

Welcome



Durham and York Regions
welcome you to

Public Information Centre #1 Durham York Energy Centre Capacity Increase (from 140,000 to 160,000 tonnes per year) Environmental Screening

Please take a few moments to browse the display
material and talk to our staff and consultants.



If you require this information in an accessible format, please contact
1-800-372-1102 ext. 3560.

Durham York Energy Centre History

- The Durham York Energy Centre (DYEC) was the first greenfield energy-from-waste facility built in North America in over 20 years.
- Durham Region pursued an energy-from-waste facility based on objectives in the Long-Term Waste Management Strategy Plan, 2000-2020 to consider energy from waste for disposal of residual garbage.
- While the Region was developing its Long-Term Waste Management Strategy Plan, Council also directed that there would be no new landfills in Durham Region.
- In 2011, Council gave final approval to begin construction of the DYEC.
- Commercial operations commenced in 2016.

About the DYEC

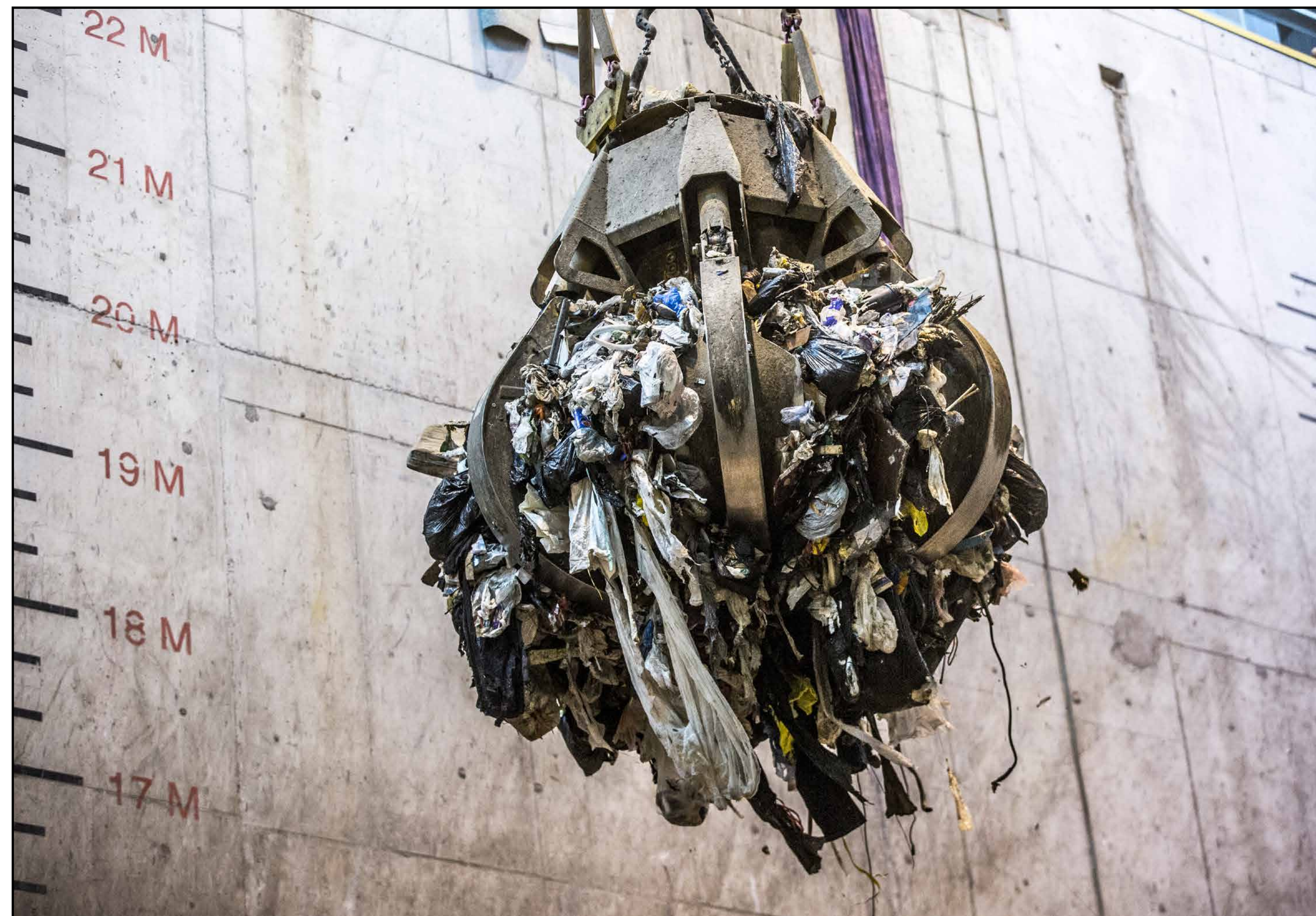
- The DYEC processes 140,000 tonnes of waste per year. The waste is what remains after residents participate in curbside diversion programs.
- The DYEC is a partnership between Durham and York Regions. Durham Region sends 110,000 tonnes of waste to the DYEC while York Region sends 30,000 tonnes of waste to the DYEC each year.
- An average of 22 trucks per day arrive at the DYEC site. These include garbage delivery trucks, residue removal trucks for ash and scrap metal and chemical supply trucks.
- The DYEC reduces the total volume of waste to be disposed by up to 90 per cent.

Problem and opportunity



Environmental Compliance Approval (ECA)

- In 2011, Durham and York received an Environmental Compliance Approval (ECA) for the DYEC, allowing a maximum waste processing amount of 140,000 tonnes of non-hazardous municipal waste per year.



Problem

- Continued growth in Durham results in more waste being generated than permitted to be managed at the DYEC.
- The Regions by-passed waste to other disposal facilities in 2017 and 2018 that could have been processed at the DYEC.
- The DYEC is Durham's primary waste disposal option, while York relies on multiple waste disposal options.
- Continued growth in both Regions requires additional disposal capacity for current demands and beyond.

Opportunity

The Regions are proposing to increase the facility's annual waste capacity by 20,000 tonnes per year, from 140,000 to 160,000 tonnes per year. The current facility already has the capability of processing 160,000 tonnes of waste per year with existing equipment.

If approved:

- The capacity increase will allow for more efficient usage of the existing facility, reducing the reliance on alternative waste disposal facilities, including landfill outside the Regions' borders.
- The facility will be capable of generating more electricity with the increase in waste processing capacity.
- The Ministry of Environment, Conservation and Parks wants Ontario to produce less waste, maximize the resources from waste through reuse, recycling, or other means such as thermal treatment, and ultimately send less waste to landfill.

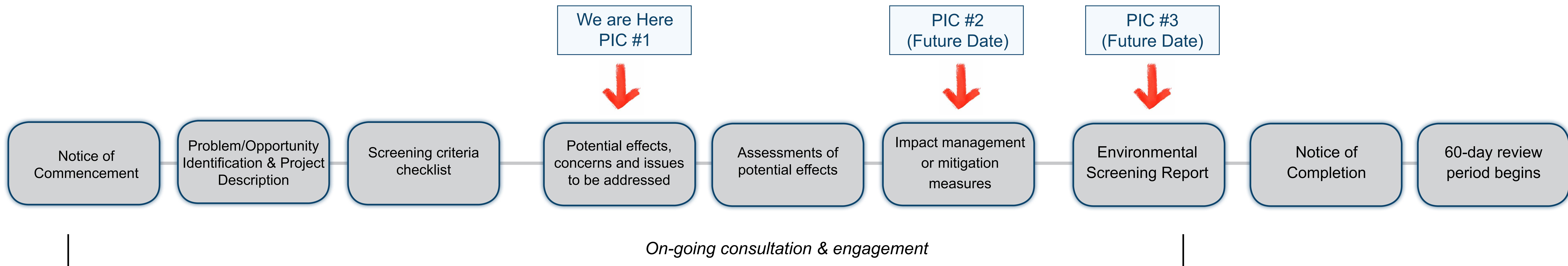
Screening process



This project is subject to the Ministry of Environment Conservation and Parks' **Environmental Screening Process for Waste Management Projects** in accordance with Ontario Regulation 101/07 under the Environmental Assessment Act.

Public consultation and engagement activities will be ongoing throughout the process with interested persons, Indigenous peoples and government agencies.

Results will be documented in an Environmental Screening Report, which will be released for all interested stakeholders.



Checklist



Criterion		Yes	No	Additional Information
1.0	Surface and Groundwater			
1.1	Cause negative effects on surface water quality, quantities or flow?		X	No change to surface water from existing conditions are anticipated as a result of the proposed increase in capacity to 160,000 tonnes.
1.2	Cause negative effects on groundwater quality, quantity or movement?		X	No change to groundwater conditions are anticipated as a result of the project.
1.3	Cause significant sedimentation or soil erosion or shoreline or riverbank erosion on or off site?		X	No sedimentation, soil erosion or shoreline or riverbank erosion are anticipated as a result of the project.
1.4	Cause negative effects of surface or groundwater from accidental spills or releases to the environment?		X	No increased risk of spills or accidental releases to surface or groundwater are anticipated as a result of this project. Total haulage distance of wastes are reduced in comparison to disposal during bypass conditions.
2.0	Land			
2.1	Cause negative effects on residential, commercial, institutional or other sensitive land uses within 500 metres from the site boundary?		X	No negative effects are anticipated as a result of the change in permitted processing capacity.
2.2	Not be consistent with the Provincial Policy Statement, provincial land use or resource management plans?		X	The DYEC is located in a designated employment area and the land use continues to be consistent with the Provincial Policy Statement as revised in 2014. The MECP's "Reducing Litter and Waste in Our Communities: Discussion Paper" identifies thermal treatment in the form of energy from waste as a potential opportunity to recover the value of resources in waste.

Checklist

(continued)



Criterion		Yes	No	Additional Information
2.0	Land (continued)			
2.3	Be inconsistent with municipal land use policies, plans and zoning bylaws (including municipal setbacks)?		X	No changes to land use are proposed as part of the throughout increase.
2.4	Use lands not zoned as industrial, heavy industrial or waste disposal?		X	The Social/Culture Assessment Technical Study completed in 2009 confirmed the lands are zoned employment/light industrial areas which is compatible with the DYEC activity.
2.5	Use hazard lands or unstable lands subject to erosion?		X	No changes to land use are proposed as part of the throughout increase.
2.6	Cause negative effects related to the remediation of contaminated land?		X	Not applicable
3.0	Air and noise			
3.1	Cause negative effects on air quality due to emissions (for parameter such as temperature, thermal treatment exhaust flue gas volume, NO2, SO2, O2, opacity, HCl, TSP, or other contaminants)?	X		The potential for environmental effects on air quality exists as a result of stack emissions. The profile and dispersion characteristics of the stack may change as a result of the increase in facility throughput.
3.2	Cause negative effects from the emission of GHG (CO2, CO and methane)?		X	Additional CO and CO2 emissions at the facility are expected with increase waste tonnage to 160,000. However these additional carbon emissions will be less than the emissions that would result if the same tonnage were transported and disposed of elsewhere, including methane generation in landfills as is currently occurring.

Checklist

(continued)



Criterion		Yes	No	Additional Information
3.3	Cause negative effects from the emission of dust or odour?		X	Waste will continue to be off-loaded in a closed building under negative air pressure. There is minimal dust from truck traffic and odour as trucks drive around the exterior of the site. Any odour is similar to that from a garbage truck on a residential street. All driving surfaces are paved minimizing dust creation from all vehicles at the site.
3.4	Cause negative effects from the emission of noise?		X	No noticeable increase in noise from additional truck traffic or additional volume of waste processed.
3.5	Cause light pollution from trucks or other operational activities at the site?		X	No additional lighting will be placed on site.
4.0	Natural Environment			
4.1	Cause negative effects on rare or threatened or endangered species of flora or fauna or their habitat?		X	The 2009 Natural Environment Assessment for the original Environmental Assessment established mitigation measures to ensure that facility construction and operations do not have unacceptable adverse impacts on wildlife. These mitigation ;measures remain in effect and will not be impacted by the proposed increase in waste tonnage to 160,000 tonnes per year.
4.2	Cause negative effects on protected natural areas such as, ANSIs, ESAs or other significant natural areas?		X	No changes on protected natural areas such as ANSIs ESAs or other significant natural areas are anticipated as the result of the project.
4.3	Cause negative effects on designated wetlands?		X	No net effects are anticipated with the increase in waste tonnage to 160,000 tonnes per year.
4.4	Cause negative effects on wildlife habitat, populations, corridors or movement?		X	No negative effects on wildlife habitat, populations, corridors or movements are anticipated as a result of the project.

Checklist

(continued)



Criterion		Yes	No	Additional Information
	Natural Environment (continued)			
4.5	Cause negative effects on fish or their habitat, spawning, movement or environmental conditions (e.g. water temperature, turbidity)?		X	The 2009 Natural Environment Assessment for the original Environmental Assessment determined there were no permanent watercourses on site and no significant net effects on aquatic species were anticipated. No changes to the assessment are anticipated as a result of the project.
4.6	Cause negative effects on locally important or valued ecosystems or vegetation?		X	No negative impacts on locally important or valued ecosystems or vegetation are anticipated as a result of the project.
4.7	Increase bird hazards within the area that could impact surrounding land uses (e.g. airports)?		X	No increase to bird hazards within the area are anticipated as a result of the project.
5.0	Resources			
5.1	Result in practices inconsistent with waste studies and/or waste diversion targets (e.g. result in final disposal of materials subject to diversion programs)?		X	Facility operates in accordance with the EA/ECA. All tonnage received is post diversion materials. The additional requested tonnage is still subject to waste diversion requirements. Additional capacity is not expected to decrease diversion as the waste is already being generated – but is currently by-passed to another waste disposal facility.
5.2	Result in generation of energy that cannot be captured and utilized?		X	Additional tonnage will result in additional energy generation that will be sold to the provincial grid or used for parasitic load power.
5.3	Be located a distance from required infrastructure?		X	Facility sited at an appropriate distance from waste sources with access to supporting infrastructure. No location issues are anticipated for the project.

Checklist

(continued)



Criterion		Yes	No	Additional Information
	Resources <i>(continued)</i>			
5.4	Cause negative effects on the use of Canada Land Inventory Class 1-3, specialty crop or locally significant agricultural lands?		X	Site is located within an energy business park adjacent to Class 1 agricultural lands. No changes to land use are proposed to accommodate the processing increase.
5.5	Cause negative effects on existing agricultural production?		X	No impacts on existing agricultural production are anticipated as the result of the throughput increase.
6.0	Socio-Economic			
6.1	Cause negative effects on neighborhood or community character?		X	The Social Cultural Assessment Technical Study completed in 2009 concluded the facility would have minimal to no overall net effects on the community character of the area. No change to community character anticipated as the result of the processing capacity expansion.
6.2	Result in aesthetic impacts (e.g. visual and litter impacts)?		X	No changes to the facility structure or visual impacts are associated with the project. No additional litter is likely to result from the processing expansion.
6.3	Cause negative effects on local businesses, institutions or public facilities?		X	No impacts to local businesses, institutions or public facilities are anticipated as part of the processing increase.
6.4	Cause negative effects on recreation, cottaging or tourism?		X	No impacts to recreation or tourism are anticipated as the result of a processing increase.
6.5	Cause negative effects related to increases in the demands on community services and infrastructure?		X	No changes or negative impacts related to demands on community services or infrastructure are anticipated as a result of the capacity increase.

Checklist

(continued)



Criterion		Yes	No	Additional Information
	Socio-Economic (continued)			
6.6	Cause negative effects on the economic base of a municipality or community?		X	The Economic Assessment Technical Study Report completed in 2009 determined the facility would have a net positive impact on the economic base of the community. The proposed increase in throughput to 160,000 tonnes will have no impact on the local economic base. Increased capacity increases DYEC efficiency and electrical and metal revenue. Cost savings are anticipated as the result of reducing the need for waste bypass.
6.7	Cause negative effects on local employment and labour supply?		X	No change in local employment is anticipated with the increased tonnage.
6.8	Cause negative effects related to traffic?		X	Approximately two additional vehicles per day will visit the site as a result of the increase in waste tonnage. This level of traffic already occurs during periods when the facility is operating at full capacity. No negative effects are anticipated as a result of the throughput increase.
6.9	Be located within eight km of an aerodome/airport reference point?	X		There is a heliport located at the Bowmanville Hospital, although air ambulance service is currently suspended to the facility, it is anticipated that a relocated facility will be established in the future. However, as no exterior changes are being made to the existing facility, and all waste handling will continue to occur indoors, no impacts are anticipated.
6.10	Interfere with flight paths due to the construction of facilities with height (stacks)?		X	No increase in stack height and no buildings are being constructed with the increased capacity.
6.11	Cause negative effects on public health and safety?		X	The Human Health and Ecological Risk Assessment completed in 2009 determined that overall the chemical emissions from the facility would not lead to any adverse health risks to local residents, farmers or other receptors at the 140,000 tonnes per year operating scenario and minimal risk during upset conditions at the 400,000 tonne per year operating scenario. 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.

Checklist

(continued)



Criterion		Yes	No	Additional Information
7.0	Heritage and Culture			
7.1	Cause negative effects on heritage buildings, structures or sites, archaeological sites or areas of archaeological importance, or cultural heritage landscapes?		X	The increased processing if approved will occur within the existing structure on site, no changes to land, or new construction will occur as a result of the project. No impacts to cultural, heritage or archaeological sites are anticipated.
7.2	Cause negative effects on scenic or aesthetically pleasing landscapes or views?		X	The increased processing if approved will occur within the existing structure on site, no changes to land, or new construction will occur as a result of the project. No impacts to visual appearance of the area are anticipated.
8.0	Indigenous			
8.1	Cause negative effects on land, resources, traditional activities or other interests of Indigenous communities?		X	No impacts to land, resources, traditional activities or other interest of Indigenous communities are anticipated as the result of the increased processing capacity to 160,000 tonnes. Consultation and engagement with Indigenous communities will occur to determine if any concerns related to the project exist.
9.0	Other			
9.1	Result in the creation of non-hazardous waste materials requiring disposal?		X	No additional waste materials are generated as a result of the project. The facility will continue to process collected wastes prior to their disposal, with any residuals being sent to landfill for disposal.
9.2	Result in the creation of hazardous waste materials requiring disposal?		X	There will continue to be minimal creation of hazardous waste as a result of the facility operations. Bottom and treated fly ash are both managed as non-hazardous wastes.
9.3	Cause any other negative environmental effects not covered by the criteria outlined above?		X	No other effects have been identified.

Potential effects



Air

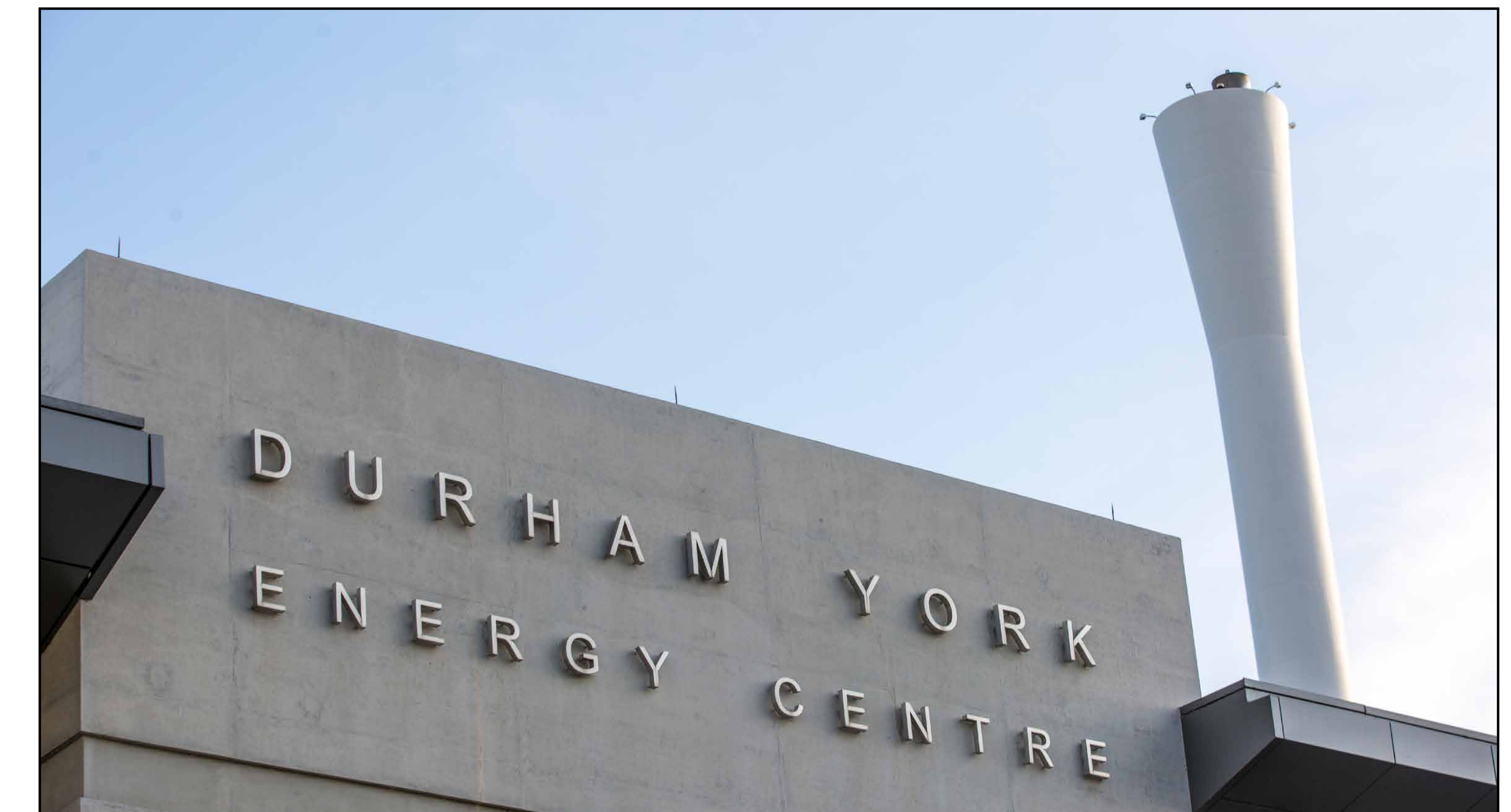
- Potential for increase in air emissions associated with an increase in waste processing capacity.
- Emissions Screening and Dispersion Modelling various scenarios was prepared when determining project feasibility. These models will be further reviewed and included during the next stage of the work.



Approach

- As indicated previously, the facility can process the additional 20,000 tonnes using the existing equipment.
- Currently the facility operates at levels below its design rating during portions of the year, in an effort to prevent the plant from being placed offline at the end of the year once 140,000 tonnes has been reached.
- Proposed change would result in the facility operating closer to its design rating for larger portions of the year. As the facility already operates under these conditions during some periods, no change in operations will be noticeable in the immediate site vicinity.
- Existing measures and best management practices are already in place at the facility as part of current operations. These were put in place as part of the facility's initial construction and operations to limit any impacts to the environment.

- The set of environmental studies supporting these measures are being reviewed to ensure they still reflect the project nature and area.
- Should any new or changed potential effects be identified during study review – the screening checklist can be adjusted to reflect any additional information.



Consultation



What is the reason for consultation?

In accordance with Waste Management Projects Regulation (Ontario Regulation 101/07) of the Environmental Assessment Act the Regions are required to provide consultation for the Environmental Assessment screening process.

The purpose of consultation in the Environmental Screening Process is to allow the Regions to identify and consider concerns and issues and to provide interested persons with an opportunity to receive information about and provide meaningful input into the project of increasing the capacity of the facility from 140,000 to 160,000 tonnes per year.

Why is consultation required?

- To notify potentially interested persons, including those affected by the project.
- To identify and assess the environmental effects of the project.

To address the concerns of interested persons, adjacent property owners, interest groups and persons that may be affected by some aspect of the project.

When will consultation occur?

Consultation is occurring between August and December of 2019.

Where can more information be found?

Public Information Centre meeting dates and locations will be advertised in advance and meeting dates will be posted to the DYEC website durham.ca/DYEC160K.

How will information be shared?

- Media releases
- Advertising in local papers, and social media
- Updating the Durham York Energy Centre website durham.ca/DYEC160K
- Presentations to committees and councils
- Dedicated public information centres

Who should be notified?

- Durham and York residents
- Environmental and other interest groups
- Government agencies
- Indigenous communities
- Media
- Regional and municipal councillors
- Regional and municipal staff
- Energy from Waste Advisory Committee (EFWAC) and Energy from Waste-Waste Management Advisory Committee (EFW-WMAC)

Next steps



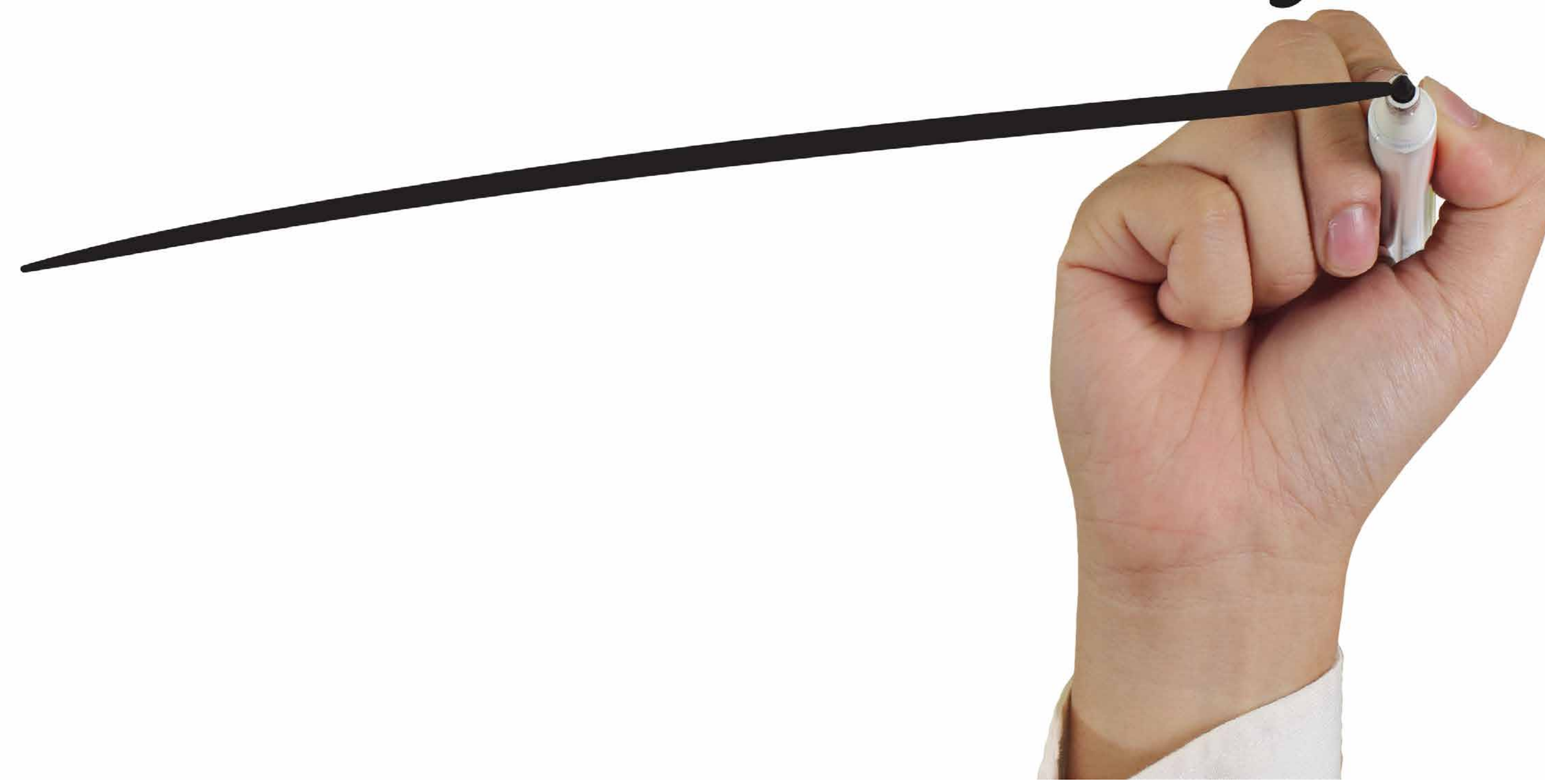
Public Information Centre #2

The Region will describe the potential environmental effects of the DYEC capacity increase in greater detail. The public will have the opportunity to comment on the impact management and mitigation measures the Region will take.

Public Information Centre #3

The public will have the opportunity to review and comment on the Environmental Screening Report for the capacity increase. The Screening Report will describe the work completed to determine environmental impacts, mitigation measures to reduce the impacts, summarize all of the consultation activities completed by the Region including comments received from the public.

WE WANT TO
HEAR FROM YOU



Your input and feedback on this project is important.
Your comments will be received as part of the Record of Consultation.

If you have any questions or comments, or wish to be added to the mailing list, please contact:

Andrew Evans, M.A.Sc, P.Eng
Project Manager
Durham York Energy Centre
1835 Energy Drive
Clarington, ON L1E 2R2
Tel: 905-404-0888 ext. 4130
Email: info@durhamyorkwaste.ca
durhamyorkwaste.ca

Durham Region's program

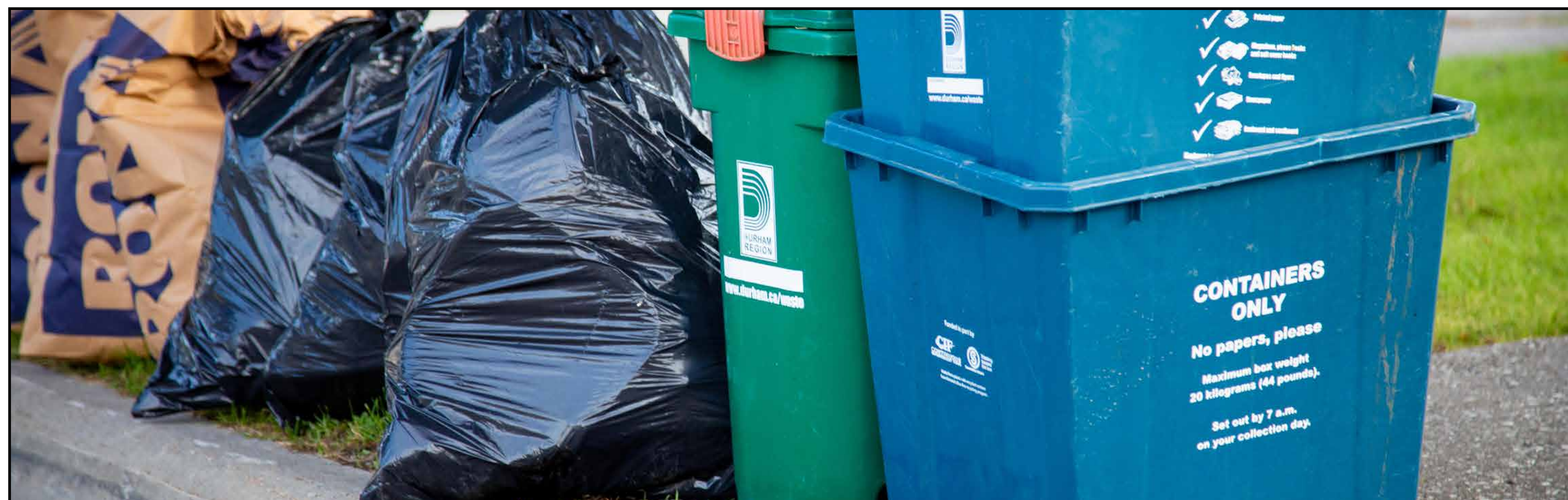


Roles and responsibilities

Durham Region is responsible for curbside collection of recyclables, organics, leaf and yard waste and residual garbage in Ajax, Brock, Clarington, Pickering, Scugog and Uxbridge.

The Region only collects recycling in Whitby and Oshawa, but partners with both municipalities to ensure uniform collection programs region-wide.

Bulky items, metal goods, electronic waste, battery and porcelain collection is also provided to single family homes in Ajax, Brock, Clarington, Pickering, Scugog and Uxbridge by the Region.



In addition to curbside collection services, the Region, in partnership with local municipalities, offers local waste reduction initiatives such as:

- Spring compost events; one in each municipality.
- Spring electronic equipment drop-off events and household hazardous waste drop-off events.
- Reuse drop-off events held from March to October, in partnership with local charities.
- Almost 400 multi-residential buildings and townhouses are also serviced by the Region of Durham's weekly waste collection programs.
- Onsite collection services offered in multi-residential buildings include recyclables, garbage, battery, electronics and textile collection.

Processing

Following collection, the processing of recyclables, organics, yard waste and garbage is also managed by the Durham Region. This is accomplished through a combination of Regional blue box processing, external contracts for treatment of organics, yard waste and energy-from-waste recovery for residual waste. The processing of electronics, household hazardous waste, textiles and porcelain is also undertaken with industry partners.

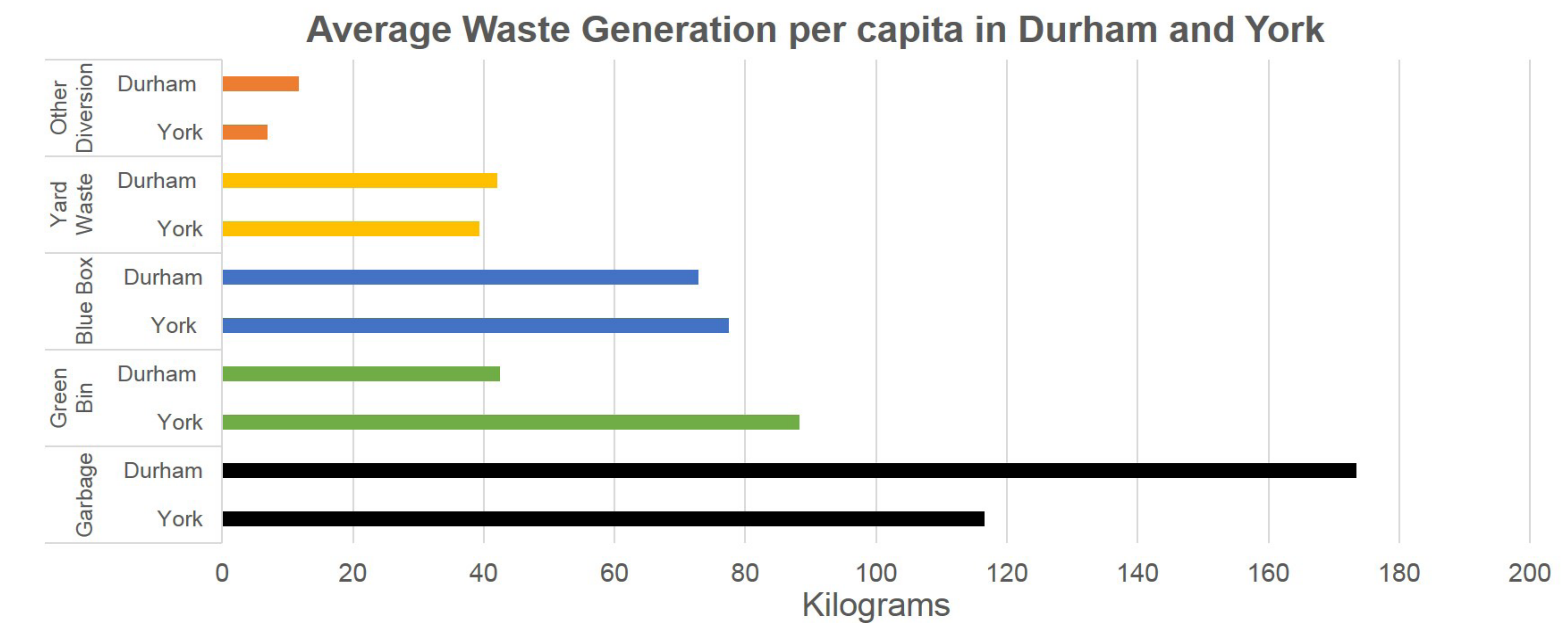
Disposal

Within the Region's 4R hierarchy (reduce, reuse, recycle, recover), the preferred final disposal destination is energy-from-waste to maximize the benefit of capturing energy from residual garbage.

Waste diversion



- Data and tonnage information on Waste Management Programs are reported by Municipalities to the Province, managed by the Resource Productivity & Recovery Authority (RPRA). Based on the data provided, RPRA calculates the Waste Diversion rate for each Municipality.
- Municipalities are placed in categories based on their population.
- Durham and York Regions place among the top in their respective category for highest waste diversion rate.



Durham and York have similar waste management programs, however a noted difference can be seen between the Green Bin and Garbage. York Region accepts pet waste and litter, sanitary products and diapers in their Green Bin program.

With the implementation of an Anaerobic Digestion facility in Durham Region, the comparison between Durham and York garbage and green bin quantities is anticipated to be similar.

Other consultations



In addition to this consultation for increasing the capacity for the DYEC, Durham Region will be consulting on three other projects in the coming months.

Long-Term Waste Management Strategy 2021 to 2040

Durham Region will be launching consultation on a new Long-Term Waste Management Strategy 2021 to 2040 in early 2020. This consultation will focus on efforts to implement the vision endorsed by Regional Council:

Durham Region will manage solid waste as a resource through innovation and adaptability to enhance environmental sustainability.

To achieve the Region's vision for waste management, the Long-Term Waste Management Strategy 2021 to 2040 will need to focus on optimizing the Region's waste management system to increase diversion while encouraging residents to reduce waste generation.

Waste Pre-Sort and Anaerobic Digestion

Population growth in Durham Region has led to the immediate need to explore other waste management options (Durham Region's population is projected to increase from 645,000 to 1.2 million by 2041).

Durham Region Council recently approved construction of an anaerobic digestion facility with a mixed waste transfer and pre-sort component. The pre-sort facility will remove the organic fraction of the wastes which was not captured by the Green Bin program for processing in an anaerobic digester. Recyclable material and non-combustible material will also be removed from the waste stream at the pre-sort facility.

This will reduce the amount of waste that must be sent for disposal at the DYEC from the Region. By removing materials from the waste stream prior to its entering the DYEC, the Region will optimize the use of the existing DYEC capacity. The Region anticipates the facility will be operational within the next five years.

Terms of Reference for DYEC Expansion to 250,000 tonnes per year

In June 2019, Regional Council approved drafting a Terms of Reference (TOR) for an Environmental Assessment for expanding the DYEC to process up to 250,000 tonnes per year. Drafting the TOR provides an early opportunity for the public to learn about a possible expansion of the DYEC and the considerations for the expansion. The public can also provide input into the type of studies to be completed as part of a full Environmental Assessment.

A Terms of Reference is not an Environmental Assessment but instead becomes the framework for the work and studies to be completed during the environmental assessment stage if Council decides to move ahead with a full Environmental Assessment.