

**STAFF REPORT: ENGINEERING & PUBLIC WORKS DEPARTMENT**

**REPORT TO:** Infrastructure & Recreation Committee  
**MEETING DATE:** September 13, 2011  
**REPORT NO.:** EPW.11.081  
**SUBJECT:** Landfill Capacity Contingency  
**PREPARED BY:** Jeffery Fletcher, Manager of Solid Waste and Environmental Initiatives

**A. Recommendations**

THAT Council receive Staff Report EPW.11.081, "Landfill Capacity Contingency" for their information; and,

THAT Council direct Staff to obtain on Emergency Certificate of Approval to increase the capacity of the Town's Landfill; and,

THAT Council authorize Staff to retain Golder Associates Ltd. for engineering services related to applying for an Emergency Certificate of Approval for the cost of \$7,400 with a contingency of \$1,000 for a total upset limit of \$7,000 not including applicable taxes.

**B. Background**

A landfill expansion plan is currently being developed. A draft Environmental Screening Report has been produced that is the basis for the expansion plans. A timeline for a completed landfill expansion has been established. It is clear that new constructed landfill capacity will not be available before the existing capacity (as indicated in the annual report) is depleted. The 2010 Disposal Site Annual Report calculates that at the current rate of disposal the Site will reach final capacity in May of 2012. The existing expansion timeline identifies that new disposal capacity will not likely be available until 2013.

The landfill expansion project has completed a draft Environmental Screening Report that is currently being reviewed by the local first nations group Saugeen Ojibway Nation. This review is expected to be complete in December of this year. Upon completion of the review Town Council will make a decision on which expansion scenario to move forward and finalize the Environmental Screening report for submission to the Ministry of the Environment (MOE). Following MOE review and approval of the Screening Report in May of 2012 the Town will proceed with an Environmental Protection Act application that will detail site design and operations.

Town Staff have reviewed three options to bridge the gap between capacity depletion and new capacity. The three options include: export of residential waste; ban of commercially hauled waste; and acquiring an emergency site extension.

### Exporting Residential Waste

This option involves diverting all curbside and multi-unit waste collected by the Town's Contractors away from the Town Site for disposal at a landfill outside of the municipality. Both Contractors would transport the waste collected daily to their own transfer and/or disposal facilities at an additional cost to the municipality.

If this option was selected and put into place for a period of 12 months the net additional cost over the 12 months would be \$170,000 with a total capacity gain of approximately 5 months (1900 tonne). The net cost of this option is the combination of waste transport and disposal fees and reduced compaction costs.

For this additional capacity to be realized action would need to take place immediately, delay in action will mean the continued consumption of the remaining capacity. Town Staff is not recommending this option as the relatively high cost produces comparatively low extended site life.

### Banning Commercially Hauled Waste

A ban on commercially hauled waste to the landfill for a 12 month period could result in a gain of 4 months of landfill life. However, a significant loss of revenue in the order of \$172,500 would also occur. Conversely, less compaction would be required, reducing operational costs by \$48,285. The net loss in revenue would equal \$124,000 – a significant amount which would increase the impact on taxation by an equal amount. The site life gain in this option is approximately 4 months (1725 tonne).

Similarly to the exporting option, for capacity to be realized action would need to take place immediately before the remaining capacity is consumed. Again, Town Staff is not recommending this option either as the high cost to taxation does not justify the estimated 4 month gain in site life.

### Emergency Site Extension

A less expensive option that also results in more new capacity is an Emergency Certificate of Approval (E CoA). This type of certificate is granted to proponents by the Ministry of the Environment (MOE) when landfill projects are in the process of approvals to expand an existing site. Ministry Staff have indicated to Town Staff that application for an E CoA can be made and it is possible to receive up to an 18 month extension.

Town Staff have received an estimated engineering cost from Golder Associates Ltd. to complete the E CoA at a cost of \$6,000 plus application fees and potential post submission consultation with the MOE. The MOE application fees are anticipated to be \$1,400, as set out in the MOE "Costs for EPA s.27 Applications" document. The E CoA approach is recommended by Town Staff as the best option to move forward, as it provides a longer amount of new capacity for a significantly low cost. Additional, this option offers the least amount of disruption to the existing operations and financial position of the Site.

The E CoA would consist of stockpiling waste in a vertical expansion. This vertical expansion would be consistent with the proposed expansion being considered in Scenarios 2 and 3 of the Environmental Screening Report. If a vertical expansion scenario is not selected through the Environmental Screening process, the E CoA option has an associated risk because the stockpiled material may need to be moved. Additionally, if the no expansion scenario is selected, any stockpiled material may be required to be relocated off-site. However, this risk can be largely avoided through appropriate project timing. An E CoA can be gained within the next 6 months. Over the next 6 months the Environmental Screening Process should be able to confirm which expansion scenario will move forward. Furthermore, stockpiling activities would be delayed until the existing Site has reached final capacity.

A decline in Site use over 2011 as well as a new understanding of remaining volume may extend the May 2012 final capacity timeline by a significant time frame. This October/November a new survey will be conducted. It is expected that approximately 2 years of new capacity will be realized. Previous surveys measured the waste pile and deducted the consumed volume from the total calculated site capacity. Over time this method of surveying has over calculated the consumed capacity. This year's round of surveying will endeavour to identify the actual remaining volume. With this in mind, use of any emergency capacity could be delayed until 2014, well after the Environmental Screening Process has produced a statement of completion and construction underway.

### Summary of Options

Below is a table that summarizes the 3 options that were considered and evaluated by Town Staff.

Option	Cost	Extended Life (Months)	Conclusion
Export Residential Waste	\$170,000 (per year)	5	
Ban Commercial Waste	\$124,000 (per year)	4	
Emergency CofA	\$8,400 (one time Cost)	18	Recommended

Town Staff recommend sole sourcing this work with Golder Associates Ltd. because of their significant previous knowledge and experience on this particular project in accordance with Schedule F, Section 1J of the Town's Purchasing Procedures Policy.

### **C. The Blue Mountains' Strategic Plan**

This activity addresses the Town's infrastructure needs through Strategic Action 2.5 "Developing a waste management strategy to meet diversion targets and address landfill capacity".

**D. Environmental Impacts**

Expanding the solid waste infrastructure will provide viable local waste disposal, which is an important component in providing a complete waste management program and sanitation in our urban and rural communities.

**E. Financial Impact**

This existing 2011 Capital Budget for the Environmental Screening Project includes the necessary funds to support the \$8,400 in engineering fees plus the associated application fee (\$1,400) and post consultation for the Emergency CoA application.

The export and commercial banning options would be unfinanced for 2011. This could place an additional burden on the tax levy for 2012.

**F. Attached**

None

Respectfully submitted,

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