

1

IMPROVEMENTS TO THE GEORGINA TRANSFER STATION

The Solid Waste Management Committee recommends the adoption of the recommendations contained in the following report, September 11, 2008, from the Commissioner of Environmental Services:

1. RECOMMENDATIONS

It is recommended that:

1. Regional Council authorize Regional staff to proceed with applications for regulatory approvals, retention of an engineering consultant to complete the detailed design and tender documents, and issuance of a tender for construction of improvements to York Region's Georgina Transfer Station as generally described herein.
2. Regional Council authorize Regional staff to negotiate a Memorandum of Understanding with the Town of Georgina to allow the use of Town property within the perimeter of the closed landfill site for an exit roadway.

2. PURPOSE

This report describes proposed upgrades to improve service levels and safety at York Region's Georgina Transfer Station.

3. BACKGROUND

Evolving service levels and customer profile are driving the need for design changes to Georgina Transfer Station

In January 1998, waste management operations began at York Region's Georgina Transfer Station. The following summarizes the waste management services currently available at the Georgina Transfer Station:

Table 1
Summary of Waste Management Services

Item/Material	Residential Drop-off	Industrial, Commercial & Institutional Drop-off
Solid waste and clean fill	Accepted with fee	Accepted with fee
Leaf and Yard Waste	No charge	Accepted with fee
Tires	Accepted with fee	Accepted with fee
Blue Box Recyclables	No charge	No charge
Household Hazardous Waste	No charge	Not accepted
Electronic Waste	No charge	Not accepted
Scrap Metal and Small Appliances	No charge	No charge
Large Metal Appliances:		
- Containing CFCs	Accepted with fee	Accepted with fee
- CFCs removed	No Charge	Accepted with fee

The following data demonstrates the change in facility usage levels and the trend towards an increasingly residential profile of customers of the Georgina Transfer Station over time.

Table 2
Trends in Facility Usage Levels

	1998	2007
Total materials received (tonnes)	10,900	23,200
Proportion of material tonnage from residential drop-offs (%)	30	51
Total inbound vehicle trips	19,400	66,600
Inbound vehicle trips for residential drop-offs	15,700	60,600

Growing local service demands require facility upgrades

The existing design configuration of the Georgina Transfer Station is based primarily on receiving waste in municipal curbside collection vehicles and from industrial, commercial and institutional customers using large vehicles to deliver large loads. Over the past 10 years the number of residential facility users, the number of loads delivered, and the quantity of materials received at the Georgina Transfer Station have all increased, with the increase in residential vehicle traffic being the most dramatic. In 1998 the average traffic throughput rate for residential customers was approximately 8 vehicles per

hour. In contrast, for 2007 the average residential customer traffic throughput rate was more than 30 vehicles per hour. This more than three-fold increase has exceeded the facility's ability to meet the required service levels and as a result, a number of concerns have arisen:

- During peak operating periods there are long wait times and traffic queues extending onto Warden Avenue creating potential off-site safety concerns.
- A large portion of residential facility users drop off minimum size waste loads, however these users must still cross the scales increasing wait times for all facility customers and increasing traffic queues.
- Smaller vehicles typically used by the residential customers must mix with larger trucks used by the industrial, commercial and institutional customers and facility service contractors, raising safety concerns regarding on-site traffic movements.
- During peak operating periods the waste drop-off area becomes a "bottle-neck" and experiences very high levels of activity. Particular safety concerns arise in this area due to:
 - required proximity of customers and their vehicles to the tipping area;
 - types of vehicular manoeuvres required; and,
 - necessity to carefully coordinate and control customer movements and heavy equipment activities within the common tipping area.

It is apparent that the Georgina Transfer Station is no longer well-suited to meet the growing local service demands in a manner consistent with the facility's current customer profile.

Coordination with the Town of Georgina resulted in modifications to the plan

Regional staff conducted preliminary discussions with staff from the Town of Georgina on the benefits of proposed changes to the transfer facility. As a result of this engagement York Region staff revised the proposed plan to allow the Town of Georgina to collect white agricultural plastic film for recycling into plastic wood replacement products. Georgina agreed to allow York Region to enter into negotiations with the Ministry of the Environment to relocate the landfill perimeter fence to allow for a more efficient exit from the transfer station site.

York Region and Georgina staff have worked out a draft Memorandum of Understanding with Georgina for the proposed work.

Improvements to Georgina Transfer Station based on Community Environmental Centre Principles

The concerns regarding increasing service demands and the changing customer profile at the Georgina Transfer Station can be addressed by applying of the principles adopted by the Region for developing of its Community Environmental Centres, reflecting the following values:

- Safe for users, staff and contractors
- Convenient and supportive of a positive user experience
- Focus of the facility geared to community user
- Augment existing collection programs by providing a method to deal with materials that might not be easily accommodated by curbside programs
- Responds to needs of neighbours and the surrounding area
- Attractive aesthetic appearance
- Reflective of the priorities of the 3R's waste management hierarchy
- Enhance material re-use and recycling contributing to waste diversion objectives
- Efficient management of materials
- Compliance with all applicable regulatory requirements

4. ANALYSIS AND OPTIONS

Concept design and operation changes will improve the efficiency and throughput of the Georgina Transfer Station

A concept design and operation program has been developed to address the concerns that have evolved at the Georgina Transfer Station based on the principles listed above and application of design approaches developed for the Community Environmental Centres. The following are the primary changes suggested for upgrading the Georgina Transfer Station:

- Segregation of residential facility customers from industrial, commercial and institutional customers and facility service contractors by:
 - Construction of a separate on-site roadway for residential customers;
 - Construction of a residential drop-off platform with distinct areas for household hazardous wastes, bulky recyclables, electronic wastes, yard waste and garbage; and,
 - Construction of a separate exit for residential customers.
- Maximization of facility service throughput, given the site size constraints.
- Addition of one staff attendant on the drop-off platform responsible for:

- Assessment and collection of fees;
 - Direction and assistance for customers;
 - Maintenance of the platform and drop-off area in a neat and tidy condition; and,
 - Coordinate removal of materials.
- Maintain existing weigh-in system for all municipal curbside collections and industrial, commercial and institutional customers.
 - Revised signage at facility entrances, along on-site roads and at drop-off areas to improve direction of customers on-site.
 - Construction of dedicated emergency access roadway to waste drop-off area.
 - Minor revisions to other site infrastructure to accommodate the proposed reconfiguration.

The capacity currently approved for receipt of municipal solid waste at the Georgina Transfer Station is 356 tonnes per day. Since the maximum daily tonnage that has been received at the facility is approximately 180 tonnes, there are no plans to increase the approved facility tonnage capacity at this time. The proposed improvements are focused on improving safety and decreasing wait-times to better accommodate the increased number of residential customers delivering smaller loads to the site.

An additional potential concern has been expressed due to the proximity of the Georgina Transfer Station to the former Town of Georgina Landfill Site immediately to the north-west. Landfill gas monitoring conducted on behalf of the Town of Georgina has detected combustible concentrations of landfill gas in the soil between the limit of wastes of the former landfill and the edge of the transfer station property. As one element of the facility improvements, it is proposed to include construction of a passive landfill gas venting system, below ground along the edge of the transfer station property.

Attachment 1 shows the proposed re-configuration of the Georgina Transfer Station based on the above design concepts.

Approvals requirements include amending the existing Certificate of Approval

The proposed improvements are subject to the following permit/approvals requirements:

- Amendment to the existing Certificate of Approval issued under section 27 (Waste) of the *Environmental Protection Act* to accommodate reconfiguration of the Georgina Transfer Station;

- Obtain a new Certificate of Approval issued under section 9 (Air) of the *Environmental Protection Act* for the proposed landfill gas venting system; and,
- Town of Georgina Grading Permit.

Due to the existing use of the site and the nature of the proposed works, it is not anticipated that the Town will require a Site Plan submission or a Building Permit. Similarly it is not expected that permits will be required from the Lake Simcoe Region Conservation Authority. During the initial design phase for the proposed project, Staff will consult with the Town and the Lake Simcoe Region Conservation Authority to confirm their interpretation of approvals requirements.

The proposed improvements are exempt from requirements of the *Ontario Environmental Assessment Act*. During the project initiation phase, Staff will consult with the Ontario Ministry of the Environment to confirm their interpretation of approvals requirements.

Next Steps involve retaining a design consultant and preparing design and tender documents

Subject to Council approval to proceed, the next steps in retaining this project will include:

- Issue Request for Proposals to retain a qualified design engineering consultant
- Consult with the Town of Georgina, the Lake Simcoe Region Conservation Authority, and the Ministry of the Environment to confirm approvals
- Prepare detailed design and tender package for proposed improvements; and
- Issue the tender for construction.

It is anticipated that these steps can be completed by Spring 2009, when a report would be brought before Council regarding the results of the tender. It is expected that the construction works can be completed within one construction season, allowing utilization of the improved Georgina Transfer Station to begin in Fall 2009

5. FINANCIAL IMPLICATIONS

The total capital cost including consultant fees and estimated construction costs are within the 2008 Solid Waste Management Capital Budget of \$1.3 million approved for the project.

6. LOCAL MUNICIPAL IMPACT

The proposed improvements will provide benefits to residents and businesses in the Town of Georgina and the surrounding areas. Increased rates of traffic flow through the Georgina Transfer Station will reduce wait times and queuing onto Warden Avenue

during periods of peak operation of the transfer station. Improvements to the customer's experience will encourage use of the facility and may contribute to increased recycling and diversion from landfill as a result of increased community participation rates.

7. CONCLUSION

If approved by Council, the proposed improvements to the Georgina Transfer Station will enhance the safety and efficiency of the facility, in a manner consistent with the Region's Community Environmental Centres.

For more information on this report contact Alec Scott, Program Manager, Waste Disposal and Quality Assurance, Solid Waste Management Branch at extension 5712 in the Environmental Services Department.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is included with this report.)