



# Addendum to the Energy from Waste-Waste Management Advisory Committee Agenda

Tuesday, May 28, 2024

7:00 PM

**Council Chambers**  
**Regional Headquarters Building**  
**605 Rossland Road East, Whitby**

Please note: The Region of Durham continues to hold electronic meetings for Advisory Committees with limited in-person attendance at this time. Members of the public [may view the Committee meeting](#) via live streaming. If you wish to register as a delegate regarding an agenda item, you may register in advance of the meeting by noon on the day prior to the meeting by emailing [delegations@durham.ca](mailto:delegations@durham.ca) and will be provided with the details to delegate electronically.

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## 6. Correspondence

- A) Email correspondence and five references from Linda Gasser and on Behalf of Wendy Bracken, dated May 27, 2024, re: Update by Andrew Evans, Director, Waste Management Services, the Regional Municipality of Durham, regarding Durham York Energy Centre [Item 8. E)].

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### **Recommendation: Receive for information**

References:

- 1) Letter to Regional Chair Henry and Regional Councillors, regarding: Request Update Report re DYEC throughput capacity increase to 160,000 tonnes per year & May 8th Durham Works Correspondence Item 7.1 a) letter from MECP And Delegations Works Items 6.1 and 6.3;

Pages 4 to 14

- 2) Wendy Bracken's Delegation to Works Committee, May 8, 2024, regarding: Proposed DYEC Throughput Increase to 160,000 Tonnes per Year (TPY); Pages 15 to 22
- 3) Linda Gasser's Delegation to Works Committee, May 8, 2024, regarding: Proposed DYEC Throughput Increase from 140,000 – 160,000 Tonnes per Year; Pages 23 to 29
- 4) 2010 to 2022 Diversion Rates Reported by Durham Region and from MBN Canada Annual Performance Measurement Reports; and Page 30
- 5) [Link to Host Community Agreement](#) between the Regional Municipality of Durham and the Municipality of Clarington, re: the Energy from Waste (EFW) Facility.

**From:** [Linda Gasser](#)  
**To:** [EFW-WMAC](#); [Melodee Smart](#); [Clerks](#); [Sarah Ciani](#)  
**Cc:** [Wendy Bracken](#)  
**Subject:** Correspondence for EFW WMAC May 28th agenda re DYEC Capacity Increase  
**Date:** May 27, 2024 11:34:52 AM  
**Attachments:** [2024 May 22 L. Gasser & W. Bracken re DYEC 160k throughput increase to DR Council FINAL.pdf](#)  
[2024 May 8 L. Gasser Delegation to Works Committee re proposed DYEC throughput increase to 160K tpy.pdf](#)  
[2024 05 08 W. Bracken Proposal to Increase Throughput to 160k Delegation to Works Committee.pdf](#)  
[2024 May 22 Table 2009 to 2022 Diversion Rates reported by Durham and by MBN Canada.docx](#)  
[2010 Feb 19 Host Community Agreement re incinerator.pdf](#)  
**Importance:** High

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Good morning:

It's been a while since I wrote to EFW WMAC so I'm not sure to whom to address this request.

Correspondence to EFW WMAC for their May 28th agenda:

A staff update re the DYEC is on tomorrow's EFW WMAC agenda, item 8 E) Agenda: <https://calendar.durham.ca/meetings/Detail/2024-05-28-1900-Energy-from-Waste-Waste-Management-Advisory-Commit/88e2934a-86f3-43a0-b628-b17100d1bbda>

Attached please find a joint letter dated May 22nd, 2024 (with attachments) from Wendy Bracken and myself sent to Durham Region Council last week.

At the May 8th Works Committee staff agreed to produce a report to address concerns raised in delegations Wendy and I made that day, which report would be posted to a future CIP, however no date was specified.

In our letter, we provided additional background information and asked council to consider directing staff to produce an update report **prior to staff proceeding to the Environmental Compliance Approval phase** for the throughput capacity increase from 140,000 tonnes per year to 160,000 tpy, which we ask be placed on Council's May 29th agenda. Our May 22nd letter was not included in the May 29th council agenda and was posted to the May 24th CIP at: <https://pub-durhamregion.escribemeetings.com/filestream.ashx?DocumentId=4225>

The assumptions underpinning the staff request to increase capacity are over five years old and there has been no opinion provided around health impacts. All staff assumptions from 2019 should be revisited and confirmed prior to proceeding, as should all cost estimates.

**We respectfully request that EFW WMAC consider our request at tomorrow's meeting and recommend to Works Committee that Durham staff produce the promised update report prior to proceeding with the ECA.**

Thank you for your attention and consideration of our request.

Regards.

Linda Gasser  
also on behalf of  
Wendy Bracken

Via Email to: [Clerks@Durham.ca](mailto:Clerks@Durham.ca)

May 22, 2024.

Durham Region Council  
c/o Clerks  
605 Rossland Road East  
Whitby ON L1N 6A3

**Re: Request Update Report re DYEC throughput capacity increase to 160,000 tonnes per year & May 8<sup>th</sup> Durham Works Correspondence Item 7.1 a) letter from MECP And Delegations Works Items 6.1 and 6.3**

Dear Chair Henry and Regional Councillors:

The authors of this letter both delegated to Works Committee on May 8<sup>th</sup> regarding the Minister of the Environment, Conservation and Parks (MECP) letter informing Durham and York that they could proceed with the Project to increase throughput capacity, subject to any other required permits or approvals.

For the proposed capacity increase from 140,000 tonnes per year (tpy) to 160,000 tpy, Durham undertook an EA Screening process, which is self-directed and does not require the level of assessment and review that an Individual EA does. Durham held all three public consultations in the second half of 2019 **prior to** producing their Dec. 2021 EA Screening Report (ESR) and though requested to do so, none after release of ESR.

In our delegations we requested that Works Committee recommend to Council that Works staff produce a report to verify/update assumptions about the need for the capacity increase and to update council around costs assumptions which had been provided in January 2019 and other pertinent matters including updates around maximum achievable control technologies and monitoring, as per Durham's Host Community with Clarington, **prior to proceeding with** submitting applications to amend the Environmental Compliance Approval.

W. Bracken also delegated about new concerns with the invalidation of more months of AMESA data, further adding to the unresolved issues previously brought before this Council.

This council must provide much needed and long overdue project oversight, and require, and review, an update report.

While a motion requiring staff to produce an update report to address matters included in Slide 7 of L. Gasser's PowerPoint was discussed, it was not moved.

The Works minutes capture a staff statement they would provide a report to the CIP at some point, timing not specified, with staff giving every indication they intend to proceed to the ECA phase.

See page 8 extract from the May 8<sup>th</sup> minutes found at:

<https://calendar.durham.ca/meetings/Detail/2024-05-08-0930-Works-Committee-Meeting/7591ff3d-928e-4cff-916e-b172013adaab>

*In response to a question from the Committee regarding whether staff could provide additional, updated information with respect to the concerns noted on Page 7 of L. Gasser's PowerPoint delegation [Refer to Item 6.2 A)], R. Jagannathan advised that staff could provide a Council information report that would address the additional information requested through the noted delegation. R. Jagannathan advised the next steps are to submit an Environmental Compliance Application (ECA).*

A report updating council about various aspects of the DYEC throughput increase is required **before** Durham staff proceed to the ECA phase.

#### "Need" for Throughput Increase Not Demonstrated

Over the course of the Environmental Assessment for the incinerator, what is today known as the Durham York Energy Centre, was "sold" as being a 20 year "disposal solution".

Durham's share of the DYEC capacity is 78.6% i.e. 110,000 of the currently 140,000 initial capacity. In addition, landfill will always be needed for materials that cannot be processed at the DYEC, during maintenance and other outages and for ash residues which are shipped to landfills outside Durham.

Many of the assumptions around the "need" for this capacity increase were made over 5 years ago, with the request to increase capacity coming a mere three years after commercial start up in January 2016.

Durham has not demonstrated that they have maximized their waste reduction and diversion opportunities, have not reached the Council approved target of 70% diversion and have not demonstrated the "need" for this capacity increase. Please see the attached table I have compiled tracking Durham's Diversion Rates since 2009. Note the increase in diversion rates that Durham reports due to RPRA counting bottom ash beginning in 2017.

From chart on page 7 of the 2022 Waste Management Annual Report, other than an upward blip in 2020 & 2021 during early years of Covid, Durham’s garbage tonnage (in purple) has trended downwards.

[https://www.durhamyorkwaste.ca/en/education-and-resources/resources/Documents/2022%20Waste%20Diversion%20Reports/20231031\\_RPT\\_Durham\\_2022\\_Annual\\_Waste\\_Diversion\\_ACC\\_RFS.pdf](https://www.durhamyorkwaste.ca/en/education-and-resources/resources/Documents/2022%20Waste%20Diversion%20Reports/20231031_RPT_Durham_2022_Annual_Waste_Diversion_ACC_RFS.pdf)



2022 garbage tonnage at 123,369 tonnes is 13,369 tonnes above Durham’s currently 110,000 share, which is LESS than the 15,720 tonnes of additional capacity.

IF Durham doesn’t use their share of the increased capacity due to diversion and waste reduction improvements, then York Region would take up that capacity and burn in Durham.

Many growth assumptions were made prior to the pandemic and current housing & affordability crisis. While there will be some growth in Durham it may be lower than predicted due to housing constraints for some time to come.

Durham staff would have 2023 waste management data by now and should provide those numbers along with updated predictions about growth.

On page 6 of the 2022 Annual Waste Management Report, Durham reported that when conducting a curbside participation study, it was revealed **that only 61% of households** place a green bin out for collection. Given Durham has had a region-wide curbside green bin program

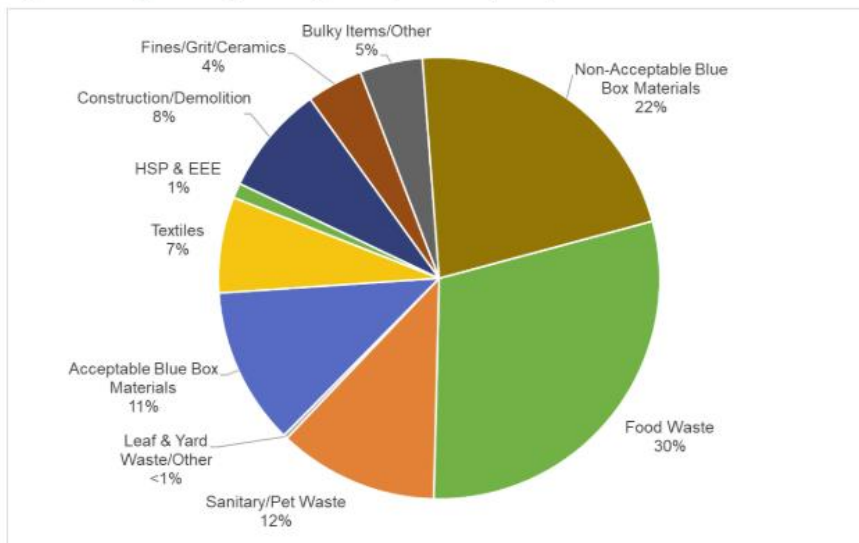
since 2006, this indicates that a lot more green bin material could be collected including with enhanced programs, public education and better enforcement.

Council approved the Enhanced Green Bin to begin on July 1<sup>st</sup>, 2024, which staff stated would divert approximately 10,000 tonnes per year from garbage.

As well, Durham staff intend to offer Source Separated Organics collection to Multi Residential units possibly by 2025, which would remove even more tonnage from the garbage. Currently multi res-units make up over 10% of the 248,846 households from which Durham collected in 2022 (pg 4 Annual Waste Management Report).

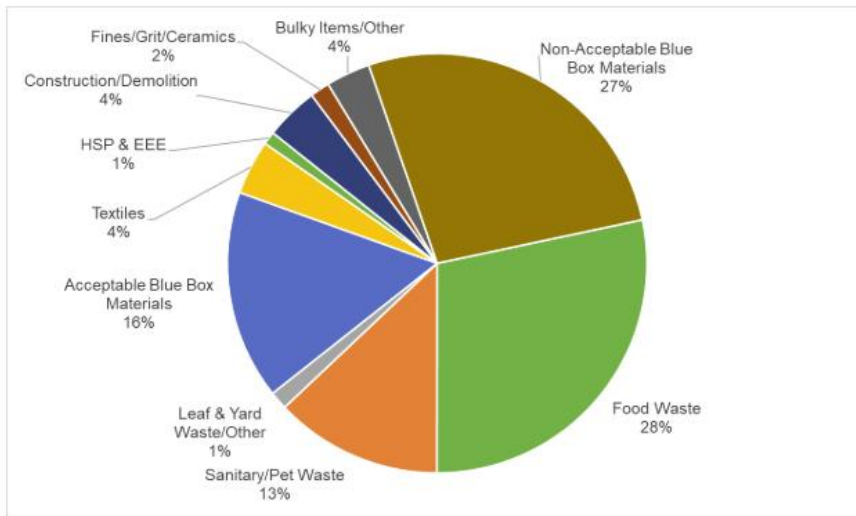
The 2022 Long Term Waste Plan included two charts depicting both single family home and multi res garbage bag composition, illustrating that large amounts of food waste remain in the garbage bags of both housing types (Single family & Multi-Res) as well as other divertible materials. See below:

Figure 9: Single-family Garbage Composition (2018)



Source: 2018 Waste Composition Study – Single-family

Figure 10: Multi-residential Garbage Composition (2018)



Source: 2018 Waste Composition Study – Multi-residential

From Durham’s Long Term Waste Plan, see explanation from page 24 below (my emphasis added) which describes moving from reporting Diversion Rates to Waste Generation per Capita: [https://www.durham.ca/en/living-here/resources/Documents/GarbageandRecycling/Long-Term-Waste-Plan/Final-Documents/Durham\\_Region\\_LTWMP\\_FINAL\\_Jan-31-2022-AODA.pdf](https://www.durham.ca/en/living-here/resources/Documents/GarbageandRecycling/Long-Term-Waste-Plan/Final-Documents/Durham_Region_LTWMP_FINAL_Jan-31-2022-AODA.pdf)

*Many municipalities are starting to report on the total amount of waste generated, which typically includes garbage, Blue Box recycling, Green Bin organics, Leaf and Yard Waste (LYW) and other materials. This may be reported on a per capita basis (i.e. per person) to give a better indication of how these rates are changing from year to year. **This metric gives a truer picture of all materials that municipalities must manage, rather than just reporting on what was diverted.***

See below waste generation per capita report on page 8 2022 Annual Waste Management Report.

## Waste Generation

Waste generation rate is a tonnage per person measurement (kg/capita) used to track progress towards the Long-term Waste Management Plan waste reduction efforts.

With the move to Extended Producer Responsibility for the Blue Box program, Durham Region will focus on two key streams of collected waste — green bin organics and garbage. Yard Waste generation is not included as this waste is mostly unpredictable, with yard waste tonnage greatly influenced by weather, not

### Durham Region Garbage Generation Rate (kg/capita)

Year	Garbage
2018	173.2
2019	171.5
2020	180.6
2021	176.1
2022	166.0

In the Host Community Agreement between Durham Region and Clarington, Section 6.1: *“Durham shall continue to implement and support an aggressive residual waste diversion and*



*recycling program to achieve and/or exceed a 70% diversion recycling rate for the entire Region”.*

Durham has not maximized Waste Reduction and Diversion opportunities and should do so before proceeding to expand capacity. (As at 2022 Durham’s RPRA Diversion Rate was 62% which includes credit for bottom ash, grass cycling and back yard composting).

### Financial Assumptions Reported January 2019 should be Updated & Confirmed

See below a table from page 13 of Report 2019 COW-3:

#### **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.

Since that time Covanta has a new owner. Durham should require written confirmation that the costs per tonne estimates from 2019 still hold.

At the time it was not known nor can we recall staff confirming IF the Ontario power purchase subsidy would be available for tonnage beyond 140,000 tpy. Without that subsidy burning is excessively expensive and those per tonne processing estimates would go out the window.

Staff should inform council how much has been spent on the EA Screening process from 2019 to date and should provide an estimate as to how much further studies and subsequent approvals would cost.

Staff should also confirm the landfill contracts they have secured, at what locations, at what cost and over what term(s).

## No Update of 2009 SSHHERA and No Opinion from Durham's MoH

During the Works meeting discussion, your Waste Director mentioned the Site Specific Human Health and Ecological Risk Assessment that was completed in 2009 for the Individual Environmental Assessment (SSHHERA), perhaps leaving the impression that there had been a complete assessment of the 400,000 tpy scenario. He also stated that Durham's Medical Officer of Health was circulated with EA Screening matters

In her April 22<sup>nd</sup>, 2024 letter to those individuals requesting that the EA be elevated from a Screening to Individual Assessment (listed as an attachment to Works Correspondence 7.1.a) found at: <https://pub-durhamregion.escribemeetings.com/filestream.ashx?DocumentId=4126> the Minister of the Environment, Conservation and Parks (MECP) wrote on page 2: "*The Regions have committed to completing an updated Human Health & Ecological Risk Assessment for **any future expansions** of the DYEC to assess any potential impacts to human and ecological health*". (emphasis added)

The Human Health and Ecological Risk Assessment (HHERA) and the Ministry Review of the original EA were **not specifically listed** as documents reviewed by the Regions in assessing potential impacts of their proposal to increase throughput to 160,000 tpy<sup>1</sup>.

Yet those two documents identified potential health concerns and risks and provided expert reviews identifying capacity limits of comments as well as identifying pollutants whose emissions needed further mitigation.

The Regions' HHERA identified significant increases in the loading to soil, surface water, sediments, and fish for various contaminants in the 140,000 TPA case, including for dioxins/furans, mercury, cadmium, lead, and tin<sup>2,3,4,5</sup>, yet the proposal to increase throughput to 160,000 TPA did not assess additional mass loading to the environment and, through the AQIA, only assessed impact to air quality.

Today, soil monitoring around the DYEC is conducted only every three years. The DYEC 2023 Soil Testing Report states "*Per Table 4, concentrations of dioxins and furans in soil measured during the 2023 sampling event increased at both the upwind and downwind sampling locations relative to historical levels*".<sup>6</sup> The 2023 downwind dioxin/furan soil concentration is more than double the pre-incinerator 2013 value.<sup>7</sup>

The Regions' HHERA also identified potential risks in its Multi-Pathway Assessment for various scenarios and pollutants including for infants and toddlers for PCBs, dioxins and furans and Chemical Mixtures.<sup>8,9,10</sup> Dioxin and furan emissions are a well-known issue with incinerators, especially during other-than-normal operating conditions (OTNOC). There have been stack exceedances for dioxins and furans at the DYEC, and there has been an ambient air exceedance for dioxin and furans next to this incinerator. The first four years (2015-2019) of AMESA

dioxin/furan data has been withheld and many months of AMESA data have been invalidated as well as withheld from 2020 to the present.

In Europe, recent studies have found dioxins/furans concentrations in backyard chicken eggs in the vicinity of incinerators (even around the newest Dutch incinerator) exceeding the EU limit and have prompted government warnings to affected residents not to consume them.<sup>11,12</sup> Europe has also recently issued a directive which now mandates that emissions to air from waste incineration shall also be monitored **during Other-Than-Normal Operating Conditions** (emphasis added) (OTNOC).<sup>13</sup>

Back in 2009, Health Canada identified health concerns for fine particulate matter (PM2.5), nitrogen dioxide (NO2), and Respiratory Irritants exposures assessed in the EA for both the 140,000 TPA and 400,000 TPA scenarios and Health Canada recommended additional mitigation measures for these pollutants.<sup>14</sup> The Regions, however, did not act on this advice. Now, in 2024, the Regions are considering applying for a permit that goes in the opposite direction – instead of mitigating, the Regions are applying to increase pollution by burning an additional 20,000 tonnes per year for the next 20(?) to 30(?) years.

The Ontario Ministry of Environment’s Human Health Toxicologists also identified concerns at the time of the EA<sup>15,16</sup> and the Regulatory Toxicologist advised his comments were contingent on the 140,000 TPA scenario and that the proponent 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”<sup>17</sup>. Note the reviewer referred to “any” increase beyond 140,000 t/y.

To summarize, the Regions had Toxicologist review up to 140,000 TPA. **There has been no health expert that has reviewed this proposal to burn 160,000 TPA or provided an opinion on potential human health and ecological impacts.**

The Works Commissioner stated at the around the 1:31 minute mark of the meeting that staff would be glad to engage the MoH “to get his endorsement “....on the impacts of going from the 140 (000) to the 160 (000).” **Any opinion from Durham’s MoH must be in writing.**

#### Host Community Agreement with Clarington – Durham’s Commitments

DYEC Monitoring/Surveillance is not keeping up with other jurisdictions. Durham also made commitments in the Host Community Agreement:

Section 3.1: Durham shall ensure that the EFW Facility incorporates and utilizes modern state of the art emission control technologies that meet or exceed the Ontario A7 air emission guidelines and European Union standards as identified below

Section 3.2, “Durham shall ensure that the EFW facility utilizes maximum achievable control technology (MACT) for emissions control and monitoring systems.”

Section 3.3, “Durham shall ensure that, where technically feasible, the EFW Facility utilizes 24/7 monitoring systems for such parameters as are deemed appropriate by the Ministry of the Environment...”

Section 4.3 (emphasis added): “**At the time of any expansion**, Durham will give consideration to improvements to the emission control system to meet the then current MACT standards and shall apply for a new or amended Certificate of Approval if required by the Province of Ontario.”

Notify/update public and Commit to Request posting of ECA documents on ERO

From Minister’s request to Durham in April 22<sup>nd</sup> letter:

**The reasons for my decision may be found in the attached letter to the requesters.** In the interest of transparency, I encourage you to make my letter to you available to the public on the Project website.

Durham staff have posted the Minister’s April 22, 2024 letter to Durham and York on the 160K pages of the DYEC website, but not the attachment, which explain the reasons for her decision.

[https://www.durhamyorkwaste.ca/en/facility-approvals/resources/Documents/20240422\\_LTR\\_MECP\\_DYEC\\_%20Elevation%20Request\\_Response\\_ACC.pdf](https://www.durhamyorkwaste.ca/en/facility-approvals/resources/Documents/20240422_LTR_MECP_DYEC_%20Elevation%20Request_Response_ACC.pdf)

While Durham may be exempt from the requirement to post the ECA applications on the Environmental Registry (ERO), Durham should be willing to post these and advise the Ministry that they wish to do so especially since there has been NO public consultation on the capacity increase since December 2019.

In the interests of transparency and communicating with the public, Durham should take all steps to ensure that the public would be informed about all aspects of the proposed capacity increase.

One of our requests was that staff should be directed to provide material/documents submitted to MECP since the Dec. 2021 Environmental Screening Report AND copies of the Ministry’s comments over the course of the capacity increase application.

To summarize, we ask that Council consider the matters in our letter and pass a motion to require staff to produce an update report addressing the concerns raised, to be brought back to either Works Committee or preferably, to a Committee of the Whole given the financial and public health considerations.

Thank you for your attention.

Yours truly,

Linda Gasser  
Whitby  
Email: gasserlinda@gmail.com

And

Wendy Bracken,  
Newcastle  
Email: wendy-ron@sympatico.ca

Cc: Dr. Robert Kyle, Medical Officer of Health  
Clarington Council

Enclosures: L. Gasser & W. Bracken PPTS to May 8<sup>th</sup> Works Committee  
Durham Diversion Rates table from 2009-2022  
Host Community Agreement with Clarington

References for Health Related Concerns Below

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<sup>1</sup> see Section 3.11, page 68 of ESR

[https://www.durhamyorkwaste.ca/en/facility-approvals/resources/Documents/2021%20Environmental%20Screening%20Report/Accessible\\_2022/20220119\\_DY\\_EC\\_ESR\\_FINAL\\_ACC.pdf](https://www.durhamyorkwaste.ca/en/facility-approvals/resources/Documents/2021%20Environmental%20Screening%20Report/Accessible_2022/20220119_DY_EC_ESR_FINAL_ACC.pdf)

<sup>2</sup> Site-Specific Human Health and Ecological Risk Assessment–Technical Study Report (HHERA), Durham York Residual Waste EA Study, December 10, 2009, Stantec, December 10, 2009, pages 80, 81 and *Section 6.2* p. 82-84  
<https://www.durhamyorkwaste.ca/en/resources/Archived%20Documents/Environmental%20Assessment%20Appendix%20C12%20HHERA%20Technical%20Study%20Report.pdf>

<sup>3</sup> HHERA, pages 85, 86 and *Table 6-2 Predicted Surface Water Loading as a Result of Normal and Process Upset Operation over a 30 Year Period for 140,000 tpy and 400,000 tpy*, pages 87-89

<sup>4</sup> HHERA, pages 85, 86 and *Table 6-3 Predicted Sediment Loading as a Result of Normal and Process Upset Operation over a 30 Year Period for 140,000 tpy and 400,000 tpy*, pages 90-92

<sup>5</sup> HHERA, *Table 6-9 Predicted Fish Loading as a Result of Normal and Process Upset Operation over a 30 Year Period for 140,000 tpy and 400,000 tpy*, pages 111-113

<sup>6</sup> RWDI, *DURHAM YORK ENERGY CENTRE: 2023 SOIL TESTING REPORT*, RWDI #2301083, November 15, 2023, page 7  
[https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/Soil/2023/20231115\\_RPT\\_DYEC\\_2023\\_Soils\\_Testing\\_ACC.pdf](https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/Soil/2023/20231115_RPT_DYEC_2023_Soils_Testing_ACC.pdf)

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<sup>7</sup> Ibid., Table 4, pdf page 19/58

<sup>8</sup> HHERA, Table 7-14, page 210-212

<sup>9</sup> HHERA, Table 7-15, page 212-213

<sup>10</sup> HHERA, Table 7-18, page 226

<sup>11</sup> Euronews, *Millions in France warned not to eat eggs from backyard chickens due to forever chemical pollution*, <https://www.euronews.com/green/2023/11/21/millions-in-france-warned-not-to-eat-eggs-from-backyard-chickens-due-to-forever-chemical-p#vuukle-comments-2419688>

<sup>12</sup> Arkenbout, A. (2018). *Hidden Emissions: A story from the Netherlands, a case study*; Zero Waste Europe [https://www.toxicowatch.org/\\_files/ugd/8b2c54\\_a4360271e0a945f88a8d9b25ffe121f5.pdf](https://www.toxicowatch.org/_files/ugd/8b2c54_a4360271e0a945f88a8d9b25ffe121f5.pdf)

<sup>13</sup> Zero Waste Europe, *Long-awaited revamp of Industrial Emissions Directive improves dioxin monitoring in incinerators*, November 29, 2023 <https://zerowasteurope.eu/press-release/long-awaited-revamp-of-industrial-emissions-directive-improves-dioxin-monitoring-in-incinerators/>

<sup>14</sup> *Review of the Durham and York Residual Waste Study Amended Environmental Assessment*, Ontario Ministry of Environment, 2010, (subsequent referenced as Ministry Review), page 125, Health Canada comments, September 25, 2009, reviewer M. Lalani on Durham/York Residual Waste Study Environmental Assessment Study <https://www.durhamyorkwaste.ca/en/resources/Archived%20Documents/Ministry%20Review%20of%20Environmental%20Assessment.pdf>

<sup>15</sup> Ministry Review, Comments of Ministry Supervisor, Human Toxicology, Barry Lubek, June 25, 2009, page 85

<sup>16</sup> Ministry Review, Comments of Ministry Toxicologist Samir Abdel-Ghafar, October 19, 2009, page 80

<sup>17</sup> Ministry Review, Ministry Toxicologist comments by Samir Abdel-Ghafar, January 11, 2010, page 189, Comment 1

Delegation to Works Committee  
May 8, 2024

W. Bracken

**Proposed DYEC Throughput Increase to  
160,000 tonnes per year (tpy)**

# **2022 Region Responses did not resolve key issues. Reminder of Key Issues Raised Back Then:**

1. Pursue claim that concentrations decrease.
2. Pursue Implications to 2011 ESDM, ECA Air Permit, Source Tests.
3. Request Regions to provide updated health assessment, toxicologist and medical opinions on proposal. Only have engineering opinions now.
4. Mass loading to environment – 20,000 more tonnes of garbage burned for an unspecified number of years cannot be ignored – and it was not assessed.
5. Pursue better monitoring and reporting, including for AMESA.



# The “eyebrow raising” AQIA Conclusion:

*“Overall, the results of the modelling assessment indicate that the 160,000 tpa would result in a small overall decrease in the maximum predicted concentration for all contaminants and the change in cumulative concentrations would be even less significant. The decrease is attributed to increased stack gas temperature and flowrate which improve the dispersion characteristics of the facility.”<sup>20</sup>*

AQIA Mixed and Matched Theoretical and Empirical Data from different years to *create* a non-existent 140,000 TPA Scenario instead of using *actual* 140,000 TPA operational data, thereby inflating 140,000 TPA concentrations

TABLE 1: Data Sources For 140,000 TPA and 160,000 TPA Scenarios

STACK PARAMETER	“140,000 TPA” Scenario Represented in 2021 AQIA	160,000 TPA Scenario Represented in 2021 AQIA
Volumetric Flow Rate	2011 ESDM (110% MCR)	2018 SOURCE TEST (100% MCR), pro-rated
Exhaust Temperature	2011 ESDM (110% MCR)	Contradictory information – SOURCE TEST (Ortech, 2021) as stated in AQIA or MANUFACTURER’S DOCUMENTATION provided by Covanta (Regions’ March 11 <sup>th</sup> letter to Clarington)?
Stack Concentrations	2020 SOURCE TEST (100% MCR) or stack emission limits or other emission factors	2020 SOURCE TEST (100% MCR) or stack emission limits or other emission factors

# **Excerpts below From Host Community Agreement: Time to Act is NOW For BACT, Better Monitoring & Reporting**

## **4. Facility Size**

4.1 Durham is seeking approval from the Ministry of the Environment to construct and operate an EFW Facility with a total processing capacity of up to 400,000 tonnes per year of municipal solid waste.

4.2 The parties hereto acknowledge and agree that EFW Facility will not immediately be constructed to the ultimate capacity. Durham will be seeking an initial Certificate of Approval for the construction and operation of a facility for approximately 140,000 tonnes per year. The capacity of the EFW Facility may be expanded, as required by Durham and York, up to the maximum permissible capacity set forth by the Ministry of the Environment in the Certificate of Approval which may be amended from time to time. The EFW Facility may not be expanded in excess of 400,000 tonnes per year.

4.3 At the time of any expansion, Durham will give consideration to improvements to the emission control system to meet the then current MACT standards and shall apply for a new or amended Certificate of Approval if required by the Province of Ontario.

4.4 Durham will not construct a transfer station for ICI waste in Clarington without the agreement of Clarington.

3.3 Durham shall ensure that, where technically possible, the EFW Facility utilizes 24/7 monitoring systems for such parameters as are deemed appropriate by the Ministry of the Environment. The results of such monitoring systems shall be made accessible to the public on a website or programmable display board designed for such purpose. In addition, Durham shall ensure that the operator monitors the ambient air in the immediate vicinity of the EFW Facility for a three year term commencing upon the commencement of operations.

# DYEC Monitoring Not Keeping Up With Other Jurisdictions

- Europe has continuous emissions monitoring of particulate matter (we have outdated opacity monitoring)
- Europe now requires testing during Other-Than-Normal Operating-Conditions (OTNOC)
- Oregon has established new law requiring continuous testing for many pollutants including PCBs, lead, mercury and arsenic

<https://www.wastedive.com/news/oregon-incinerator-emissions-law-sb-488-covanta-marion/689838/>

<https://www.energyjustice.net/index.php/or/sb488>

- US Environmental Protection Agency is proposing new air quality standards that are lower than existing limits and removal of startup, shutdown and malfunction (SSM) exclusions and exemptions

<https://www.federalregister.gov/documents/2024/01/23/2024-00747/standards-of-performance-for-new-stationary-sources-and-emission-guidelines-for-existing-sources;>

<https://www.epa.gov/newsreleases/epa-proposes-stronger-air-pollution-standards-large-facilities-burn-municipal-solid>

European directive now mandates that emissions to air from waste incineration shall also be monitored during other than normal operating conditions (OTNOC)

## **European Parliament votes to hold waste incinerators accountable for emissions**

A vote in the Parliament on the controversial Industrial Emissions Directive (IED) saw vital progress on preventing emissions originating from incineration, according to NGO Zero Waste Europe.

written by Gary Cartwright | July 11, 2023 | 0 comment



<https://zerowasteurope.eu/press-release/long-awaited-revamp-of-industrial-emissions-directive-improves-dioxin-monitoring-in-incinerators/>

# High Time to Include Biomonitoring (chicken eggs, flora) as done in other Countries

- DYEC 2023 Soil Testing Report: *“Per Table 4, concentrations of dioxins and furans in soil measured during the 2023 sampling event increased at both the upwind and downwind sampling locations relative to historical levels”*

**Table 4: Soil Analytical Results - Dioxins and Furans**

Durham York Energy Center  
 The Regional Municipality of Durham  
 Project No. 2301083

Parameters	Units	Soil Standards	UPWIND					DYEC			DOWNWIND						
			22 Aug 13	25 Aug 15	17 Aug 16	23 Aug 17	19 Aug 20	14 Aug 23	25 Aug 15	17 Aug 16	23 Aug 17	22 Aug 13	25 Aug 15	17 Aug 16	23 Aug 17	19 Aug 20	14 Aug 23
<i>Dioxins &amp; Furans</i>																	
Total PCDDs and PCDFs (TEQ)	TEQ ng/kg	7	0.977	1.32	0.622	0.47	0.596	1.3	0.9	1.29	1.44	1.12	0.7	0.626	1.22	1.23	2.4

Delegation to Works Committee re  
proposed DYEC throughput increase from  
140,000 -160,000 tonnes per year

Linda Gasser

May 8, 2024.

## Agenda Item 7.1 a) Minister of the Environment's (MECP) April 22<sup>nd</sup> letter to Durham and York Staff re proposed throughput increase to 160,000 tpy

- Should require a staff report to COW/Council to evaluate AND confirm IF it is in BEST interest of Durham to pursue increase. This council should have opportunity to decide whether to burn or focus on reducing garbage.
- The vote to incinerate in June 2009 was 16-12. Close and contentious.
- Minister suggested posting to project website the attachment to her letter (not included in your agenda) to inform public.
- **April 22<sup>nd</sup> letter NOT yet posted –you must advise the public.**
- DYEC's throughput increase to 160K webpage link: <https://www.durhamyorkwaste.ca/en/facility-approvals/increasing-capacity-to-160000.aspx>



How much is Covanta fee in excess of 140,000 tpy?

Does Ontario power subsidy apply to tonnage beyond 140K?

Current cost per tonne to landfill tonnage in excess of Durham's 110,000?

Require update of 2019 financial assumptions in Report 2019 COW-3, page 13/41

**Footnotes:**

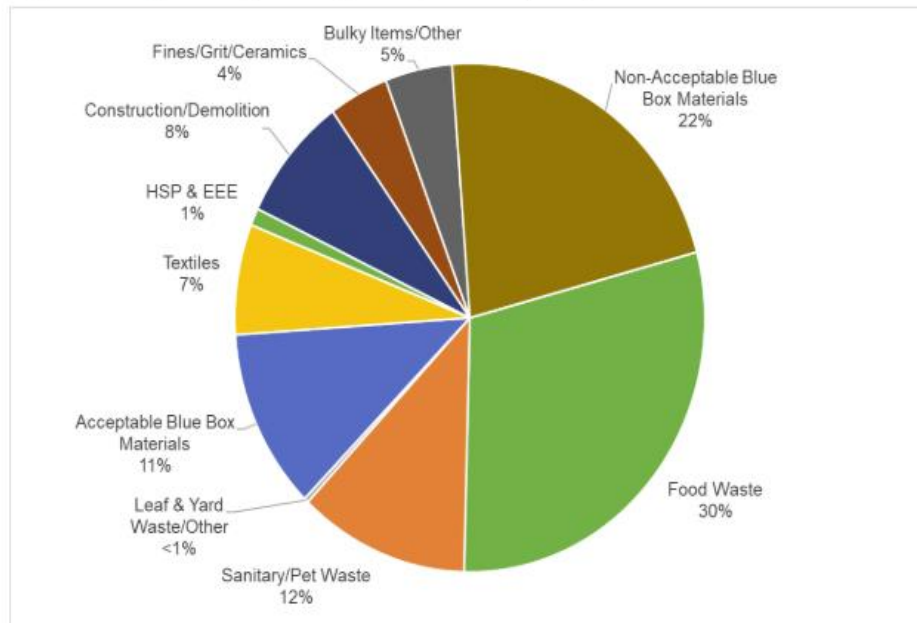
1. Reduced Covanta fee based on deduction of landfill charge and reduced processing fee for tonnages beyond 140,000 tonnes processed (estimated at \$35.45 per tonne in 2019, increasing to an estimated \$38.03 per tonne by 2023). It is assumed York Region uses its full 21.4 per cent share of amended capacity.
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.

## Request to Council to increase in 2019. Last public consultation December 2019. You owe Durham residents an update.

- A lot has changed since 2019's staff request to increase throughput including proposed programs proposed to reduce residual waste.
- Effective July 1, 2024, enhanced green bin to allow material such as pet waste (including cat litter), diapers and sanitary products. Could divert approx. 10,000 tonnes per year.
- Effective possibly by 2025, Durham will offer source separated organics collection to multi-residential residents. Increasing share of new units will be multi-res.
- According to page 6 of 2022 Waste Management Annual Report (most recent) ***“61% of households place a green bin out for curbside collection”***.
- There's LOTS of opportunity to increase participation & capture of organics.

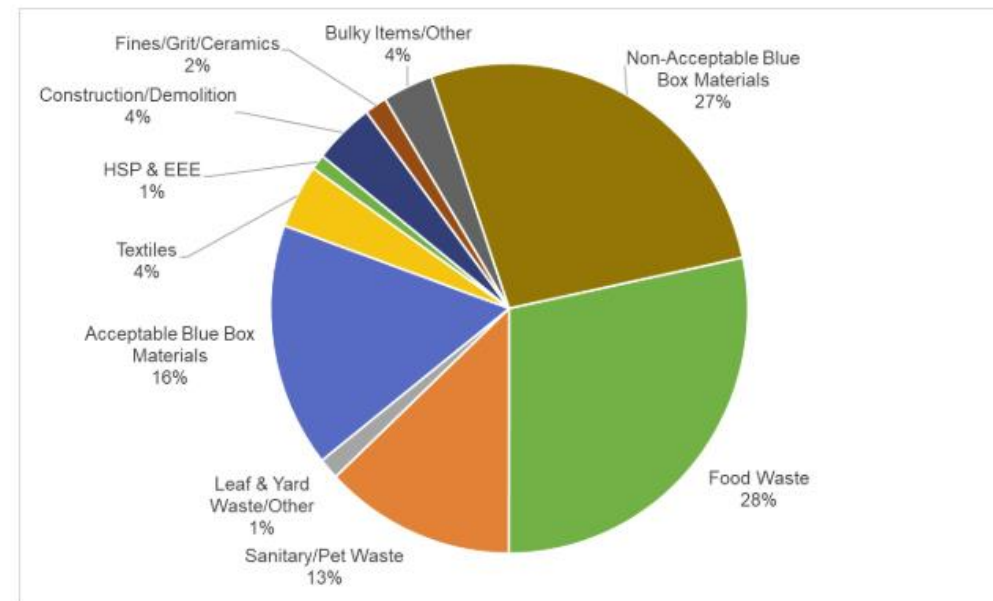
Pages 28-30 Attach. 2, Report 2022-WR-1 Long Term Waste Plan: *“In summary, the waste profiles of single-family and multi-residential garbage are quite similar, with the largest component of garbage consisting of food waste (which was found in almost equal proportions for each sector).”*

Figure 9: Single-family Garbage Composition (2018)



Source: 2018 Waste Composition Study – Single-family

Figure 10: Multi-residential Garbage Composition (2018)



Source: 2018 Waste Composition Study – Multi-residential

Capacity increase =14.28%.

COW/Council should review impacts of increase including additional air pollution loading and increased GHGs

- Updated Audit info would help identify materials that could be diverted to existing programs AND those that should be investigated for new programs.
- There is little incentive to reduce waste is you apply to burn more!
- DYEC already Durham's largest GHG corporate emitter, even with only non-biogenic emissions reported. (Report 2024-COW-12).
- Additional loading of pollutants to Durham air shed is NOT insignificant.
- If Durham got serious about reducing waste and succeeded, then York Region could burn more garbage to use up the contracted capacity –they don't care, they don't live here.
- The more you burn, the more ash that you send to landfills outside Durham. Incineration = burning AND burying.
- In 2023, 25,087 tonnes of bottom ash sent to the US and 11,132 tonnes fly ash to Thorold landfill in Ontario – YOU are already exporting problem waste.

# Recommend an update report to COW/Council on costs and potential impacts of capacity increase.

## THIS council should decide

- Works should recommend to council that staff be required to produce a report that updates 2019 assumptions including:
  - potential environmental & health impacts
  - Includes opinion of Durham's Medical Officer of Health on potential health impacts of capacity increase
  - Identify ALL costs associated with capacity increase including required study costs etc.
  - Includes material provided to MECP since the Dec. 2021 Environmental Screening Report AND the Ministry's comments over the course of the capacity increase application.
  - Report should provide results of recent waste audits. New audit should be requested if no update since 2018 audit data in 2022 Long Term Waste Plan.
  - Works should direct staff to POST attachment to Minister's letter on DYEC website immediately to inform public and continue to update capacity increase web pages.
  - IF proceeding, Council should direct staff to request/recommend that ECA application(s) be posted to the ERO and commit to posting all ECA study data to the DYEC project website promptly.
- THANK YOU – QUESTIONS?

**2010 to 2022 Diversion Rates (%) reported by Durham Region & from MBN Canada Annual Performance Measurement Reports (updated Jan.27, 2024)**

YEAR	Durham Diversion/Annual Waste Management Report	MBN Canada Annual Performance Report	MBN Re-stated years 2018 & 2019
2009	52 (2009-J-44)	51	
2010	52	52	
2011	53	53	
2012	53	53	
2013	52	52.3	
2014	Reported 55 and 53%	53.2	
2015	Reported 55 and 52%	52	
2016	Reported 55 and 53%	52.8	
2017	*Reported 55% and 51%. Revised retroactively to 65%	47	
2018	64	49	64
2019	64	47	64
2020	63	63**	
2021	62	62	
2022 ***	62	****did not report percent diverted	

\*RPRA diversion numbers from landfill after curbside collection does not include Durham Region’s approved energy-from-waste initiatives. **\*Updated from 55 per cent to reflect finalized 2017 RPRA diversion rate. First year RPRA recognized recycled materials recovered through energy-from-waste.** Durham 2021 Annual Waste Management Report, Page 15

[https://www.durhamyorkwaste.ca/en/education-and-resources/resources/Documents/2021%20Waste%20Diversion%20Reports/20221017\\_RPT\\_2022\\_Durham\\_Annual\\_Waste\\_Diversion\\_rfs\\_ACC.pdf](https://www.durhamyorkwaste.ca/en/education-and-resources/resources/Documents/2021%20Waste%20Diversion%20Reports/20221017_RPT_2022_Durham_Annual_Waste_Diversion_rfs_ACC.pdf)

**\*\* In 2020 MBN changed how they report Durham’s diversion rate to mirror RPRA and retroactively restated diversion rates for 2018 & 2019 .**

\*\*\* Pending verification. RPRA diversion numbers from landfill after curbside collection does not include Durham Region’s approved energy-from-waste initiatives.

(Durham Region is classified as Urban Regional by the RPRA, along with Essex-Windsor Solid Waste Authority, Waterloo Region, Simcoe County, Niagara Region, and City of Ottawa.) Durham 2022 Annual Waste Management Report, Page 6

[https://www.durhamyorkwaste.ca/en/education-and-resources/resources/Documents/2022%20Waste%20Diversion%20Reports/20231031\\_RPT\\_Durham\\_2022\\_Annual\\_Waste\\_Diversion\\_ACC\\_RFS.pdf](https://www.durhamyorkwaste.ca/en/education-and-resources/resources/Documents/2022%20Waste%20Diversion%20Reports/20231031_RPT_Durham_2022_Annual_Waste_Diversion_ACC_RFS.pdf)

\*\*\*\*In 2022, MBN Canada did not percent of residential solid waste diverted, as it had previously

<http://mbncanada.ca/app/uploads/2023/12/2022-updated-public-report.pdf>