

Public Information Centre

Waste Pre-Sorting & Anaerobic Digestion Facility



February 27, 2020



**Please sign-in at the
registration table upon arrival**



**Please feel free to approach
any team member to discuss
the project**



**Please share your thoughts
with us by completing a
comment form to ensure your
input is captured**



WELCOME!

The purpose of this event is to discuss the short-listed sites for the proposed Waste Pre-Sorting & Anaerobic Digestion Facility.

Today we will:

Provide an introduction to the project

Describe the siting process and exclusionary criteria

Provide information on the short list of potential sites and the evaluation criteria

Discuss environmental considerations and best management practices

Collect your feedback and outline next steps for the project

Comments

To ensure your views are considered, please submit your comments by:

March 20, 2020





Project Need & Background

Regional Waste Management Strategy

Diversion
Target:
70%

Current
Diversion:
64%

This facility will help us achieve our diversion target by managing source separated organics from the Green Bin program, multi-residential buildings, and garbage.

Benefits of this Facility

- Produces a methane bio-fuel, which can generate electricity and heat or be processed into renewable natural gas and transportation fuels
- Generates a 'digestate' product that can be turned into a nutrient-rich compost or fertilizer product
- Removes recyclables that end up in waste
- Reduces amount of waste sent to the Durham York Energy Centre
- Promotes circular economy of waste
- Serves as an international model for other municipalities





Source Separated Organics

The Region's source separated organics, commonly referred to as the Green Bin program accepts food waste, some paper products like napkins and paper towels, and other compostable items like household plant clippings and dryer lint.



How will the waste be processed?

Mixed Waste Pre-Sorting

Pre-sorting of mixed waste involves systems which separate recyclables in the garbage bag from organic waste and other residual materials that can be processed at the Durham York Energy Centre.

Anaerobic Digestion

Anaerobic digestion is a process where organics are broken down by microbial bacteria in the absence of oxygen under controlled conditions. This process produces biogas, compost liquid wastes and solid residue. The digestion of organics takes place in a special reactor where critical environmental conditions such as moisture content, temperature and pH levels are controlled to maximize biogas generation and organic decomposition rates.

Where will the waste come from?

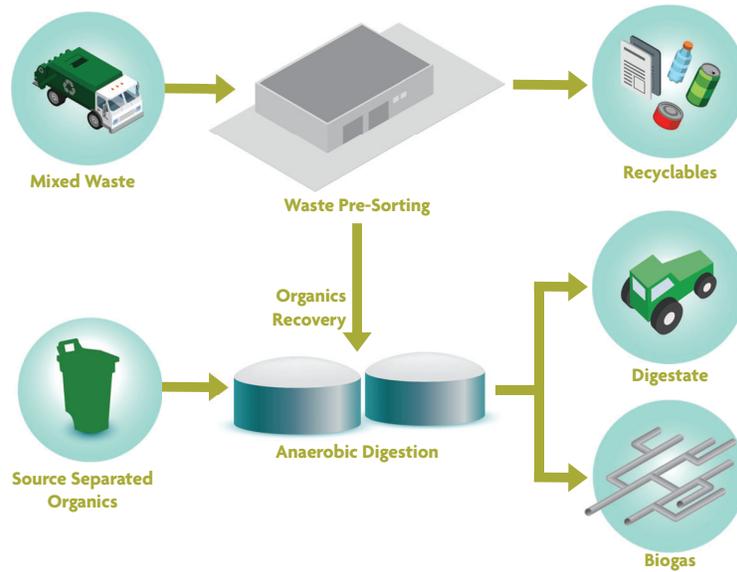


Region will accept garbage and source separated organics collected from eight municipalities:
Oshawa, Pickering, Ajax, Whitby, Clarington, Brock, Scugog, and Uxbridge.



Waste Pre-Sorting and Anaerobic Digestion Facility

How Does it Work?



*Horsham Mechanical Biological Treatment Facility
West Sussex, England*



*Bio-En Anaerobic Digestion Facility
Elmira, Ontario*



*Athens Services MRF
Sun Valley, California*



Siting – Where Are We?

1.  Determine search area / minimum site requirements
2.  Identify list of candidate sites based on minimum site requirements
3.  Develop evaluation criteria for candidate / long list of sites and short list sites
4.  Apply evaluation criteria to long list of sites to determine a short list of sites
5.  Municipal and public consultation
6. Apply evaluation criteria to short list of sites and undertake a comparative evaluation to establish advantages / disadvantages between sites
7. Identify preferred site

Siting Factors To Establish Short List

Proximity
& Access

Environmental

Financial

Technical

Siting Objectives

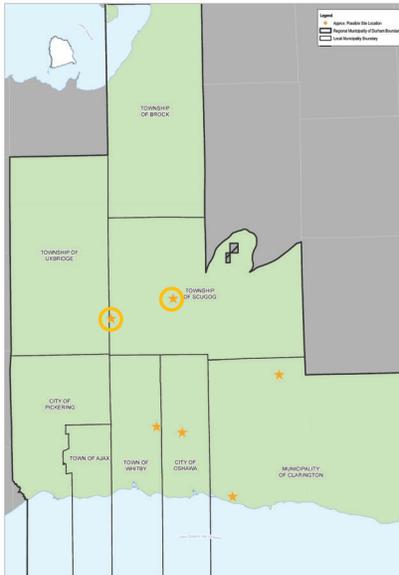
- Establish a practical siting methodology with associated criteria
- Undertaken in a step-wise process
- Ultimately leads to a site that is approvable
- Traceable and defensible



Short List of Sites

West Scugog

Scugog Depot, 10 Goodwood Road, Port Perry



East Scugog

Regional Waste Management Facility
1623 Reach Street, Port Perry

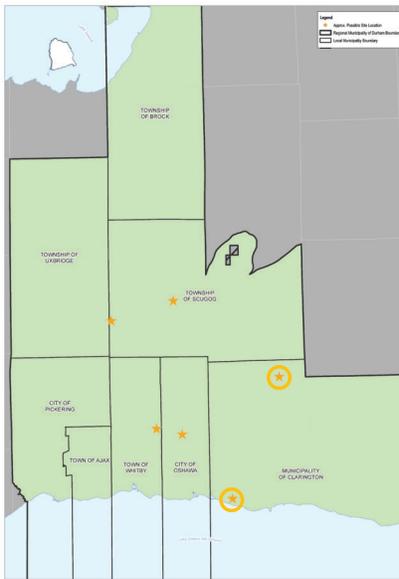




Short List of Sites

North Clarington

Former Darlington Landfill
9293 Woodley Road, Clarington



South Clarington

Adjacent to Durham York Energy Centre
1797 Megawatt Drive, Courtice

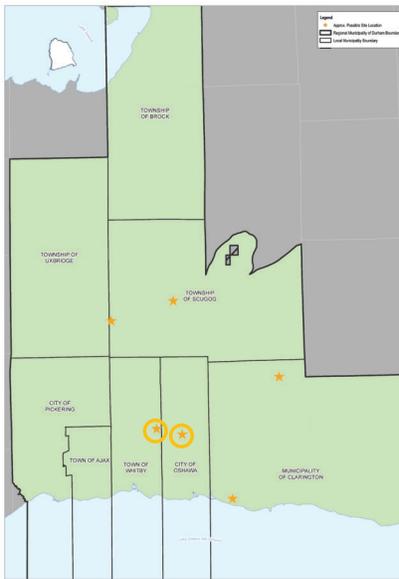




Short List of Sites

Oshawa

Regional Waste Management Facility
1640 Ritson Road North, Oshawa



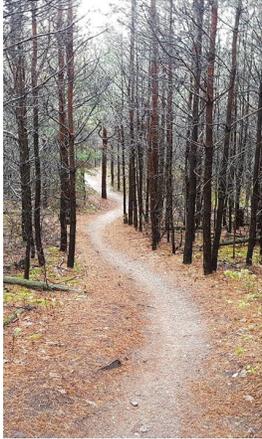
Whitby

Regional Waste Management Facility
4600 Garrard Road, Whitby





Evaluation Criteria



Environmental

- Air quality, odour and noise
- Terrestrial environment, such as vegetation and trees
- Aquatic environment, such as fish and fish habitat
- Watercourses
- Groundwater
- Agricultural



Social

- Sensitive receptors
- Land use/zoning
- Transportation
- Visual



Cultural

- Archaeological
- Heritage



Technical

- Permitting and approvals
- Safety
- Utilities and services
- Suitability

Economic

- Capital costs
- Waste transfer costs



Best Management Practices

- Waste will be contained inside a building and kept under negative pressure to manage odour emissions.
- Odour control system will treat air from inside the building to remove **odour** and exhaust will be treated air through a stack.
- Dust suppression and control will be implemented through paving internal roads, routine cleaning, and use of water for **dust** suppression as necessary.
- All construction equipment will meet applicable Ministry of the Environment, Conservation and Parks **sound** emission standards.
- Truck idling will be minimized.

What about visual barriers?

- Perimeter plantings, berms or other vegetated buffers will be implemented as close to the facility as reasonable.
- Internal roadway will be designed to minimize site lines from the site entrance.



Relevant Plans and Policies



The Strategy for A Waste-Free Ontario: Building the Circular Economy sets a course for resource recovery and waste reduction in Ontario to achieve a zero waste Ontario and zero greenhouse gas emissions from the waste sector.



Ontario's Food and Organic Waste Framework suggests a potential organics ban to landfill in the future.



Region of Durham and Local Official Plans – The facility will require standard municipal approvals such as building permits and Site Plan approval.



Long Term Waste Management Strategy Plan goals from 1999 have been accomplished. In Spring 2019, Regional Council directed staff to begin working on a new Long-Term Waste Management Plan 2021-2040.



Environmental Protection Act
The facility will require an Environmental Compliance Approvals (ECA). ECAs will include: waste, air and noise, and stormwater management.



Next Steps

- ▶ **The recommended site will be presented to Regional Council in April**
- ▶ **Once a site is confirmed, the Region will obtain necessary permits including an Environmental Compliance Approval, and begin a procurement process for the design and construction of the facility**
- ▶ **Design and construction will begin once a preferred proponent is selected**



To ensure your views are considered,
please submit your comments by:

March 20, 2020

If you would like more information and/or
to provide comments after today, please
contact us directly.

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