



## COMMUNITY DEVELOPMENT COMMITTEE AGENDA

Tuesday August 27, 2013, 7p.m.

55 Zina Street, Orangeville – Sutton Room (2<sup>nd</sup> Floor)

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Declarations of Pecuniary Interest by Members

### **QUESTION PERIOD**

Members of the public will be provided an opportunity to ask questions of the Committee during this time. (Limited to 10 minutes)

### **REPORTS**

1. COMMUNITY DEVELOPMENT COMMITTEE – August 27, 2013 – ITEM #1  
DEEP Project Review – August 2013

A report from the Director of Public Works dated August 27, 2013 to provide an update on the DEEP Project with respect to the June 13, 2013 Council motion.

***Recommendation:***

***For consideration of the Committee.***

### **CORRESPONDENCE**

2. COMMUNITY DEVELOPMENT COMMITTEE – August 27, 2013 – ITEM #  
Correspondence - Waste 2 Product & Energy Conference

An update from Ed Kroeker on the Waste 2 Product & Energy Conference, held on May 29, 2013, BMO Institute for Learning, Toronto, Ontario. (Brought forward from the June 25, 2013 meeting)

**Next Meeting:** Tuesday, September 24, 2013 – 7 p.m.  
55 Zina Street, Orangeville – Sutton Room



**REPORT TO  
COMMUNITY DEVELOPMENT COMMITTEE**

**To:** Chair Taylor and Members of Committee  
**From:** Scott C. Burns, Director of Public Works  
**Meeting Date:** Tuesday, August 27<sup>th</sup>, 2013  
**Subject:** **DEEP Project Review – August 2013**

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**Purpose**

The purpose of this report is to update Council on a Staff review of the DEEP project, per the June 13<sup>th</sup>, 2013 Council motion.

**Background & Discussion**

Following the June 13<sup>th</sup> direction from County Council, Staff initiated a review of steps required to proceed with pursuing new technologies and options for the DEEP project.

To move forward with sourcing new technologies for the DEEP, a process including a Request for Expressions of Interest (REOI) is required to fairly and openly assess what technologies are available. This process has been completed by Dufferin County twice in the past, in 2002/2003 and again in 2005, and would follow a similar structure moving forward. It is suggested that through this process, the scope of technologies is broadened to include any solid waste processing technology, with the exception of landfilling for primary processing. Other parameters, such as preferred feedstock tonnage can be set during this stage in order to work towards a 'Made-in-Dufferin' solution and source specific technologies capable of operating sustainably from smaller quantities of feedstock, should such technology be available. A third-party consultant would be required to assist with analyzing and evaluating responses and advise on further steps, beyond the REOI. These steps will include a Request for Qualification (RFQ) and a Request for Proposal (RFP). Both RFQs and RFPs have been undertaken by the County in the past.

This REOI process could potentially be expedited to be completed within a 3 to 4 month period.

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Through the past several years, starting in 2002, Dufferin County has completed the following to work towards implementing initiatives at the DEEP site to address solid waste (garbage):

1. 2002 - Develop an Alternative Plan to landfill – Gartner Lee Ltd.
2. 2002/2003 - Request for Expression of Interest (REOI) – garbage and composting processing.
3. 2005 - REOI for gasification and composting with Genivar Consulting Ltd. hired to assist with the process and evaluation.
4. 2006 - Request for Quotation (RFQ) for Energy from Waste (EfW) looking into a structure of Design, Build, Own, Operate.
5. 2008 - Request for Proposal (RFP) seeking a partner for EfW
6. 2009 - Alter NRG selected as preferred partner in response to the aforementioned RFP. Preferred feedstock for the Facility was 70,000 tonnes per year to make the project economically viable. AlterNRG was responsible for finding a project developer and financial backing. 12 cents per kWh was required through the FIT program to offset costs and maintain reasonable tipping fees.
7. 2009 – Development of the DEEP Master Plan which was subsequently approved by East Luther Grand Valley Council.
8. 2010 – Feasibility Study by AlterNRG, funded in part by Green Municipal Fund.
9. 2011 - Start of an Environmental Assessment screening process in conjunction with Alter NRG.

Work for the current DEEP concept commenced with the REOI for gasification and composting which was issued in 2005. Since that time, the County of Dufferin has spent \$765,000.

Conditions limiting past project success have not changed to increase the likelihood of implementing a solution for the DEEP site. These limitations should be factored into decisions moving forward with the project. Several of these conditions are listed below:

1. The Provincial Policy does not view waste as a renewable resource and therefore support continues to be weak.
2. Power Purchase Agreements with the Ontario Power Authority continue to be difficult to obtain due to the lack of Provincial support.
3. Should Energy from Waste be desired, past County processes indicate that importation of waste is a crucial component of a sustainable and economically viable solution.
4. Technology has likely not progressed to a point to make a facility small enough to address Dufferin's waste needs viable from a cost perspective.
5. With the goal of increasing diversion rates, the County would be producing less solid waste (garbage) as feedstock for a facility. This may further sustain, or increase, the need for importation of waste for a viable project as our waste stream stabilizes over the next years. In 2012, Dufferin County produced approximately 11,500 tonnes of garbage. Projections indicate tonnages of

approximately 9,000 tonnes for 2014. Monitoring waste tonnages over the next years will provide clarification of realistic County feedstock.

#### Options for Consideration – Municipal Solid Waste at the DEEP

1. Proceed with the REOI and subsequent RFQ and RFP process with the view of pursuing new technologies for processing Dufferin County's municipal solid waste at the DEEP.
2. Monitor the policy environment and changes in technology regarding waste processing and report any significant advances as they materialize.
3. Cease all activity relating to the development of the DEEP property.

#### Other issues for consideration:

1. Region of York – The partnership with York on a Source Separated Organics (SSO) Facility continues to move forward. The County awaits the Region's revised Memorandum of Understanding (MOU), which was originally expected in January 2013. York is currently working to complete a Functional Servicing Report to further assess the site and this work should commence shortly. Regular communications with York, at a Staff level, have occurred over the last months and a meeting will be scheduled to visit the DEEP site with consultants performing the Functional Servicing Report in the next weeks as York moves forward with their intentions.
2. Southern Ontario Processing Facilities may have merchant capacity for addressing Dufferin's waste beyond the County's current 7 year contract with GFL. Preliminary discussions with the Region of Peel, however, have clarified that the proposed EfW facility will be constructed with merchant capacity to address only waste produced from sources within the Region, and will accept no external feedstock.

#### **Local Municipal Impact**

There is no direct local municipal impact as a result of this report.

#### **Financial, Staffing, Legal, or IT Considerations**

There would be a significant cost in proceeding with the REOI and the subsequent RFQ and RFP.

#### **Recommendation**

For consideration of committee.

Respectfully Submitted By:

*Original signed by,*

Scott Burns  
Director of Public Works

## **WASTE 2 PRODUCT & ENERGY CONFERENCE—MAY 29, 2013**

### **BMO INSTITUTE FOR LEARNING, TORONTO, ONTARIO**

The above conference was a one-day presentation of technical, business and government policy topics specifically dealing with the recycling and reuse of solid waste here in the province of Ontario. There were about 60 people in attendance. The morning sessions were devoted primarily to topics and speakers who were showcasing companies and technologies devoted to making new consumer products from waste materials and the afternoon focused on waste to energy projects.

**Richard White, President of Aspera Recycling** gave a presentation on the recycling of residential and commercial carpet. Carpeting materials typically make up about 3-4% of landfill volume and here in Ontario we dispose of about 11-15 lbs per capita of used carpet annually. The most valuable component of carpet for recycling is the nylon or polyester fibre itself and separation of this material from used carpet is the biggest challenge. The recycled carpet must be clean and dry—curbside collection does not work.

Aspera has developed the technology to create purified new product at an existing plant in the Toronto area and they have just had an “angel investor” commit the capital funds to build a new facility in the GTA. He indicated that they are currently looking at putting the new plant in Brantford or Cambridge. I spoke to White during the coffee break and asked if he had considered the Orangeville area. He replied, “No,” but when I outlined the proximity of Orangeville to the GTA and the possible availability of commercial/industrial building space in the town he expressed interest in talking to someone in Orangeville. I have passed his information on to Mayor Rob Adams who indicated to me that he would personally follow up with White. White also indicated to me that they would be interested in having a used carpet depot established in Dufferin County to collect used carpet for recycling.

**Pushkar Kumar, Founder & CEO of GreenMantra Technologies** gave an interesting presentation on the development and commercialization of a technology for converting Type 2 and Type 4 plastics—grocery bags, shrink wrap, packaging films—into wax that is then added to road asphalt to produce a superior road surfacing product. They use a propriety depolymerisation technology that melts the plastics at a temperature of 400 C in the absence of oxygen and are able to achieve 95% conversion. They are currently undergoing expansion of their Brantford plant and are looking also at producing lubricating oils from these plastics. It was interesting to note that they are currently bringing plastic all the way from Vancouver into the Brantford plant.

**Simon Zysman of Recover Canada Ltd.** gave a spirited presentation on the recycling of mattresses and box springs. Here again, some statistics paint an interesting picture. We dispose of approximately 2.4 million mattresses and box springs annually in Canada—60,000 tonnes weight and 1.24 million cubic metres total volume. Only 30% of this material is recycled and

half of that 30% is by scavengers and illegal rebuilders who ship used product overseas into developing countries. Having spent time in Ghana, Africa the past few years, I have seen these used mattresses in local town markets and am quite certain I probably slept on some of these products in some of the country "hotels" in which I stayed. Recover Canada Ltd works with the City of Toronto (which has a dedicated pickup of used mattresses and box springs) and with retailers who have their own collection programs; last year RCL recycled 3,150 tonnes of these products.

If you have read through the recently delivered Dufferin County Waste Services Guide, you may have noted that Sleep Country Canada in Orangeville accepts mattresses and box springs for recycling.

There were several presentations in the "waste to energy" sector. **Sonia Nour, Manager of Commercial and Business Development with Enerkem** reported on their development of a gasification technology to convert municipal solid waste (MSW) into ethanol and other useable organic chemicals using a type of gasification technology. The company has two small demonstration plants in Sherbrooke and Westbury, Quebec and is currently building a 100,000 tonne/year plant in Edmonton. The plant will produce 38 million litres/year of ethanol. Construction is well underway with startup expected in September of this year. Capital cost is expected to be \$100 million. Similar sized plants are being planned for Pontotoc, Mississippi (construction to start end of 2013) and Varennes, Quebec. She referred to a tip fee in the range of \$30 to \$40 per tonne going into the plant.

**Peter Bulionis, Senior Project Manager with Algonquin Power Energy From Waste Inc.** reported on that company's existing 165,000 tonne/year waste-to-energy plant on Bramalea Road, near the 401 in Brampton. The plant originally was built on the basis of a long term contract with the City of Brampton. This contract recently expired and Peel Region has elected to build its own facility. Algonquin has a new agreement with U-Pak (a GTA waste management company) to negotiate new agreements with customers. During the break I spoke with Bulionis regarding Dufferin County and a possible interest. I indicated that our tip fee is currently in the \$57/tonne range. He responded that this might be on the low side of what they would accept but suggested speaking with U-Pak (contact there is Douglas Dew, 1-866-299-8725).

There were two presentations on the new waste-to-energy facility currently under construction in the Durham region. The first was by **Joseph Neuhoff, Vice President of Coventa Energy Corp**, the US company having the design, build, and operate contract for the plant. The second was by **Giuseppe Anello, Manager, Region of Durham Waste Planning & Technical**. It was obvious from their presentations that both were still recovering from wounds and scars which came about through the public and governmental approvals processes involved in this project. The 140,000 tone/year plant will have a total \$284 million capital cost and will be jointly owned by Durham (79%) and York Region (21%). Durham will contribute 110,000 tonnes/year of waste and York will contribute 30,000 tonnes/year. Durham's portion of capital cost will be funded using Federal Gas Tax money. Coventa will operate the plant in a 20 year, \$14.8 million deal

which includes ash handling and disposal. The plant will employ 36 to 40 full-time jobs. Anello reported that \$14 million was spent on the Environmental Assessment process and that it took 2.5 years for the MOE to finally approve the project following submission of all the application documents. The plant is expected to become operational in September, 2014.

**Jason Naccarato, Vice President of Sault St. Marie Innovation Centre** reported on efforts to establish WTE businesses in that city as part of an innovative energy center. A company called Environmental Waste International will generate energy from tire waste using microwave energy technology and Elementa wants to use their pyrolysis process to convert MSW to syngas. He reported that the \$70- \$75/tonne tip fee required to make the Elementa process economical is currently not available and that their project is on hold.

On the regulatory side, there were several presenters including **Andrew Horsman, Executive Director, Ontario Tire Stewardship, John Armiento, Supervisor Waste Diversion Unit, Ontario Ministry of the Environment, and lastly, Michael Scott, CEO of Waste Diversion Ontario.** While most of their presentations were quite general in nature, I have highlighted several items from their talks:

1. In Ontario the average recycling rate for residential solid waste has gone from an average of 38% in 2006 to 48% in 2011; the I,C&I (Industrial, Commercial & Institutional) sector has had a very low recycle rate—currently only 16% provincial average.
2. The Ontario Tire Stewardship program has been one of the more successful recycling initiatives from a regulatory perspective in that we now have a situation where used tires are a resource in this province from a business perspective rather than a liability which was the case only recently.
3. There were several comments referring to new legislation that is about to be introduced here in Ontario; this includes new compost standards (no specific clues given) and changes for the blue box program to address the low I,C&I diversion rates, establishing new municipal targets, and redefining the roles of municipalities in the program (again, no specifics given).

Attendees were told that this new high level legislation is imminent.

The final presentation of the day was by the conference chair, **John Nicholson, President of Environmental Business Consultants** who reported on two counties in the province that have been exemplary in creating unique “green” solutions to waste management. The first was Bruce County and the second was Dufferin County and the DEEP initiative. He was very up-to-date in his reporting of the Dufferin situation because he referred to the fact that the proposed anchor tenant for DEEP—Alter NRG—was apparently unable to make their project financeable. At the conclusion of his talk he asked me to provide any further comments and I took the opportunity to say that the DEEP project was not dead and that I welcomed any companies with appropriate



technologies for a "Dufferin County specific" waste volume to approach me afterwards. I did receive one business card for follow-up.

**Report submitted by,  
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