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DURHAM YORK RESIDUAL WASTE INDIVIDUAL ENVIRONMENTAL ASSESSMENT (IEA) COMPLETION AND SUBMISSION

(Regional Council at its meeting on June 25, 2009 amended this Clause to include as part of the environmental surveillance program guiding principles that in the future human bio-monitoring not be precluded as an option.)

The Solid Waste Management Committee recommends:

- 1. Receipt of the presentation by Jim McKay and Dr. Chris Ollson, Jacques Whitford;**
- 2. Receipt of the presentation by Erin Mahoney, Commissioner of Environmental Services;**
- 3. Adoption of the recommendations contained in the following report dated June 12, 2009, from the Commissioner of Environmental Services and the following additional recommendation:**
 - 4. The results of the ambient air and soil monitoring studies to be provided to York and Durham Councils for review and appropriate action following the agreed upon three-year period.**

1. RECOMMENDATIONS

Given York Region's status as a co-proponent in the Durham York Residual Waste Environmental Assessment, it is recommended that:

1. Council endorse the Durham York Residual Waste Individual Environmental Assessment (IEA) documentation as presented to Solid Waste Management Committee, subject to minor adjustments to the final drafts arising out of the pre-submission consultation with the Ministry of the Environment.
2. Council authorize staff to make minor modifications to the Individual Environmental Assessment documentation, if necessary, and to continue to address matters to facilitate the process of Ministry of the Environment review of the Individual Environmental Assessment.
3. Council authorize staff to proceed with submission of the final Durham York Residual Waste Individual Environmental Assessment, subject to Durham Regional Council's corresponding endorsement of the joint submission.

2. PURPOSE

This report informs Council of pending submission of final documentation of the Durham York Residual Waste Individual Environmental Assessment to the Ministry of the Environment to begin the formal review and approval process. Authorization is sought to make necessary amendments to the documentation to address the on-going pre-submission review and to meet Ministry requirements.

3. BACKGROUND

On June 23, 2005, Council approved the partnership with Durham Region to undertake an Individual Environmental Assessment to seek a solution to the management of residual waste from the two Regions. Council established a Joint Waste Management Group with representation from both York and Durham Region Councils and citizens to serve as a Steering Committee for the initiative.

On March 31, 2006, the Ministry of the Environment approved the Terms of Reference for the Individual Environmental Assessment Study.

On May 25, 2006, Council received Clause 1 of Report No. 3 of the Solid Waste Management Committee describing the technology review and draft recommendation of the Consultants for the selection of a long-term waste processing system to minimize our landfill needs as part of the Durham York Residual Waste Individual Environmental Assessment. The draft recommendation was to use a thermal process (i.e. energy from waste, incineration or gasification). This draft recommendation was circulated for public comment to over 400 government and non-government organizations, was discussed at public information sessions on May 9, 10 and 11 and was the subject of deputations to the Solid Waste Management Committee and Joint Waste Management Group on May 17, 2006.

On June 22, 2006, Council approved the selection of “Thermal Treatment of Municipal Solid Waste and Recovery of Energy Followed by the Recovery of Materials from the Ash/Char” as the preferred system to manage post diversion residual waste.

On October 19, 2006, Council approved a Waste Diversion Strategy for the Region and local municipalities with a target of 65% waste diversion by the end of 2010.

On February 22, 2007, Council approved a Memorandum of Understanding with Durham Region agreeing to equally share the costs associated with the completion of the Individual Environmental Assessment process.

On March 22, 2007, Council approved the consultant’s short list of alternative sites for an energy from waste facility and directed staff to begin a process to identify the preferred

site within the scope of the approved Individual Environmental Assessment Terms of Reference.

On January 24, 2008, Council approved the consultant team's recommendation of the Clarington 01 site as the preferred site of the location of the Durham York energy from waste facility for submission to the Ministry of the Environment as part of the Individual Environmental Assessment. Council also approved a short list of five pre-qualified vendors of thermal waste treatment technologies and subsequent issuance of a Request for Proposal by Durham Region for the design, construction and operation of a thermal waste treatment facility subject to Durham Council approval.

On April 20, 2009, Jacques Whitford, the Individual Environmental Assessment consultant for Durham and York submitted the Interim Individual Environmental Assessment Study Document to the Ministry of the Environment for a preliminary review to identify any issues that could delay evaluation of the final Individual Environmental Assessment Documentation.

On May 15, 2009, the interim Air Study, Risk Assessment and Environmental Health were submitted to the MOE for preliminary review.

On May 21, 2009, Council approved selection of Covanta Energy Ltd. as the preferred vendor for design, build and operation of the energy from waste facility.

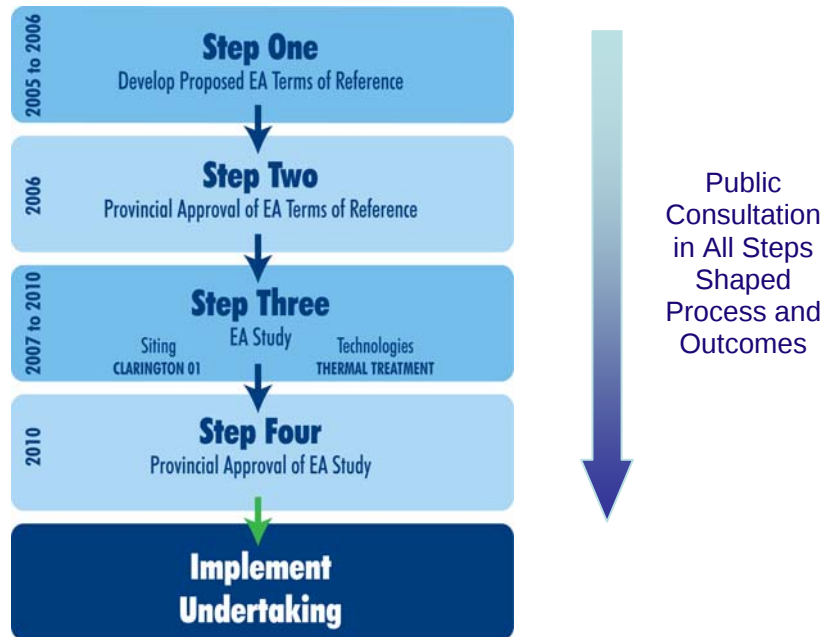
4. ANALYSIS AND OPTIONS

This report accompanies a presentation by Jacques Whitford Limited on details of the Individual Environmental Assessment. The following briefly summarizes some of the major findings of the most recent phase of the Individual Environmental Assessment.

Comprehensive Environmental Assessment identified energy from waste facility located in Clarington as preferred residual waste treatment option

In June 2005, York and Durham Regions established a partnership to seek local solutions to responsibly manage residual waste. The Regions have worked together to develop a sustainable long term waste management option that enhances diversification and stability of the Region's long-term waste management program. Durham and York are entering the final stages of completing the Individual Environmental Assessment for submission to the Ministry of the Environment for review and approval. Figure 1 illustrates the major steps of the Residual Waste Individual Environmental Assessment.

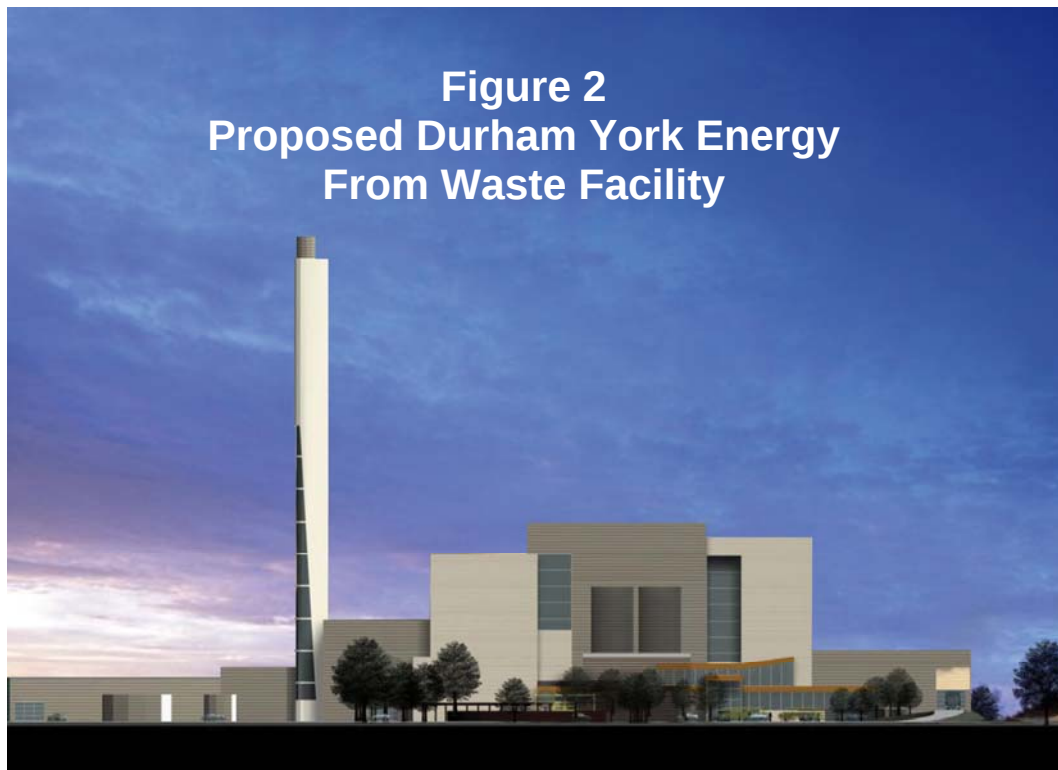
Figure 1
Residual Waste Management IEA Study
Process and Timeframe



An extensive site selection process was conducted and identified a site in Clarington, located near Osbourne Road and Highway 401 in Durham Region, as the preferred location for a proposed energy from waste facility. The preferred site was endorsed by both Councils.

Five vendors were prequalified through a Request for Qualification process and we have proceeded to the Request for Proposal stage to select a contractor to design, build, operate and maintain the energy from waste facility. Four proponents responded including: Covanta Energy Corporation, Green Conversions Systems LLC, Wheelabrator Technologies Inc., and Urbaser SA. A multi-disciplinary team evaluated the four proposals. Evaluators unanimously agreed that Covanta achieved the highest aggregate score and also achieved the highest score in each individual assessment category; technical, project delivery and commercial elements with the lowest cost of the four proposals.

Figure 2 shows a graphic rendering of Covanta's initial architectural concept for the proposed Durham York Energy from Waste facility.



Site-specific studies confirm suitability of the Preferred Site in Clarington as the proposed location of the Durham York Energy from Waste Facility

Step 3 of the Individual Environmental Assessment involves completion of the studies and compilation of the documentation for submission to the Ontario Ministry of the Environment for review and approval. With both Regional Council's approval of Covanta as the Preferred Vendor, the Early Works activities have been carried out and the Individual Environmental Assessment has been completed. The following lists the Site-specific studies that have been incorporated into the Individual Environmental Assessment:

- Natural Environment
- Geotechnical
- Archaeological
- Built Heritage
- Site Specific Risk Assessment
- Acoustic
- Traffic
- Visual
- Economic

- Social
- Surface Water and Stormwater Management
- Energy

Results of these studies demonstrate the potential for impacts associated with development of the proposed Durham York energy from waste facility are predicted to comply with applicable regulatory criteria and in circumstances where no regulatory criteria apply (e.g. visual impacts), are able to be mitigated to minimize or avoid potential impacts.

In keeping with Council's commitment to consider implementation of an energy from waste facility only if it can be demonstrated that it is safe to do so, a site specific human health and ecological risk assessment study was performed by Jacques Whitford Ltd., led by Dr. Christopher Ollson, contributed to by Dr. Tereza Dan and special adviser Dr. Christopher Balram. The study was peer reviewed by Intrinsic Environmental Services Inc., Dr. Lesbia Smith on behalf Dr. Robert Kyle, Durham Region's Medical Officer of Health, and Senes Consultants Ltd. on behalf of the Town of Clarington.

The site specific human health and ecological risk assessment study for the proposed 140,000 tonne/year facility came to the following important conclusion:

"Overall, the results of the Human Health and Ecological Risk Assessment indicate that there would be no adverse health effects to either human or ecological receptors exposed to emissions from the proposed EFW Facility."

Proposal goes above and beyond best practices for environmental performance and monitoring

The proposed development of the Durham York energy from waste facility commits to environmental performance standards for emissions that are among the most stringent in the World.

Extensive review and investigations contained in the consultant report "*Review of International Best Practices of Environmental Surveillance for Energy-From-Waste Facilities*", dated February 16, 2009 prepared by Jacques Whitford, support the conclusion and recommendation that an extensive chemical emissions stack monitoring and testing program – beyond that typically carried out at most facilities - be included in the proposed facility development to ensure protection of public and environmental health.

The consultant's report also discussed additional options including ambient air monitoring, local environmental monitoring (soil, vegetation and agricultural products) and human biomonitoring.

At subsequent meetings of the Site Liaison Committee, Joint Waste Management Group and Regional Committees and Councils, the consultant's recommendations were adopted and consideration of implementation of additional options was discussed. In recent staff level discussions between Durham Region and the Municipality of Clarington, among numerous other issues, there was agreement in principle to conduct an ambient air monitoring program in the vicinity of the facility for a period of three years. The Regions also agreed to consideration of a soil monitoring study in the area of the facility. Terms of these studies will evolve following approval by the Ministry of the Environment of the Environmental Assessment. If warranted, studies could continue beyond the initial study period.

Proceeding towards implementation for EFW operation by end of 2013

Figure 3 illustrates remaining steps in implementation of the project, subject to Council authorization of the project agreement approval by the Ontario Ministry of the Environment.

**Figure 3
Implementation Steps**



In accordance with Council's May 21, 2009 recommendation of the Preferred Vendor, York and Durham's staff have been negotiating with Covanta Energy Corporation to finalize the terms of the agreement for Design, Build and Operation of the energy from

waste facility. Staff will report back when these negotiations are completed. Staff will also report back with a recommendation on executing the agreement for the Design, Build and Operation of the energy from waste facility following Ministry of the Environment approval of the Individual Environmental Assessment. The project plan currently anticipates Ministry approval early in 2010.

5. FINANCIAL IMPLICATIONS

Budget for completion of the Individual Environmental Assessment received approval from Council on May 21, 2009.

Energy from Waste represents a sound investment for a long-term sustainable waste management solution

Beyond the initial 20 year period, energy from waste will provide a sustainable solution for some of York's residual waste at a very competitive price. If provincial or federal up-front funding is available, some of these initial costs can be offset. Analysis of the financial implications of the proposed project was presented in the May 21, 2009 Council report. To illustrate the financial context of the proposed energy from waste project, Table 1 presents potential future cost scenarios for York's waste management system based on York contributing 30,000 tonnes per year of waste to the energy from waste facility.

Table 1
Comparison of Waste Management Cost Projections

Waste Management Option (Unit Costs 2010 to 2035)	2010 Tonnes	2020 Tonnes		2035 Tonnes	
		(Without Durham York EFW)	(With Durham York EFW)	(Without Durham York EFW)	(With Durham York EFW)
Blue Box (\$24 to 40/tonne)	97,000	121,000	121,000	150,000	150,000
Source Separated Organics (\$154 to 253/tonne)	98,000	130,000	130,000	162,000	162,000
Leaf & Yard Waste (\$67 to 110/tonne)	34,000	41,000	41,000	51,000	51,000
HHW & Other (\$604 to 991/tonne)	6,000	7,000	7,000	9,000	9,000
CECs (\$153 to 251/tonne)	8,000	24,000	24,000	24,000	24,000
Waste to Landfill (\$96 to 157/tonne)	34,000	48,000	18,000	82,000	52,000
Waste to Dongara (\$123 to 202/tonne)	100,000	100,000	100,000	100,000	100,000
Waste to Durham York EFW (NA, \$280/tonne, \$111/tonne)	0	0	30,000	0	30,000
Projected Annual Waste Management Cost	\$40,229,000	\$61,788,000	\$67,028,000	\$100,586,000	\$99,197,000
Blended Unit Cost (per tonne)	\$107	\$131	\$142	\$174	\$172
Taxpayer Impact (per household)	\$133	\$162	\$176	\$203	\$200

Note: Assumes future extension of landfill disposal contract.

6. LOCAL MUNICIPAL IMPACT

Submission of Individual Environmental Assessment documentation represents a major step in development of the Energy from Waste facility that will provide viable, diversified and sustainable options for the long term management of York Region's residual waste. York will continue to partner with its local municipalities to increase waste diversion and to reduce waste management costs consistent with York's Sustainability Strategy.

7. CONCLUSION

The Durham York energy from waste project represents a sustainable approach to management of York Region's residual waste that enhances security, diversification and stability in the long-term. Endorsing the submission of the Residual Waste Individual Environmental Assessment by Durham and York Councils will begin the review process towards Provincial approval of the Individual Environmental Assessment. Following approval of the Individual Environmental Assessment and execution of the Design, Build, Operation and Maintenance Agreement subject to Council's approval, Covanta can complete the design work and begin implementation of the undertaking.

For more information on this report, please contact Laura McDowell, Director of Environmental Promotion and Protection at Ext. 5077.

The Senior Management Group has reviewed this report.



Presentation on the...

Residual Waste Study

Durham/York Residual Waste Study Draft EA Document

June 16, 2009 – Durham Region Committee of the Whole

June 19, 2009 – York Region Solid Waste Committee

Presented by:

Jim McKay

Jacques Whitford Stantec Limited



Content of the Draft EA Document

Residual Waste Study

- ◆ Executive Summary
- ◆ Glossary
- ◆ EA Components and List of Studies
- ◆ Sequence of Events and Study Timeline
- ◆ 1.0 Introduction and Background
- ◆ 2.0 Identification of the Proponents
- ◆ 3.0 Statement of Purpose
- ◆ 4.0 Approved EA Terms of Reference Requirements
- ◆ 5.0 The Planning Process
- ◆ 6.0 The Study Area
- ◆ 7.0 “Alternatives to” - Systems & Technologies
- ◆ 8.0 “Alternative methods” - Site Identification Process



Content of the Draft EA Document

Residual Waste Study

(continued)

- ◆ 9.0 Vendor Identification Process
- ◆ 10.0 Identification and Description of the Undertaking
- ◆ 11.0 Assessment of the Undertaking
- ◆ 12.0 Changes to the EA
- ◆ 13.0 Commitments
- ◆ 14.0 Monitoring
- ◆ 15.0 Additional Approval Requirements
- ◆ 16.0 Consultation Summary
- ◆ 17.0 Closure
- ◆ 18.0 References
- ◆ Appendices



Statement of Purpose

Residual Waste Study

To process - physically, biologically and/or thermally - the waste that remains after the application of both Regions' at-source waste diversion programs in order to recover resources - both material and energy - and to minimize the amount of material requiring landfill disposal.

In proceeding with this undertaking only those approaches that will meet or exceed all regulatory requirements will be considered.



Residual Waste Study

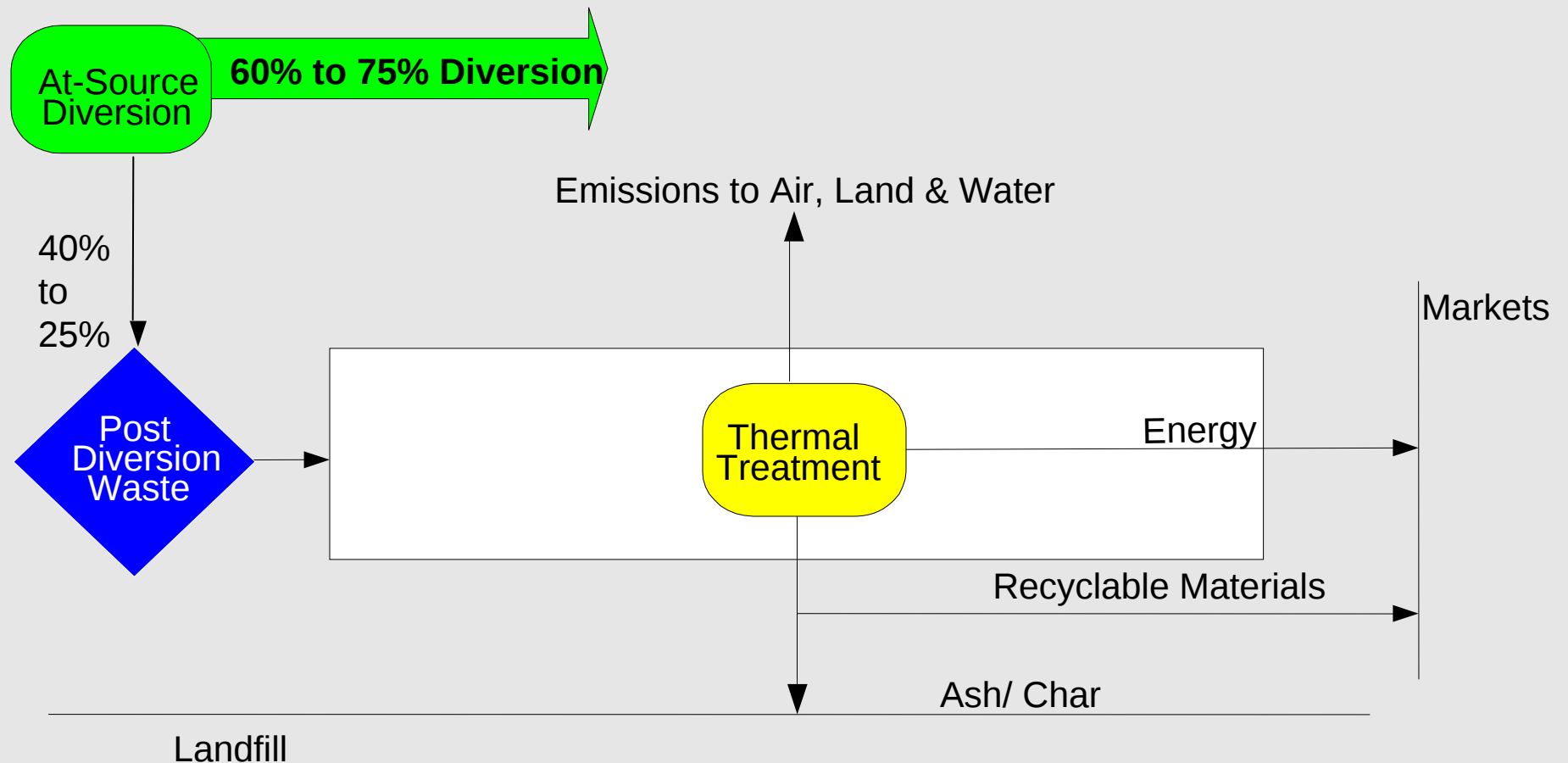
The Planning Process

- ◆ The Durham/York EA process consisted of:
 - ◆ Completion of the EA Terms of Reference;
 - ◆ Evaluation of “Alternatives to” the Undertaking (ie. Technologies);
 - ◆ Evaluation of “Alternative methods” of implementing the Undertaking (ie. Sites); and,
 - ◆ Completion of Site and Vendor specific studies to confirm suitability of site for the Undertaking.



The Preferred System Thermal Treatment (System 2a)

Residual Waste Study





Clarington 01

The Recommended Preferred Site

Residual Waste Study





The Preferred Vendor Covanta Energy Corporation

Residual Waste Study

- ◆ Founded in 1983
- ◆ 35 operating EFW facilities in North America
- ◆ Provide full range of design, construction, startup and operation services
- ◆ Each year, Covanta facilities in North America:
 - ◆ Process more than 15 million tons of waste;
 - ◆ Generate more than 7 million megawatt hours of electricity; and,
 - ◆ Produce 10 billion pounds of steam.





Residual Waste Study

Why was Covanta selected as the Preferred Vendor?

- ◆ The evaluation team unanimously recommended Covanta Energy Corporation as the preferred vendor based on the teams consensus evaluation.
- ◆ Proposals evaluated based on:
 - ◆ Technical – Highest Score - Covanta
 - ◆ Project Delivery – Highest Score - Covanta
 - ◆ Cost & Commercial – Highest Score - Covanta
- ◆ Covanta achieved the highest aggregate score of all submissions as well as highest score in each of the three evaluation categories.



The Undertaking

Residual Waste Study

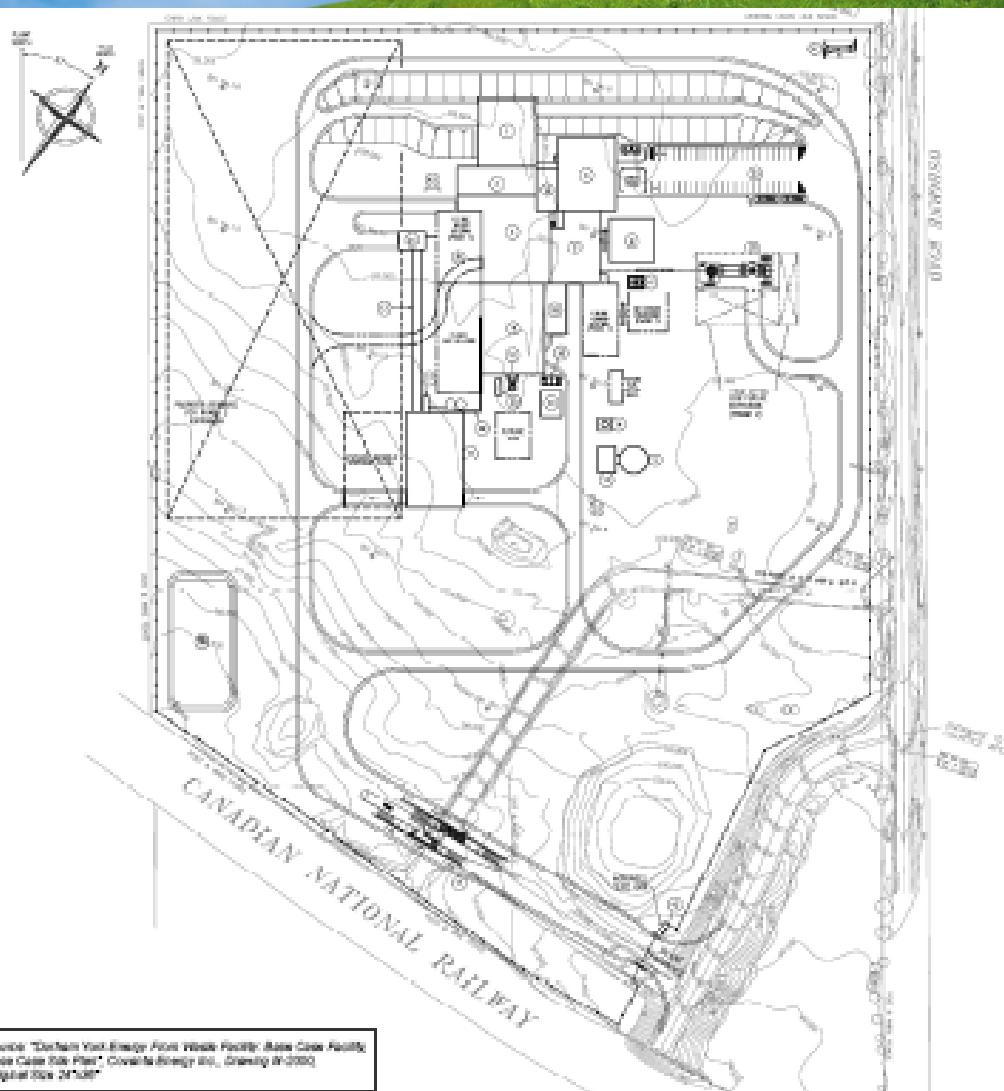
- ◆ Undertaking is a Thermal Treatment Facility, capable of:
 - ◆ processing post-diversion residual waste, and
 - ◆ recovering materials and energy of sufficient quality and quantity to export to the marketplace (recovered metals, electricity and eventually possibility of district heating and cooling) with a maximum capacity of 400,000 tpy
- ◆ Facility designed, built and operated on Clarington 01 site, located in Municipality of Clarington, Regional Municipality of Durham



The Undertaking

Residual Waste Study

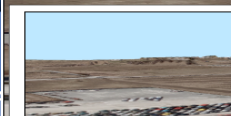
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Source: "Durham York Energy From Waste Facility (Base Case Facility) (Base Case Site Plan)" Covanta Energy Inc., Drawing W-0000
Original Size: 24"x36"



Covanta Artists Rendering of
Durham York Energy From Waste Facility
by McMillan Associates Architects



3-Dimensional Representation of the
Site Location Prior to Construction

Approximate
Orientation

Copart Auto Auctions



Residual Waste Study

Assessment of the Undertaking

- ◆ Site Specific/Vendor Specific Studies included:
 - ◆ Air Quality Assessment;
 - ◆ Surface Water and Groundwater Assessment;
 - ◆ Facility Energy and Life Cycle Assessment;
 - ◆ Geotechnical Investigation;
 - ◆ Acoustic Assessment;
 - ◆ Visual Assessment;
 - ◆ Natural Environment Assessment;
 - ◆ Social/Cultural Assessment;
 - ◆ Stage 2 Archaeological Assessment and Built Heritage Assessment;
 - ◆ Traffic Assessment;
 - ◆ Economic Assessment; and,
 - ◆ Site-Specific Human Health and Ecological Risk Assessment.



Residual Waste Study

Assessment of the Undertaking

(continued)

- ◆ Aspects of the environment for which minimal to no effects are anticipated:
 - ◆ Intermittent vehicle and dust emissions addressed by good construction practices;
 - ◆ During operation, air emissions are predicted to meet applicable ambient air quality criteria and would meet or, more commonly, be below the current air contaminant limits placed on municipal waste incinerators;
 - ◆ No adverse effects at offsite locations are expected from Facility-based odour given the proposed Facility design;
 - ◆ Stormwater management on-site will meet enhanced design guidance criteria;



Residual Waste Study

Assessment of the Undertaking

(continued)

- ◆ Aspects of the environment for which minimal to no effects are anticipated (continued):
 - ◆ Proposed measures to reduce runoff potential provides an enhanced level of receiving water protection;
 - ◆ No effects to local groundwater resources expected during construction or operations;
 - ◆ Predicted potential noise levels at all nearby points of reception less than applicable criteria for operational scenario assessed for the Facility;



Residual Waste Study

Assessment of the Undertaking

(continued)

- ◆ Aspects of the environment for which minimal to no effects are anticipated (continued):
 - ◆ Effects to local wildlife and habitat are anticipated to be minimal;
 - ◆ No permanent watercourses are located onsite and no fish habitat or species are located onsite;
 - ◆ Area around the Site currently occupied by a mixture of commercial/industrial land uses and undeveloped land and is designated for mixture of prestige employment and light industrial land uses compatible with the Facility;
 - ◆ No archaeological artifacts or sites of significance on Site and no significant built heritage features on or near the Site;



Residual Waste Study

Assessment of the Undertaking

(continued)

- ◆ Aspects of the environment for which minimal to no effects are anticipated (continued):
 - ◆ Minimal disruption to the local traffic network;
 - ◆ Road/pavement improvements to the South Service Road and Osbourne Road to accommodate construction and operational vehicles; and,
 - ◆ Neutral or positive effect on property value in the immediate vicinity of the Site within the Energy Park, given the investment in infrastructure (road access, district heating) associated with the Facility.



Residual Waste Study

Assessment of the Undertaking

(continued)

- ◆ Potential advantages of the Undertaking include:
 - ◆ Overall reduction in the environmental burden associated with residual waste disposal based on Life Cycle Analysis;
 - ◆ Recovery of approximately 14,750 tonnes annually of ferrous and non-ferrous metals from the post-diversion residual waste; and,
 - ◆ Facility is expected to have a positive effect on the economic environment in the Regions during construction and operation.



Residual Waste Study

Assessment of the Undertaking

(continued)

- ◆ Potential disadvantages of the Undertaking include:
 - ◆ Some potential for short-term construction related net effects from noise levels associated with pile driving (if required) and increased short-term offsite vehicle traffic;
 - ◆ Some short-term visual disturbances could affect receptors within approximately 1 km of the Site; and,
 - ◆ Presence of the Facility could result in a change to the existing local landscape for duration of Facility operational period.



Residual Waste Study

Assessment of the Undertaking

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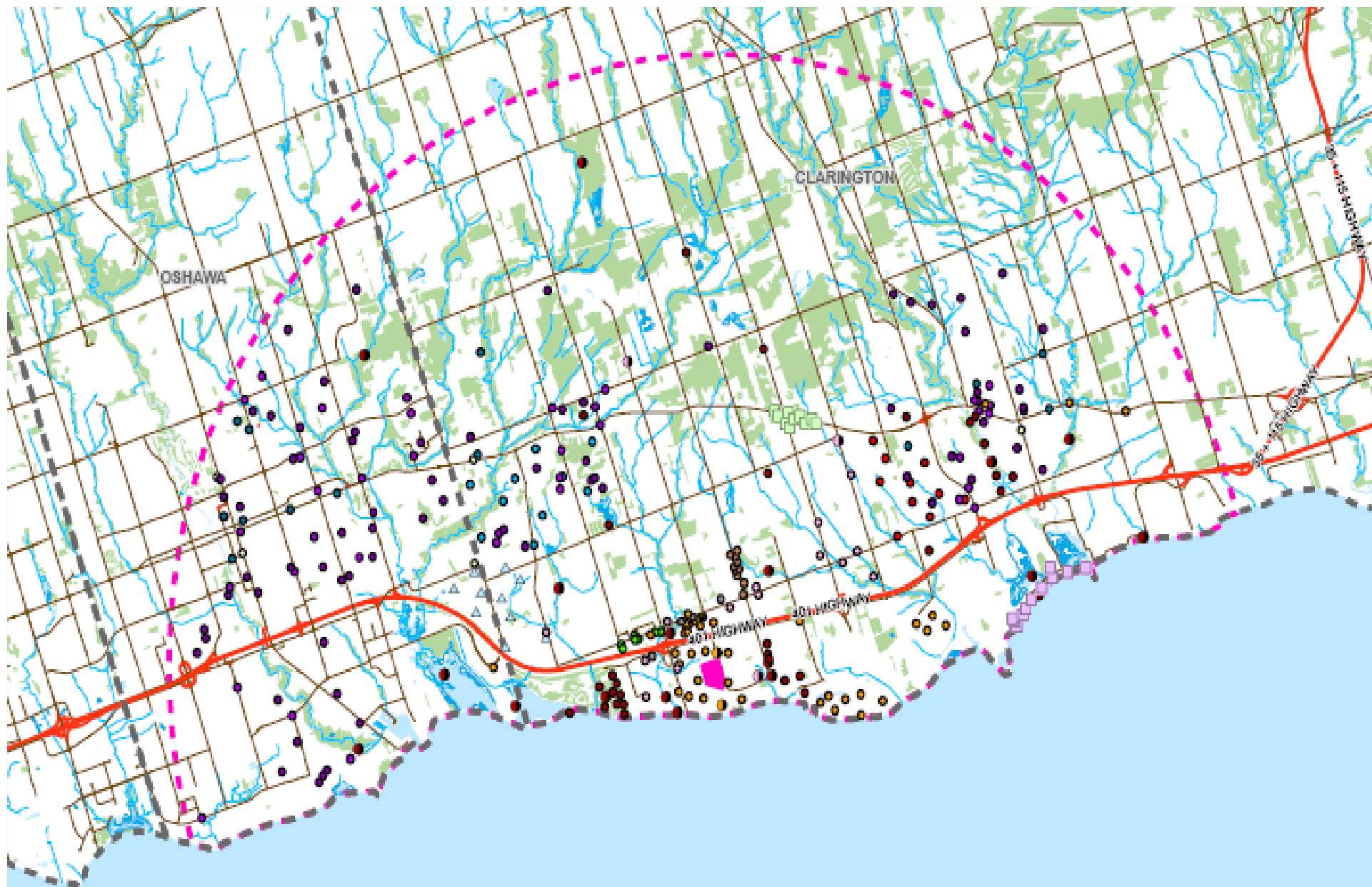
- ◆ Throughout the EA process there has been an attempt to prevent, avoid or minimize adverse environmental effects through the application of impact management measures. As a result, there are no unmanageable net negative environmental impacts. The overall positive impacts are associated with the net reduction in overall GHG emissions and the Facility is expected to have a positive effect on the economic environment during construction and operations phases.



Residual Waste Study

The Site Specific Human Health and Ecological Risk Assessment

- ◆ The risk assessment followed a widely accepted risk assessment framework
 - ◆ Collected Baseline Data from various locations within the Local Assessment Area
 - ◆ Selected receptor locations based on public input, land use, location, etc.
 - ◆ Compiled a comprehensive list of Chemicals of Potential Concern that may be emitted from the facility



Risk Assessment Receptor Locations

Lake Ontario



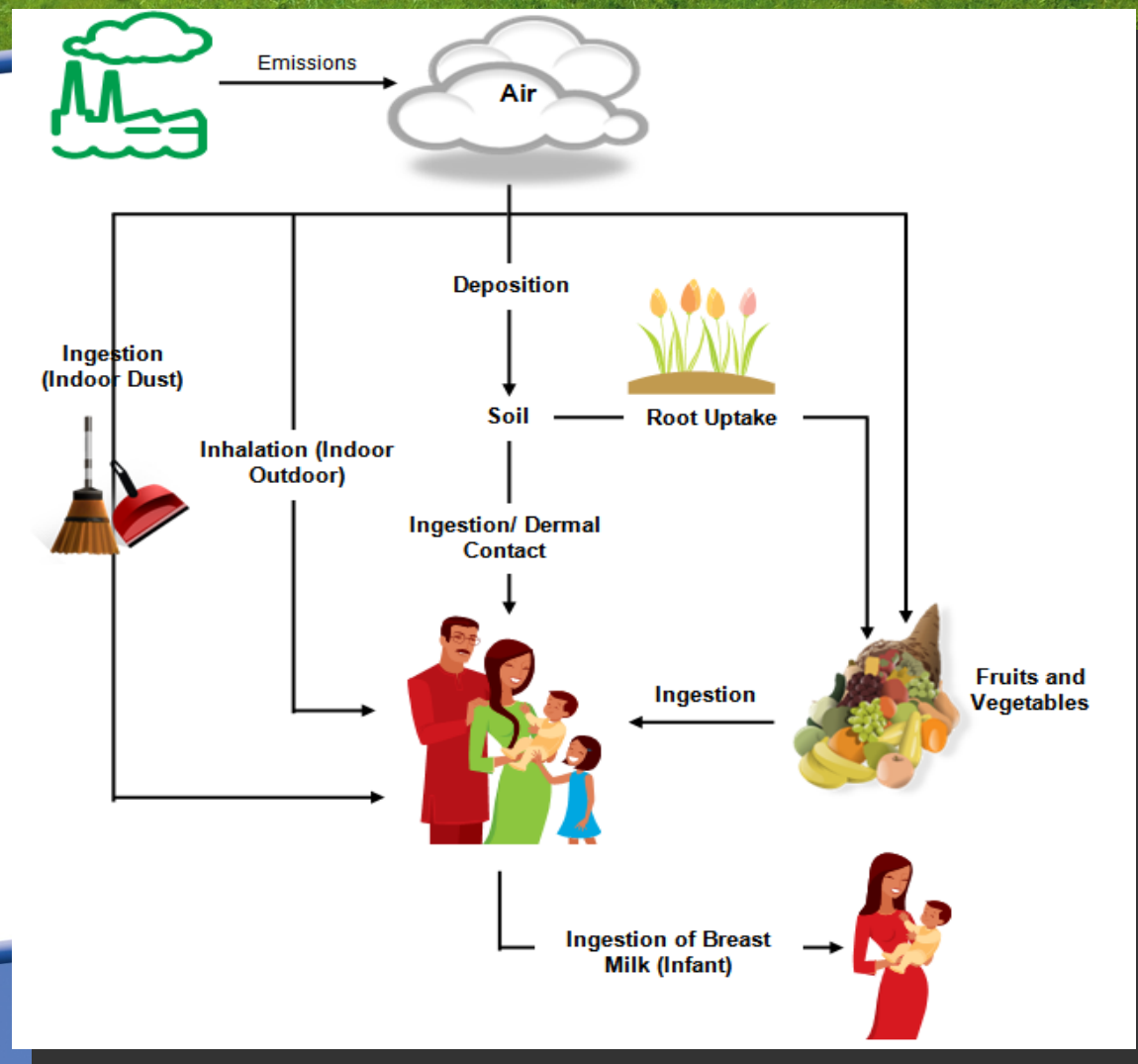
Residual Waste Study

Human Health Assessments

- ◆ The risks to human receptors were evaluated in two ways:
 - ◆ **Inhalation Assessment:** The risks associated with inhaling EFW air emissions
 - 309 receptor locations were evaluated for the inhalation assessment
 - ◆ **Multi-Pathway Assessment:** The risks associated with exposure to EFW emissions through dermal contact or ingestion of exposed media
 - Dermal contact with soil, dust
 - Ingestion of produce, agricultural products, fish and wild game as well as incidental ingestion of surface water while swimming
 - 132 receptor locations were evaluated

Exposure Pathway used for a Local Resident

Residual Waste Study





Residual Waste Study

Results of the Inhalation Assessment

- ◆ At the maximum ground level concentration no acute (1-hour or 24-hour) or chronic (annual) risk estimates exceeded the regulatory benchmark for all Project Scenarios.



Residual Waste Study

Results of the Human Health Multi-Pathway Risk Assessment

- ◆ The results of the multi-pathway assessment indicate that exposure to Facility-related air emissions will result in no adverse health effects to human receptors living or visiting the Local Risk Assessment Study Area.



Results of the Human Health Multi-Pathway Risk Assessment

Residual Waste Study

(continued)

- ◆ The only exceedences of regulatory benchmarks were from existing conditions in the Baseline Case.
- ◆ These risks were not unexpected as any urban area in Ontario would produce similar results. Although some risk was expected from existing conditions, additional exceedences were seen in the Baseline Case that were directly related to
 - ◆ 1) the use of laboratory method detection limits as environmental media concentrations, and
 - ◆ 2) conservative receptor characteristics used to represent toddler receptor consumption patterns of homegrown produce and agricultural products.



Residual Waste Study

Results of the Ecological Risk Assessment

- ◆ The only exceedences of regulatory benchmarks were from existing conditions in the Baseline Case in freshwater aquatic system for a limited number of chemicals.
- ◆ No undue risk was predicted for ecological receptor for any of the Project-related scenarios modeled.
- ◆ No undue risk was predicted for any Species at Risk that would be found within the area.



Residual Waste Study

Conclusion of the Risk Assessment

- ◆ The site-specific risk assessment determined that the proposed Covanta facility operating at 140,000 tonnes of MSW/year could be safely operated at the Clarington 01 site without undue risk to either people or the environment.



Residual Waste Study

Commitment to Continuous Improvement

- ◆ Over the course of the construction and operation periods there may be possible improvements that could be considered as a result of new technology or processes.
- ◆ The Regions will appropriately investigate the opportunities afforded by new technologies as they become available.
- ◆ The Regions are committed to the continuous review and update of their waste diversion programs.



Residual Waste Study

Next Steps in EA Completion and Review



Residual Waste Study

◆ June 16 & 19, 2009

- ◆ Durham Region Committee of the Whole and York Region Solid Waste Committee

◆ June 24 & 25, 2009

- ◆ Durham Region Council and York Region Council

◆ June 26 to July 31, 2009

- ◆ Incorporate minor modifications as a result of Committee and Council decisions and to incorporate comments from Clarington Peer Review and the Ministry of the Environment

◆ July 31, 2009

- ◆ Submit EA document to Ministry of the Environment



Residual Waste Study

Ministry of the Environment Review Process

- ◆ EA document submitted to MOE
- ◆ Government and Public Review of EA – 7 weeks
- ◆ Notice of Completion of Ministry Review of EA – 5 weeks
- ◆ Public Inspection of Ministry Review – 5 weeks
- ◆ Decision by Minister of the Environment – 13 weeks

Note: MOE review period includes an additional 12 weeks of public review time.



Residual Waste Study

Overall Conclusion of the EA

Environmental Assessment study concluded that the proposed Energy-from-Waste facility can be constructed, operated and closed in an environmentally safe and acceptable manner in the Municipality of Clarington, Region of Durham.



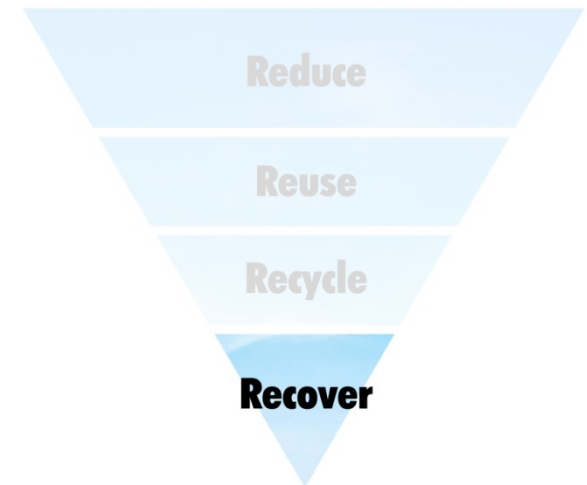
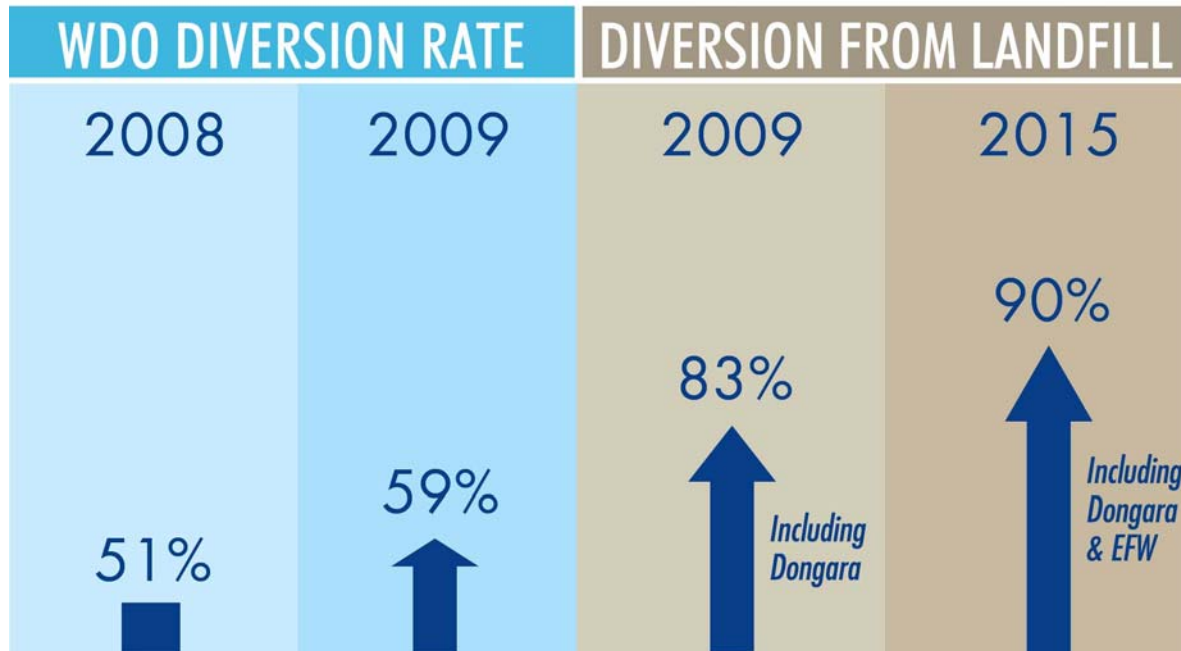
Residual Waste Study

Questions?

The Role of Energy from Waste in York's Diversified Waste Management System

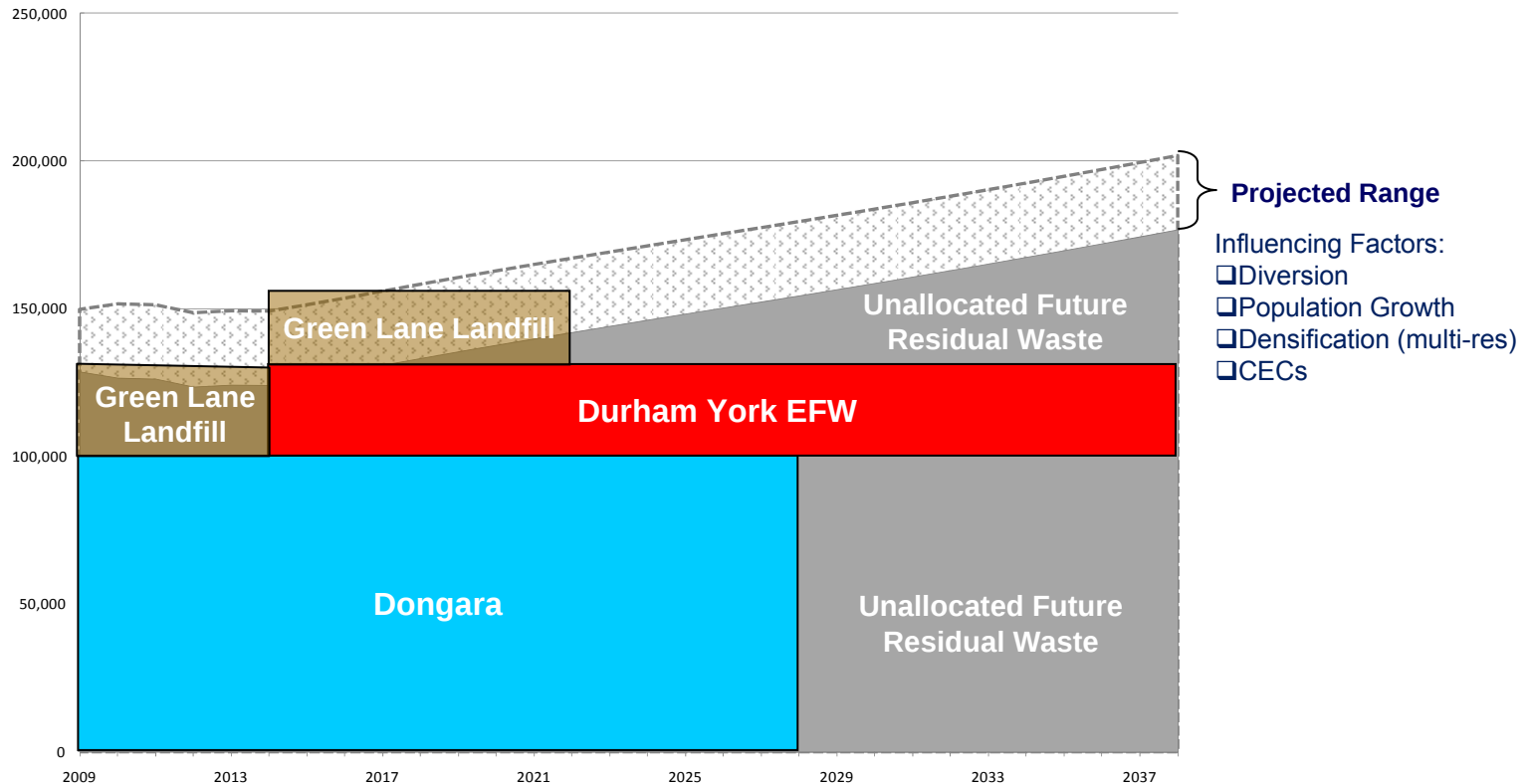
Erin Mahoney
**Commissioner Environmental
Services**

Energy Recovery from Residual Waste is a Key Resource Opportunity



***Council Endorsed Energy Recovery as 4th R,
Integral to Sustainable Waste Management Hierarchy***

Residual Waste Projections and Solutions



Diverse Residual Waste Solutions Identified to Meet our Needs

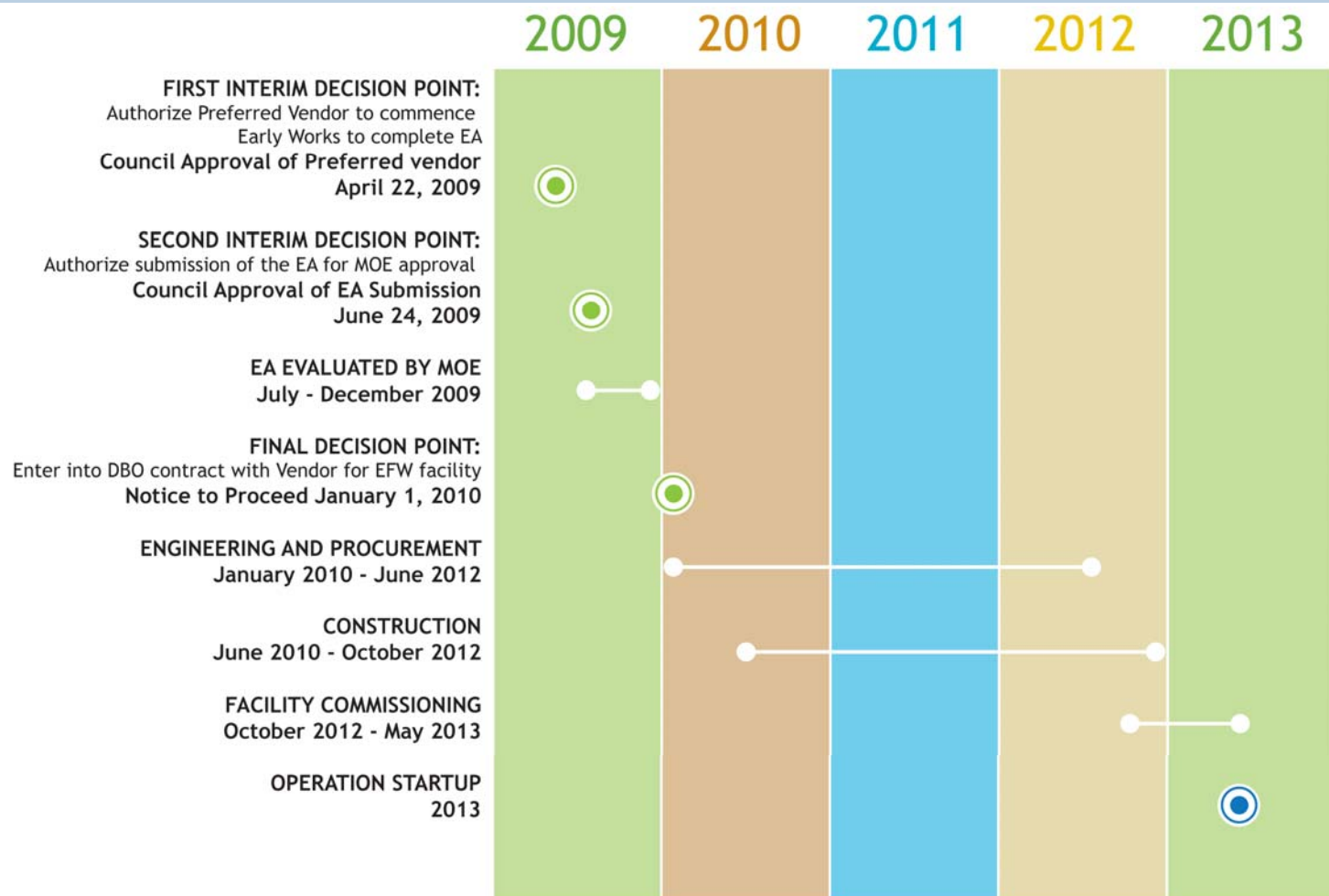
Comparison of Waste Management Cost Projections

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*Assumes future extension of landfill disposal contract

Investment in EFW Provides Cost Stability and Long-term Savings

Covanta EFW Development Timeline



Durham York Residual Waste Environmental Assessment Reports

1. Individual Environmental Assessment (IEA) Completion and Submission
2. Proposed Revisions to Memorandum of Understanding with Durham Region and Status of Project Agreement for Energy from Waste Facility
3. Clarington Host Community Agreement
4. Energy from Waste Project Power Purchase Agreement

Report 1 - Individual Environmental Assessment (IEA) Completion and Submission

- ❑ Comprehensive Residual Waste Individual Environmental Assessment
- ❑ In accordance with approved Terms of Reference
- ❑ Extensive public consultation
- ❑ Technology evaluation → energy from waste
- ❑ Site screening & evaluation → Clarington 01
- ❑ Parallel procurement → Covanta
- ❑ Site specific studies & health and ecological risk assessments confirm suitability and safety
- ❑ Finalize IEA documentation and submit for Ministry review and approval

Report 2 - Proposed Revisions to Memorandum of Understanding with Durham Region and Status of Project Agreement for Energy from Waste Facility

- ❑ Key revisions proposed to previously approved MOU
 - Commitment to operating costs for 30,000 tonnes/year
 - Investment of up to 50% for oversized elements
 - Clarification of costs and timing for mutually beneficial expansion
 - Negotiation of a detailed co-owner's agreement
- ❑ Joint negotiations with Covanta are proceeding
 - Substantive agreement has been reached on many matters
 - Fundamentals remain as per RFP - focus on clarifications
 - Two issues remain to be resolved

Report 3 - Clarington Host Community Agreement

- ❑ Durham has negotiated a Host Community Agreement with Clarington
 - Focus of the Host Community Agreement is ensuring protection of health, positive role of the facility
 - Includes Durham-only obligations and obligations shared by both York and Durham
 - York's share of additional capital related to the Host Community Agreement is approximately \$2.5 million
 - Recognizes York as a municipal co-owner
- ❑ Establishes Clarington as a willing host
- ❑ Defines a cooperative municipal relationship and facilitates approvals

Report 4 - Energy from Waste Project Power Purchase Agreement

- ❑ Negotiations with the Ontario Power Authority have been concluded on a Power Purchase Agreement
- ❑ The Power Purchase Agreement establishes long-term, secure premium pricing for electrical power from the energy from waste facility
- ❑ The agreed base price of 8 cents/kilowatt•hour is substantially more than the current market price of 4 to 4.5 cents /kilowatt•hour
- ❑ As co-owners York and Durham will be required to enter into the agreement and provide contract securities

Proposed Durham York Energy From Waste Facility

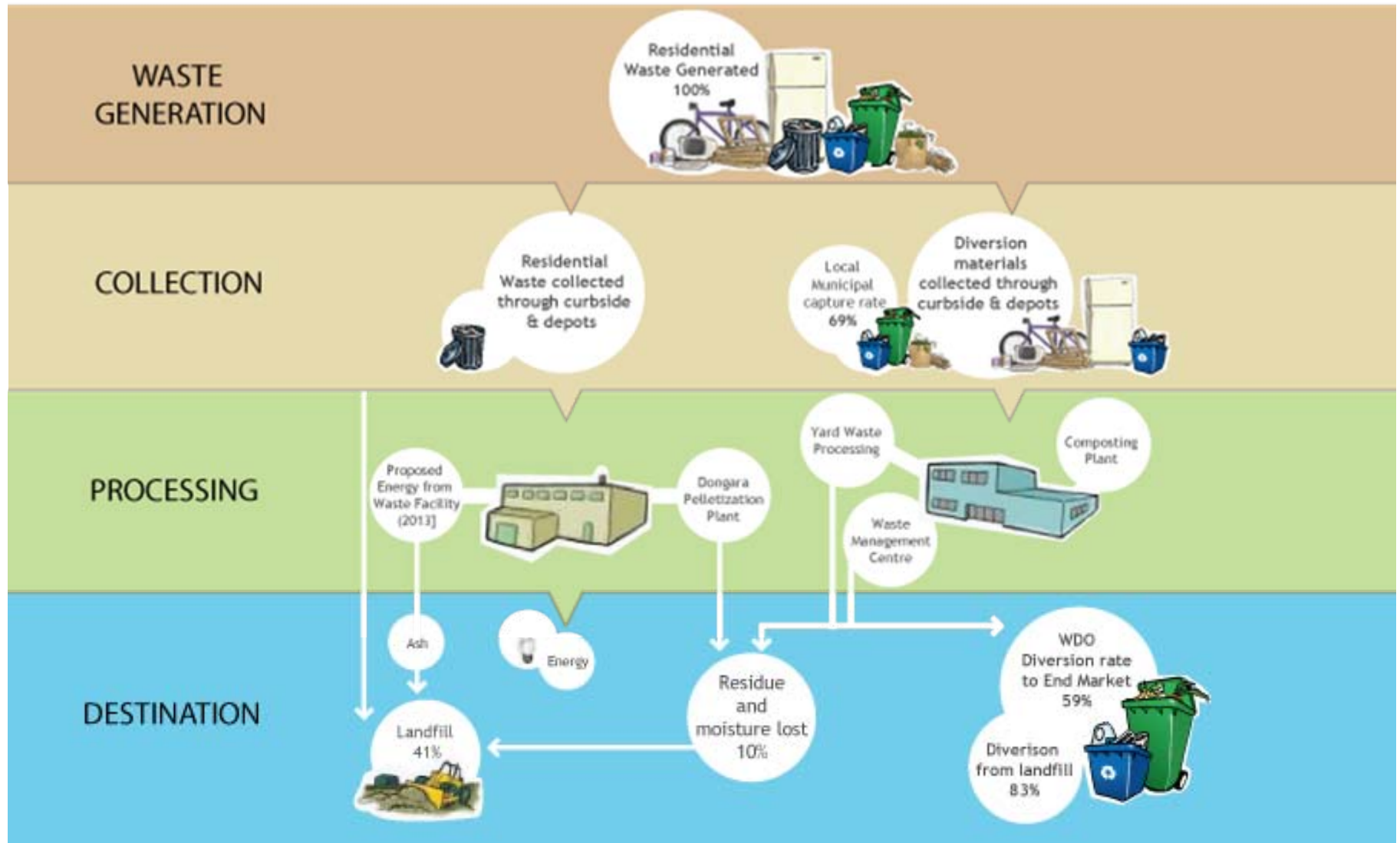
Leading Edge Technology, Emission Controls, Monitoring & Performance Requirements Ensure Protection of Health and the Environment

A Viable and Long-term Cost Effective Solution for Ownership, Control, Security & Stability of Residual Waste Management

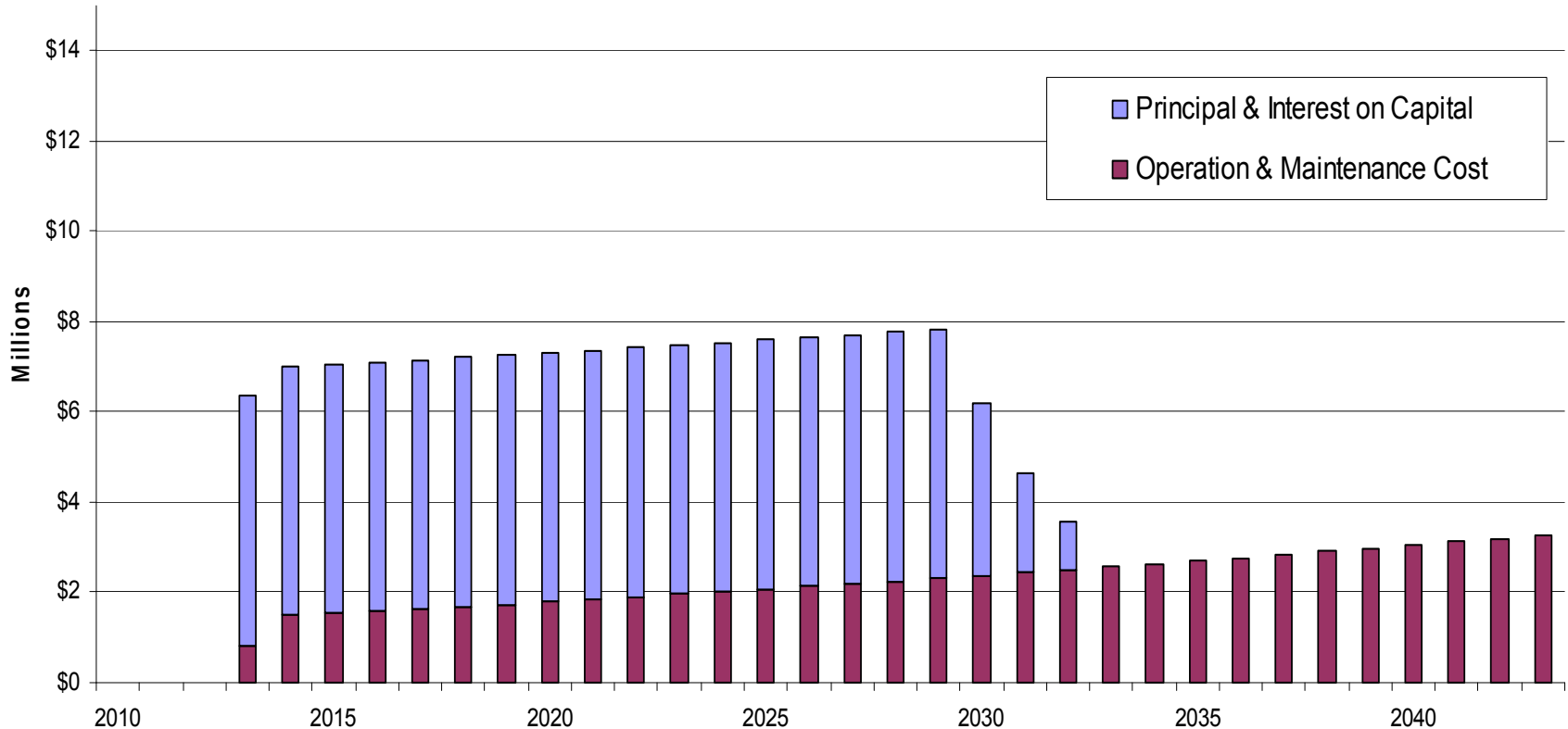
***Consistent with York Region's Sustainability Principles
Balancing the Needs of Community, Environment and Economy***



York Region's Diversified Waste Management System



York's Share of Forecast Capital Investment, Debt Repayment and Operating Cost



Operation & Maintenance Fee Includes 25% for Preventative Maintenance and Contribution to Major Component Replacement Fund