



---

# **SOLID WASTE MANAGEMENT MARKETPLACE ENGAGEMENT PROGRAM**

---

## **STAGE ONE (DRAFT) Planning Document**

A Framework for Engaging the Marketplace to Secure Solid Waste Management Options Including Waste Diversion and Disposal Capacity

---

November 23, 1998

---

# TABLE OF CONTENTS

<b>1.0 EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>2.0 TORONTO'S NEED TO ENGAGE THE MARKETPLACE FOR WASTE DIVERSION AND DISPOSAL CAPACITY .....</b>	<b>5</b>
2.1 WASTE MANAGEMENT PROGRAM OVERVIEW .....	5
2.2 NEED FOR WASTE DIVERSION CAPACITY .....	7
2.3 NEED FOR LONG TERM WASTE DISPOSAL CAPACITY .....	12
<b>3.0 TORONTO'S WASTE MANAGEMENT PLANNING PROCESS .....</b>	<b>16</b>
3.1 OVERVIEW .....	16
3.2 RELATIONSHIP TO THE ENVIRONMENTAL ASSESSMENT ACT.....	18
<b>4.0 COUNCIL'S POLICY DIRECTIONS .....</b>	<b>24</b>
4.1 RELATIONSHIP BETWEEN WASTE DIVERSION AND WASTE DISPOSAL .....	24
4.1.1 <i>Policy Principle:</i> .....	24
4.1.2 <i>Proposed Framework for Managing the Waste Diversion - Waste Disposal Relationship.</i>	26
4.2 TORONTO'S POTENTIAL PARTNERSHIP INVOLVEMENT .....	33
4.2.1 <i>Policy Principle:</i> .....	33
4.2.2 <i>Implications of the Policy</i> .....	35
4.2.3 <i>Proposed Framework For Managing Toronto Participation Offers</i> .....	37
4.2.4 <i>Toronto Partnership Offers Proposed Evaluation Criteria</i> .....	39
4.2.5 <i>Toronto's Potential Partnership Roles</i> .....	41
4.3 CONSISTENCY WITH ENVIRONMENTAL ASSESSMENT PLANNING CONSIDERATIONS.....	42
4.3.1 <i>Policy Principle:</i> .....	42
4.3.2 <i>A Broad Range of Alternatives Will Be Considered</i> .....	44
4.3.3 <i>A Multi-faceted Comparative Evaluation Process Will be Employed</i> .....	46
4.4 A GTA SHARED SOLUTION APPROACH IS A POSSIBLE OUTCOME .....	48
4.4.1 <i>Policy Principle:</i> .....	48
4.4.2 <i>Status of the GTA Shared Solution Potential</i> .....	49
<b>5.0 STAGE TWO - REQUEST FOR EXPRESSION OF INTEREST (REOI).....</b>	<b>51</b>
<b>6.0 STAGE 3 - REQUEST FOR PROPOSAL (RFP).....</b>	<b>66</b>
6.1 STAGE 3 COMPARATIVE EVALUATION CRITERIA - TO DEFINE THE TOP QUALIFYING PROPOSALS FOR PROVEN WASTE DIVERSION CAPACITY AND NEW, EMERGING AND INNOVATIVE TECHNOLOGIES...	67

6.2	STAGE 3 RFP ENVIRONMENTAL EFFECTS COMPARATIVE EVALUATION CRITERIA - TO DEFINE THE TOP QUALIFYING PROPOSALS FOR PROVEN WASTE DISPOSAL CAPACITY .....	68
6.2.1	<i>Human Health, Safety and Natural Environment Criteria</i> .....	68
6.2.2	<i>Social Criteria</i> .....	69
6.2.3	<i>Financial Criterion</i> .....	69
6.2.4	<i>Other Criteria</i> .....	69
6.3	COMPARATIVE EVALUATION METHODOLOGY FOR WASTE DISPOSAL CAPACITY .....	72
<b>7.0</b>	<b>STAGE 4 - DUE DILIGENCE REVIEW AND COMPETITIVE CONTRACT AGREEMENT NEGOTIATIONS.....</b>	<b>77</b>
<b>8.0</b>	<b>CONSULTATION AND COMMUNICATIONS PLAN.....</b>	<b>79</b>
8.1	INTRODUCTION.....	79
8.2	GOAL.....	79
8.3	OBJECTIVES.....	80
8.4	TARGET AUDIENCES .....	81
8.5	LEVEL OF DOCUMENTATION.....	82
8.6	CONTINUOUS EVALUATION .....	82
8.7	TOOLS AND TECHNIQUES .....	83
8.9	STAGES OF THE STAKEHOLDER CONSULTATION AND COMMUNICATIONS PROGRAM .....	84
8.10	KEY CONSULTATION AND COMMUNICATIONS ACTIVITIES .....	86
<b>9.0</b>	<b>THE NEXT STEPS ... ..</b>	<b>88</b>

**TABLES**

Table 1	Mandatory Qualification Criteria for New, Emerging and Innovative Technologies
Table 2	Mandatory Qualification Criteria for Proven Diversion Capacity
Table 3	Mandatory Qualification Criteria for Proven Waste Disposal Capacity
Table 4	Stage 3 RFP Comparative Evaluation Criteria (Waste Disposal Capacity)

**FIGURES**

Figure 1	Planning Document – SWM-MEP Framework
Figure 2	Schedule for Waste Disposal Component of Marketplace Engagement Program
Figure 3	Projected Toronto Municipal Waste Only
Figure 4	Projected Toronto Municipal Waste and ICI and York and Durham Waste

## 1.0 EXECUTIVE SUMMARY

This Planning Document describes how the City of Toronto intends to engage the marketplace to identify, assess and choose among its long term waste management options including waste diversion (3Rs) and disposal capacity. Section 2.0 of this document describes Toronto's need for an estimated 20 million tonnes waste diversion capacity and 15 million tonnes waste disposal capacity over the twenty-year planning period, 2002 - 2022.

***Toronto needs  
20,000,000 tonnes waste  
diversion and 15,000,000  
tonnes waste disposal  
capacity:***

Development of this Document and its finalization through stakeholder consultation is the first stage of Toronto's Solid Waste Management Marketplace Engagement Program project (SWM-MEP). Section 8 of this document describes the stakeholder consultation and communication's program for the project. In summary, Toronto will be consulting with the public, government agencies and the waste management marketplace throughout the stages of the project. A variety of consultation and communication mediums will be used, including a periodic newsletter, direct meetings with stakeholder representatives and the public process of on-going project status reporting and decision making at meetings of Toronto's Works and Utilities Committee and City Council.

***SWM-MEP:  
Stage 1 – Planning  
Stage 2 – REOI  
Stage 3 – RFP  
Stage 4 – Due Diligence  
and Contract Negotiations***

***Stakeholder Consultation  
Throughout***

***To Be Completed:  
Year 2000***

Subsequent steps in the SWM-MEP will involve Toronto requesting, in early 1999, expressions of interest (REOI) from the waste management marketplace for provision of diversion and disposal capacity. Expressions of interest involving diversion capacity will be incorporated into Toronto's on-going Waste Diversion Implementation Program, with the objective of achieving the target of 50% waste diversion by the year 2006 or earlier and potentially achieving more than 50% diversion over the planning period.

Expressions of interest involving proven waste disposal capacity will be the subject of a detailed proposal call (RFP), scheduled for July 1999, followed by a multi-faceted environmental and financial analysis. Top qualifying proposals will be the subject of due diligence reviews and competitive contract negotiations. It is intended that this process will culminate in a contract agreement with Toronto for the provision of long term waste disposal capacity.

***Disposal capacity must be in place to meet Keele Valley Landfill projected closure – late 2002.***

Sections 5, 6 and 7 of this Planning Document outline the REOI, RFP and due diligence and negotiations processes. The preferred waste disposal capacity solution must be in place by late 2002, as this is the current projected closure date for Toronto's Keele Valley Landfill Site. Section 3.0 of this planning document outlines the stages and timeline schedule for the project.

The purpose of this Stage One - Planning Document is to establish the means by which Toronto Council's policies and directions on waste management will be achieved. These policies and directions were enunciated by Council on October 2, 1998, in conjunction with Council authorizing initiation of this project. Section 4.0 of this Planning Document describes Council's policies and directions and the intended means by which they will be addressed.

***SWM-MEP is structured on Council's policy directions:***

- ***disposal must not be a disincentive to diversion***

The following four policy matters are of particular importance to this project:

- **Waste Diversion and Disposal** - The relationship between planning for waste diversion and waste disposal capacity will be structured such that the solution to Toronto's long term waste disposal needs will not constrain Toronto from meeting or exceeding the City's waste diversion targets. *Section 4.1 of this Document addresses this matter.*

- *offers to involve Toronto as a partner must be objectively evaluated*
  - *alternatives must be evaluated using broad environmental, social and financial criteria*
  - *the potential for a GTA partnership solution must be pursued for the shared benefit of Toronto and other GTA partner Regional Municipalities*
- **Toronto Partnership Offers** - A process for evaluating offers from the waste management marketplace involving Toronto's participation in facilities' ownership and/or operation will be structured, such that the process is upheld by participants as providing fair and equitable treatment to all proposals, regardless of the extent of Toronto partnership involvement offered. *Section 4.2 of this Document addresses this matter.*
  - **Environmental Planning** - SWM-MEP will be structured in a manner consistent with environmental assessment planning principles including: consideration of a broad range of alternatives and utilization of evaluation criteria which is multi-faceted and incorporates macro-environmental impact analysis, identification of Ontario-based social and economic development benefits, and recognition of full cost financial implications. *Section 4.3 of this Document addresses this matter.*
  - **GTA Shared Solution** - Collaborative planning with the Greater Toronto Area Regional Municipalities will continue, with the objective of pursuing the potential for one or more of the other Regions to partner with Toronto in finding and implementing long term waste disposal, and potentially waste diversion capacities. *Section 4.4 of this Document addresses this matter.*

Consistent with Council's direction that implementation of SWM-MEP be underpinned by consultation with the public, Provincial Government and industry stakeholders, readers of this Planning Document are encouraged to provide their comments on the program's elements to:

**Tracey Ehl Harrison,  
Public Consultation Coordinator  
Works and Emergency Services  
City of Toronto  
Metro Hall  
55 John Street  
Station 1180, 18<sup>th</sup> Floor  
Toronto ON M5V 3C6**

**Tel: 416-392-6698  
Fax: 416-392-2974  
Tracey\_ehl@metrodesk.metrotor.on.ca**

**Lawson Oates  
Project Manager  
Works and Emergency Services  
City of Toronto  
Metro Hall  
55 John Street  
Station 1180, 18<sup>th</sup> Floor  
Toronto ON M5V 3C6**

**Tel: 416-342-9744  
Fax: 416-392-2974  
lawson\_oates@metrodesk.metrotor.on.ca**

## 2.0 TORONTO'S NEED TO ENGAGE THE MARKETPLACE FOR WASTE DIVERSION AND DISPOSAL CAPACITY

*Toronto manages ~  
2,000,000 tonnes of waste  
per year*

### 2.1 Waste Management Program Overview

The City of Toronto currently manages approximately 2 million tonnes/year of municipal solid non-hazardous waste ("municipal waste"). The sources for this waste and current management practices are summarized as follows:

Waste Types/Sources	Quantity Managed Via
• Municipal waste, including residential waste, waste from public agencies, boards and commissions, and publicly collected commercial waste.	250,000 tonnes/year - waste diversion (3Rs) program 900,000 tonnes/year - waste disposal
• Municipal waste privately collected from apartment buildings, and industrial, commercial and institutional establishments	500,000 tonnes/year - waste disposal
• Municipal waste from York Region	175,000 tonnes/year - waste disposal
• Municipal waste from Durham Region	125,000 tonnes/year - waste disposal

Toronto manages both "public" and "private" waste. This dual role has developed as a result of the following circumstances. In Ontario, historically, municipalities have been responsible for managing public waste from residential sources. The private sector has been responsible for private waste, from industrial, commercial and institutional (IC&I) sources. This circumstance derives from municipalities' formal jurisdictional responsibilities and practical circumstances.

Residential waste is generated by social activity - i.e. the operations of households. The absolute need to address public health and aesthetics through coordinated service delivery among the large number of

***Toronto responsible for residential waste and some IC&I (private) waste***

generators (i.e. households) has given rise to municipalities' residential waste management responsibility.

IC&I waste generation is an outcome of economic/business activity. Waste management is viewed as a “cost of doing business” and has remained the generator’s responsibility. The private waste management industry serves these generators.

However, circumstances can arise where municipalities assume some responsibility for private IC&I waste management. For example, Toronto collects private, business generated waste in certain downtown business districts such as Kensington Market, where food waste is being generated and must be managed on a daily basis by a night collection. Historically, this function has been preformed by the public sector.

***2,000,000 tonnes managed:***

- ***250,000 tonnes diverted***
- ***1,750,000 tonnes disposed at***

***Keele Valley Landfill and export to BFI’s Michigan landfill***

Toronto diverts from disposal approximately 25% of the residential waste generated (approximately 250,000 tonnes per year) through a multi-faceted 3Rs program. The program is described in the following Section 2.2. Toronto disposes of the waste for which it has responsibility through a system of seven, City owned, transfer stations and subsequent final disposal. Toronto’s disposal program currently consists of the Keele Valley Landfill Site (1.5 million tonnes per year), owned and operated by the City of Toronto, located in the Region of York, and a contract for export of waste to the BFI landfill in Ann Arbor, Michigan (260,000 tonnes per year, increasing to 450,000 tonnes per year in 1999).

Toronto has historically permitted the private sector to utilize, for a fee, Toronto’s transfer stations and the Keele Valley Landfill. Toronto has viewed the provision of these services as being necessary, particularly in terms of providing waste management capacity for businesses generating small amounts of waste, infrequently or on a seasonal basis.

***York and Durham  
Regions use Toronto's  
waste disposal program***

Municipal waste from the Region of York is disposed of at the Keele Valley Landfill. In exchange for the facility being located in York Region, Toronto provides the Region's waste disposal capacity, for a fee, to the year 2004 or the closure date of the Keele Valley Landfill (whichever is later).

Municipal waste from the Region of Durham is disposed of at the Keele Valley Landfill, for a fee, under agreement between Toronto and the Region. This agreement will expire in 2001 and may be renewed.

In summary, the City of Toronto currently manages approximately 1,200,000 tonnes/year of municipal (public) waste generated in Toronto via a waste diversion program and a waste disposal program. An additional approximately 800,000 tonnes/year of private waste and waste sourced from York and Durham Regions are managed within Toronto's waste disposal program.

***50% diversion from  
disposal by 2006 or  
sooner***

**2.2 Need for Waste Diversion Capacity**

On October 2, 1998, Toronto Council adopted the target of 50% waste diversion from disposal by 2006, with best efforts to achieve this target earlier. (As was recommended in Report No. 8 of the Works and Utilities Committee).

***Addressing apartment  
waste is recognized as the  
key to achieving targets.***

Toronto's 3Rs program, which underpins the 50% by 2006 target, was identified in 1996 by the former Metro Toronto. ("Preliminary Metro 3Rs Strategy - Draft Report", Report from the Commissioner of Works to Metro Council, December 18, 1996.) The program identified a target of advancing Metro's waste diversion rate (approximately 23% in 1996) to 50% by 2006. The report identified that achieving this target would require major expansion of 3Rs materials processing capacities, including the successful demonstration, and subsequent successful full scale implementation of major new diversion programs

focused on multi-family residential (apartment buildings) waste generation sources.

***\$125,000,000 capital  
cost, estimated in 1997,  
to achieve target***

On April 9, 1997 Metro Council adopted Report No. 4 of the Environment and Public Space Committee pertaining to Toronto's waste diversion strategy. The report identified that facilities to achieve a 50% target would involve capital expenditures in the range of \$125 million, commencing with an initial \$10 million capital expenditure for a small scale mixed waste recycling and source separated organics processing demonstration facility. On September 24, 1997 Metro Council adopted Report No. 12 of the Environment and Public Space Committee which authorized expenditure for the facility. The facility is currently under construction and is directed at demonstrating processes for diverting apartment waste from disposal and optimizing diversion rates for single family residential waste.

***Toronto's current 3Rs  
program***

Toronto currently diverts from disposal approximately 25% of the residential waste generated in the City. The City's waste diversion program is comprised of, or has, in the recent past, involved, the following elements:

- Blue Box recycling (containers – beverage, food, etc.);
- Gay Box recycling (paper fibres);
- Green Pail recycling (food);
- leaf/yard/waste/Christmas tree composting;
- home composting;
- grass-cycling;
- environment days/used clothing, toys, appliances depots in conjunction with City and private social services organizations;
- white goods collection; and
- household hazardous waste management.

In addition to these core elements, the following activities have been initiated as pilot programs:

- enhanced diversion from apartment buildings;

- maximum diversion from curbside;
- curbside collection of textiles;
- intensive household house waste management promotion and collection;
- free back yard composter distribution;
- multi-residential composter distribution;
- residential food waste collection;
- commercial food waste collection;
- residential diaper collection;
- Kensington Market neighbourhood vermi-composting project
- kraft bag leaf and yard waste collection;
- TRAC backyard composter distribution;
- Waste-watch volunteer program;
- commercial “cherry picked” organics waste collection; and
- office and institutional waste recycling activity demonstration programs at Toronto’s municipal buildings.

The performance of Toronto’s current waste diversion program and the City’s diversion target is consistent with the performance and targets of the other municipalities in the GTA, as indicated below.

**Outline of Current Diversion Rates and Diversion Rate Targets  
For Municipalities in the Greater Toronto Area**

<b>Municipality</b>	<b>Current Diversion Rate</b>	<b>Year Reported</b>	<b>Diversion Rate Goal</b>	<b>Target Year</b>
City of Toronto	25%	1997	50%	2006, with “best efforts to achieve 50% sooner”
York Region	24%	1997	50%	2000 (under review)
Peel Region	25%	1996	70%	2016
Halton Region	37%	1997	50%	2000 (in progress)
Durham Region	25%	1997	50%	2000 (under review)

While Toronto’s existing program is successful within the context of its application, the program has limitations. The program’s core elements, such as curbside Blue Box recycling and home composting, are not readily applicable to multi-family residential housing. Thus, the majority of Toronto residents do not have access to a full spectrum of

substantial scale, waste diversion programs. To address this circumstance, and as the basis for achieving and potentially exceeding the 50% target, Toronto is proceeding to implement a Waste Diversion Program Strategy. The strategy involves demonstrating the feasibility of managing waste sourced from apartment buildings by mixed waste processing and processing source separated organic waste streams. If this demonstration is successful through 1999, Toronto's strategy envisages establishing 3 full scale mixed waste processing and composting facilities, 2 additional Blue Box material recovery facilities, and 1 additional leaf composting facility. The elements of this strategy will involve capital expenditures over the period 2000 - 2005, which are currently estimated at \$130,000,000.

The strategy is directed at achieving the target 50% diversion by 2006. The target might be met earlier if timing for the proposed facilities' development was advanced. 50% diversion might be exceeded if facilities, additional to those currently proposed, were established. Whether the current strategy will deliver performance equal to or in excess of time and diversion rate targets will depend on a great many factors, including:

***Toronto's ability to achieve its diversion targets depends on many factors:***

- *technical*
- *economic*
- *socio-cultural*

- the degree of success demonstrated by the pilot mixed waste recycling and source separated organics processing facility and its ability to be scaled up to a size necessary for Toronto's needs;
- Toronto's ability to commit \$130 million plus within the relatively short term future, or Toronto's ability to contract with the private sector to finance facilities;
- the potential roles which industry and the Province might play in financing facilities under concepts such as "extended producer responsibility" and "manufacturer controlled networks";

- the benefits, offsetting capital and operating costs, accruing from facilities, including: revenues from sale of recovered materials, compost, and potentially energy resources; environmental burden offsets, (e.g. greenhouse gas reduction credits), health care costs avoided related to improved environmental quality, etc.; and
- the public's willingness to change behaviour related to optimizing participation in diversion program elements such as source separation.

***Toronto needs to canvass the marketplace for new waste diversion capacity and/or alternative means of implementing the City's existing diversion strategy***

In addition to the above factors, which bear upon the diversion strategy's components as currently envisaged, there continues to be new developments in waste diversion processes, equipment and practices. For these reasons, it is prudent that Toronto initiate, in coordination with the strategy's ongoing implementation, a mechanism for becoming aware of and evaluating proposals for new and/or different waste diversion capacity solutions. Any solutions identified should be comparatively evaluated with the elements of Toronto's current strategy and the strategy should be revised, as appropriate.

Toronto Council's October 2, 1998 decision to adopt the "50% by 2006 or earlier" target creates the need for waste diversion capacity of approximately twice Toronto's current performance. Council's decision specifically creates the need to establish a mechanism for the City to become aware of waste diversion processes and technologies which might hasten the achievement of 50% diversion and/or achieve targets above 50%.

*Keele Valley Landfill will be filled to its existing licenced capacity*

*Waste disposal is a core municipal infrastructure service. The efficient use of resources demands that a 20-year solution to Toronto's needs be identified*

### **2.3 Need For Long Term Waste Disposal Capacity**

On October 2, 1998, Toronto Council adopted the management plan for filling the Keele Landfill Site to its existing licenced capacity, as was recommend in Report No. 8 of the Works and Utilities Committee. The waste landfilling rate, expected to derive from tipping fee pricing, waste generation sourcing and transfer strategies, combined with the site's landform settlement rate, is projected to consume the remaining capacity by approximately late 2002.

Replacement waste disposal capacity must be available to meet the closure of the Keele Valley Landfill. There are significant benefits to Toronto defining that capacity in terms of a 20-year need. The long term realizes lower dollar cost to Toronto by reducing the business risks associated with the significant capital investment that is involved in establishing waste disposal capacity. Waste disposal is a core municipal infrastructure service. Uncertainty as to how and at what cost infrastructure services are to be provided is not conducive to sustaining economic development or attracting investment in the Toronto economy.

Very substantial resources will be invested in ultimately reaching the decision on Toronto's long term waste disposal solution. Those resources include: public funds invested in structuring and exercising planning and approvals processes; private sector funds invested in participating in the marketplace bidding process; and, time and commitment invested by a broad range of stakeholders, from politicians to the public. The efficient use of resources demands that the solution which is identified fulfills Toronto's waste disposal needs over the long term.

*Previous, Municipal and Provincial led, public sector “greenfield” landfill site search process’ have failed*

In anticipation of the Keele Valley Landfill Site's eventual closure, Toronto has participated over the previous ten years in various Municipal and Provincial led efforts to identify long term waste disposal capacity solutions. All of those efforts have primarily been structured as public sector solution searches. This approach has not been successful. As a result, on December 18, 1996, Metro Council adopted Report No. 30 of the Financial Priorities Committee. The report recommended Metro adopt a planning framework for engaging the marketplace to provide for Metro's long term waste disposal capacity.

On April 9, 1997, Metro Council adopted Report No. 4 of the Environment and Public Space Committee which proposed draft planning principles, including **Planning Principle No. 1 - "Metro will turn to the marketplace to identify alternatives (waste disposal capacity solution)"**.

*“A marketplace approach (which may result in public-private and/or public-public partnerships) is the preferred approach to attain long term waste disposal capacity”, Toronto Council, Oct 2/98*

On September 9, 1998 the Works and Utilities Committee reviewed a report from the Works Commissioner pertaining to optional approaches for planning for long term waste disposal. Committee recommended that **"a marketplace approach (which may result in public-private and/or public-public partnerships) is the preferred approach to attain long term waste disposal capacity"**. On October 2, 1998, Toronto Council adopted this recommendation.

Current and previous Councils' decisions to seek a long term solution for waste disposal and to do so by engaging the marketplace have come about following extensive consultation with the public, industry and the Province. This consultation has included consideration of the factors which quantitatively define Toronto's waste disposal needs.

The amount of waste disposal capacity ("disposal tonnage") which Toronto will require over the period from 2002 (current estimated

closure date of the Keele Valley Landfill Site) to 2022 (20-year planning period) will be the quantity of waste which will not be managed by waste diversion programs. Section 4.1 of this planning document addresses in detail the important matter of the relationship between waste diversion and disposal in regard to defining disposal tonnages.

***It is assumed that Toronto will require disposal capacity for the residential waste and a portion of the IC&I waste generated in the City, and York and Durham Regions' municipal waste***

The quantity of waste requiring disposal will be a function of the sources of waste generation Toronto has waste management responsibility for, as those responsibilities change over the planning period. As is discussed in Section 2.1 of this document, Toronto's current waste disposal program deals with municipal (public) waste as well as a portion of the IC&I (private) waste generated in the City. The actual quantity of private IC&I waste which will be managed by Toronto's long term waste disposal solution will be a function of the future choices private waste generators and their waste management service providers make in regard to the availability and price of the City's future waste disposal capacity solution, vis a vis any alternative capacities available, their convenience and tipping fee prices.

Thus, it is not possible to accurately define at this point the actual quantity of private IC&I waste that should be accounted for within Toronto's long term waste disposal planning. Notwithstanding, for the purposes of cost-effectively canvassing the marketplace for long term waste disposal solutions, it is necessary that Toronto provide an estimate of this quantity.

Similarly, Toronto's current waste disposal program involves disposing of waste from York and Durham Regions. The City of Toronto, Region of York and Region of Durham, and potentially the Regions of Peel and Halton, may decide it appropriate that all or any combination of the Municipalities address their long term waste disposal capacity needs via the City of Toronto's long term waste disposal capacity

solution. The matter of the potential for a "GTA-shared solution" is addressed in detail in Section 4.4 of this Planning Document. At this time, the actual quantity of waste that could be associated with a GTA shared-solution approach is not known. However, to effectively canvass the marketplace, an estimate of the quantity of waste which may be sourced from the GTA Regions is required.

***1,200,000 to 2,000,000  
tonnes of waste per year  
will require  
management by  
diversion and disposal***

Therefore, for purposes of effectively engaging the marketplace, and to reduce costs by increasing the economy of scale, Toronto intends to define the quantity of waste management (diversion and disposal) capacity needed as being within the range of 1,200,000 tonnes/yr to 2,000,000 tonnes/yr. The higher end figure assumes that private IC&I waste sources and the Regions of York and Durham will continue to utilize Toronto's waste management system. The lower end figure assumes that only Toronto municipal (public) waste will utilize Toronto's waste management system.

***Toronto will express its  
waste management  
capacity needs in terms  
of a range of tonnages to  
provide the flexibility to  
address: fluctuating  
waste generation rates,  
changing IC&I waste  
service roles and the  
potential for a GTA  
shared solution***

Toronto will express its waste management capacity needs in terms of a range of tonnes. This will provide the flexibility needed to accommodate future changes in waste quantities requiring management. These changes could derive from: fluctuating waste generation rates (due to changes in population, economic cycles, seasonal variations in waste quantities and the impact of source reduction and reuse program efforts); changes in the IC&I waste sources Toronto provides waste management services to; and, the potential for some or all of the GTA Regions to partner with Toronto for long term waste disposal capacity.

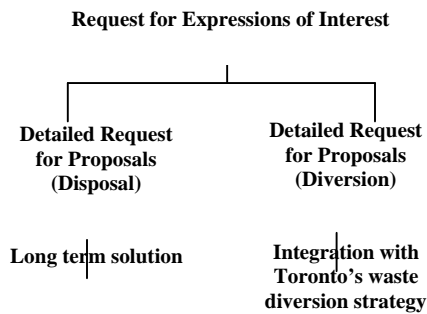
The following section describes the planning process Toronto intends to utilize to address its waste management needs.

### 3.0 TORONTO'S WASTE MANAGEMENT PLANNING PROCESS

#### 3.1 Overview

Toronto Council has instructed that a solid waste management marketplace engagement program be implemented. The program will address the need to identify waste diversion technologies and practices which could assist the City in achieving the target of 50% diversion by 2006 or earlier, and potentially achieve diversion rates higher than 50%. The program will address the need to have long term waste disposal capacity in place in time for the Keele Valley Landfill Site's closure (estimated late 2002).

The first step in the program will be to finalize the program's principal elements through preparation of this Planning Document and subsequent consultation with stakeholders. Once the key policy and procedural matters of the program have been set, the waste diversion and disposal marketplace will be requested to submit expressions of interest. Respondents whose expressions involve waste disposal capacity will be subsequently requested to submit detailed project proposals. These proposals will be evaluated utilizing criteria which will be developed through stakeholder consultation. The criteria will address the matters of macro-environmental impact, Ontario-based benefits and financial considerations. Top qualifying proposals will be the subject of due diligence reviews and will be engaged in competitive contract negotiations, culminating in the identification of Toronto's preferred long term waste disposal capacity solution.



Responses to the request for expressions of interest involving waste diversion capacity will be evaluated in terms of Toronto's current waste diversion strategy. Depending upon the outcome of this evaluation some or all of the proposals may be the subject of a call for detailed

proposals for proven waste diversion and/or new, emerging and innovative technologies. Responses would be evaluated and Toronto's current waste diversion strategy (as is described in Section 2.2, above) would be amended accordingly.

Toronto Council has instructed that the marketplace engagement process contain the following planning elements:

- a description of the intended planning approach (*refer to this Planning Document*);
- public and industry consultation (*refer to Section 8 of this Planning Document*);
- integration of waste diversion and disposal needs into a single request for expressions of interest, marketplace engagement process (*refer to Section 4.1*);
- consideration of a broad range of alternatives using evaluation criteria which is multi-faceted and includes: macro-environmental impact analysis; identification of Ontario-based benefits; and financial implications (*refer to Section 4.3*); and
- continued collaborative waste management planning with other Greater Toronto Area Regions (*refer to Section 4.4*).

Figure 1 presents the core stages in the waste diversion and disposal marketplace engagement program. Figure 2 presents a more detailed task schedule for the waste disposal solution component of the program. The key elements of the program - request for expressions of interest (REOI) and request for detailed project proposals (RFP), terms for responding and method for evaluating proposals, are described in detail in Sections 5 and 6 of this Planning Document. The intended

elements of REOI and RFP reflect the policy direction which Toronto Council has provided.

An extensive planning framework development and stakeholder consultation process, over the period January 1997 to October 1998, provided Council with the basis for the policy decisions that have been taken. Section 4.0 of this Planning Document describes Council's policies. These policies demonstrate a significant regard for the role of environmental planning in waste management decision-making. The relationship of the marketplace engagement program to the Ontario Environmental Assessment Act is discussed in Section 3.2.

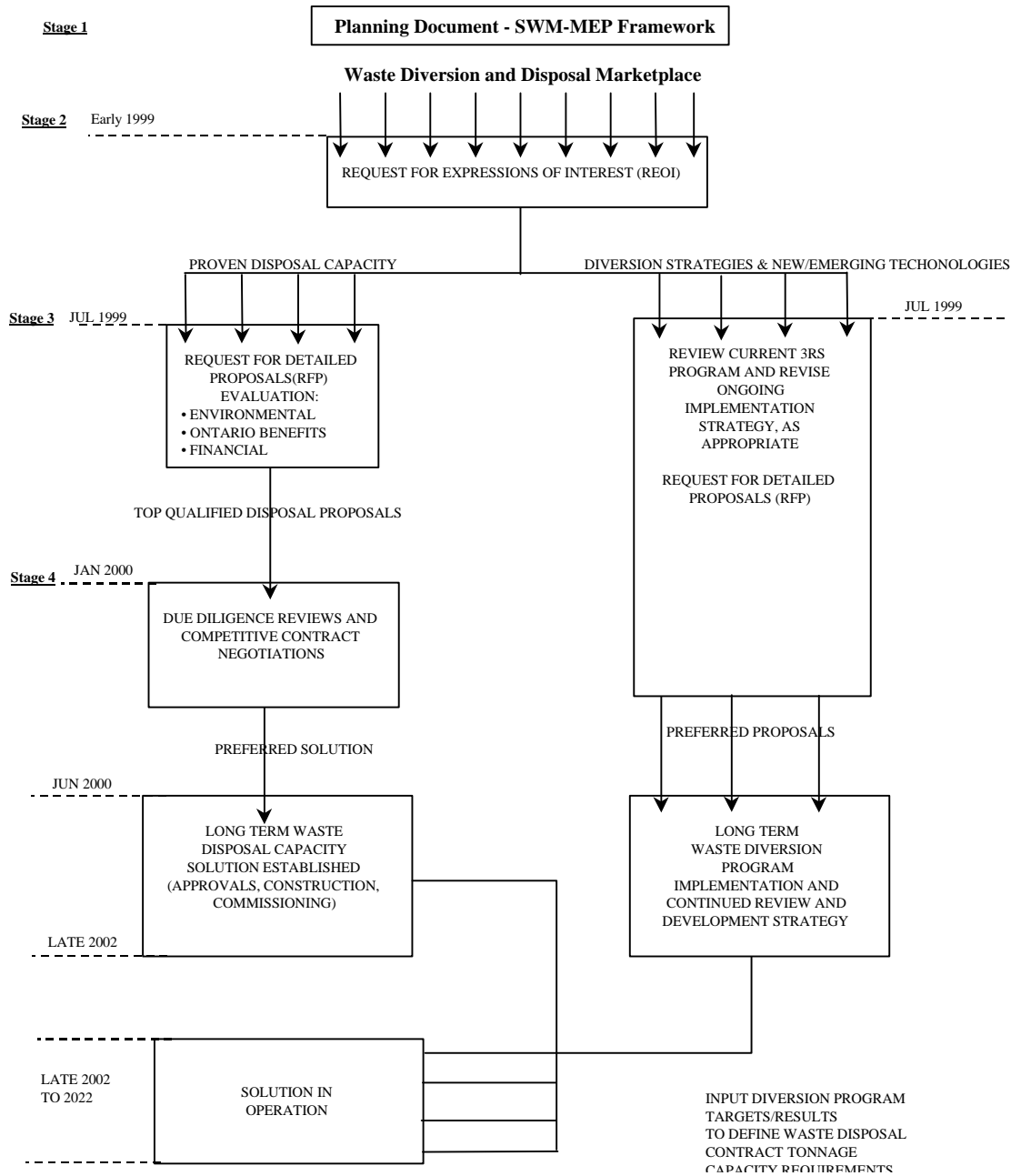
### **3.2 Relationship to the Environmental Assessment Act**

On October 2, 1998, Toronto Council directed that the Solid Waste Management Marketplace Engagement Program be undertaken without proceeding to the submission of an environmental assessment. This constitutes a modification to the direction the former Metro Council had adopted. The rationale for this is described below.

On December 18, 1996, Metro Council initiated a long term waste disposal capacity marketplace engagement program which was structured to obtain formal Environmental Assessment Act approval for the program elements prior to the program being exercised. This decision was taken in response to an amendment to Bill 76, The Environmental Assessment and Consultation Improvement Act, 1997. The amendment provides that municipalities prescribed by Regulation of Cabinet cannot proceed with an undertaking to dispose of waste via the facilities and services of another person (i.e. "contracting out") without EA Act approval. Hence, Toronto's planning process – Solid Waste Environmental Assessment for long-term Disposal "SWEAD" – was focussed on preparing for formal EA Act approval.

*SWEAD (Dec/96 –  
Oct/98) formal EA Act  
approval in 1999 – 2000?  
Marketplace engagement  
in 2001 or later*

FIGURE 1



**Figure 2**  
**Schedule for Waste Disposal Component of**  
**Marketplace Engagement Program**

es

	<b>Target Date (and range accounting for potential extensions to activity timeframes)</b>	<b>Status</b>
• Council Approval to Process	Oct 1 and 2, 1998	Completed Oct 2, 1998
• Hire Planning and Legal Consultants	Oct 1998	Completed Oct 6, 1998
• Assemble Project Team	Oct 1998	Completed Oct 8, 1998
• Prepare Draft Planning Document (outline of Marketplace Engagement Program process, including proposed terms for REOI and RFP stages and stakeholder consultation)	Oct 15, 1998	Completed Nov 23, 1998
• Initiate preparation of REOI Call Document	Nov 15, 1998	Ongoing
• Assemble Staff Teams to Consider Toronto Partnership Offers	Nov 23, 1998	
• Works and Utilities Committee Adoption of Draft Planning Document and Issue Document for Review by Stakeholders	Dec 2, 1998	
• Prepare Draft “Memorandum of Understanding” for GTA Inter-Regional Planning and Decision-Making	Dec 1998	
• Stakeholder Consultation on Planning Document, Including REOI Terms; Analyze Feedback, Finalize Planning Document and REOI Terms	Dec 1998 – Jan 15, 1999	
• Prepare REOI Document	Jan 1999	
• Works and Utilities Committee/Council Approval of REOI Call	Feb (Mar) 1999	
• Issue REOI	Feb (Mar) 1999	
• Initiate Preparation of RFP Call Document	Feb (Mar) 1999	
• Receive REOI Submissions and Evaluate	Mar (May) 1999	
• Initiate Due Diligence Reviews of	Apr (May) 1999	

es

	<b>Target Date (and range accounting for potential extensions to activity timeframes)</b>	<b>Status</b>
Respondents/Sites		
<ul style="list-style-type: none"> <li>• Prepare Report on REOI Outcome. Stakeholder Consultation on REOI Outcome, RFP Call Document and Criteria for Evaluating RFP Submissions</li> </ul>	May (Jun) 1999	
<ul style="list-style-type: none"> <li>• Report to Works and Utilities Committee/Council on Results of REOI, Stakeholder Consultation. Committee/Council Approval of RFP Call, Including RFP Submissions Evaluation Criteria</li> </ul>	Jul (Sep) 1999	
<ul style="list-style-type: none"> <li>• Issue RFP</li> </ul>	Aug (Sep) 1999	
<ul style="list-style-type: none"> <li>• Receive RFP Submissions and Evaluate, Including Consideration of Toronto Partnership Offers</li> </ul>	Nov 1999 (Jan 2000)	
<ul style="list-style-type: none"> <li>• Complete Due Diligence Reviews</li> </ul>	Dec 1999 (Mar 2000)	
<ul style="list-style-type: none"> <li>• Report to Works and Utilities Committee/Council on RFP Outcome and Due Diligence Reviews, With Recommendations for Award of Contract Agreement</li> </ul>	Mar (Jun) 2000	
<ul style="list-style-type: none"> <li>• Initiate Final Contract Agreement Negotiations</li> </ul>	Apr (Jul) 2000	
<ul style="list-style-type: none"> <li>• Finalize Contract Negotiations</li> </ul>	Sep 2000 (Feb 2001)	
<ul style="list-style-type: none"> <li>• Report to Works and Utilities Committee/Council</li> </ul>	Sep 2000 (Feb 2001)	
<ul style="list-style-type: none"> <li>• Execute Contract and Implement Contract</li> </ul>	2002 - 2022	

***SWM-MEP (ongoing)  
integrates EA Act  
principles without need  
for formal EA approvals.  
Enables marketplace  
engagement in 1999***

***There should be no need  
for the Province to  
prescribe SWM-MEP  
under the EA Act***

***Partnering might draw  
Toronto into the purview  
of the EA Act. Toronto  
will carefully consider  
this implication in  
evaluating partnership  
offers***

While the current SWM-MEP will engage the marketplace to identify new long term disposal capacity (i.e. a process of "contracting out"), Toronto Council has taken the position that formal EA Act approval is not necessary. This position derives from the fact that the SWM-MEP is structured to address those matters considered in environmental assessment planning, and thus the Act's intent will be fully served. By avoiding the time which would otherwise be involved in obtaining formal EA Act approval prior to engaging the marketplace, Toronto and the Regions that partner in GTA shared solution have a significantly higher probability of having a long term waste disposal capacity solution in place in time for the Keele Valley Landfill Site closure (estimated late 2002).

It is noted that notwithstanding the above circumstances, the Province could prescribe Toronto's program under the EA Act. However, provided Toronto's process is exercised as it is proposed to be structured - i.e. to be consistent with environmental assessment planning, there should be no need for the Province to prescribe the program.

It should also be noted that a marketplace engagement approach could lead to EA Act approvals requirements, stemming from the nature of public-public or public-private partnership aspects of the preferred long term waste management solutions Toronto selects. If a solution proposed by the marketplace becomes defined as a "public" undertaking because of Toronto's participation, it may trigger the requirement for approval under the EA Act without the Province having invoked the "contracting out" prescription authority. If this circumstance were to arise, it could be addressed through an exemption granted by the Province or reliance on the partner's role in securing all necessary approvals including potential EA Act approvals. However, this latter course of action is not likely to be realized without cost.

Toronto would probably be called upon to assist the partnership in public consultation and technical studies, and potentially in public hearings before the Environmental Assessment Board.

Toronto will carefully consider the implications of "triggering" EA Act approval requirements when evaluating and deciding upon what partnership offers Toronto will entertain.

## COUNCIL'S POLICY DIRECTIONS

### **Key Policies:**

- ***Relationships diversion – disposal***
- ***Partnerships – Toronto's role***
- ***Environmental planning***
- ***GTA shared solution***

The following four matters are central to the structure of Toronto's marketplace engagement program:

- Relationship between waste, disposal and waste diversion,
- Toronto's potential partnership involvement,
- Consistency with environmental assessment planning considerations, and
- A GTA shared solution approach is a possible outcome.

### **4.1 Relationship Between Waste Diversion and Waste Disposal**

#### **4.1.1 Policy Principle:**

**Toronto's long term waste disposal capacity solution will not compete with or be a disincentive to Toronto's waste diversion program, including the encouragement of new, emerging and innovative technologies and practices.**

This principle derives from the following policy direction Toronto Council has provided:

***“(1) The City of Toronto immediately proceed to engage the marketplace to secure solid waste management options including waste diversion and disposal capacity to meet the City's long-term requirements through a request for proposals process...”***

***“That the City of Toronto staff make a priority to develop a strategy for waste disposal capacity that does not penalize the City of Toronto for failing to provide a minimum***

*amount of waste for disposal in the event that diversion targets are met or exceeded.”*

(Clause No. 2 of Report No. 8 of the Works and Utilities Committee, as amended and adopted by City Council, October 2, 1998.)

This policy direction is consistent with positions of former Councils.

On December 18, 1996, Metro Council authorized the Commission of Works to engage in an initial framework for a process to identify Metro’s long term waste disposal capacity solution. This authorization recognized the relationship between waste disposal and diversion as being important.

***“... The waste management industry is changing and therefore a long term commitment to any one of these [waste disposal] proposals may seem in Metro’s best interest today. However, if local facilities are developed (both disposal and future 3Rs facilities), or if tonnage required to dispose decreases due to recycling initiatives, then what appears to be a good deal today may be an expensive commitment in future years.” (Report No. 30, Financial Priorities Committee, considered by Metro Council Dec 18/96)***

On April 9, 1997, Metro Council adopted Report No. 4 of the Environmental and Public Space Committee pertaining to long term solid waste disposal planning. The report included four draft planning principles. Draft Planning Principle No. 3 addressed the relationship between waste diversion and waste disposal capacity, as follows: ***“Metro’s residual waste disposal capacity needs are defined by its 3Rs program”***.

The Report envisaged that waste disposal RFPs would be structured in such a way to solicit responses which allow maximum flexibility and the opportunity over time for additional diversion of solid waste from disposal. This could be accomplished by a variety of means including:

- multiple contracts, staged contracts,
- declining tonnage contracts or
- through defining minimum guaranteed tonnages with escalating clauses for disposal of increased tonnages.

***Flexibility in defining disposal capacity requirements is important to minimizing Toronto's overall waste management system costs. Any premiums which must be paid on waste disposed are tax dollars no longer available to support 3Rs programs.***

It should be noted that, under these approaches, failure to meet diversion targets will cause Toronto to pay a premium on waste which must be disposed. This premium would be withdrawn from Toronto's waste management budget and would presumably no longer be available to support programs such as waste diversion activities. For this reason, the waste management planning programs which were initiated by Metro, and the Marketplace Management Program initiated in September and October 1998, by Toronto Works and Utilities Committee and Council, anticipate that a reasonable degree of tonnage flexibility will be established within the terms of Toronto's contracts for supply of waste for disposal.

#### **4.1.2 Proposed Framework for Managing the Waste Diversion - Waste Disposal Relationship**

Toronto (and former Metro) Councils have consistently directed that Toronto's long term waste disposal capacity solution should not compete with or be a disincentive to Toronto's waste diversion program, and should include encouragement of new, emerging and innovation technologies. Thus, the quantity of waste requiring disposal and for which Toronto could contractually commit to provide should be defined by the performance of Toronto's waste diversion program. In addition to this principle, Council has directed that Toronto seek its long term waste disposal capacity solution from the marketplace.

***Potential contract value of ~ \$1,000,000,000***

Given the substantial price Toronto may have to pay the marketplace for the service of disposing of the City's waste (potentially in the range of \$1 billion over the planning period 2002 - 2022), Toronto must be able to select its preferred solution from among a range of competitively priced offers. Inordinately high cost for waste disposal would leave that much less money to fund and advance Toronto's waste diversion program.

***Requiring potentially  
hundreds of millions of  
dollars capital investment***

***Economies of scale are  
needed to reduce the  
units costs of disposal***

The scale of the waste disposal facilities and transportation infrastructure which will be necessary to address Toronto's needs is very substantial. The marketplace may have to invest potentially hundreds of millions of dollars in designing, constructing and procuring specialized equipment necessary to transport and process/dispose of waste. The cost to cover the risk associated with this capital investment varies with the quantity of waste against which the capital investment can be written. Thus, the greater the quantity of waste Toronto (and the potential GTA municipal partners) can commit to provide in put-or-pay contracts, the lower will be the unit cost for disposal. This in turn should provide an opportunity for a greater number of potential bidder to make proposals.

Thus, a mechanism must be established which will permit Toronto to contract for supply of as much waste as will actually require disposal. Toronto should minimize the risk of having to pay a premium on waste requiring disposal due to potential under-achievement of diversion programs. At the same time, Toronto should avoid the circumstance of inadvertently contracting for disposal of too great a quantity of waste. This would result in a penalty for tonnage shortfall and, more importantly, would create financial disincentives to waste diversion program development.

Toronto's Solid Waste Management Marketplace Engagement Program is proposed to be structured to address the dual needs of:

- a mechanism to bring forward waste diversion, including new, emerging and innovative technology proposals (as a means of advancing Toronto towards, and potentially beyond its waste diversion target); and,

- to provide Toronto with the ability to contract as accurately as possible for the quantity of waste which requires waste disposal capacity.

At the request for expressions of interest (REOI) stage the marketplace will be invited to submit proposals for the provision of waste management capacity. All proposals received will be evaluated in terms of the REOI mandatory requirements criteria (refer to Section 5.0 of this Planning Document). The criteria should ensure that the potential waste management capacity service providers Toronto selects are both well established and financially strong.

Proposals will be characterized as being one of the following:

- Proven disposal capacity,
- Proven waste diversion capacity, or
- New, emerging and innovative technologies.

Proposals involving waste diversion will be evaluated for inclusion in Toronto's Waste Diversion Program. Proposals which qualify for implementation will contribute to Toronto advancing from the current 25% diversion rate to the Council adopted goal of 50% by 2006 or sooner and/or potentially beyond to a longer term objective of 75%. This longer term objective has been identified as being the maximum quantity of waste which can be managed by diversion activities based on the experience of programs which have been introduced or are in a process of being demonstrated in Toronto and other North American jurisdictions.

***50% waste diversion by  
2006 or sooner; rising to  
75% by 2022***

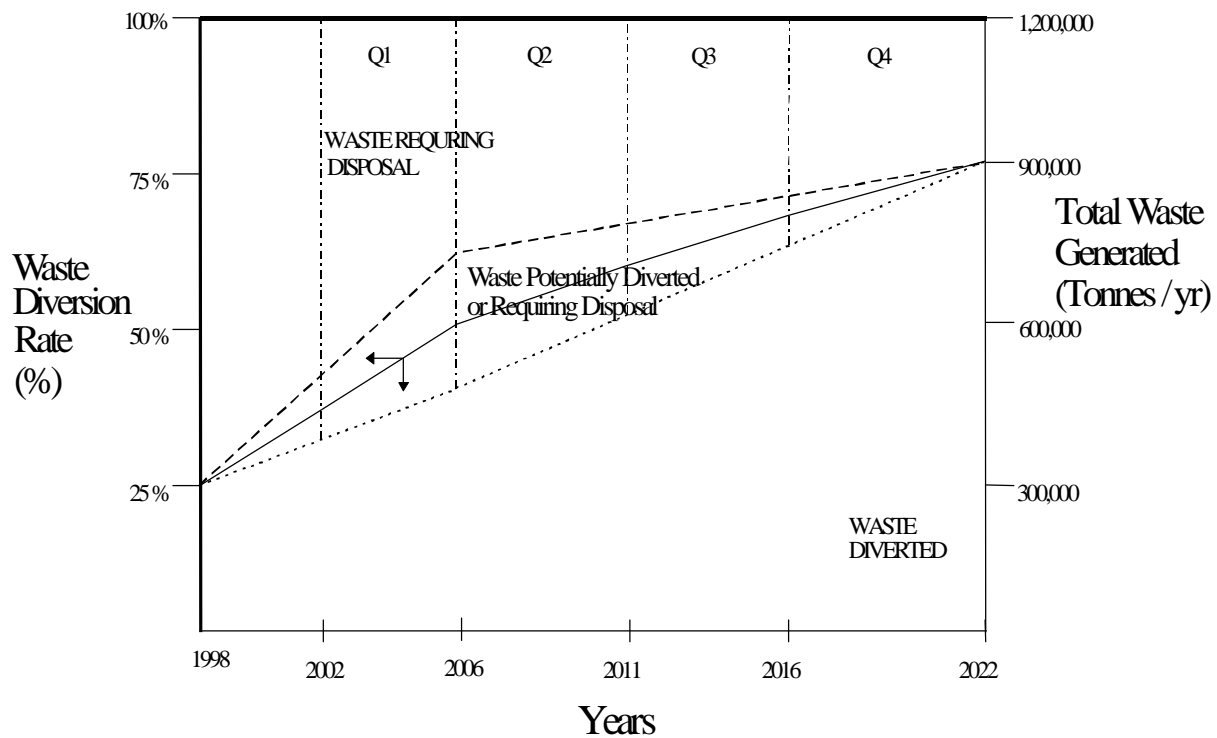
***“Estimate waste disposal quantity curve”***

***Waste generated – waste diverted = waste to be committed to disposal. Calculated every 5 years, with contracts adjusted accordingly.***

In an attempt to fulfill Council’s direction that every effort be made not to conflict waste disposal capacity with diversion program development, this high end objective has been identified to provide an initial definition of the performance of Toronto’s waste diversion program over the later end of the planning period 2002 to 2022. This projection will be used to establish an “estimated waste disposal quantity curve”. The curve will be used in calculating the quantity of waste which can be committed to disposal in put or pay contracts. It is proposed that this quantity of waste will be calculated every approximately 5 years and the disposal contacts will be adjusted accordingly. The waste disposal quantity for each approximately 5 year increment will be a projection of the actual quantity of waste being generated minus the projected performance of Toronto’s waste diversion program, as based upon the pattern of program performance and development over the previous approximately five year period.

The following figures present estimated waste disposal quantity curves and their assumed upper and lower ranges. The ranges represent diversion program performance that is up to 35% better than (and worse than) projected performance (i.e. "baseline"). Figure 3 pertains to the projected "Toronto municipal waste only" waste management scenario. Figure 4 pertains to the projected "Toronto municipal plus private IC&I plus GTA" waste management scenario, as is described in Section 2.3 of this Planning Document.

**Figure 3: Projected Toronto Municipal Waste Only<sup>1</sup>**



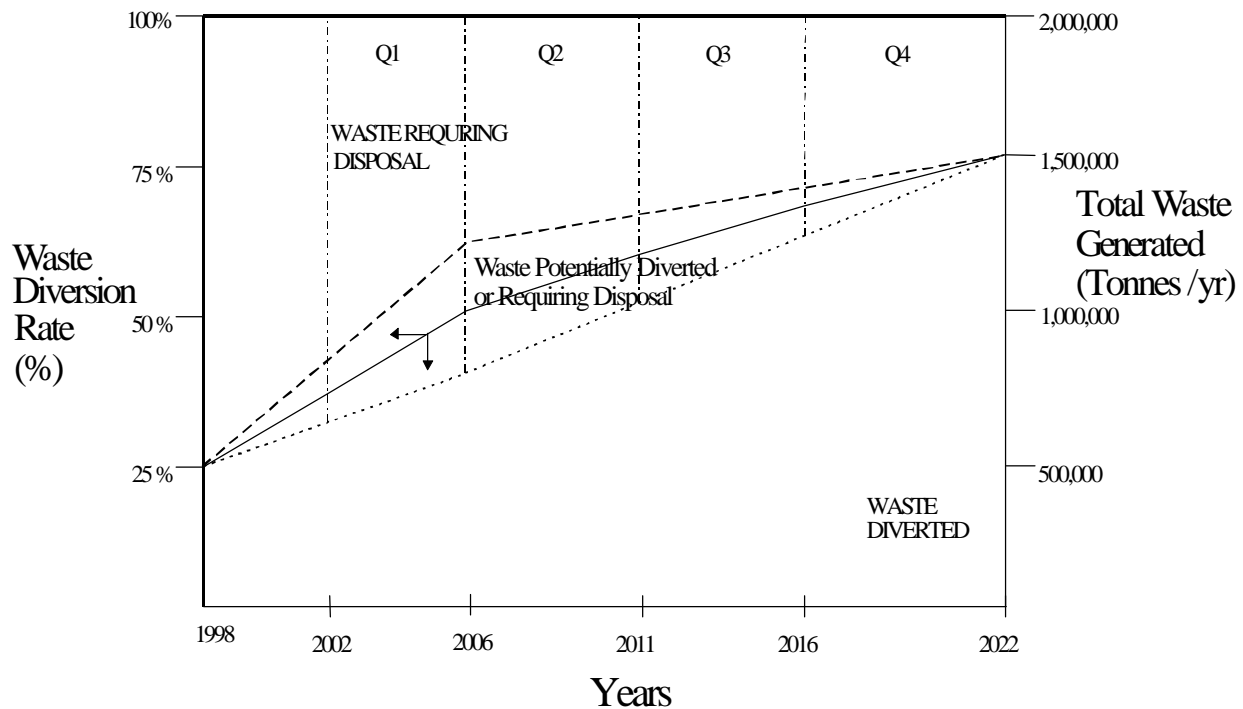
$$\text{Quantity Requiring Disposal During Period for 2002-2022} \\ = (\text{TOTAL Q1} + \text{Q2} + \text{Q3} + \text{Q4})$$

---	Higher Diversion Scenario (50% target achieved ~ 2003)	8,394,000 Tonnes
—	Base Diversion Scenario	9,924,000 Tonnes
.....	Lower Diversion Scenario	11,400,000 Tonnes

Both higher and lower scenarios are assumed to ultimately reach 75% diversion, on the basis that 75% represents the best rate achievable and potentially sustainable within a large urban comparable to Toronto

1. Toronto Municipal waste includes Toronto's residential waste, Toronto collected commercial waste and solid municipal waste from Toronto's Agencies, Boards and Commissions.

**Figure 4: Projected Toronto Municipal Waste and ICI and York and Durham Waste<sup>2</sup>**



Quantity Requiring Disposal During Period for 2002-2022 = (TOTAL Q1 + Q2 + Q3 + Q4)

----- Higher Diversion Scenario (50% target achieved ~ 2003)	13,990,000 Tonnes
———— Base Diversion Scenario	16,540,000 Tonnes
..... Lower Diversion Scenario	19,000,000 Tonnes

Both higher and lower scenarios are assumed to ultimately reach 75% diversion, on the basis that 75% represents the best rate achievable and potentially sustainable within a large urban context, comparable to Toronto.

- Includes Toronto Municipal waste plus waste from private industrial, commercial and institutional sources (as currently utilizes Toronto's Transfer Station's and Keele Valley Landfill) plus waste from York Region and Durham Region (as under a potential GTA Shared Solution).

***Quantity of waste requiring management per year will be constant over the 20 year period, assuming increased generation of waste due to Toronto's (and the GTA Regions') increasing population will be off-set by decreases in per capita waste generation due to at-source reduction and reuse programs.***

At this time, for the purposes of initially establishing an estimated waste disposal curve, it is assumed that waste generation will be constant over time. Population increases and increased economic activity will increase the quantity of waste generated. Based upon a conservative demographic projection, waste generation could increase by well over 10% over the period 2002 - 2022. However, it is assumed that this factor will be offset by advances in at-source reduction and reuse activities, thus leaving the total quantity of waste required to be managed each year at a constant.

It is noted that, on a provincial average, per capita waste generation rates have fallen by approximately 5% to 10% over the past 10 years. Factors such as industry light-weighting packaging and consumers increasingly using products in more concentrated form and/or sold in bulk are assumed to be the major contributor to this phenomenon. Over the period 1988 to 1997, under the National Packaging Protocol, the total quantity (by weight) of packaging material used in Canada was reduced by 52%.

***Contract flexibility must be capable of addressing future population growth and the forecast successful performance of the Toronto (GTA) economy***

However, the assumption of constant waste generation may well prove to be optimistic. Recent population data indicates that Toronto will grow at a faster rate than has been experienced over the past 10 years. Given the size of the City's population, even very small increases in growth rate multiply to significant increases in absolute population, and therefore, the quantity of waste being generated. Further, waste generation rates are a direct function of the health of the economy. Consumption of products (and associated generation of waste; packaging, etc.) is tied to income. Toronto (and the GTA) is forecast to have the fastest growing economy in North America over the next five-plus years. Therefore, in calculating the estimate waste disposal

curves, every five years, the latest available population and economic trend data must be used.

The concepts introduced immediate above, highlight the absolute need to build flexibility into the framework for contracting for disposal of Toronto's (and potentially, GTA partner municipalities') waste.

In summary, Toronto's waste diversion program is assumed to develop linearly to achieve the Council adopted goal of 50% in 2006 and a proposed longer term goal of 75% in 2022. The actual quantity of waste requiring disposal for each of the proposed waste commitment periods (Q1, Q2, Q3, Q4) will be determined at the commencement of each period, based upon previous and current data pertaining to waste generation rates and performance of Toronto's waste diversion program.

## **4.2 Toronto's Potential Partnership Involvement**

### **4.2.1 Policy Principle:**

**City Council has determined that a marketplace approach (which may result in public-private and/or public-public partnerships) is the preferred approach to attain long term waste management capacity.**

***Toronto will consider partnership offers as the means of benefitting from the innovative approaches which spring from the private sector.***

Toronto could be involved in a broad range of participatory roles within the concept of contracting out for waste management service. Roles could include, for example, involvement of the City in: facility development, ownership and operating responsibilities. As a result, a framework for managing potential offers from the waste management marketplace involving Toronto's participation must be established at the outset of the marketplace engagement program. The framework must structure the marketplace evaluation process such that the process

***Fair evaluation and equitable assignment of risks/rewards***

***SWM-MEP will be guided by: “Principals for Dealing with Private Sector Partnerships” and the “Best Practices Guidelines For Initiating Contracts and Contracting with the Private Sector”, adopted by Metro Council, 1996.***

is upheld as providing fair and equitable treatment to all proposals, regardless of the extent of Toronto partnership involvement offered.

Secondly, for any partnership to be sustained over the long term, risks and rewards must be equitably allocated. Toronto must establish a process which accurately defines the potential risks associated with each partnership offer.

This policy has its origin with the former Metro Council. On December 18, 1996, Metro Council adopted Report No. 30 of the Financial Priorities Committee. The report recommended Metro develop a planning framework for engaging the marketplace to provide for Metro’s long term waste disposal capacity. The report referred to the December 4, 1996 report to Environment and Public Space Committee from the Commissioner of Finance and the Commissioner of Works pertaining to the role of public/private partnerships in waste management services. That report recommended that in considering long term waste capacity solutions, Metro should consider a broad scope of private-public partnerships including some form of Metro ownership (whether on a full or limited equity basis). The report further recommended that for the purposes of securing future capacity Metro should utilize a process similar to the disposal RFP (1995) process which culminated in the BFI Contract.

On September 9, 1998, Works and Utilities Committee adopted the recommendations of the Commissioner’s report pertaining to planning for long term solid waste disposal capacity, including the recommendation that a marketplace approach (which may result in public-private and or public-public partnerships) is the preferred approach to attain long term solid waste disposal capacity.

On October 2, 1998, Toronto City Council directed:

*“That the Commissioner of Works and Emergency Services be requested to draft the REOI and RFP processes in such a manner that respondents are requested to provide fee-per-tonne disposal services and/or identify partnership proposals with Toronto that may contain a range of options including a transfer of ownership, leasehold or other arrangement.”*

#### **4.2.2 Implications of the Policy**

Toronto has decided to turn to the marketplace to identify the City’s long term waste management capacity. Toronto wishes to encourage a broad and competitive marketplace response. The more responses Toronto receives to its request for solutions, the greater the likelihood that the responses eventually selected as preferred will represent the highest and best value.

It is reasonable to assume that the marketplace will put forward solutions which offer the option of Toronto participating projects. For example, a respondent with a licensed or licensable waste disposal site or viable waste diversion technology, but who is not as financially strong as Toronto, might suggest the City take an equity position in the project as the means to achieve lowest project cost.

Toronto must have a structure in place for dealing with such participation offers. The structure must give fair and equitable treatment between respondents whose projects would involve Toronto’s participation and respondents who would not involve Toronto participation. Toronto has a practical obligation in this regard, if a segment of the marketplace perceives Toronto’s decision making process to be biased against their projects, they will be less likely to respond to Toronto’s request for proposals. This outcome could be contrary to Toronto’s interest.

*Assignment of roles to the partner most capable will yield the most cost effective solutions*

As was enunciated in the report on **The Role of Public-Private Partnerships in Waste Management Services** (Report of the Commissioner of Finance and Commissioner of Works, December 4, 1996), the philosophy behind the sharing of roles in a partnership is that one member of the partnership (either the private company or the government agency) may be better suited to take on a component of the service as compared to the other member of the partnership (i.e. the government may be able to finance the asset development at a lower cost than the private sector or the private sector may have a higher level of expertise in certain technologies). In combination with the competitive bid process, allocation of responsibilities in a partnership to the member of the partnership with the best ability to handle that role and associated risks will result in the service being offered at the lowest cost to the taxpayer over the long term period.

Balancing the allocation of roles in a partnership is the allocation of returns (profits) from the operation. As indicated in the principles adopted by Metro Council to guide private-public partnerships, the return on investment to the members of the partnership should be in direct relation to the degree of participation and risk that the partner takes on.

The following principles derive from the foregoing discussion:

*The process for evaluating partnership offers will be established at the outset*

- **Prior to canvassing the marketplace, Toronto will identify how participation will be reviewed and what is the basis of consideration (criteria) that will inform such recommendations.**

*Toronto's "needs" in a partnership and the value to be attributed from Toronto's involvement will be defined*

- **Prior to canvassing the marketplace, Toronto will identify and clearly and consistently state its absolute requirements and identifiable relative preferences pertaining to Toronto partnership roles. It must be recognized that these requirements and preferences may have to be amended as additional information on the nature of the marketplace's proposals and potential participation offers become known. However, the principle of "recognition and clear communication as early as reasonably possible" will be adhered to.**
- **Prior to requesting detailed project proposals, Toronto will quantitatively define the value which will be attributed to Toronto's involvement. In this way, competing proposals involving a common element of Toronto involvement (e.g. Toronto forces/fleet transporting waste) will be evaluated on an "apples to apples" basis.**

#### **4.2.3 Proposed Framework For Managing Toronto Participation Offers**

Toronto will establish the structure for review of participation offers such that there is a clear delineation between Toronto staff responsible for such review and making recommendations to Council, and Toronto staff who would be directly involved in fulfilling the participation roles offered. The two project teams will be composed as follows:

- **Project Team "A" - multi-departmental committee of City staff from Finance, Works, and Planning; with Legal Department providing opinion and advice as required or requested; chaired by Works Department staff.**

- Project Team “B” – created, if and as required, and consisting of those staff who would be directly involved in fulfilling the partnership roles, as are offered by the marketplace.

***Project Team “A”,  
chaired by Works  
Department will be  
responsible for making  
recommendations to  
Council on all  
proposals.***

Project Team “A” will be responsible for establishing the elements of SWM-MEP (i.e. the framework as defined in this Planning Document), preparing the REOI and RFP documents and evaluating and making recommendations to Council on all proposals.

Project Team “B” would be responsible for inter-facing with marketplace respondents in regard to providing informational assistance pertaining to Toronto’s partnership involvement (i.e. how Toronto would go about completing tasks, the labour and financial costs of Toronto undertaking the tasks, etc). The information provided would be only that which was necessary to enable the respondents to prepare and submit bids which fully address the informational requirements of the request for detailed project proposals.

As per the direction provided by Toronto Council, October 2, 1998, the marketplace will be invited to provide proposals where there is no element of Toronto partnership and, as an option, proposals involving Toronto partnership.

Proposals, both involving and not involving Toronto in a partnership role, will be evaluated in terms of the REOI mandatory requirements criteria and RFP comparative evaluation criteria (as described in Sections 5 and 6). These criteria will be established with input from stakeholders, including the process of finalization of this Planning Document.

Proposals involving Toronto partnership offers will be further evaluated in terms of partnership offers criteria. These criteria will be established with input from stakeholders, including finalization of the Planning

Document. The criteria, as are currently proposed, are described immediately below.

#### **4.2.4 Toronto Partnership Offers Proposed Evaluation Criteria**

*Toronto will use abundant caution in considering the risks associated with any partnership*

Public interest will be the basis for Toronto staff recommending and Council deciding upon acceptance or rejection of a partnership proposal. Public interest may embrace a broad range of policy matters, including for example the need for Toronto as a public body, to adopt the approach of “abundant caution” in the context of proposals which could leave Toronto exposed to significant or undefinable financial and/or environmental liability claims which could derive from the nature of Toronto’s potential participation.

It is intended that the following criteria be considered in evaluating Toronto partnership offers:

- not increasing cost to Toronto taxpayers
- creating/maintaining jobs in the Toronto/GTA/Ontario economy,
- improving the level of service provided ,
- affording a greater assurance of Toronto having access to waste disposal capacity
- securing greater control over the environmental performance of waste transportation and disposal practices with the objective of minimizing long term potential liabilities, broadening the marketplace,
- increasing the capabilities and price competitiveness of the marketplace in terms of increasing the probability of realizing the above cited objectives both in terms of the current 20 year project time frame and beyond, and

- public policy interests reflecting Toronto's public agency responsibility to apply an abundance of caution to decisions which could place Toronto in a position of financial and/or environmental liability exposure.

*Partnership offers will be evaluated at three stages: REOI, RFP, due diligence reviews.*

It is envisaged that the opportunity to apply these criteria and make recommendations and decisions on Toronto partnership offers proposals will occur as follows:

- **Stage 2 REOI** – Respondents will be requested to describe in general terms the nature of any optional partnership offers they intend to make if, at Stage 3, they are invited to submit detailed proposals. In Stage 2, only general information on the partnership (e.g. that the respondent would like Toronto to take an equity position) and not detailed information (e.g. that Toronto's role is to have X% ownership, including title to Y lands and Z assets) can be submitted. In evaluating this information, Toronto will consider the criteria cited above and the implications of the intended partnership offer in terms of the partnership bringing Toronto under the purview of the EA Act. As noted in Section 2.3, Toronto is not predisposed to partnerships which would define Toronto as a proponent under the Act.
- **Stage 3 RFP** – Those respondents who are invited to submit detailed project proposals must include a detailed description of any partnership offers. Offers will be evaluated in terms of criteria (as described above), including EA Act implications.
- **Stage 4 Due Diligence Review and Contract Negotiations** – Top qualifying proposals will be subject to legal, technical, financial due diligence reviews. Evaluation of any partnership offers associated with the proposals will take place in conjunction with those reviews.

*Toronto's role could be finance, design, construct, operate, acquire output, etc.*

#### **4.2.5 Toronto's Potential Partnership Roles**

Toronto could fulfill a variety of roles in participating in a long-term waste management project. These roles include but may not be limited to the following:

- **Finance Waste Management Facilities**

Toronto could finance to varying degrees, waste management facilities; an example being Toronto's purchase in the early 1980's of the Keele Valley Landfill. Depending upon cash flow demands, the size of capital investment potentially associated with this role may represent a significant burden to the City in terms of constraining Toronto's borrowing capacity. It is noted that this constraint may also be in effect where Toronto has no equity investment but where the approach of complete off-balance sheet financing (i.e. straight fee for service contract) is deemed by the Provincial Auditor to constitute a significant long-term obligation.

- **Design, Construction and/or Operation of Waste Management Facilities**

Toronto has been associated with the design, construction and operation of transfer stations, waste processing and material recovery facilities and major landfill facilities. Toronto has not been associated with the design, construction or operation of a modern energy from waste facility. However, Toronto could assume the lead for this role and utilize contract engineering capability and/or implement a project on a design-build-operate basis.

- **Special purpose roles**

A number of roles could fall within this partnership scenario, including provision of land, purchase of recovery materials and/or energy. Toronto has, from time to time, provided land from its

surplus land holdings inventory for special project development. Toronto could commit to purchasing recovered recyclable material and/or compost product. Toronto Hydro and/or the Toronto District Heating Corporation could be a purchaser of energy resources as may be recovered from waste disposal facilities (electrical power generated from landfill gas, steam and/or electricity from an EFW facility).

*The preferred model for partnering must be identified before detailed proposals are requested.*

In addition to there being a range of roles Toronto could potentially fulfill, there are a variety of means of structuring the partnerships which Toronto could strike with the private sector. These means have varying advantages and disadvantages which Toronto will consider in conjunction with the evaluation of participation offers. For example, Ontario's re-structuring of the electric power sector may provide some insights as to the partnership "model" which Toronto may choose to adopt.

*Toronto has no predetermined partnership needs/preferences*

Toronto has not determined its position with respect to potential partnership roles, i.e. that Toronto must have a specified role as an absolute requirement, or that Toronto has a relative preference for fulfilling a specified role. Toronto intends to further consider these roles in the context of stakeholder consultation, commencing with consultation on this element of the Planning Document.

#### **4.3 Consistency with Environmental Assessment Planning Considerations**

##### **4.3.1 Policy Principle:**

**Toronto will use the planning elements of the Ontario Environmental Assessment Act to evaluate the City's potential waste management capacity solutions.**

***SWM-MEP's  
environmental  
planning principles:***

- ***alternatives***
- ***macro-  
environmental  
impact analysis***
- ***stakeholder  
consultation***

On October 2, 1998, Toronto Council directed that the Solid Waste Management Marketplace Engagement Program incorporate the core principles of environmental assessment planning including: consideration of a broad range of alternatives, utilization of a multi-faceted alternatives' evaluation process and stakeholder consultation. The process is to include: macro-environmental impact analysis, identification of Ontario-based benefits and financial implications. Council directed that marketplace proposals, including export of waste to the USA and energy from waste technology (incineration with heat recovery), be included among the waste disposal options which could be considered.

This direction is consistent with that of the former Metro Toronto Council. On September 24, 1997, Metro Council adopted the report of the Environment and Public Space Committee which described a process for canvassing a broad range of alternatives, (including export and energy from waste) and evaluating options in terms of environmental, social and economic implications. This process was defined following extensive consultation with stakeholders (public, waste management marketplace representatives and the Province.)

As was mentioned previously, Toronto Council's decision to integrate environmental assessment principles into the marketplace engagement program underpins Council's decision to proceed with the engagement program without obtaining Environmental Assessment Act approval. Toronto is pursuing a process which will fulfill the spirit and intent of the Environmental Assessment Act and which has a high probability of identifying Toronto's (and potentially GTA partners') long term waste disposal capacity solution in time for the Keele Valley Landfill site's closure.

***SWM-MEP will fulfill  
the spirit and intent of  
the EA Act, while  
delivering a solution in  
time for closure of the  
Keele Valley Landfill  
Site.***

#### 4.3.2 A Broad Range of Alternatives Will Be Considered

Toronto will benefit from a marketplace engagement program which results in a broad range of competitive proposals. Thus, Toronto will structure its engagement process to permit a broad range of waste management facilities and technologies to be proposed and evaluated.

This range will include the following aspects:

- *new and innovative technologies*
- *proven diversion*
- *proven disposal*
  - *landfill*
  - *energy from waste*
- **Technology** - Proposals will be invited for new and innovative technologies, as well as proven waste disposal and diversion capacities. Within the category of proven waste disposal capacity, energy from waste facilities, as well as landfill facilities can be proposed.
- **Location** - Proposed waste management facilities can be located within or outside the City of Toronto, including within the USA. It is noted however that the majority of the public participants who have engaged in the stakeholder consultation process leading up to this marketplace engagement program have expressed a significant preference that exports to the United States be limited. Therefore, it is anticipated that the criteria which are used to evaluate proposals will place emphasis on the potential benefits that may accrue from Ontario-based waste management facilities. This preference may engender challenge under NAFTA. The entire set of issues associated with export of waste (NAFTA, federal Environmental Protection Act legislation, USA federal and state legislation and “Superfund liability”) must be evaluated in terms of the specific circumstances of any USA proposals that are made.
- *Ontario and USA*

*To spread risk and increase flexibility, Toronto is predisposed to a system comprised of a number of facilities – “putting your eggs in more than one basket”*

- **Facility Sizes** - Toronto will entertain proposals for waste management capacity less than Toronto’s full waste diversion and waste disposal tonnage needs. This will allow smaller facilities an opportunity to participate. Indeed, it is noted that Toronto is predisposed to ultimately identifying its waste management capacity solution, including the long term waste management disposal component, as being comprised of more than one facility. The concept of “putting your eggs in more than one basket”, for purposes of spreading risk and increasing the flexibility to adapt to unforeseen changes in waste management capacity requirements, has been strongly supported by the participants who have engaged in the stakeholder consultation process leading up to this marketplace engagement program.
- **Partnerships** - As discussed in Section 4.2 of this planning document, Toronto will structure the marketplace engagement program such that it permits Toronto to evaluate and choose among a broad range of facility ownership structures. It is noted that the majority of participants who have engaged in the stakeholder consultation process to date have expressed the preference to see some level of Toronto involvement (i.e. less than 100% third party ownership and/or operation) in Toronto’s preferred long term waste management solution.

Toronto’s proposed approach to the above aspects will provide the marketplace with as broad as possible an opportunity to participate in the Solid Waste Management Marketplace Engagement Program. With this opportunity/flexibility comes the need to structure evaluation processes which fairly compare “apples to apples”.

### 4.3.3 A Multi-faceted Comparative Evaluation Process Will be Employed

It is intended that Toronto will evaluate proposals received pursuant to the RFP calls, as may be made under the Solid Waste Management Marketplace Engagement Program (i.e. RFP for long term solid waste disposal capacity and RFP calls in conjunction with the City's Waste Diversion Program Implementation Strategy). Proposals will be evaluated using criteria which quantifies the proposals' performance in terms of environmental, social and financial implications. At this time, the criteria are more specifically defined as follows:

***Multi-faceted evaluation:***

- *traffic safety*
- *pollutant emissions*
- *energy consumption*
- *jobs creation*
- *investment*
- *cost*

- traffic safety effects of waste haul transportation,
- emission of priority pollutants (e.g. greenhouse gases smog precursors),
- consumption of energy resources, creation/loss of jobs and investment, and
- the financial cost to Toronto of the waste management capacity services offered (i.e. cost/tonne).

***SWMP-MEP will evaluate of macro-environmental effects. SWM-MEP will not evaluate effects which are addressed by site-specific approvals.***

These criteria will address the potential effects of respondents' facilities which have not been (or would not be, in the future) addressed via site and/or technology approvals requirements. SWM-MEP must not result in duplication of environmental assessment and/or land use planning approvals requirements.

Development of the criteria to be utilized for comparatively evaluating proposals has been an important element of the stakeholder consultation program which has led up to this marketplace engagement program. Stakeholders have discussed the subject matters to be addressed by the criteria, means to measure (quantify) impact and the priorities (relative importance among the criteria).

The criteria, as are currently proposed is described in Section 6 of this Planning Document. The criteria which will ultimately be utilized will be defined following further stakeholder consultations, beginning with consultation on this Planning Document. The criteria will be the subject of a focused review following completion of the evaluation of responses made to the REOI. In this way, the criteria can be refined in the knowledge of the nature of the proposals as may actually be evaluated at the RFP stage.

***In canvassing the marketplace, the City will require bidders to provide a statement on the extent to which their facilities are consistent with Ministries' Provincial policy mandates.***

In conjunction with refining the evaluation criteria, Toronto has and will continue to consult with the Core EA Provincial Review Ministries. In canvassing the marketplace, the City will require bidders to provide a statement on the extent to which their facilities are consistent with Ministries' Provincial policy mandates. Bidders will be required to state whether the potential impacts of their facilities on those policy mandates have been dealt with (or would be dealt with in the future) under the approvals and licenses which the bidders have (or will be obtaining) for their sites and facilities. Where Provincial policy mandates are not dealt with under facility/site approvals and license processes, those policy mandates would be incorporated into the environmental effects comparative evaluation criteria Toronto will use to assess the proposals.

***Public record reporting on:***

- ***development of criteria***
- ***application of criteria***
- ***stakeholders' role***

Toronto will finalize the definition of the evaluation criteria in consideration of stakeholder input. The criteria and an explanation of how stakeholders' comments were addressed by the criteria will be placed on the SWM-MEP project public record. A record of the application of the criteria in evaluating the proposals and the outcome therefrom will be prepared, provided to those stakeholders who have participated in consultation on the criteria and placed on the project public record.

The report on the development of the evaluation criteria, its application and outcome will be considered by Toronto Works and Utilities Committee and Council prior to the SWM-MEP proceeding forward to the stage of due diligence reviews and competitive contract negotiations. Thus, a traceable record of the process of considering the environmental, social and financial implications of the proposals the marketplace offers will be established.

#### **4.4 A GTA Shared Solution Approach is A Possible Outcome**

##### **4.4.1 Policy Principle:**

*A partnership of the GTA Municipalities could result in the most effective solution for long-term waste management*

**Toronto will continue to collaborate with the Greater Toronto Area (GTA) Regions of Durham, York, Peel and Halton, with the objective of defining inter-municipal partnership opportunities to more effectively manage waste.**

On October 2, 1998, Toronto Council directed that Toronto's collaboration with the GTA Regions, to define potential GTA shared waste management solutions, continue, and that Toronto's Solid Waste Management Marketplace Engagement Program be structured to provide the opportunity for the GTA Regions to dovetail their waste management planning processes with Toronto's program.

By combining waste streams of two or more GTA Regions, there is the potential to promote more competitive responses from the marketplace. Economies of scale may allow a broader range of waste management technologies to be bid and could reduce waste management service prices.

#### **4.4.2 Status of the GTA Shared Solution Potential**

A very successful planning process among the GTA Chairs of Works Committees and Public Works Commissioners has taken place during the course of 1998 regarding potential dovetailing of waste management planning processes. A formula for the potential inclusion of other GTA Regions with Toronto has been successfully arrived at with the Ministry of the Environment's Environmental Assessment Branch. The formula includes the need for GTA Regions to have in place the following:

*Province requires that  
GTA partners have:*

- *public consultation*
- *3Rs plan*
- *waste disposal  
tonnage estimates*

- a public consultation process which identifies the potential to partner with Toronto,
- a waste management plan which defines waste disposal tonnage needs in relation to waste diversion planning and implementation,
- and the timing for the identification of the respective Municipalities' waste disposal tonnage requirements for integration in Toronto's REOI and RFP stages.

*Toronto, York and  
Durham have historically  
shared waste disposal  
facilities*

At present, the Regions of York and Durham are implementing waste management planning programs in a manner which will allow the Regions to dovetail with SWM-MEP. The Regions' interest in potentially participating with Toronto stems in part from the fact that the Regions currently utilize the Keele Valley Landfill facility. The Regions of Peel and Halton do not utilize elements of Toronto's waste management system. However the Regions are participating in GTA potential shared solution collaborative discussions with the objective of remaining abreast of developments in this regard. As the GTA shared solution opportunities take shape, the Regions will integrate consideration of those opportunities into their ongoing long term waste management planning, plan review and implementation processes.

***Memorandum of  
Understanding to frame  
inter-Regional solid  
waste management  
planning and  
implementation***

On October 2, 1998, Toronto Council decided to formally invite the Regional governments of the Greater Toronto Area to be potentially included in Toronto's solid waste management marketplace engagement program by: declaring through Council motion an "expression of interest", and requesting that the Region's Works Commissioners meet for the purposes of drafting a "Memorandum of Understanding". The MOU would outline the protocol for inter-Regional solid waste planning and decision making. The memorandum is to be submitted to the respective Councils for approval.

It is noted that the results of public consultation activities which have been undertaken and are ongoing in the Regions of York and Durham, pertaining to the Regions' long term waste management planning, indicates public support for the concept of a GTA shared solution. It is anticipated that a Memorandum of Understanding will be forthcoming and will establish the basis upon which participating Regions will define their waste management capacity needs, as well as any paramount principles which must define the manner in which those needs are to be satisfied. The elements of a Memorandum of Understanding are the subject of inter-Regional discussions scheduled for December 1998.

## 5.0 STAGE TWO - REQUEST FOR EXPRESSION OF INTEREST (REOI)

### ***Stage 2 – REOI Mandatory (pass-fail) criteria and information requirements***

Toronto requires that its potential public and private sector partners/service providers are both well established and financially strong. In seeking provision of long-term waste management capacity, it is crucial that the possibility of exposing the City to financial and/or environmental liability is minimized. The mechanisms by which this will be accomplished will be established as part of the REOI, RFP and due diligence review processes.

The first step in the proposed sequence of evaluation and decision-making is to prepare and issue a Request for Expression of Interest Document. This step will be used to short-list (qualify) the initial submissions received from the marketplace. The REOI will be comprised of three main components:

- **Preliminary tonnage base and ranges** for the contracting-out options ( e.g. Toronto alone and Toronto with other GTA Regions)
- **Details of the information requirements**, including : project and optional partnership offers general description, site location, commercial details, Provincial policy mandates and service delivery timeframes,
- **Mandatory (pass-fail) criteria to be included in the REOI document.** Respondents must demonstrate compliance with these criteria to be qualified to pass to the RFP stage of SWM-MEP . These criteria were outlined in a document prepared in August, 1997 titled “**Draft EA TOR for Stakeholder Consultation.**” The primary purpose of these criteria is to ensure that the respondents are suitable business partners in that they have the necessary experience, stability and financial

strength to meet the City's waste management needs over the 20 year planning period.

The mandatory criteria to be included in the REOI document will be refined further through stakeholder consultation on this Planning Document. The criteria are currently envisaged to include the following items:

- Declaration of Proposal Submission.
- Notarized Certificate(s) of Incorporation in Ontario.
- Statutory Declaration.
- Security Deposit.
- Commitment to provide additional Security Deposit, and
- Financial Statements documenting past 3 years of operation (or equivalent documentation from private corporations)

Specific provisions will be dependent on classification of the waste management alternative. For the purposes of the REOI evaluation process, three waste management categories will be employed. These are broadly defined as follows:

***Three Categories:***

- ***proven waste diversion***
- ***proven waste disposal***
- ***new, emerging and innovative technologies***

**Category 1: Proven Waste Diversion Capacity**

Proven waste diversion technologies are those with an ability to handle both mixed and source separated waste, utilizing mechanical and/or biological processes. The products from waste diversion technology proposals (recyclable materials, compost, energy) must demonstrably be capable of being marketed for clearly established beneficial purposes (i.e. the primary output of the facility must not be classified as a waste by MOE).

### **Category 2: Proven Waste Disposal Capacity**

Proven waste disposal technologies must have an ability to manage mixed waste, utilizing landfill and/or energy recovery processes. Residuals from waste disposal technologies (e.g. EFW ash) must be less than 20% of the input waste volume. Respondents are fully responsible for the management of any residuals and this must be accounted for in proposals.

### **Category 3: New, Emerging and Innovative Technologies**

Technologies that have been proven at the laboratory or pilot scale but have not yet been applied for larger waste volumes are referred to herein as new, emerging and innovative technologies. These technologies generally satisfy one or more of the following conditions: unproven performance (in whole or in part), long term performance has not been demonstrated, or applications are proposed for unconventional or unproven situations, including absence of established end use markets. Examples of these technologies include: mechanical, biological and thermal treatment without a proven record, e.g. gasification and pyrolysis.

Tables 1 to 3 (following this section) presents the REOI Mandatory Evaluation Criteria which will be used to short list (qualify) the initial proposals of the marketplace. The rationale for selecting each criterion is also provided in each Table. Tables 1 to 3 represent the proposed requirements for proposal and contract security that were developed

with stakeholder input, obtained through the consultation activities conducted to date.

In addition to the information inferred by the REOI mandatory criteria, respondents must provide a summary description of their proposed waste management approach, including:

- A. The type of technology proposed, general description and project availability timeframes,
- B. The general nature of any preferred and potential alternative partnerships with Toronto which the respondent intends to offer at the RFP stage, and
- C. The specific site/property location(s) where capacity exists or is to be developed, the status of property ownership, the status of site/facility vis a vis environmental and land use approvals requirements, and the status of site/facility vis a vis Provincial policy mandates.

***Respondents must have sites for their proposed facilities and must be able to implement their proposals independently of any Toronto partnership roles they intend to offer***

To allow a fair comparison of proposed facilities during the Stage 3 RFP evaluation, respondents must propose facilities at specific sites. Respondents must submit evidence of their ability to implement their proposals at the sites which they specify via respondents having current possession, an option to purchase or similar interest in property. A proposal for facilities at a site “to be determined” cannot be fairly compared with facilities at a specific site. For example, the effects of waste haul are unique to the route to (and therefore, location of) a waste management facility.

As discussed in Section 4.2, Toronto will entertain partnership offers as an option to the respondent proceeding independently of Toronto. In the REOI, proponents will be requested to describe the general nature of any partnership offers they wish to make. **Toronto will have sole**

**discretion in deciding upon the acceptability of any partnership offer.**

***Price information will not be addressed at this stage.***

Respondents to the Stage 2 REOI shall not submit any price information, including price information as may relate to Toronto partnership offers. Price will have absolutely no bearing on a respondent's ability to qualify through Stage 2. Indeed, if any price information is introduced in Stage 2 it will only raise the perception of Stage 2 having been potentially biased. Respondents who qualify through Stage 2 will be asked to submit price information, along with the other information inferred by the Stage 3 evaluation criteria, at the Stage 3 RFP. At Stage 3 RFP, unit prices will be solicited for the annual base tonnage quantity of waste to be supplied as well as for tonnages greater than and less than the base bid. In addition, proponents will be able to identify in their Stage 3 RFP responses, the price implications of any of the Toronto partnerships they may be offering.

***Timing is critical. Proposals must be capable of being in place to meet Toronto's needs***

Toronto is proceeding to have its long term waste disposal solution in place to meet the closure of the Keele Valley Landfill Site. Timing is critical. Therefore, respondents proposing facilities which are not yet approved and/or in existence must submit detailed work program schedules, including milestone deadlines. This information must clearly demonstrate that under normal and contingent circumstances, they will meet the deadlines specified by the REOI criteria.

***A two-envelope system will be used***

Respondents must submit information specified under Items B and C in a separate sealed envelope marked "Items B and C". During Stage 2 this information will remain known only to the individual respondents.

Respondents must meet each and every one of the mandatory criteria, and must meet the requirements to submit the information requested in Items A – C. Respondents must qualify and their proposals must be

fully capable of being realized independent of any partnership role for Toronto. Failure to meet any of the of the criteria and information requirements will disqualify a bid from participating in the Stage 3 RFP process. Respondents will be evaluated in regard to the REOI Mandatory Criteria on the basis of information Item A submitted.

*Site location and partnership offers information will only be known in regard to short-listed proposals*

The "Items B and C" envelopes of only those respondents who qualify through Stage 2 will be opened at the end of Stage 2. In this way there will be no perception that the matters of potential partnerships or site location/ownership bias the Stage 2 proposals' screening process. The "Items B and C" envelopes of the respondents who do not qualify through Stage 2 will be returned unopened.

*Site specific public consultation will be initiated at this stage*

It is proposed that respondents who qualify through the entire of Stage 2 will be required to place notices in the local newspapers of the communities in which their sites are located. The notice will summarize the respondent's proposal, will advise the community of the opportunity to participate in the process of refining the criteria to be used at Stage 3 RFP to evaluate proposals and how a copy of this Planning Document and other communications material can be obtained. Respondents may be required to maintain a local telephone number which the public can contact to obtain further information on the proposal. It is currently envisaged that the notice must be given and telephone contact service established at least 1 week prior to Toronto making the results of the Stage 2 process publicly known. This consultation activity is for the purposes of providing citizen's, local to proposed facilities, with an avenue to input their views into the marketplace engagement program. In particular, this provides one of the mechanisms whereby Toronto could be alerted to circumstances pertaining to proposals which might expose Toronto to potential environmental, legal or financial liability.

All of the information (including site location/ownership) submitted by the respondents who qualify through Stage 2 will then be made public by Toronto for the purposes of the information being input to refining the Stage 3 evaluation criteria.

<b>Table 1</b>	
<b>Mandatory Qualification Criteria for New, Emerging and Innovative Technologies</b>	
<b>Criteria</b>	<b>Rationale for Criteria</b>
<p><b>1</b> Capacity shall not be greater than 50,000 tonne/yr of mixed waste. Capacity proposed for the period 2002 – 2022 must be available without restriction to Toronto on <b>January 1, 2006</b>. All necessary approvals for this capacity must be in place by <b>January 1, 2005</b>.</p>	<ul style="list-style-type: none"> <li>• Bids for less than Toronto’s total capacity needs (but not greater than 50,000 te/yr) will be permitted to foster competitive marketplace bidding and to demonstrate Toronto’s commitment to providing a portion of its residual waste for demonstration projects for new, emerging and innovative technologies.</li> </ul>
<p><b>2</b> All capacity must involve technologies that have been <b>clearly proven at the laboratory and pilot scales</b>; complete documentation of a benchmark assessment and evaluation of performance claim, including operating data and other important information such as that related to engineering scale-up must be provided. This verification of performance must be conducted by an independent environmental agent.</p>	<ul style="list-style-type: none"> <li>• Toronto must ensure that capacity based on new, emerging and innovative technologies displays credible performance and is accepted by relevant environmental authorities.</li> </ul>
<p><b>3</b> Respondent (or lead member of any consortium or joint venture) must be <b>incorporated in Ontario</b> as a business, backed by a statement of personal history from each principal.</p>	<ul style="list-style-type: none"> <li>• Toronto must have the assurance that it is dealing with financially responsible and resourceful companies and individuals that are subject to the laws of Ontario.</li> </ul>
<p><b>4</b> Respondent must provide a <b>security of \$25,000</b> with their statement of interest and qualifications in the form specified by Toronto as either an irrevocable letter of credit or as a bid bond</p>	<ul style="list-style-type: none"> <li>• Toronto must be dealing with serious respondents who are responsible for fulfilling their commitments. Bids at a capacity of 50,000 te/yr could constitute 1,000,000 tonnes over a 20-year bid period. The impact on Toronto of respondents misrepresenting their capabilities in regard to 1,000,000 tonnes can be very significant.</li> </ul>
<p><b>5</b> Respondent must provide <b>audited financial statements for the preceding 2 years, if they are an existing business, or projected financial statements and appraisals for start-up businesses</b>. (If the respondent is a private organization, audited financial statements or equivalent business financial performance documentation may be submitted and Toronto will keep this information in confidence, subject to any requirements of law).</p>	<ul style="list-style-type: none"> <li>• Toronto must have evidence of ongoing or projected financial stability of respondents.</li> </ul>
<p><b>6</b> Respondent must provide <b>agreement to bond</b>, declaration of insurance (to be specified) and evidence of financial capability.</p>	<ul style="list-style-type: none"> <li>• Toronto must manage financial risk through assessment of financial characteristics of respondents.</li> </ul>

7	Respondent must provide <b>details of any existing business partnership or joint venture relationships</b> including the respondent's equity position and decision-making authority within the partnerships that relate to the respondent's bid to Toronto	<ul style="list-style-type: none"><li>• Toronto must have sufficient information to determine if a respondent has any conflict of interest and if any potential exists for the respondent not to fulfill a contract by virtue of demands imposed by the respondent's partners.</li></ul>
---	--	--

**Table 2**  
**Mandatory Qualification Criteria for Proven Diversion Capacity**

	<b>Criteria</b>	<b>Rationale for Criteria</b>
<b>1</b>	Respondent must provide at least 20 years of mixed waste diversion capacity to Toronto. Capacity shall be between the range of <b>50,000 tonne/yr to 250,000 tonne/yr</b> .	<ul style="list-style-type: none"> <li>• Bids for less than Toronto's total capacity needs will be permitted in order to foster competitive marketplace bidding.</li> <li>• Toronto must have the capacity to address exceedances and shortfalls in the actual waste management capacity performance that is achieved in the future by Toronto's diversion and new technologies programs.</li> </ul>
<b>2</b>	<p><b>Capacity proposed for the period 2002-2022</b> must be <b>available</b> without restriction to Toronto on <b>January 1, 2006</b>. All necessary <b>approvals</b> for this capacity must be in place <b>by January 1, 2005</b>.</p> <p>Respondents who do not have approved facilities in place at the time of response must submit an approvals and facility construction schedule, with timelines that reflect approvals' legislative requirements and norms.</p>	<ul style="list-style-type: none"> <li>• Toronto must have assured diversion capacity to achieve the target of 50% diversion by 2006, or sooner.</li> </ul>
<b>3</b>	All capacity must involve technologies that have been <b>clearly proven at full scale</b> ; this is to have at least 3 years of related operating experience and performance data at a scale equivalent to the capacity the respondent bids to Toronto.	<ul style="list-style-type: none"> <li>• Toronto must have the assurance of capacity that is based on proven waste diversion strategies.</li> </ul>
<b>4</b>	Respondent (or lead member of any consortium or joint venture) must be <b>incorporated in Ontario</b> as a business, backed by substantial financial assurance and have <b>at least 3 years of related business experience</b> .	<ul style="list-style-type: none"> <li>• Toronto must have the assurance that it is dealing with financially stable and resourceful companies that are subject to the laws of Ontario.</li> </ul>
<b>5</b>	Respondent must provide <b>audited financial statements for the 3 preceding years</b> . (If the respondent is a private organization, audited financial statements or equivalent business financial performance documentation may be submitted and Toronto will keep this information in confidence, subject to any requirements of law).	<ul style="list-style-type: none"> <li>• Toronto must have evidence of ongoing financial stability of respondents.</li> </ul>

<p>6</p>	<p>Respondent must provide <b>security</b> and evidence of financial capability with their expression of interest, including:</p> <ul style="list-style-type: none"> <li>• An <b>irrevocable letter of credit</b>, in the form specified by Toronto, in the amount of <b>\$25,000 (for up to 100,000 tonne/yr) or \$50,000 (for &gt; 100,000 tonnes/yr)</b>.</li> <li>• A <b>commitment</b>, in the form specified by Toronto, <b>from a bank or surety acceptable to Toronto</b>, to provide an <b>additional letter of credit or bid bond in the amount of \$75,000 (for up to 100,000 tonne/yr) or \$200,000 (for &gt; 100,000 tonne/yr)</b>, if invited to submit a detailed proposal at Stage 3 (RFP). This additional security will have to accompany the Proposal.</li> <li>• A commitment, in the form specified by Toronto, to provide, from a bank and surety acceptable to Toronto, to provide the following operating security <b>if awarded a contract</b>:             <ul style="list-style-type: none"> <li>• An <b>irrevocable letter of credit in amount of 10 percent of the estimated annual value of the contract</b> plus;</li> <li>• A <b>bond in the amount of 20 percent of the estimated annual value of the contract</b>.</li> </ul> </li> </ul> <p>This security would have to remain in effect throughout the duration of the contract.</p> <p>If a respondent were to express interest, but is not invited to submit a detailed proposal, then their \$50,000/\$100,000 letter of credit will be returned to them at the time the list of qualified firms invited to provide proposals is announced. For firms invited to submit proposals the above specified security would have to remain in effect until Toronto makes a decision on the award of contract or contracts.</p>	<ul style="list-style-type: none"> <li>• Toronto must manage financial risk through assessment of financial characteristics of respondents.</li> <li>• Toronto must be dealing with serious respondents who are responsible for fulfilling their commitments. Even bids at the minimum capacity of 50,000 te/yr constitute 1,000,000 tonnes over the minimum 20-year bid period. The impact on Toronto of respondents misrepresenting their capabilities in regard to 1,000,000 tonnes can be very significant.</li> </ul>
<p>7</p>	<p>Respondent must provide <b>details of any existing business partnership or joint venture relationships</b> including the respondent's equity position and decision-making authority within the partnerships that relate to the respondent's bid to Toronto. Note, "Partnership or Joint Venture", for purposes of this criteria, does not pertain to potential Toronto partnership offers, but rather, pertains to the respondent's business structure, as exists or is proposed to exist, exclusive of any Toronto partnership role.</p>	<ul style="list-style-type: none"> <li>• Toronto must have sufficient information to determine if a respondent has any conflict of interest and if any potential exists for the respondent not to fulfill a contract by virtue of demands imposed by the respondent's partners.</li> </ul>

<p>8</p>	<p>Respondent must provide <b>letters of reference from the public jurisdictions (municipalities) in which the respondent has operating facilities, to a maximum of 3 municipalities.</b> These letters can be in the form of a statement from the municipality that the respondent and the municipality have an “host community - waste disposal facility operations “agreement” and the respondent is meeting the commitments of the agreement.</p> <p>Respondent must <b>provide letters from the environmental authorities regulating the respondent’s operating facilities, pertaining to the facilities’ environmental performance, to a maximum of 3 regulators.</b> These “letters” can be in the form of a statement or similar documentation from the regulator that the respondent has submitted annual monitoring and operations reports for the waste diversion facility which have been found to be acceptable by the regulator. The reports must have addressed the matter of compliance with environmental regulatory requirements.</p>	<ul style="list-style-type: none"><li>• Toronto needs assurance that respondents have a record of use of the best management practices of the waste management industry and a proven capability to be a responsible corporate citizen, vis-a-vis Toronto being associated in the future with the preferred respondent(s) in a contractual relationship.</li></ul>
----------	---	---

<b>Table 3</b>		
<b>Mandatory Qualification Criteria for Proven Waste Disposal Capacity</b>		
	<b>Criteria</b>	<b>Rationale for Criteria</b>
<b>1</b>	<p>Respondent must provide at least 5 years of disposal capacity to Toronto. Capacity shall be greater than <b>100,000 tonne/yr.</b></p> <p>Capacity may be proposed for one or more increments of 5 years.</p> <p>Toronto will define in the RFQ its total base disposal capacity needs, being total waste generation minus the projected performance of Toronto's diversion program and minus the quantity of waste Toronto will allocate for management by new, merging and innovative technologies.</p>	<ul style="list-style-type: none"> <li>• Bids for less than Toronto's total capacity needs will be permitted to foster competitive marketplace bidding.</li> <li>• Toronto must have the capacity to address exceedances and shortfalls in the actual waste management capacity performance that is achieved in the future by Toronto's diversion and new technologies programs.</li> <li>• Toronto has a preference for more than one long-term disposal solution to mitigate any impacts of failure of a single respondent/site on Toronto's ability to provide uninterrupted waste disposal services.</li> </ul>
<b>2</b>	<p><b>Capacity proposed for the period 2002-2007</b> must be <b>available</b> without restriction to Toronto on <b>July 1, 2002</b>. All necessary <b>approvals</b> for this capacity must be in place <b>by January 1, 2002</b>; and,</p> <p><b>Capacity proposed for the period 2007-2022</b> must be <b>available</b> without restriction to Toronto on <b>January 1, 2007</b>. All necessary <b>approvals</b> for this capacity must be in place <b>by January 1, 2005</b>.</p> <p>Respondents may propose an earlier start date for the "second period" (i.e. earlier than January 1, 2007). However, this capacity must be "back-stopped" with capacity that is approved by January 1, 2002 and in place by July 1, 2002.</p> <p>Respondents who do not have approved facilities in place must submit an approvals and facility construction schedule, with timelines that reflect approvals' legislative requirements and norms.</p>	<ul style="list-style-type: none"> <li>• Toronto must have assured capacity for the first years following the projected closure of the Keele Valley Landfill Site (2002).</li> <li>• Toronto will accommodate the introduction of facilities that cannot meet the 2002 start date. However, Toronto must have assured disposal capacity commencing in 2002, and there must be clear evidence that capacity to come on-line beyond 2002, can be delivered on time.</li> </ul>
<b>3</b>	<p>All capacity must involve technologies that have been <b>clearly proven at full scale</b>; this is to have at least 3 years of related operating experience and performance data at a scale equivalent to the capacity the respondent bids to Toronto.</p>	<ul style="list-style-type: none"> <li>• Toronto must have the assurance of capacity that is based on proven waste disposal practice.</li> </ul>
<b>4</b>	<p>Respondent (or lead member of any consortium or joint venture) must be <b>incorporated in Ontario</b> as a business, backed by substantial financial assurance and have <b>at least 3 years of related business experience</b>.</p>	<ul style="list-style-type: none"> <li>• Toronto must have the assurance that it is dealing with financially stable and resourceful companies that are subject to the laws of Ontario.</li> </ul>

<p>5</p>	<p>Respondent must provide <b>audited financial statements for the 3 preceding years</b>. (If the respondent is a private organization, audited financial statements or equivalent business financial performance documentation may be submitted and Toronto will keep this information in confidence, subject to any requirements of law).</p>	<ul style="list-style-type: none"> <li>• Toronto must have evidence of ongoing financial stability of respondents.</li> </ul>
<p>6</p>	<p>Respondent must provide <b>security</b> with their expression of interest and evidence of financial capability, including:</p> <ul style="list-style-type: none"> <li>• An <b>irrevocable letter of credit</b>, in the form specified by Toronto, in the amount of <b>\$50,000 (for 100,000 to 500,000 tonne/yr) or \$100,000 (for &gt; 500,000 tonne/yr)</b>.</li> <li>• A <b>commitment</b>, in the form specified by Toronto, <b>from a bank or surety acceptable to Toronto</b>, to provide an <b>additional letter of credit or bid bond in the amount of \$ 450,000 (for 100,000 to 500,000 tonne/yr) or \$900,000 (for &gt; 500,000 tonne/yr)</b>, if invited to submit a detailed proposal at Stage 3 (RFP). This additional security will have to accompany the Proposal.</li> <li>• A commitment, in the form specified by Toronto, to provide, from a bank and surety acceptable to Toronto, to provide the following operating security <b>if awarded a contract</b>:             <ul style="list-style-type: none"> <li>• An <b>irrevocable letter of credit in amount of 20 percent of the estimated annual value of the contract</b> plus;</li> <li>• A <b>bond in the amount of 40 percent of the estimated annual value of the contract</b>.</li> </ul> </li> </ul> <p>This security would have to remain in effect throughout the duration of the contract.</p> <p>If a respondent were to express interest, but is not invited to submit a detailed proposal, then their \$50,000/\$100,000 letter of credit will be returned to them at the time the list of qualified firms invited to provide proposals is announced. For firms invited to submit proposals the above specified security would have to remain in effect until Toronto makes a decision on the award of contract or contracts.</p>	<ul style="list-style-type: none"> <li>• Toronto must manage financial risk through assessment of financial characteristics of respondents.</li> <li>• Toronto must be dealing with serious respondents who are responsible for fulfilling their commitments. Even bids at the minimum capacity of 100,000 te/yr would constitute 2,000,000 tonnes over a 20-year bid period. The impact on Toronto of respondents misrepresenting their capabilities in regard to 2,000,000 tonnes can be very significant.</li> </ul>

7	<p>Respondent must provide <b>details of any existing business partnership or joint venture relationships</b> including the respondent's equity position and decision-making authority within the partnerships that relate to the respondent's bid to Toronto. Note, "Partnership or Joint Venture", for purposes of this criteria, does not pertain to potential Toronto partnership offers, but rather, pertains to the respondent's business structure, as exists or is proposed to exist, exclusive of any Toronto partnership role.</p>	<ul style="list-style-type: none"> <li>• Toronto must have sufficient information to determine if a respondent has any conflict of interest and if any potential exists for the respondent not to fulfill a contract by virtue of demands imposed by the respondent's partners.</li> </ul>
8	<p>Respondent must provide <b>letters of reference from the public jurisdictions (municipalities) in which the respondent has operating facilities, to a maximum of 3 municipalities.</b> These letters can be in the form of a statement from the municipality that the respondent and the municipality have an "host community - waste disposal facility operations "agreement" and the respondent is meeting the commitments of the agreement.</p> <p>Respondent must provide <b>letters from the environmental authorities regulating the respondent's operating facilities, pertaining to the facilities' environmental performance, to a maximum of 3 regulators.</b> These "letters" can be in the form of a statement or similar documentation from the regulator that the respondent has submitted annual monitoring and operations reports for the waste disposal facility which have been found to be acceptable by the regulator. The reports must have addressed the matter of compliance with environmental regulatory requirements.</p>	<ul style="list-style-type: none"> <li>• Toronto needs assurance that respondents have a record of use of the best management practices of the waste management industry and a proven capability to be a responsible corporate citizen, vis-a-vis Toronto being associated in the future with the preferred respondent(s) in a contractual relationship.</li> </ul>

## **6.0 STAGE 3 - REQUEST FOR PROPOSAL (RFP)**

***Stage 3 - RFP:  
Comparative evaluation  
using multi-faceted  
environmental, social  
and financial criteria***

The third stage of Toronto's Solid Waste Management Marketplace Evaluation Program will involve preparing and issuing a Request for Proposal (RFP) for long term waste disposal capacity, and potentially, requests for proposals for waste diversion capacity and new, emerging and innovative technologies. Detailed proposals will be comparatively evaluated using multi-faceted environmental, social and financial criteria. Top qualifying proposals will be the subject of Stage 4 – due diligence reviews and contract negotiations.

The criteria to be used to evaluate responses made to the RFP - Stage 3, must be finalized in consideration of the scope and nature of the proposals which actually qualify through Stage 2. The following steps constitute the elements needed to refine the Stage 3 evaluation process:

***Criteria will be finalized  
with input from  
stakeholders***

- Following completion of the Stage 2 REOI, the Stage 3 criteria definitions and priorities will be reviewed in light of the nature of the specific waste management alternatives which are to be comparatively evaluated in Stage 3 and the potential environmental, social and financial effects typically associated those alternatives.
- The need for refinements, proposed refinements and their rationale, will be presented in a public report and will be the subject of stakeholder consultation, as determined to be appropriate.
- Final refinements will be identified considering the outcome of the consultation process and will be reported to stakeholders.
- A description of the refined criteria, priorities and evaluation methodology will be issued with the Stage 3 RFP documentation. In this way, stakeholders will be provided with

a clear, current and common understanding of how Toronto intends to assess its alternatives.

Although the criteria review and refinement mechanism will be similar for proven waste disposal capacity, proven diversion capacity, and new, emerging and innovative technologies, the environmental, social and financial effects comparative evaluation criteria may differ in their detailed definitions. Sections 6.1 and 6.2 outline these criteria, as they are currently defined.

### **6.1 Stage 3 Comparative Evaluation Criteria - To Define The Top Qualifying Proposals for Proven Waste Diversion Capacity and New, Emerging and Innovative Technologies**

The nature of any RFPs issued for diversion capacity and new technologies will depend upon the responses received to the REOI. It is expected that the criteria employed in Stage 3 will be generally similar to those types of considerations employed for proven waste disposal capacity (i.e., consideration of human health and safety, the natural environment, social and financial factors). Detailed information on these criteria is presented in Section 6.2. The specific criteria will be developed in consideration of the specific type of diversion/new technology that is the subject of an RFP. More than one RFP may be issued as a result of the REOI responses received. For example, separate RFPs may be developed for composting, material recovery facilities, and specific types of new, emerging and innovative technologies. These RFPs will be aimed at procuring diversion/new technologies which will help Toronto achieve its diversion target and/or improve the performance of its waste disposal capacity solution.

## **6.2 Stage 3 RFP Environmental Effects Comparative Evaluation Criteria - To Define The Top Qualifying Proposals for Proven Waste Disposal Capacity**

It is desirable to define, to the extent possible, prior to commencement of the REOI/RFP process, the criteria and their priorities which will be used to evaluate the bid responses to the proven disposal capacity RFP. The stakeholder consultation process which has led to this marketplace enhancement program has focused, in part, on defining evaluation criteria. These criteria are presented in Table 4 below. The criteria and their priorities are the result of consideration of the following:

- Toronto Council's waste management policy directions,
- the evaluation process inferred in the Environmental Assessment Act, and
- the stakeholder consultation program output to date pertaining to criteria definitions and priorities.

### **6.2.1 Human Health, Safety and Natural Environment Criteria**

Criterion 1.1 (Table 4) will measure the effects of the alternatives on human health and safety and the natural environment in terms of macro-environmental effects. Macro-environmental effects are manifest in those persistent environmental pollutants which represent the significant majority of the total potential pollutants discharged from a waste management facility (including waste transport to that facility), which could impact human health and the environment and which, because of their persistency, potentially result in impacts at a scale well beyond their point of discharge.

#### ***Macro-environmental Effects:***

- *greenhouse gases*
- *acid rain gases*
- *smog gases*
- *heavy metals and trace organics*
- *chlorides*

#### ***Traffic Safety***

Criterion 1.2, traffic safety, will be measured using safety indexing factors which account for the circumstances which have the propensity to cause traffic accidents.

*Energy Resources*

Criterion 1.3, energy resources management, will account for the net energy consumed/produced in transporting and disposing of waste.

**6.2.2 Social Criteria**

*Jobs and Investment*

The employment and investment performance of the alternative waste disposal solutions will be considered in terms of value directly attributed to the alternatives (Criterion 2.1), as well as indirect benefits accruing as a result of the multiplier effect of waste management jobs and investment on the economy (Criterion 2.2).

**6.2.3 Financial Criterion**

*\$/tonne*

Criterion 3.1 is a simple measure of the financial costs of the alternatives (expressed as \$ per tonne).

**6.2.4 Other Criteria**

*Other criteria may be introduced*

As was discussed earlier in this Section, it is necessary to reserve the ability to review and refine the Stage 3 RFP comparative evaluation criteria in light of the nature of the specific proposals which come through the Stage 2 REOI process. As a result, a "place-mark" category of criteria: "Other", is included in Table 4.

<b>TABLE 4</b>			
<b>STAGE 3 RFP Comparative Evaluation Criteria (Waste Disposal Capacity)</b>			
	<b>Criteria</b>	<b>Measure</b>	<b>Priority (weighting factor points out of a total of 100 points)</b>
<b>1.</b>	<b>Human Health and Safety, Natural Environment</b>		<b>35</b>
<b>1.1</b>	<b>Macro-Environmental</b> - Impacts Substance emissions to air, land and water associated with waste disposal facility operations and waste haul	Quantity of the following pollutants released to the environment, expressed as the quantity of substance emitted per tonne of waste managed (transported and disposed): <ul style="list-style-type: none"> <li>• greenhouse gases (e.g., CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O expressed as global warming potential CO<sub>2</sub> equivalents) (<b>climate change</b>)</li> <li>• acid gases (e.g., NO<sub>x</sub>, SO<sub>x</sub> and HCl) (<b>acid precipitation</b>)</li> <li>• smog precursors (e.g., NO<sub>x</sub>, PM<sub>10</sub> and VOCs) (<b>smog formation</b>)</li> <li>• heavy metals (e.g., Pb, Cd, and Hg) and trace organics (dioxins, vinyl chloride, PAH's) (<b>health risk</b>)</li> <li>• Chlorides (Cl<sup>-</sup>) (<b>water quality change</b>)</li> </ul> (Each of the above 5 pollutant categories will be assumed to have <u>equal</u> importance.)	25
<b>1.2</b>	Traffic safety associated with waste haul	Traffic safety exposure factors for road and rail, incorporating school bus routes, major at-grade crossings, special intersections, etc. (derived from MTO level of service ratings (highway) and National Transportation Safety Board (rail) data)	5
<b>1.3</b>	Energy resources management	Net energy resource consumption / production, in terms of heat energy per tonne of waste managed: <ul style="list-style-type: none"> <li>• type and quantity of fuel consumption re waste haul</li> <li>• energy balance of waste disposal facilities' operations (i.e. energy consumed plus energy generated in the case of EFW or landfill gas energy recovery)</li> </ul>	5

<b>2.</b>	<b>Social</b>		<b>30</b>
<b>2.1</b>	Ontario direct jobs and indirect jobs (from investment in Ontario services and equipment directly a result of waste management) (2.1 includes direct and indirect jobs that are a result of the multiplier effect of waste management on the economy.)	Net number of jobs per tonne	15
<b>2.2</b>	Value of the jobs and investment located in Ontario	Net present value \$/tonne of wages and investment	15
<b>3.</b>	<b>Economic</b>		<b>35</b>
<b>3.1</b>	System Costs: Disposal cost (i.e. tipping fee) and waste haul charges and all internal costs that may be associated with the proposal, such as any modifications which Toronto would have to make to its transfer stations.	Net present value \$/tonne <ul style="list-style-type: none"> <li>• Tipping fee, only</li> <li>• Waste haul, only</li> <li>• Tipping fee and waste haul</li> </ul>	35
<b>4</b>	<b>Other</b> Criteria addressing specific potential environmental effects (in addition to criteria cited above) associated with the waste disposal bids, as may be identified during the Criteria Review/Refinement Task, following Stage 1 REOI	To be determined	To be determined

### **6.3 Comparative Evaluation Methodology for Waste Disposal Capacity**

*The full life-cycle performance of proposed waste transportation and disposal activities will be considered*

Toronto's Stage 3 RFP will require that respondents submit information which describes the environmental, social and financial performance (as per criteria, Table 4) associated with their facilities managing Toronto's waste (disposal facilities and waste haul). The performance of facilities must include the effects associated with transporting, receiving, processing and disposing of waste and managing disposal facility residues (e.g. EFW ash, landfill leachate and landfill gas) and closure and post-closure care over the potential contaminating life-span of the facility.

*Material and energy recovery, as a component of a waste disposal facility/activity, will be credited*

It is noted that the environmental benefits associated with any proposals to recover material resources from a waste disposal facility's operations (e.g. ferrous metal recovery from EFW ash or energy recovery from landfill gas) will be positively accounted for under criteria 1.1 and 1.3, via virgin materials and energy displacement environmental burden off-set credits.

*Performance claims will be tested*

Toronto will receive respondents' performance claims and will subject that information to multi-disciplinary engineering review to the test accuracy of claims. Claims that are accepted will then be comparatively evaluated by Toronto.

A number of comparative evaluation methodologies were considered for application in Toronto's marketplace enhancement program. A lifecycle effects inventory and weighted additive effects comparison method is proposed as the most appropriate methodology. The use of lifecycle effects inventory in waste management evaluation/decision-making has, until recently, been limited by the absence of standardized methodologies for their conduct, and by the lack of credible, current data on material/energy use and emissions from various extraction,

production, use and disposal processes. Over the last few years, a number of agencies have undertaken the development of standard methodologies for lifecycle assessments. These agencies include the Society of Environmental Toxicology and Chemistry (1991), Canadian Standards Association (1994) and ISO 14040 (June 1997). As a result of these efforts, there is now broad agreement on a methodology for carrying out environmental lifecycle inventory analysis. A number of industry initiatives have been undertaken or are underway in Canada, Europe and the United States to establish databases on material/energy use and pollutants releases for use in lifecycle assessments of waste management practices.

The weighted additive method will require that the life-cycle effects of the disposal alternatives be expressed as numeric ratios of each other and that explicit numeric weights (i.e. assigned priority) for the criteria be used. By combining the effects with the criteria weights, numeric overall performance scores will be generated for each alternative. This methodology will allow the integration of the disparate factors: financial costs, environmental quality and employment elements into a single measure of performance. By comparing the overall performance scores a ranking of the alternatives will be identified.

The proposed criteria: traffic safety, energy consumption, jobs, investment and financial cost, are readily understood and are commonly employed in waste management contract decision-making. Criteria 1.1 – macro-environmental impacts – warrants further discussion.

Comparing the total loadings of priority pollutants generated over the lifecycle (transportation and facility operations) of waste disposal practices is increasingly being used to account for macro human health and environmental effects. Waste management planning activities in a number of industrialized countries (United States, United Kingdom, Switzerland, France, Germany and Canada) are being designed to make

planning decisions based upon an integrated consideration of environmental, social and financial factors.

Five categories of substance (pollutants) emissions are presented in Table 4. Toronto may consider using toxicity factors to distinguish priorities among certain pollutants. For example, the relative toxicity of dioxin vs. mercury vs. cadmium could be considered and reflected in the priority weighting. However, it will not be possible to assign differences in significance as between greenhouse gas emissions, smog precursors and metals and organics. Toronto is not aware of a common denominator for equating the impacts of global warming, smog and bio-accumulative persistent toxic substance exposure. Depending upon the results of stakeholder consultation feedback, Toronto could, in conjunction with support from the Province, explore the potential to use an approach similar to that which the Province has employed in developing Ontario's Smog Plan, in which pollutant loadings were translated into the common denominator of monetary value (i.e. health care program costs).

***USA and Ontario based proposals will be commonly evaluated in terms of their macro environmental impact performance***

The criteria which has been developed to date and which will be refined prior to the evaluation of actual proposals put forward by the marketplace, will be capable of addressing both Ontario facilities and USA facilities. The pollutants addressed will be those having macro-environmental impact (e.g., greenhouse gas emissions, persistent bio-accumulative toxic substances, etc.). It is noted that the significant majority of stakeholders, including virtually all of the members of the public, who have participated in the consultation process have advised Toronto of their preference to see the evaluation criteria address pollutant loadings from USA facilities on an equal basis with those from Ontario facilities.

***Macro impacts will be considered. Site specific impacts will not be considered under Toronto's SWM-MEP***

Site specific impacts will not be evaluated in Toronto's SWM-MEP. These impacts (local traffic, noise, dust, odour, land-use/zoning compatibility, etc.) are addressed in site environmental and land use planning approvals processes, for which the marketplace respondents are responsible. Further, it will not be within the scope of Toronto's SWM-MEP to develop atmospheric dispersion and receptor models and characterize the fate of emissions as the basis for comparatively evaluating proposals involving differing geographic locations. Again, consideration of human health and environmental quality will be addressed by quantifying priority pollutants' emissions.

***Sensitivity analysis will be employed to define the top qualifying proposals***

Notwithstanding the above discussion, there exists an uncertainty inherent in any lifecycle effects inventory and analysis process. This uncertainty can stem from a number of sources, including, for example, potential inaccuracies in characterizing the physical contexts which are the causes of the generation and release of pollutants. Further, job creation factors and/or pollutant emission factors can be somewhat uncertain, particularly where default numbers (based on averaging data from other facilities) must be used in cases where a facility is approved but is not yet constructed and there is no empirical record of performance.

***The top qualifying proposals will proceed to Stage 4***

To account for these uncertainties, all proposals which score within a percentage figure of the top ranked alternative, together with the top ranked proposals, will be assumed to have an equal level of performance. The percentage figure will be defined by Toronto based upon the magnitude of the uncertainties associated with the effects of the alternatives which are assessed in Stage 3. This level of performance constitutes "top qualified" and will define those proposals which will be the subject of Stage 4 - Due Diligence Review And Competitive Contract Agreement Negotiations.

***A two-envelope system will be used to prevent any reception of bias towards the financial cost factor***

In terms of the administration of Phase 3, respondents will be required to submit a detailed description of their proposal, including:

- Transportation System Plan
- Disposal System Plan
- Facilities' Capital Plan
- Facilities' Operations Plan
- Facilities' Maintenance Plan
- Perpetual Care Plan
- Financing Plan
- Toronto Partnership Options Proposal

Information sufficient to characterize the performance of the respondent's proposal, in terms of the Stage 3 evaluation criteria, must be provided. A two-envelope system will be used. All information relevant to criteria 1.0 and 2.0 (Table 4) will be submitted separately from criteria 3.0 - financial cost proposals. The comparative evaluation of the proposals will be done first on the basis of criteria 1.0 and 2.0. Proposals will be ranked accordingly. Envelopes containing criteria 3.0 cost proposals will then be opened and a combined ranking will be established on the basis of the priorities previously set for the criteria. The top qualifying proposals will proceed to Stage 4.

## **7.0 STAGE 4 - DUE DILIGENCE REVIEW AND COMPETITIVE CONTRACT AGREEMENT NEGOTIATIONS**

*Toronto must have a thorough understanding of respondents' capabilities to deliver long term waste disposal capacity and any potential liabilities Toronto would accrue from using such capacity*

The outcome of the Stage 3 will be the identification of proposals which are defined to be top qualified. Toronto will put the content of project proposals submitted in Stage 3 and the results of the comparative evaluation on the SWM-MEP project public record prior to staff recommending and Council deciding on initiation of the due diligence reviews and contract agreement negotiations processes, outlined below.

Toronto will conduct a financial/technical/legal due diligence review of facilities/sites and respondents and will negotiate contract agreements with respondents. The due diligence review is for the purposes of Toronto obtaining a detailed understanding of respondents' capabilities to deliver long term waste disposal capacity and any potential liabilities Toronto would accrue from using such capacity. Toronto must be satisfied in regard to these critical matters. Therefore, Toronto will require that the top qualified respondents must, upon subsequent request by Toronto, provide information pertaining to, but not limited to, the following:

- facility operating, maintenance, monitoring, reporting procedures re environmental regulatory compliance,
- corporate/facility environmental management systems structures,
- site agreements, land ownership,
- land-use regulatory compliance,
- labour relations and occupational health and safety regulatory compliance,

- inter-jurisdictional matters (e.g. circumstances of the Canada-USA border re export regulations and policy, risk characterization re USA “Super-Fund” liability),
- commercial (including business and property tax) regulatory compliance, and
- project financing and economics (e.g. availability and security of markets/revenues derived from disposal of wastes other than Toronto’s wastes, or sale of recovered energy).

***Toronto will use a competitive contract negotiations process***

Toronto will negotiate contract agreements with the top qualified proposals which come through Stage 3. In this way Toronto will be able to negotiate agreements in a competitive marketplace context.

Following completion of agreement negotiations, Toronto will submit a report on the SWM-MEP project to the public record. The report will provide a statement of the outcome of Toronto's due diligence review and contract agreements negotiations processes and will describe City's intended long term waste disposal capacity solution. This reporting will occur prior to staff recommending and Council deciding on approval of a contract agreement.

## **8.0 CONSULTATION AND COMMUNICATIONS PLAN**

### **8.1 Introduction**

*“to provide for an open, accessible, traceable, and flexible means of information exchange between the City of Toronto project team and all interested stakeholders.”*

On October 2, 1998, City of Toronto Council provided direction to staff to engage the marketplace to secure long term disposal capacity and solicit waste diversion proposals. This marked the start of the Solid Waste Management-Marketplace Engagement Program. This program will build on planning and public consultation that took place during 1997-98 under the program known as Solid Waste Environmental Assessment for long-term Disposal, (SWEAD). A consultation and communications plan for a project of this magnitude will need to foster cooperation between the diverse range of potentially interested stakeholders. It is anticipated that there will be a great deal of interest from all levels of government, waste management-related industries and organizations, environmental groups and the general public.

The following consultation and communications plan will support the development of the Solid Waste Management Marketplace Engagement Program.

### **8.2 Goal**

A goal is a broad statement of intent. The goal of the SWM-MEP Consultation and Communications program is:

*“to provide for an open, accessible, traceable, and flexible means of information exchange between the City of Toronto project team and all interested stakeholders.”*

In the context of this goal, “open” means that the process is one which involves all interested stakeholders. “Accessible” means that

appropriate consultation and communications tools and techniques will be used to make project-related information and activities readily available. “Traceable” means that the consultation and communications goals and objectives are clearly stated and implemented, and the impact of the input received is apparent in the program documentation.

The consultation and communications plan needs to be “flexible” and adapt to the changing needs of those involved in the different stages of the process. For example, if some of the proponents included in the RFP stage are a great distance from Toronto, different techniques may be appropriate.

### **8.3 Objectives**

Objectives represent specific statements about the details of delivering the consultation and communications plan.

Consultation-related objectives:

1. To use clear, accessible language in project-related documentation and communications that accurately reflects the technical nature of the contracting process.
2. To provide opportunities for information exchange at key times to all those who are interested. All interested stakeholders should be kept abreast of activities and have an understanding of factors shaping the project.
3. To use a variety of consultation approaches, as appropriate, including workshops, open houses, group meetings, to ensure the engagement of the diverse range of interested stakeholders.

Communications-related objectives:

1. To support the project’s public consultation plan.

2. To increase understanding and participation of stakeholders in project activities through an advertising campaign, newsletters, a comment line, and a project-related web site. Fact sheets and display panels may be used where appropriate.
3. To effectively communicate key messages from the project team/the City.
4. To broadly publicize tendering opportunities to potential bidders at the Request for Expressions of Interest (REOI) stage.
5. To provide access and information to the media via the project spokesperson.

#### **8.4 Target Audiences**

As noted, it is anticipated that there will be a diverse range of interest in a project of this magnitude. The list of interested stakeholders will likely be very dynamic throughout the different stages of this project. Input will be sought from the following stakeholders groups to guide this project.

*Information must be targeted at:  
public, governments,  
waste management  
industry, NGOs, media*

1. At the planning and REOI stages of the project, Toronto will seek public involvement from a diverse range of **residents of the City of Toronto**. Depending on the outcome of the REOI, the communication and consultation efforts will likely be expanded to include other stakeholders within North America.
2. It will be important to involve **politicians and staff** representing various levels of government.
3. Representatives from the **waste management industry** (potential marketplace proponents) will provide important insight into how the marketplace engagement program can be structured to achieve Toronto's objective to receive competitive responses.

4. **Environmental non-government organizations, various industry groups, labour unions, and other public interest groups** can also provide valuable input to this process.
5. **The Toronto media** (all formats: print and broadcast) will be the focus of communication efforts. Given the North American scope of the project, should the need arise, media outreach and advertising campaigns could target appropriate media contacts across Canada and the United States.

#### **8.5 Level of Documentation**

Great care will be taken to accurately document discussions during all consultation activities. It will be important to track issues raised, and future actions required. This documentation will be in a format useful to both the project team and interested stakeholders. The documentation will be incorporated into the project public record together with this Planning Document and the information generated from the REOI, RFP and due diligence review and contract agreement negotiations stages.

#### **8.6 Continuous Evaluation**

Appropriate evaluation techniques will be carried out on a continuing basis during this project. Prior to each activity, criteria will be established on which to measure success of the event. A participant feedback mechanism will be incorporated which explores how participants were informed of the SWM-MEP, and the perceived strengths and weaknesses of the content of the consultation medium. Evaluation feedback will be used to strengthen and shape future activities.

*SWM-MEP project  
public record*

## 8.7 Tools and Techniques

It is important that various consultation and communications techniques be used during the development and refinement of the REOI and the RFP. This needs to be done to reach the diverse audiences, as techniques will reach different audiences.

*Direct mail, media advertising, Web site, project newsletter, telephone comment line*

Communications and Consultation will be carried out using a number of tools, including.

- A database will be developed to facilitate direct-mailing of project-related information. It is anticipated that these mailings will be used to convey information and solicit feedback from stakeholders.
- An advertising campaign will promote consultation events (e.g. public meetings, workshops, open houses and other project activities) that may be held to prompt attendance and stakeholder participation. Advertisements and media releases will also be used to advertise the REOI.
- Project information will be posted on the City's web site (releases, advertisements, project reports, documents, etc.) to enhance public access and opportunity for comment/questions.
- A series of newsletters will be written at key times through the project to inform industry, agencies and organizations, and the members of the public on the SWM-MEP project mailing list of key happenings and opportunities to participate in various aspects of the project.
- Fact sheets, display panels, and other appropriate support materials will be developed to enhance the understanding of industry members and members of the general public.

- A 24-hour comment line and a toll free 1-800 number will be advertised so that any interested stakeholders can request information or leave project-related questions and comments.
- Workshops or other meetings may be held to guide the development of project activities such as the finalization of the RFP criteria. All such meetings will be open to the public and proceedings will form part of the public record for the project.
- The telephone number of the Public Consultation Coordinator will be advertised. This will ensure that all interested stakeholders have a venue to discuss the project in between other activities.

Details about the timing of these activities can be found in the next sections.

### **8.9 Stages of the Stakeholder Consultation and Communications Program**

The consultation and/or communications program will be delivered in a number of stages which coincide with key project happenings. The stages are:

Stage 1: Circulation of the Planning Document to key stakeholders

Stage 2: Development, release, evaluation and results of the Request for Expressions of Interest

Stage 3: Development, release, evaluation and results of the Request for Proposals

Stage 4: Due diligence review, contract agreement negotiations and award of contract(s)

Stages 3 and 4 will largely consist of communicating project happenings to interested stakeholders.



### 8.10 Key Consultation and Communications Activities

Key Project Activity	Consultation/Communications Activity
<p>Stage 1 - Draft Planning Document</p>	<ul style="list-style-type: none"> <li>• newsletter preparation and distribution</li> <li>• circulation of Draft Planning Document to industry, government agencies, potential GTA partners, environmental groups, interested members of the public</li> <li>• public and industry meetings will be held to discuss project direction and REOI criteria</li> <li>• web site information posted and updated, as appropriate</li> <li>• advertisement of 24 hour comment line in all project materials (397-7777)</li> <li>• documentation of results of Stage 1 consultation</li> </ul>
<p>Stage 2 - Request for Expressions of Interest</p>	<ul style="list-style-type: none"> <li>• ensure completion and accuracy of database</li> <li>• develop advertising campaign for REOI and upcoming stakeholder consultations</li> <li>• advertise REOI call in appropriate media, circulate to database</li> <li>• newsletter preparation and distribution</li> <li>• preparation of project fact sheet and display panels, if appropriate</li> <li>• documentation of results of Stage 2 consultation</li> </ul>
<p>Stage 3 - Request for Proposals</p>	<ul style="list-style-type: none"> <li>• news release announcing short list of proposals</li> <li>• stakeholder engagement to develop and refine RFP criteria</li> <li>• documentation of results of RFP criteria consultation</li> <li>• newsletter preparation and distribution</li> </ul>
<p>Stage 4 - Due Diligence, Review, Negotiations, Award of Waste Contract</p>	<ul style="list-style-type: none"> <li>• news release announcing successful proponent(s)</li> <li>• newsletter preparation and distribution</li> <li>• Documentation of results of project consultation overall</li> </ul>

The consultation and communications activities will be implemented and refined through a cooperative effort between City staff and project consultants, with input and direction from stakeholders. Key contacts for this component of the Solid Waste Management Marketplace Engagement Program are:

Tracey Ehl, Public Consultation Coordinator, City of Toronto at (416) 392-6698.

Pat Barrett, Communications Coordinator, City of Toronto at (416) 392-24716.

The LURA Consulting Group has also been engaged to assist in the planning and on-going delivery of consultation and communication activities.

## 9.0 THE NEXT STEPS ...

Figures 1 and 2 (pages 19 and 20 of this Planning Document) outline the steps in Toronto's Solid Waste Management Marketplace Engagement Program. The first step involves consultation with stakeholders on the framework elements of the program, as are presented in this Draft Planning Document. The document will be finalized in consideration of stakeholders input and will be submitted to Works and Utilities Committee and Council for adoption.

It is intended that the REOI documentation be drafted in January 1999 and submitted to Committee and Council for authorization to release in February 1999.

The schedule for the SWM-MEP is aggressive. Toronto wishes to conclude the program so that there is sufficient time for the preferred waste disposal capacity solution to be approved, constructed and commissioned by late 2002 – the projected closure date for the Keele Valley Landfill Site. This schedule must include time for unforeseen contingencies.

*“... to expedite the planning process where possible.”*

It is noted that on October 2, 1998, Council underscored the importance of program timing, when Council adopted a motion calling on the Commissioner of Works and Emergency Services to expedite the planning process where possible. In consideration of the importance of establishing a planning framework in a timely manner, readers are encouraged to provide comments to Toronto staff on this Draft Planning Document as soon as possible, prior to January 15, 1999.