.

c. L. Patenaude, Committee Coordinator



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: #2023-WR-3
Date: February 8, 2023

Subject:

Organics Management Plan – Next Steps

Recommendation:

That the Works Committee recommends to Regional Council:

- A) That Regional Council approve the following requirements to implement the proposed organics management program:
- i) Launch an Enhanced Green Bin that adds diapers, personal sanitary products, adult incontinence products, pet waste, pet litter, and any other material deemed processible by the Regional Municipality of Durham to the list of acceptable materials in the Regional Municipality of Durham's Green Bin program;
 - ii) With the reduction in garbage generation associated with Recommendation i), reduce the curbside garbage limit for the set out of garbage bags/cans from four (4) bags/cans every two weeks to three (3) bags/cans every two weeks with a communication and compliance plan providing appropriate resident education and support; and
 - iii) To accommodate the requirements of the Food and Organic Waste Policy Statement, Regional Council approve, in principle, the development of a Green Bin program for multi-residential buildings receiving Regional waste collection services.
- B) That Regional Council direct staff to amend By-Law #46-2011, A By-Law to Regulate the Provision of Waste Management Services Under the Jurisdiction of

the Regional Municipality of Durham, effective July 1, 2024 to reflect the above program changes; and

- C) That a copy of this report be distributed to Local Area Municipalities and the Ontario Ministry of the Environment, Conservation and Parks York-Durham District Office for their information.
-

Report:

1. Purpose

- 1.1 This report outlines the proposed short-term and long-term solution to the Regional Municipality of Durham's (Region) organic waste management needs following the cancellation of Negotiated Request for Proposal (NRFP)-1080-2021 and requests authority for staff to make necessary improvements to the Region's current waste management programs to meet the Region's immediate organics management objectives, while the implementation strategies for the long-term plan are reviewed.

2. Background

- 2.1 At its meeting of June 29, 2022, Regional Council approved the recommendation in Report [#2022-COW-22](#) to cancel the Region's Mixed Waste Pre-sort and Anaerobic Digestion Facility (AD Project) procurement process for NRFP-1080-2021 due to its significant capital costs and future operating costs associated with uncertainties due to global inflation and supply chain risks.
- 2.2 This cancellation does not negate the Region's need for a sustainable organics management plan. The Region's short- and long-term needs for ongoing organics processing using Anaerobic Digestion (AD) and meeting the following waste management plan objectives continue to include:
- a. Compliance with legislative organics diversion requirements.
 - b. Addressing the service requirements of the Region's growing population.
 - c. Managing the capacity limitations of the Region's existing waste disposal infrastructure.
 - d. Increasing environmental sustainability and climate change impacts through an increase in overall diversion.

3. Previous Reports and Decisions

- 3.1 Report [#2019-COW-17](#) titled, 'Organics Management Next Steps and Updated Preliminary Business Case' adopted wet AD as the preferred technology for the Region's long term organics management plan to maximize diversion, including green bin organics and the organic fraction of mixed garbage wastes.
- 3.2 Report [#2022-COW-22](#) titled, 'Negotiated Request for Proposal Results for the Design, Build, Operate and Maintain Contract for a Mixed Waste Pre-sort and Anaerobic Digestion Facility' provided the rationale for Regional Council to cancel the procurement process for the AD Project. Section 2 of the report provides a detailed summary of Regional Council direction between 2018 and 2022 at key decision points in the AD Project development process.

4. Ontario Food and Organic Waste Policy Statement

- 4.1 Ontario's Food and Organic Waste Policy Statement (Policy Statement) requires municipalities to achieve:
 - a. 70 per cent waste reduction and resource recovery of food and organic waste generated by single-family dwellings in urban settlement areas by 2023; and
 - b. 50 per cent waste reduction and resource recovery of food and organic waste generated at multi-residential properties by 2025.
- 4.2 It also encourages the diversion of the following materials through organics separation programs:
 - a. Personal hygiene wastes;
 - b. Sanitary products;
 - c. Shredded paper (already accepted in Durham's green bin);
 - d. Additional paper fibre products (already accepted in Durham's green bin);
 - e. Compostable products and packaging;
 - f. Pet food (already accepted in Durham's green bin); and
 - g. Pet wastes.

- 4.3 The Policy Statement recognizes AD as a resource recovery system for sending recovered organics for further processing.
- 4.4 In 2021, the Region diverted 43 per cent of the available organics including leaf and yard waste materials in the overall single-family home waste stream. An Enhanced Green Bin and multi-residential program will help the Region achieve compliance with the Policy Statement requirements.

5. Process for Durham's Organics Management Plan

- 5.1 The next steps to move the Region's organics management plan forward comprise of short- and long-term processes. The short-term process provides operational continuity by securing third party organics processing capacity at a suitable AD facility beyond the end date of the current organics processing contract of June 30, 2024. The long-term process focuses on the future viability of the Region's AD Project. Regional staff will monitor the performance of the short-term organics management plan and adjust the long-term organics management plan requirements as appropriate.
- 5.2 Procurement for the short-term process includes a Request for Prequalification (RFPQ) followed by a Request for Tender (Tender) for wet AD processing of the Region's food and organic waste for a ten-year term. This term allows for the time to refine and implement a long-term organics management plan while meeting interim organics management requirements. A contract of such length will help to ensure competitive market pricing, cost certainty and service stability.
- 5.3 As part of the RFPQ the Region will explore the opportunities to retain, where feasible, the related environmental benefits from the diversion and/or processing of organics through the AD process, including any associated renewable natural gas (RNG) production which has been derived. The opportunity to retain title and ownership of such related RNG and/or other environmental attributes may provide additional benefits towards meeting the Region's corporate sustainability objectives and greenhouse gas (GHG) emission reduction targets (i.e., net zero GHG emissions for corporate operations by 2045). Assuming such opportunities are available (e.g., utilization of RNG in Regional operations through natural gas procurement program), they will be carefully assessed to ensure that they provide a reasonable, cost-effective means for achieving corporate sustainability objectives, while ensuring that the organics processing contract itself achieves the best value to taxpayers.

- 5.4 To further inform the Region on potential opportunities for obtaining RNG for use within the Region's natural gas procurement program, the Region has undertaken a parallel, non-binding Request for Information (RFI) process to collect information on various supplier contract options including possible terms and conditions (e.g. contract duration, minimum volume amounts), pricing and potential carbon reduction (RFI open until February 10, 2023). Any market information collected will assist staff in the assessment of any related vendor feedback as obtained through the RFPQ process noted above regarding the potential sharing of RNG and/or any related environmental benefits.
- 5.5 The Notice of Planned Procurement was issued on December 15, 2022. The RFPQ will be issued in 2023 followed by the tender to ensure a new processing contract is in place for July 1, 2024.

6. Enhanced Green Bin Program

- 6.1 Wet AD continues to be the Region's preferred organics management technology.
- 6.2 Wet AD will allow additional materials to be included in an Enhanced Green Bin program including diapers, personal sanitary products, incontinence products, pet waste, pet litter and, in some cases, compostable packaging.
- 6.3 Although wet AD technology is efficient at the separation of plastic film during processing and an enhanced Green Bin program will include materials with plastic film that can be separated by wet AD, staff recommend maintaining the requirement for 100 per cent compostable green bin liner bags, kraft paper bags or paper wrapping for organics. Maintaining compostable bag requirements will help reduce AD residue requiring disposal as waste, maximize the quality of digestate for further beneficial use, and is consistent with the federal Single-use Plastics Prohibition Regulations (SOR/2022-138). This requirement supports the environmental goals of Durham Region's Strategic Plan and Long-term Waste Management Plan.
- 6.4 The additional materials in an Enhanced Green Bin program represent the potential for approximately 10,000 annual tonnes being removed from the waste in garbage bags and diverted from the Durham York Energy Centre (DYEC). The additional diversion will preserve disposal capacity at the DYEC and assist the Region in meeting its Long-term Waste Management Plan target of diverting an additional 10 per cent organics from disposal by 2026.

- 6.5 An Enhanced Green Bin program will provide a significant service level improvement for residents, allowing the odorous items in the garbage to be collected weekly in the Green Bin instead of bi-weekly in the garbage.
- 6.6 A Promotion and Education campaign will be planned to e-launch the Enhanced Green Bin program to include details and the enhanced list of acceptable materials. Distribution of additional green bins may be a part of this program to support residents in accommodating larger volumes of material.
- 6.7 While Durham processes all green bin program materials collected in the Region, the City of Oshawa and the Town of Whitby collect the green bin materials in their respective municipalities. Regional staff will work with the City of Oshawa and the Town of Whitby to ensure the implementation of a coordinated Enhanced Green Bin program.

7. Multi-residential Enhanced Green Bin Program

- 7.1 The Region provides Blue Box and garbage collection to multi-residential buildings that meet the Region's requirements outlined in Schedule P of Waste Management By-law #46-2011. Multi-residential buildings that do not meet the requirements manage their waste with private contractors.
- 7.2 Durham does not have a multi-residential Green Bin program. Multi-residential organics represent the Region's largest opportunity for additional waste diversion beyond expanding the curbside Green Bin program. Currently, 415 multi-residential properties (25,961 units) receive municipal waste collection services as noted in Table 1 below. This housing stock is the Region's fastest growing housing sector.

Table 1: Multi-residential properties serviced by the Region (July 2022)

Municipality	# Multi-residential Properties Serviced	Total # of Individual Units Serviced
Oshawa	219	13,131
Whitby	76	4,207
Pickering	35	3,660
Ajax	34	3,124
Clarington	26	945
Uxbridge	15	511
Scugog	4	138
Brock	6	245
TOTAL	415	25,961

- 7.3 In 2021, food waste, diapers, personal hygiene products, incontinence products, pet waste and pet litter represented approximately 40 per cent of total waste generated by Durham's multi-residential sector.
- 7.4 A multi-residential Green Bin program will require a multi-year implementation plan for logistics including significant participation from property managers, particularly those in buildings that have limited storage capacity.
- 7.5 Multi-residential buildings currently under development will be informed of the upcoming changes with a request for appropriate accommodations. Organics management will be included in the future multi-residential development review process.
- 7.6 A communications plan will be developed to implement an enhanced Green Bin program including multi-residential customers.

8. Reducing the Curbside Garbage Bag Limit

- 8.1 The Enhanced Green Bin program will reduce the quantity of garbage requiring processing at the DYEC allowing a reduction in the current garbage bag limit for residential garbage set outs from four bags/cans every other week to three.
- 8.2 Curbside studies (surveys) conducted in the fall of 2022 determined that approximately 80 per cent of Durham residents set out three bags/cans or less.
- 8.3 Allowing for more materials to go in the Green Bin will provide residents with a convenient method to get rid of odorous waste weekly rather than every other week in the garbage. The reduction of the garbage bag/can limit from four to three will also encourage residents to put more organics in the Green Bin rather than in the garbage stream.
- 8.4 The Region will continue to offer additional, free garbage bag tags to residents that request and qualify for an exemption based on medical conditions and/or family size. Residents will still be able to purchase garbage bag tags.
- 8.5 Compliance with the three garbage bag limit will start with an education period and compliance efforts will be phased in to allow residents to adjust to the new set out limit. Staff will monitor the bag limit reduction to determine if accommodations for spring and fall clean-ups are required.
- 8.6 Prior to implementing the new limit, a communication campaign will be implemented to inform residents of the change and enhanced options to divert garbage will be undertaken.

9. Preserving Capacity at DYEC

- 9.1 The launch of an Enhanced Green Bin and multi-residential green bin program coupled with a reduction in the garbage bag/can limit is anticipated to decrease the waste tonnage being processed at the DYEC or requiring disposal at landfill. The Region continues to seek additional opportunities to optimize diversion programs thereby delaying future expansion requirements, including those involving managing organics. New and planned regulations at the Federal and Provincial level will also reduce garbage being sent to the DYEC. Part of these plans also include optimizing the design and operations at the Region's Waste Management Facilities, starting with the Oshawa Waste Management Facility.
- 9.2 It remains the Region's objective to delay expansion of the DYEC beyond 2030.

10. More Homes Built Faster Act (Bill 23)

- 10.1 Bill 23 sets housing targets for several lower tier municipalities in Ontario including the eight local area municipalities of Durham Region. In most cases, the Bill 23 targets are higher than targets currently in the Durham Growth Management Study.
- 10.2 The increased housing targets for Durham Region will result in higher demand for waste management services including waste diversion and disposal. The Region will need to ensure planning for future programs and infrastructure is adequate to accommodate higher population estimates.
- 10.3 In general, Bill 23 will reduce the Region's ability to predict local growth and the resulting impacts on Regional infrastructure. This uncertainty must be considered when planning the long-term organics management solution.

11. Long-term Organics Management Solution

- 11.1 The AD Project is the preferred long-term organics management solution for the Region. Council approved the AD Project as a necessary measure to address the Region's projected waste management needs in an environmentally responsible manner. The benefits of the AD Project remain:
 - a. **Renewable Natural Gas (RNG) and GHG Reduction:** Durham Region declared a climate emergency in 2020 and developed a Corporate Climate Action Plan (CCAP) to guide efforts to reduce greenhouse gas (GHG) emissions from Region operations. The AD Project would potentially provide significant GHG emission reductions for the Region, assuming produced RNG is utilized in Regional facilities displacing conventional natural gas requirements and not sold. Furthermore, internal utilization of RNG would displace conventional natural gas purchases and avoid related costs where the market for natural gas has become increasingly volatile in recent years. There is also the potential to avoid the federal carbon fuel surcharge tax with the blending of RNG for internal use.
 - b. **Legislative Compliance:** The AD Project will ensure the Region is compliant with anticipated regulations for banning organics from landfills and for recovering food waste and other organics.

- c. **Increased Waste Diversion:** The AD Project will help the Region divert over 70 per cent of its organic waste from curbside collection program to AD and at least 50 per cent from its multi-residential collection program.
- d. **Delay DYEC Expansion:** The AD Project will allow the Region to preserve capacity at the DYEC and delay the need for expansion.

12. Financial Implications

- 12.1 Staff estimates at this time that an enhanced Green Bin program will result in a net operating cost increase between \$0.4 million and \$1 million annually. Program costs will be finalized upon the date of implementation.
- 12.2 Staff is investigating costs for a multi-residential green bin program and will submit a further report that details the logistical and financial implications in 2023.

13. Relationship to Strategic Plan

- 13.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
 - a. Goal 1.1 Accelerate the adoption of green technologies and clean energy solutions through strategic partnerships and investment
 - b. Goal 1.2 Increase waste diversion and resource recovery
 - c. Goal 1.4 Demonstrate leadership in sustainability and addressing climate change
 - d. Goal 5.1 Optimize resources and partnerships to deliver exceptional quality services and value

14. Conclusion

- 14.1 In the short-term, a 10-year term service contract for organic processing capacity is being planned to manage an Enhanced Green Bin program. To support this program, staff propose revising Waste Management By-law # 46-2011 to permit a wider range of material in the Green Bin program such as diapers and pet waste.
- 14.2 In addition, it is recommended to implement a source separated organics program for multi-residential properties serviced by the Regional Municipality of Durham for meeting Provincial multi-residential food and organic waste reduction requirements.

14.3 This report has been reviewed by the Legal Services Division of the Corporate Services Department and the Finance Department.

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

Respectfully submitted,

Original signed by:

John Presta, P.Eng. MPA
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: #2023-W-8
Date: February 8, 2023

Subject:

Outline of Noise Attenuation Guidelines and Policies for Regional Road Corridors

Recommendation:

That the Works Committee recommends that this report be received for information and forwards it to Regional Council for information.

Report:

1. Purpose

- 1.1 The purpose of this report is to provide an outline of the Regional Municipality of Durham's (Region) current noise attenuation guidelines and policies for the installation and maintenance of noise attenuation barriers on or adjacent to Regional road corridors. A noise attenuation barrier is a wall, berm, wall/berm combination or similar structure used as a noise control measure.

2. Background

- 2.1 The Regional Official Plan and Transportation Master Plan both identify the importance of considering noise from transportation facilities, given the appreciation for the resulting impacts on the liveability and health of residents. As development intensifies along Regional road corridors, the number of people exposed to road-related noise will increase. As a result, noise attenuation guidelines and policies are in place to minimize these impacts in accordance with provincial guidelines.
- 2.2 Currently, the Region has guidelines and policies for the installation and maintenance of noise attenuation barriers associated with new residential

development applications and Regional road expansion projects. However, the Region has been receiving petitions from residents requesting assessment and mitigation for existing homes adjacent to Regional roads where no road expansion work is planned (i.e. retrofit). In addition, there have been requests for the replacement of private noise attenuation walls that were built for earlier developments.

2.3 A summary of the four situations of noise mitigation and related guidelines including policies are as follows:

a. New Residential Development

- In 1982, Regional Council adopted a policy authorizing the Planning Department to assume the noise assessment functions and related matters from the Ministry of the Environment (now Ministry of the Environment, Conservation and Parks) in the review of plans of subdivision and other noise related concerns to the Region.
- In 1991, Regional Council adopted a policy stating that the impacts of noise, based on traffic volumes projected for the mature state of development designated in the Official Plan, on residential development proceeding by a plan of subdivision and condominium be considered as a factor in determining the design of the plan, among other policies.
- As part of the development process, applicants will provide the Region and the Local Area Municipality (LAM) with a noise study for developments close to an arterial roadway and in other selected circumstances.
- As a condition of development, the proponent may be required to implement noise mitigation measures that may include a noise attenuation barrier.
- Notices of some noise warnings and mitigation requirements are to be included in developer agreements and individual purchase agreements.
- Property owners or LAM in some locations are responsible for the ownership and maintenance of the noise attenuation barriers, although many residents are not aware of their ownership and maintenance responsibilities.
- Noise attenuation walls are to be constructed entirely on private property. This was previously not the case in the Region with some built on the property line or within the 0.3 metre reserve owned by the Region.

- Minimal lengths of noise attenuation barriers are now being constructed because of changing development style (e.g. window streets, minimal side/rear lot properties adjacent to Regional roads).

b. Regional Road Expansion

- Regional road expansion, including new road construction or the widening of existing roads for new through lanes, near existing residential development may cause noticeably increased noise levels in rear yard outdoor living areas (OLA).
- The need for noise attenuation in these circumstances is normally established through the Municipal Class Environmental Assessment (EA) study process that precedes the detailed design and construction of any project.
- The analysis and recommendations related to noise impacts on existing residential development areas (specifically the OLA) adjacent to the expansion of a Regional road follows the MECP methodology (which uses modelling and not measurements) and current publications on Noise Assessment Criteria.
- In 2012, Regional Council approved a policy which identifies that a noise level threshold of 60 dBA within an OLA, based on the mature state of development, will trigger the installation of a noise attenuation barrier for new road expansion construction projects, provided that a minimum sound level reduction of six decibels is achieved, and it is technically and economically feasible.
- All costs associated with the analysis, design and provision of noise attenuation measures, typically in the form of walls, are the responsibility of the Region.
- Noise attenuation walls are typically constructed within the Regional right-of-way (ROW) or on an easement granted to which the Region has access and are owned and maintained by the Region.
- Noise attenuation walls which must be located outside of a Regional ROW shall be owned and maintained by the LAM or the private property owner.
- Commonly, most urban road expansion projects include noise attenuation wall construction where backyards are immediately abutting the Regional ROW and currently do not have some form of noise mitigation.

c. Retrofit of Privacy Fences to Noise Attenuation Walls

- As communities in the Region continue to grow, so do traffic volumes on Regional roads. Therefore, areas of existing residential development near Regional roadways may experience increased noise levels.
- In corridors where there is no road expansion planned in the near term, residents have requested that the Region replace their privacy fence with a noise attenuation wall.
- There is no legislation compelling the Region to undertake any work related to the provision of noise attenuation measures in a retrofit situation.
- Ontario Regulation 119/03 under the *Municipal Act 2001 (O. Reg. 119/03)*, formerly *Local Improvement Act*, notes that “constructing noise abatement works on a highway” is work that may be undertaken as a local improvement, which provides a mechanism for undertaking, administering and financing infrastructure improvements and can include joint funding through local improvement charges between the property owner(s) and the municipality.
- Some other Ontario municipalities have a retrofit policy in place using this mechanism with varying minimum parameters and conditions, including a cost-sharing between the municipality and the benefiting property owner(s).
- These cost-shared programs have had very limited success due to various factors. For example, York Region has advised that since their policy, which includes a 50/50 cost-sharing, was put in place in 2006 no retrofit noise attenuation barriers have been constructed due to issues such as the minimum benefit criteria not being met (e.g. 6 dB reduction, 5 continuous houses, etc.), residents not agreeing with the assessment criteria, elevated decks not being considered separately, homeowner funding and future responsibility, and impacts to private property.
- The Region does not have a retrofit policy and Regional staff are of the opinion that given the success rate in other jurisdictions, a cost-shared policy can create an unrealistic expectation and frustrating experience for homeowners, along with requiring significant staff resources. However, this does not prevent a group of homeowners from replacing their privacy fence with a noise attenuation wall.
- The estimated cost to retrofit all the rear lot properties adjacent to a Regional road is \$100 million, excluding additional costs for ongoing maintenance and future replacements. Detailed Regionwide study work would be required to develop a detailed and more accurate cost estimate.

d. Replacement of Private Noise Attenuation Walls

- As communities age, noise attenuation walls need to be replaced and the Region has received requests to construct and pay for these replacements.
- The Region has taken the position that private noise attenuation walls, along with privacy fencing, are the responsibility of adjacent homeowners.
- In 2009, Regional Council confirmed that the Region's core maintenance responsibilities continue to exclude maintenance and replacement of rear lot fencing, including noise attenuation barriers, along Regional road corridors.

2.4 Considering the costs of noise attenuation walls constructed as part of Regional road expansion projects, and the recent substantial price increases for materials and supplies, noise attenuation walls are estimated to cost approximately \$2,000/per square metre or \$4,800 per metre for a typical 2.4 metre high wall. This estimate is for a Region standard concrete/composite or cedar wood design, both of which have comparable costs which includes removal of existing fencing, installations of catchbasins/outlets, grading, general items, design, tender and contract administration. Homeowners are likely to be able to replace their privacy fence with a wood fence that includes noise mitigation properties by using a lower design standard and therefore lower cost. The Region's standard, given our maintenance and replacement responsibility, includes items such as structural design for wind resistance and long-life steel posts. Homeowners, having different life-cycle considerations can install a lower cost wall.

3. Previous Reports and Decisions

- 3.1 On July 9, 2003, Regional Council approved Report #2003-W-104 which proposed guidelines for the installation and maintenance of noise attenuation barriers on a site-specific basis and based on specific criteria. (Report provided as Attachment #1 to Report #2012-W-83, link is provided below.)
- 3.2 On November 25, 2009, Regional Council approved Report #2009-J-46 wherein Regional Council confirmed that given the Region has never maintained or replaced rear lot fencing including noise barriers along Regional road corridors, and that the responsibilities associated with maintaining fencing along Regional road corridors would be new to the Region and would require both significant financial and staffing resources, the Region's core maintenance responsibilities continue to exclude maintenance and replacement of rear lot fencing along Regional road corridors.

- 3.3 On June 27, 2012, Regional Council approved [Report #2012-W-83](#) which included a policy and guidelines for the installation and maintenance of noise attenuation barriers associated with Regional road expansion projects.

4. Relationship to Strategic Plan

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

a. Goal 2: Community Vitality

2.2 Enhance community safety and well-being

b. Goal 5: Service Excellence

5.1 Optimize resources and partnerships to deliver exceptional quality services and value

5.3 Demonstrate commitment to continuous quality improvement and communicating results

5. Conclusion

- 5.1 The Regional Municipality of Durham's current noise attenuation guidelines and policies for the installation and maintenance of noise attenuation barriers on or adjacent to Regional road rights-of-way will continue to be followed. This includes requirements for privately owned noise mitigation where warranted as part of new residential developments and Region owned noise mitigation where warranted for Regional road expansion projects adjacent to under-protected Outdoor Living Areas (OLA).
- 5.2 This report has been reviewed by the Planning and Economic Development Department.
- 5.3 For additional information, please contact James Garland, Senior Project Manager, Transportation Design, at 905-668-7711 extension 3439, or Paul Gee, Manager, Transportation Infrastructure, at 905-668-7711, extension 3441.

Respectfully submitted,

Original signed by:

John Presta, P.Eng., MPA
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer

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



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: #2023-W-9
Date: February 8, 2023

Subject:

Sole Source Approval to Award Maintenance Service and Parts Supply Agreement for Ultraviolet Light Disinfection Equipment Installed at Various Water Supply and Wastewater Treatment Facilities

Recommendations:

That the Works Committee recommends to Regional Council:

- A) That staff be authorized to enter into a sole source maintenance service and parts supply agreement with Trojan Technologies at an upset limit of \$275,000* per annum with a term not to exceed five (5) years; and
 - B) That financing for the sole source maintenance service and/or parts supply agreement be provided from the approved and future annual Water Supply System and Sanitary Sewerage System Business Plans and Budgets.
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Report:

1. Purpose

- 1.1 The purpose of this report is to seek authorization to enter into a sole source maintenance service and parts supply agreement with Trojan Technologies for the existing and planned ultraviolet disinfection (UV) equipment installed at various Regional Municipality of Durham (Region) water supply and wastewater treatment facilities.
- 1.2 Dollar amounts followed by an asterisk (*) are before applicable taxes.

2. Background

- 2.1 The Region has six (6) ultraviolet disinfection equipment installations throughout the various water supply facilities and three (3) installation within the wastewater treatment facilities. Capital upgrades at one (1) more wastewater treatment facility will expand this inventory. This existing equipment was procured through the Region's standard procurement process associated with capital work tenders and were publicly tendered from 2003 through 2022, as well as through negotiated agreements for plant expansions where Trojan Technologies' systems were the only available product that met the technical specifications.
- 2.2 Specialized testing of some components is required to comply with the Ministry of the Environment, Conservation and Parks (MECP) Environmental requirements or the Region may be at risk of non-compliance. The MECP provides the guidelines for maintenance that must be followed by the Region in these circumstances.
- 2.3 With some UV treatment installations operating for nearly 20 years, maintenance requirements are more frequent and continually increasing. The use of a maintenance service and parts supply agreement will streamline the procurement activities that will continue to occur as this equipment ages.

3. Previous Reports and Decisions

- 3.1 Works Committee Report #2022-W-37, approved by Regional Council on September 29, 2022, authorized staff to enter into a sole source agreement with Trojan Technologies for the supply of UV disinfection units treatment to meet the performance and size specifications for the expansion of the Newcastle Water Pollution Control Plant.

4. Rationale for Sole Source

- 4.1 UV disinfection systems are a necessary component in the treatment and provision of final effluent discharge to the receiving water course and safe drinking water for communities.
- 4.2 To maintain the equipment warranties, regularly scheduled maintenance must be conducted as specified by the manufacturer. This specialized maintenance must be done by the manufacturer's qualified and trained personnel to uphold the warranty. Consumable spare parts, replacement components, and other maintenance items can only be obtained through the original manufacturer.

- 4.3 The service life of the existing installations ranges from 1 to 18 years. Planned maintenance activities including lamp replacement, UV sensor factory calibration, etc. are a function of operating hours. Component replacement activities are a function of the age of the equipment and require continued support from the manufacturer as they transition to newer product lines.
- 4.4 Some of the Region's older installations require an onsite reserve of additional spare parts to maintain operational readiness as the manufacturer's available inventory declines. Parts are manufacturer-specific and cannot be obtained from another supplier as the design of the physical and treatment designs vary between manufacturers. In addition, specialized maintenance and inspection services need to be procured and scheduled, which includes the calibration of the UV sensors. Existing compliance approvals require that this calibration is completed by the manufacturer of the equipment.

5. Financial Implications

- 5.1 Section 7.2 of the Region's Purchasing By-law #16-2020, permits the acquisition of goods and services through sole source negotiations under specific circumstances outlined in Appendix "C" of the by-law.
- 5.2 Section 1.1 of Appendix "C" permits negotiations for goods or services that can be supplied only by a particular supplier where no reasonable alternative or substitute goods or services exist to ensure compatibility with existing good or to maintain specialized goods that must be maintained by the manufacturer of those goods or its representative.
- 5.3 Appendix "D" to the by-law requires approval by the appropriate standing committee and Council for the award of sole source contracts that exceed \$100,000 in value, with the Commissioner of Finance authorized to execute the agreements upon Council's approval.
- 5.4 Financing for the maintenance service and/or parts supply agreement, estimated at an annual cost of \$275,000*, will be funded from the various annual Water Supply and Sanitary Sewerage Business Plans and Budgets.

6. Relationship to Strategic Plan

- 6.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
- a. Service Excellence Goal #5.1: Optimize resources and partnerships to deliver exceptional quality services and value; and

- b. Service Excellence Goal #5.2: Collaborate for a seamless service experience.

7. Conclusion

- 7.1 It is recommended that Regional Council authorize the award of a sole source maintenance service and parts supply agreement to Trojan Technologies for the maintenance of ultraviolet disinfection equipment installed at various Regional water supply and wastewater treatment facilities.
- 7.2 This report has been reviewed by the Finance Department and the Commissioner of Finance concurs with the financial recommendations.
- 7.3 For additional information, contact: Rich Tindall, Manager, Plant Operations, 905-668-7711 ext. 3547.

Respectfully submitted,

Original signed by:

John Presta, P.Eng., MPA
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer