

Staff Report 2024 WR-7

“Response to Questions Raised by Municipality of Clarington Council in Correspondence Received at the June 5, 2024 Works Committee Meeting” further to proposed increase of tonnage burned at DYEC from 140,000 tpy to 160,000 tpy

To: November 6, 2024 Works Committee

Linda Gasser

Table 2: Estimated Durham Disposal Costs (2019 to 2023)
 (\$ Millions)

	2019	2020	2021	2022	2023
Covanta Operating Fee	13.2	13.5	13.7	14.0	14.2
Property Taxes	0.5	0.5	0.6	0.6	0.6
Non-Covanta Operating Costs (gross costs)	0.9	0.9	0.9	1.0	1.0
Non-Covanta costs	1.4	1.4	1.5	1.6	1.6
Total Gross Costs	14.6	14.9	15.2	15.6	15.8
<u>Revenues</u>					
Electricity Revenues (IESO)	(7.0)	(7.1)	(7.1)	(7.2)	(7.2)
Materials Recovery Revenues	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
sub-total Revenues	(7.5)	(7.6)	(7.6)	(7.7)	(7.7)
Net Durham DYEC Cost	7.1	7.3	7.6	7.9	8.1
Covanta landfill disposal (beyond DYEC capacity)	0.9	0.9	1.2	1.6	2.0
Status Quo Cost of Disposal	8.0	8.2	8.8	9.5	10.1
With DYEC ECA Administrative Amendment:					
Reduced Covanta Operations Fee > 140,000 tonnes	0.0	(0.4)	(0.6)	(0.9)	(1.3)
Additional Revenues (IESO and material recovery)	0.0	(0.9)	(1.1)	(1.3)	(1.3)
Covanta landfill disposal (beyond 125,720 tonnes)	0.0	0.0	0.0	0.1	0.5
Sub-total Amendment Savings	0.0	(1.3)	(1.7)	(2.1)	(2.1)
Total Cost of Disposal	8.0	6.9	7.1	7.4	8.0



Footnotes for Table 2 in Report 2019-COW-3 (prev. slide)

Footnotes:

1. Reduced Covanta fee based on deduction of landfill charge and reduced processing fee for tonnages beyond 140,000 tonnes processed (estimated at \$35.45 per tonne in 2019, increasing to an estimated \$38.03 per tonne by 2023). It is assumed York Region uses its full 21.4 per cent share of amended capacity.
2. Includes materials recovery facility residue tonnes, which are the cost responsibility of the MRF contractor (approximate recovery of \$0.3 million).
3. Landfill fees are assumed to escalate from \$90.00 per tonne in 2019 to \$98.21 per tonne in 2023.
4. Power revenues escalation estimates are based on 35 per cent CPI per the IESO Power Purchase Agreement. Conservatively, revenues for ferrous and non-ferrous metals recoveries are not assumed to escalate.

Questions in Report Sections 3.4 and 3.12 asked about all financial costs/assumptions associated with the capacity increase & whether or not Durham/York Regions would be eligible to receive the provincial power subsidy for waste above the current 140,000 Tpy

- Staff Response: *Cost is a relevant but not primary factor for this decision. Staff time is the most significant cost associated with the capacity increase. Additional costs include consultant support for the ECA amendment to complete an Emission Summary and Dispersion Modelling (ESDM) and Acoustic Assessment. Overall, from an operating perspective, the costs of the increased capacity are net positive. The financial impact would remain beneficial to the Region since the unit processing cost payable under the contract is significantly reduced when more than 140,000 tonnes per year are processed, and the Region avoids disposal costs for material that would otherwise have been bypassed. The capacity increase is a more effective utilization of the DYEC and will reduce the quantity of waste sent to landfills. The power purchase agreement will apply to power generated under appropriate conditions, most notably at the end of the year when the facility would otherwise idle one or more boilers as it approaches its annual limit. AND*
- *Additional costs to support the ECA amendment application would be for the completion of an ESDM study and an Acoustic Assessment report. Overall, from an operating perspective, the costs of the increased capacity are net positive, and the financial impact would remain beneficial to the Region since the unit processing cost payable under the contract is significantly reduced when more than 140,000 tones per year are processed.*

ZERO \$\$ DETAILS. THAT SHOULD CONCERN YOU.

Q from Clarington Section 3.1

“Re-evaluate the 2019 assumptions about the capacity increase given programs to capture additional organics from the garbage and the Region’s recent focus on waste reduction as per the Long-term Waste Management Plan 2022-2040.

Staff: *“The drivers for the capacity increase have remained the same. Durham Region requires waste disposal capacity to meet the needs of a growing population and reduce tonnage shipped to landfills and the associated greenhouse gas emissions.”*

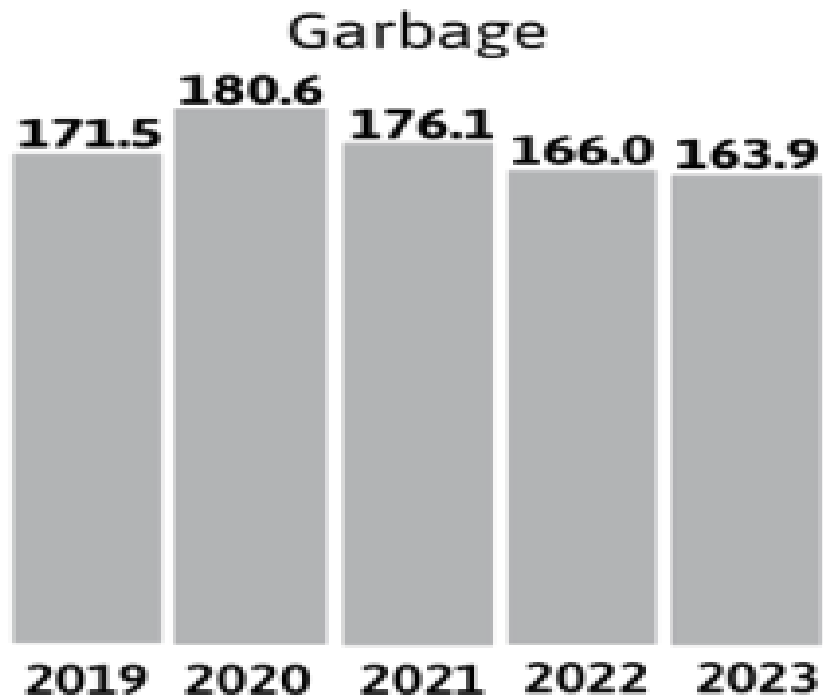
- 2023 Waste Management Report shows relatively flat garbage tonnage
- Opportunities to improve organics capture. Staff reported on page 6 of 2022 Waste Management Annual Report that **“61% of households place a green bin out for curbside collection”**.
- Updated DYEC GHGs life cycle analysis required. Staff continue to rely on OUTDATED Supplement to EA Annex E dated July 4, 2007 using ESTIMATES rather than 8 years of DYEC data.

https://www.durhamyorkwaste.ca/en/facility-approvals/resources/Documents/Annex-E-5-Supplemental_Report.pdf

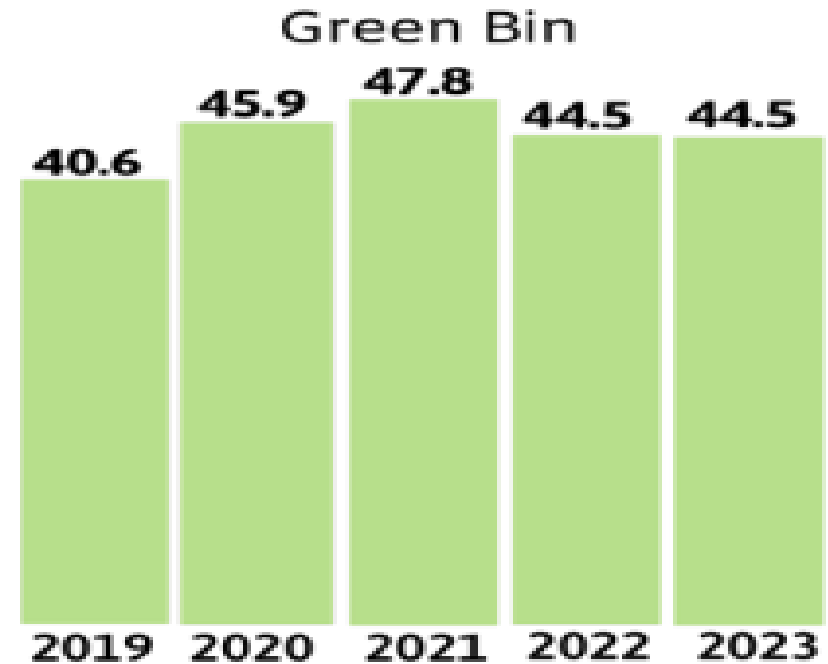
Page 8 2023 Durham Annual Waste Management Report

https://www.durhamyorkwaste.ca/en/education-and-resources/resources/Documents/2023%20Waste%20Diversion%20Reports/2023_RPT_Region_of_Durham_Annual_Waste_Management_ACC.pdf

Durham Region Waste Generation Rate (kg/capita)



Durham Region Green Bin Generation Rate (kg/capita)



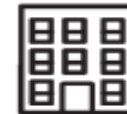
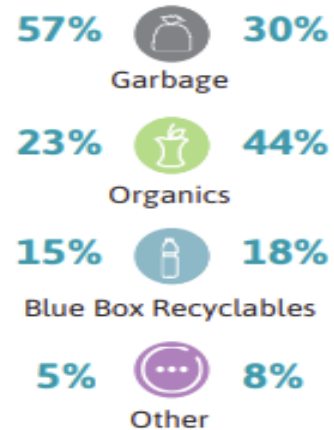
July 2024: Enhanced Green bin. Staff expect to capture more organics.
June 2025: Start of SSO collection at Multi-Res in 6 Lower Tier Munis.
Both programs would capture more organics currently in garbage.

What is in your garbage?

Waste audits took place late 2022, early 2023 including curbside setouts from 1,000 homes across Durham Region, and six multi-residential buildings.



Single Family Garbage
December 2022

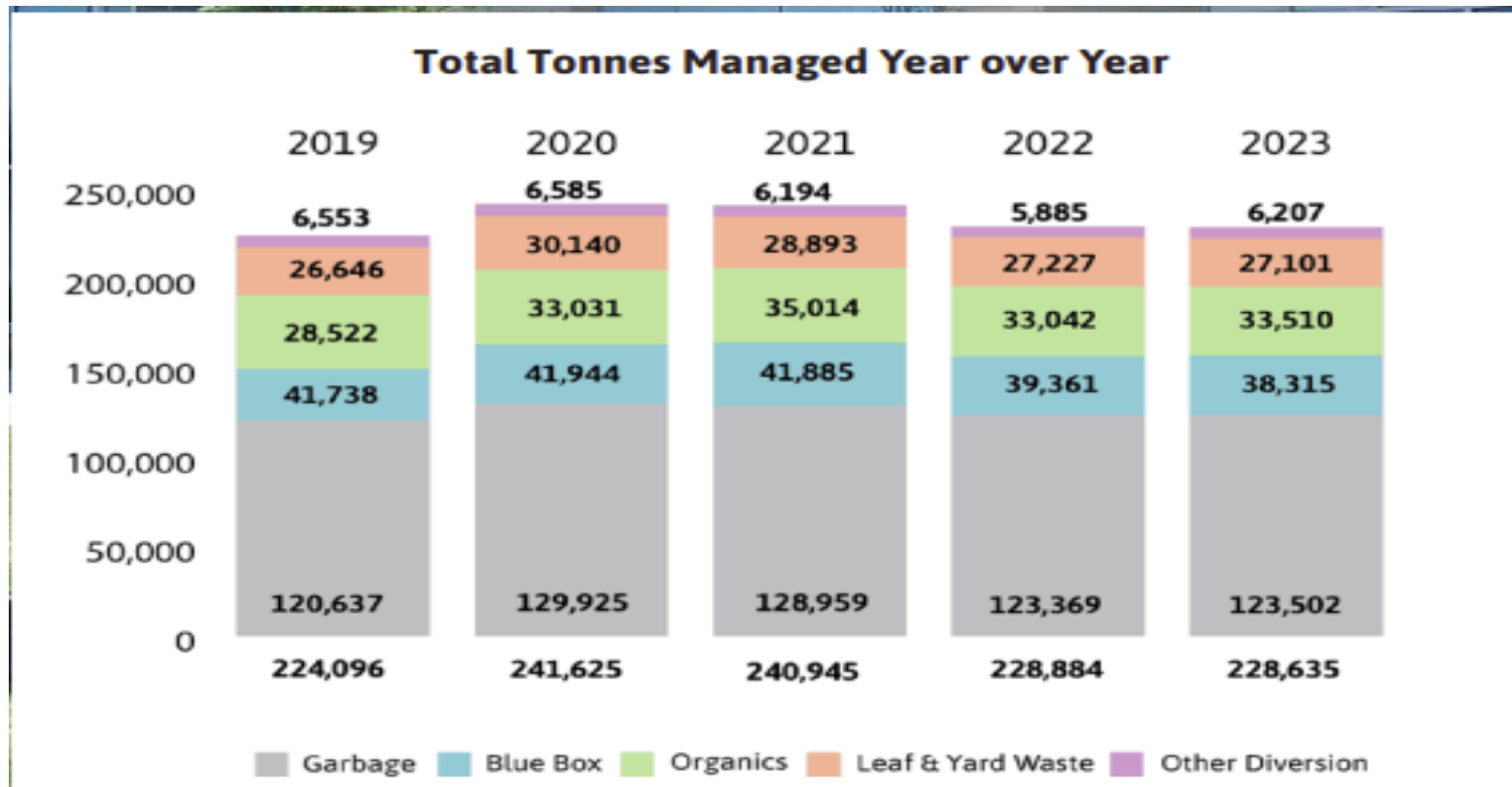


Multi-Residential Garbage
March 2023



In 2023 Durham only 13,502 Tonnes over allocated capacity of 110,000 T – This PRIOR TO Enhanced Green Bin and SSO Collection to Multi-Res.

(page 5 2023 Durham Annual Waste Management Report https://www.durhamyorkwaste.ca/en/education-and-resources/resources/Documents/2023%20Waste%20Diversion%20Reports/2023_RPT_Region_of_Durham_Annual_Waste_Management_ACC.pdf)



Compare 2021 Total GHGs for 140,000 tpy (left) vs **estimate** for 160,000 in ESR pg 60 (right)

Ontario data set –2015 to 2021

<https://data.ontario.ca/dataset/greenhouse-gas-emissions-reporting-by-facility/resource/0996bfd9-ed27-4f78-8ed1-9e024185f10a/view/2546a05c-a38b-452c-8105-17d8c7215a00>

Total C...	Reporti...	Verificat...	Accredit...
116139	57884	57884	GHD Li...
148653	75170	75170	GHD Li...
158488	69949	69949	GHD Li...
158436	72811	72811	GHD Li...
159546	71071	71071	
179097	82655	82655	
174544	82869	82869	



from DYEC

DYEC (Tonnes Processible)	GHG Contribution (tonnes CO ₂ eq)
140,000	159,545
160,000	182,337



From Intrinsic September 2024 report-Page 5, Works agenda page 69

Health is NOT specifically addressed in the ESR except for Criteria 6.11 which states that “additional modelling will be completed in the next stage of the screening process to confirm that no negative impacts will result from the tonnage increase to 160,000 tonnes per year”. It was uncertain as to whether this is referring to modelling as part of a human health risk assessment (HHRA) as was completed in 2009 as part of the original facility approvals, or if its further air dispersion modelling. However, subsequent follow-up with the Region of Durham indicated that outside of that conducted as part of the planned Emission Summary and Dispersion Modelling (ESDM) report, there is no additional modelling or monitoring planned.

Mischaracterizations re 400,000 tpy scenario

- The SSHHERA and the Ministry Review of the 2009 EA were NOT listed as documents reviewed by the Regions in assessing potential impacts of proposed throughput increase in EA Screening Report (Section 3.11, Socio-Economic, Page 68-69/138. Also NOT referenced in Sections 3.6, 3.7, 3.8, 3.9)
- Health & ecological impacts are top concerns.
- See concerns in May 22, 2024 letter from W. Bracken and L. Gasser Pages 7-8 and footnote references (attachment to this PPT)
- Dr. Kyle should have asked his reviewers to review the SSHHERA & Ministry Review, not just the AQIA and ESR.

Sample of concerns re 400,000 tpy scenario in Feb. 2010 Ministry Review

Page 80/394: Oct. 19, 2009 memo from Regulatory Toxicologist re SSHHERA and

Page 189/394 same Toxicologist dated January 11, 2010 re ANY increase beyond 140,000 t/y

<https://www.durhamyorkwaste.ca/en/resources/Archived%20Documents/Ministry%20Review%20of%20Environmental%20Assessment.pdf>

SUMMARY AND CONCLUSION

The proponent responses adequately address most of MOE's comments. However, outstanding issues identified by other MOE team members for the 400,000 t/y scenario such as emissions and deposition modeling need to be resolved before SDB would be able to thoroughly assess information, calculations, interpretations and conclusions on this scenario. In addition, the SDB

Comments on the Human Health Risk Assessment

Problem Formulation

1. The proponent indicated that the 400,000 t/y scenario is no longer included in the final report and has committed to conduct a new environmental study to support any increased capacity of the facility beyond 140,000 t/y that may occur in the future. Therefore, this comment and other comments addressing outstanding issues related to the 400,000 tonnes of waste/yr scenario are no longer relevant.

Staff statement re dioxin emissions are misleading. Staff report Sec. 3.9 b) Page 6

- ***“The D/F levels from the DYEC, and in EFW plants, in general, are extremely low compared to permit limits and limits of testing methodologies. At these low levels, the accuracy of the sampling equipment is lower, and the impact of testing and laboratory analysis errors and uncertainties increase.”***
- This myth persists where source testing is infrequent and/or where testing not conducted under Other Than Normal Operation Conditions (OTNOC) and/or where continuous sampling is either not conducted and/or not fully reported.
- Recall DYEC couldn't make it through the 2024 Spring Source Test's 3 four-hour D & F test runs without a process upset, with testing PAUSED during upset period.
- 2023 Oregon Bill 488 increased number of pollutants to be monitored or sampled continuously including dioxins & furans and a number of heavy metals, reporting to public <https://olis.oregonlegislature.gov/liz/2023R1/Downloads/MeasureDocument/SB488/Enrolled>
- Reworld to close Oregon facility, Oct. 16, 2024 (Covanta now known as “Reworld”
- <https://www.wastedive.com/news/reworld-marion-oregon-closure-letter-incinerator/729984>

PLEASE refer report back to staff directing that requested information be produced as per June 5 Works motions.

Durham Works Committee, Clarington-DYEC Host Community and residents deserve the facts

- ZERO details re capacity increase costs nor confirmation of 2019 estimates
- NO response to Clarington's motion Section g) re commitments in Host Community Agreement for monitoring review at time of ANY expansion.
- Risks identified for BOTH 140K and 160K scenarios in SSHHERA.
- Mischaracterization of 400,000 tpy scenario & reviewer comments.
- NEED for throughput increase NOT demonstrated.
- Reliance on outdated 2007 study using estimates when 8 years of data available to estimate impacts of current 140K and throughput increase on DYEC GHGs..
- **I respectfully request that Works Committee refer 2024-WR-7 back to staff, directing staff to describe costs relating to throughput increase and fully respond to Clarington's Motions and questions from Durham delegates.**

THANK YOU FOR YOUR ATTENTION. May 22.2024 letter attached to this PPT.