

TORONTO STAFF REPORT

June 6, 2000

To: Works Committee
From: Barry H. Gutteridge, Commissioner, Works and Emergency Services
Subject: TIRM Process - Disposal and Diversion Tonnage Projections

Purpose:

The purpose of this report is to provide the range of waste disposal and diversion tonnage projections that are being used to determine the recommended award of contract(s) for proven disposal services under the Toronto Integrated Solid Waste Resource Management ("TIRM") Process.

Financial Implications and Impact Statement:

There are no direct financial implications arising from this report.

Recommendations:

It is recommended that this report be received for information.

Background:

At its meeting on February 29 and March 1 and 2, 2000, City Council adopted Clause No. 1 of Report No. 5 of the Works Committee, which recommended, in part, that:

- (1) the proposals from the following five qualified Respondents to the TIRM Request for Proposals for Proven Disposal Capacity be identified as the final group of top-qualified proposals and, as such, be advanced to Stage 4 (due diligence and contract negotiations) of the TIRM Process:
 - BFI Waste Systems of North America Inc.
 - Essex-Windsor Solid Waste Authority
 - Green Lane Landfill
 - Rail Cycle North
 - Republic Services of Canada Inc.

And, subject to the approval of Recommendation No. (1), it is further recommended that:

- (2) the Commissioner of Works and Emergency Services be authorized to proceed to conduct the necessary due diligence reviews of the disposal sites identified in the proposals of the top-qualified Respondents and to conduct contract negotiations with the top-qualified Respondents, as contained in Recommendation No. 1, and to report on the outcome of the negotiations and provide recommendations in the form of a proposed award of contract(s) with one or more of the top-qualified proposals.

This report provides the tonnage projections that are being used to determine the recommended award of contract(s) for proven disposal services, which is the subject of a separate report.

Discussion:

The actual tonnage of waste that will require disposal over the 20 year TIRM Process planning period (2002 to 2021) is dependant on several key variables:

- the growth in population and waste generation over the planning period;
- the quantity of Toronto municipal waste that will be diverted from disposal through recycling, composting and source reduction;
- the quantity of private sector waste that will be delivered to Toronto transfer stations, which is determined by general economic conditions and the competitive market for waste disposal and diversion;
- the quantity of waste that will be provided by other Greater Toronto Area municipalities, which in turn will be determined by their diversion performance and the cost of other disposal alternatives.

Staff have developed a number of tonnage scenarios based on combinations of assumptions for each of these variables. These scenarios are presented in Attachment 1 - Waste Disposal Tonnage Projections 2002 – 2021. With respect to Toronto's municipal waste, a waste generation growth rate of 0.5% per year (based on population growth) is assumed, which is offset by an estimated increase in source reduction of 0.25% per year, for a net increase of 0.25% per year.

Toronto's municipal waste diversion performance could vary dramatically over 20 years depending on a number of factors. For planning purposes, staff have developed a low diversion and a high diversion scenario for projecting Toronto's disposal tonnage.

Under the low diversion scenario, it is assumed that Blue Box and leaf and yard waste diversion will grow incrementally over the planning period by a total of 50,000 tonnes, and that the small scale Dufferin Mixed Waste Recycling and Organics Processing Plant is operational in 2001, but is not expanded. No additional waste processing facilities are constructed and no other major waste diversion initiatives are undertaken.

Under the high diversion scenario, Toronto achieves its target of 50% diversion of residential waste by 2006 through intensive promotion of the Blue Box program and leaf and yard waste composting, and through the construction of three large scale mixed waste processing and/or organics processing facilities. Beyond 2006, it is assumed that waste diversion continues to increase as a result of the implementation of variable rate service fees for residential garbage. Furthermore, it is assumed the waste from municipal operations declines due to the land application of all biosolids starting in 2001 and the recycling of all street sweepings in 2002.

The amount of private sector waste that will be delivered to Toronto's waste transfer stations after the closure of the Keele Valley Landfill is difficult to predict. We currently receive approximately 600,000 tonnes per year of private sector waste at our landfill and seven transfer stations. It is estimated that after the landfill closes approximately 100,000 tonnes of this waste (primarily from companies in Durham and York) will be diverted to other disposal options, leaving an average of 500,000 tonnes per year to be managed through our system. It is also possible that we could dispose of all or some of this tonnage outside the TIRM contract(s) through separate short term disposal contracts.

With respect to waste from potential GTA partners (Durham, York and Peel Regions), we have requested each of them to provide waste disposal tonnage estimates for the 20 year planning period, taking into account population growth projections and waste diversion plans. Their actual disposal requirements may be higher if diversion targets are not achieved.

In Attachment 1, Toronto's low and high waste diversion tonnage projections are combined with GTA and private sector disposal tonnage to create the following eight tonnage scenarios:

Low Diversion Scenarios:

- Toronto municipal waste only (low diversion)
- Toronto & GTA
- Toronto & private sector
- Toronto & GTA & private sector

High Diversion Scenarios:

- Toronto municipal waste only (high diversion)
- Toronto & GTA
- Toronto & private sector
- Toronto & GTA & private sector

As can be seen from Attachment 1, the waste tonnages requiring disposal under the TIRM contract(s) vary significantly among the scenarios, particularly in the latter years of the planning period. This fact leads to a preference for disposal options which

provide a high level of flexibility in terms of disposal tonnage and which do not lock Toronto into large tonnage commitments over the long term.

Conclusions:

This report provides the range of waste tonnage that may need to be disposed of over the 20 year TIRM planning period and demonstrates the importance of flexibility in considering disposal services contract options.

Contact:

Andrew Pollock
Director, Policy and Planning
Solid Waste Management Services
Works and Emergency Services
Phone: 392-4715
Fax: 392-4754
E-mail: apolloc@city.toronto.on.ca

Angelos Bacopoulos
General Manager, Solid Waste Management Services

Barry H. Gutteridge
Commissioner, Works and Emergency Services

List of Attachment:

Attachment 1 – Waste Disposal Tonnage Projections 2000 - 2021

(tonnage.doc)