

Sunday, June 3 – Clarington Watchdog

## Waste Diversion and Stabilized Landfill - a choice

Niagara Region and the City of Hamilton partnered to undertake the WastePlan EA Study to develop long-term disposal capacity for municipal waste remaining after diversion serving the needs of both municipalities. Eight distinct disposal options were considered and evaluated in the study. The options can be organized into three general categories as follows:

1. Mechanical and biological treatment (MBT) and landfilling of stabilized residuals (with an option to include biogas recovery).
2. Thermal treatment (with options including recovery of materials from the ash/char, alternative fuel, and biogas recovery).
3. Conventional landfill (including an option of landfill gas recovery and utilization).

This partnership was begun in **Fall, 2003**.

In December of 2005 a report was prepared for Niagara/Hamilton Joint Group entitled '[Draft Report on the Evaluation of "Alternatives To" and Selection of a Preferred Disposal System](#)' which recommended **thermal technology with recovery of energy and recyclables as the preferred option**. MBT and stabilized landfill was identified as the next preferred alternative, and was the preferred landfill-based option. (Why do they characterize MBT and stabilized as a landfill-based option without the zero waste component included? Where is Zero Waste as an option?)

**Sound familiar?** The same "Alternatives To" were suggested to Durham Region, with the same recommendation of preferred option - thermal technology with recovery of energy (EFW), which Durham Region accepted without further investigation. Who were the consultants who made this recommendation to Niagara Region and the City of Hamilton? **MacViro and Jacques Whitford**. Same consultants that Durham Region hired. Tell me Durham Region didn't know ahead of time what the recommendation would be. If they didn't, why not? Did they pay for all these recommendations, full price, since the "Alternatives To" report had already been done for Hamilton/Niagara and who knows how many others previously? Gosh, some of the charts look SO familiar.

Following release of the December 2005 report a number of comments were received from the public and other stakeholder groups regarding the study and its recommendations. (Gosh, they didn't comment BEFORE the report was received - which has been a criticism by one resident and several Regional Councillors, including our own Mr. Trim, that residents were not making delegations to Council BEFORE getting the sparse information from the information sessions hosted by the Region).

While some of these supported the recommended option, other comments from some non-governmental organizations as well as the public opposed the preferred option. (Opposition from both groups is higher in Clarington - and was also in East Gwillimbury - due to further information gleaned in part from further investigation done by the Niagara/Hamilton Waste Plan Joint Working Group - something NOT done yet by Durham Region).

**In particular, questions were raised about the evaluation of the stabilized landfill options.** These comments led the WastePlan Joint Working Group to request additional information on stabilized landfill technology, and in particular a comparison of stabilized landfill technology relative to conventional technology landfill. So a [Study of Stabilized Landfill](#) was prepared by Gartner Lee and Golder Associates, **independent** consultants, not MacViro. **It was completed in March, 2007, and since that time, Niagara has decided it will NOT agree to incineration, and instead has chosen increased waste diversion with stabilized landfill as the best course of action to take.**

The Gartner Lee Stabilized Landfill Report was also provided to MacViro but apparently didn't change their pro-incineration recommendations to Durham Region.

A few facts: MBT treatment and stabilized landfill technology is practiced much more extensively in Europe than North America. A key reason for this difference is the requirements of the European Union's Landfill Directive 1999/31/CE, which states:

1. only pre-treated wastes are allowed to be landfilled after July 2001; and
2. the amount of biologically degradable MSW to be landfilled must be reduced in a phased approach to 75% by July 2006, to 50% by July 2009, and to 35% by July 2016 of the total amount of biologically degradable MSW produced in 1995.

Definition of Stabilized Landfill: A stabilized landfill accepts waste materials which have been pre-processed, or stabilized, mainly to reduce the readily biodegradable organic fraction of the waste prior to landfilling so that the potential for landfill gas generation is diminished and leachate strength is reduced. Stabilization of the waste stream occurs through a group of processes typically known as mechanical and biological treatment (MBT), which can include removal of recyclables, shredding, removal of refuse derived fuel (RDF), aerobic or anaerobic composting, and desiccation. Waste delivered to an MBT facility has typically already undergone some form of source separation.

### **From the Stabilized Landfill Summary Report:**

The development of MBT and stabilized landfill sites in EU were driven by the need to comply with the EU directive 1999/31/CE which required a progressive ban on the disposal of biologically degradable organics in landfills. Italy and Germany have introduced different national regulations to comply with the EU directive with a key difference being the extent of stabilization required prior to landfill. The advent of MBT plants is also on the horizon in the United Kingdom with several facilities just getting into operation or well into the permitting phase. In all the cases indicated above, significant efforts are in place to implement 3R programs to reduce the volumes of material needing to be processed, efforts which in many cases lead to source separation programs, all to varying degrees.

A fraction of the MBT processed material is processed in incinerators prior to final disposal since the process can generate RDF material with a relatively high calorific value.

In certain jurisdictions, MBT and stabilized landfill sites are seen as preferable to the alternative of incinerators (conventional landfills are no longer an option in EU countries except in the UK which is using an allowance for an additional 4 years to comply). The main drivers for this preference are (Faviano, 2005):

- a) lower cost;
- b) greater flexibility (e.g., don't have to meet a minimum through-put and calorific value of the waste for cost effectiveness and efficient operation); and
- c) proven examples of successful facilities.

So, are we behind the times, going with old technology that is non-sustainable, rather than thinking ahead to the future, and changing the way we look at garbage in the first place?

One other thing - let us look at the **time-frame for these Niagara/Hamilton studies.**

**Fall 2003** - Partnership between Niagara and Hamilton

**January to August 2004** - Development of Draft EA Terms of Reference

**August 2004 to February 2005** - Ministerial review of Terms of Reference and approval of document on Feb 7/05

**February 2005 - Early 2007** - EA Study of the Niagara-Hamilton WastePlan is undertaken resulting in the selection of a preferred approach, technology and sites. **Preferred approach - Waste Diversion and Stabilized Landfill.**

Now contrast that with the greatly accelerated time line for Durham Region. Because the Province has approved an additional bank of landfill (some of which could/should be made into stabilized landfill sites as approvals are basically the same from the Province), there is no longer the 2010 emergency time frame as

the Region and it's consultants keep insisting there is. Why not take a little longer to do it RIGHT instead of doing it FAST.

And all this ties in with the Region trying to limit the independent studies that Clarington wants to do (at least staff and our local councillors do). More on that next time.

We must once again thank Councillors Foster, Hooper, Robinson and Woo for going the extra mile to ensure Clarington is able to do its due diligence and get INDEPENDENT peer review and necessary studies done for the benefit of our municipality and residents, not for the benefit of Durham Region.