Developing our Environmental Resource Recovery Centre – Baby Steps Toward the Future

Compost Matters in Ontario – February 23, 2017
Environmental Resource Recovery Centre
Baby Steps towards the Future

→ waste management in the County of Simcoe
→ the opportunity
→ the ERRC story – from conception to siting
→ moving the project forward
A little about us…

- “upper tier” government comprising 16 towns and townships
- second largest County in Ontario based on population (~465,000), third largest based on physical size
  - curbside collection services to 130,000 locations
  - regular weekly collections:
    - garbage (1 bag limit), green bin, and 2-stream recycling
  - seasonal collections
    - Christmas trees
    - yard waste
    - call-in user-pay bulky service
  - 8 public drop-off locations
    - 4 with active landfill sites
    - 4 with HHW depots
    - 19 facilities diversion programs
  - 5 leaf & yard waste composting facilities
  - 31 closed landfill sites
Our Integrated System

Solid Waste Management System 2016 Actual Tonnages
140,120 tonnes

Recyclables
27,145 tonnes
- Residential Curbside IC&I Curbside Collected by Progressive 24,735 tonnes
- School Program Target IC&I locations Collected by County (Learning & Living Green) 590 tonnes
- County Solid Waste Management Facilities 1,820 tonnes
  - Transferred by County
    - Transferred by Progressive
      - Hauled by Progressive
        - Fibres processed by Canada Fibers in Toronto 16,800 tonnes
        - Containers processed by City of Guelph 9,980 tonnes
  - Hauled by County
    - Processed by AIM Environmental in Hamilton 10,750 tonnes

Organics
11,085 tonnes
- Residential Curbside IC&I Curbside School Program Collected by Progressive 10,850 tonnes
- County Solid Waste Management Facilities Target IC&I locations (County Long Term Care) 235 tonnes
  - Transferred by County
    - Transferred by Progressive
      - Hauled by County

Facilities Diversion Programs
46,995 tonnes
- see next page for all programs

Garbage
54,895 tonnes
- Residential Curbside IC&I CurbsideCollected by Progressive 39,995 tonnes
- County Solid Waste Management Facilities 14,900 tonnes
  - Transferred by Progressive under contract to Walker 25,025 tonnes
  - Hauled by U-Pak under contract to Walker
    - Landfilled at Site 10 - Nottawasaga 6,485 tonnes
    - Landfilled at Site 11 - Oro 8,485 tonnes
    - Waste Export Contract Walker Environmental to process at Emerald Energy from Waste in Brampton 25,025 tonnes
  - Hauled by County
    - Landfilled Site 2 14,900 tonnes
We compost!

- leaf and yard waste and brush processed at five County compost sites
- more than 16,000 tonnes per year diverted
- 13,800 tonnes of compost was sold to residents and commercial landscapers in 2016
- giving back – hold a popular annual compost giveaway to our residents – 2,455 tonnes in 2016
Taking our products home...
Where does this get us?

Great success...

→ overall diversion rate exceeding 60%

→ curbside capture rates for both grey bin (paper and packaging) and blue bin (containers) are excellent (87%, and 86%, respectively) – at the top

→ facilities diversion (drop-off material) – highest diversion performance in Ontario (exceeding 70%!)

...but there’s still room for improvement!

→ green bin organics – capture rate sitting at 38%
The Not-So-Good News

We are disposing of almost 16,000 tonnes of organic waste annually in our curbside garbage!
The Opportunity

- approximately 1,400 tonnes of garbage would need to be diverted to increase the diversion rate by 1%

- greatest opportunity for increasing diversion through our existing programs – the green bin!
The Plan

- Solid Waste Management Strategy approved in 2010
- Targeting diversion –
  - 71% by 2020
  - 77% by 2030
- Recommended development of two infrastructure projects:
  - Materials Management Facility (MMF) for transfer of garbage, blue box recycling, organics
  - Organics Processing Facility (OPF)
The Commitment

- going in with an understanding – siting this waste management infrastructure would be a sensitive undertaking

- commitment to:
  - undertake process in a transparent and defendable manner
  - go beyond what would be required (example – application of Environmental Assessment methodology)
  - seek County Council direction and provide opportunity for consultation with the public, Aboriginal communities, and stakeholders at each step

siting → Planning approvals → procurement → detailed costing, final business case
seek feedback/approval on siting methodology and evaluation criteria (how are we going to site the facilities?)

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compile a list of candidate sites

- all County-owned properties (waste management properties, County forest tracts)
- privately-owned sites with willing vendors – search of the Multiple Listing Service (MLS), Request for Expression of Interest (RFEI)

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three screen evaluation process – apply over twenty environmental and technical criteria

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present a short list of sites for public, Aboriginal, and stakeholder consultation

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feedback considered by consulting team – site visits and a detailed comparative evaluation

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preferred site
The Siting Criteria

Screen 1 – exclusionary criteria (the “deal breakers”)

- Heritage
  - avoids areas of known important cultural heritage

- Suitability
  - meets minimum size requirement
    - MMF - 7 hectares/17 acres (facility and buffer)
    - OPF - 13 hectares/33 acres (facility and buffer)
  - is within the search area

- Archeological
  - avoids known archeologically significant areas

- Surface Water
  - avoids wetlands and floodplains

- Sensitive Receptors
  - avoids sensitive receptors e.g. residential areas, parks, recreational areas, and institutions

- Groundwater
  - avoids Source Water Protection Areas

- Terrestrial
  - considers impacts to County Greenlands, Niagara Escarpment, and Oak Ridges Moraine\(^1\) areas, with noted exceptions\(^4\)

- Agricultural
  - avoids confirmed Prime Agricultural Areas (Specialty Crop Areas, Class 1, 2, and 3\(^2\) Agricultural Lands), with noted exemptions\(^3\)
The Siting Criteria

Screen 2 – seeking sites with the most favourable conditions

- Transportation
  - existing/required transportation infrastructure

- Land Use/Zoning
  - current land use, zoning, approved development plans, and proposed land use changes
  - compatibility with existing land uses/zoning designations on adjacent sites

- Suitability
  - site layout, topography and soil conditions

- Utilities and Services
  - availability and distance from utilities and services

- Permitting/Approvals
  - feasibility and complexity of permitting/approvals

- Land Use/Zoning
  - compatibility with existing land uses/zoning designations on adjacent sites

- Environmental

- Air Quality
  - proximity to sensitive receptors

- Noise
  - proximity to sensitive receptors

- Odour
  - proximity to sensitive receptors
The Outcome

Candidate sites included County-owned properties and willing vendor locations within Simcoe County that met size specifications of 32 acres (13 hectares) for the OPF and 17 acres (7 hectares) for the MMF. Privately-owned sites were identified through the MLS, ICX, and newspaper advertisements.

502 candidate sites

Screen 1 June 2015
The 502 sites were evaluated for avoidance of sensitive groundwater areas, preservation of prime agricultural land, adequate size and proximity to neighbours. Screen 1 identified 53 potential OPF sites and 23 potential MMF sites that continued to Screen 2.

Screen 2 August 2015
The 53 OPF sites and 23 MMF sites were evaluated in terms of proximity to sensitive receptors, land use and zoning, and the suitability of each site to meet technical requirements. Screen 2 shortlisted seven sites for OPF and five for MMF, which continued to Screen 3. Five common sites could potentially house a co-located facility.

Screen 3 March 2016
The seven candidate sites were evaluated based on extensive public consultation, on-site visits, and a net effects and comparative analysis of the sites. Environmental, Social, Cultural, Technical, Economic, and Legal criteria was applied.
The Site

- distinct advantages to house:
  - County transfer operations for garbage and recycling
  - on-site organics processing
  - truck servicing facilities
  - public education space
  - potential future recycling processing

- transportation efficiencies
- large site, good usable space
- good buffer distances
- scored high among all environmental criteria
- cost savings and economic benefits
Multifaceted Engagement

- information presented and consultation undertaken at key milestones – buy-in at important stages – baby steps!

Public Information Sessions – June 2014
→ our organics program, what is an OPF?

Public Information/Consultation Sessions – December 2014
→ sought feedback on the siting methodology and criteria

Public Consultation Sessions – fall 2015
→ hosted in different communities, sought feedback on the short-listed sites (almost 600 pages of correspondence reviewed!)
Relationship Building

- with release of preferred site in March 2016 –
  Neighbouring Landowner Meeting – March 2016
    → facilitated roundtable discussion

Public Information Sessions – April 2016
  → open house, “stations” set-up

Neighbouring Landowner Meeting – September 2016
  → facilitated roundtable discussion

Public Consultations Sessions – fall 2016
  → project delivery model for the OPF

Facility tour with neighbours – November 2016

- meetings with various stakeholders – member municipalities, agencies, etc.

- First Nations communities, Métis Nation of Ontario
Why develop a County-owned OPF?

- right thing to do!
  → committed to environmental leadership, securely managing our own waste, and enhancing diversion programs
- County spoke strongly about no new landfills
- alignment with provincial waste strategies and objectives
- secure processing and control costs
- produce compost or fertilizer for local use
- less impact on environment by shortening haulage distances
Some lessons learned...

- it’s a team effort –
  - project of this size requires a multi-disciplinary project team – communications, procurement, Planning, etc.
  - support from a team of experienced consultants
  - First Nations expertise – understanding how to effectively consult
  - facilitation at engagement sessions

- input from our Community Engagement Committee has been valuable – vetting of engagement material, etc.

- important to leverage communication tools such as the project webpage, contact list, updated FAQs document – transparency

- one step at time – consistent updates (staff reports, etc.), seek feedback and political direction at each step – baby steps!
Moving Forward

- Development Strategy considers four paths:
  - Planning approvals
  - Environmental Compliance Approval(s)
  - Design/construction of the MMF – commissioning 2019
  - Design/construction of the OPF – commissioning 2021

- Long list of technical studies undertaken on the site summer/fall 2016 – included Environmental Impact Study (EIS), Hydrogeological Assessment, Traffic Impact Study, etc.

- Planning applications submitted in November 2016 – critical path (County Official Plan Amendment, local Official Plan and Zoning By-law Amendments)

- Preliminary business case for the OPF – RFI closed in January 2017, to be presented this spring
Managing Your Waste Differently in Simcoe County
For more information

www.simcoe.ca/errc

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