

Clause embodied in Report No. 12 of the Policy and Finance Committee, as adopted by the Council of the City of Toronto at its meeting held on October 2, 3 and 4, 2001.

1

**Implementation Plan for a Three-Stream
System and Other Recommendations of the
Waste Diversion Task Force 2010 (All Wards)**

(City Council on October 2, 3 and 4, 2001, amended this Clause:

- (1) *by inserting in Recommendation (c) of the Budget Advisory Committee embodied in Recommendation (I) of the Policy and Finance Committee, between the words “and” and “yard”, the word “minimal”, so that such recommendation shall now read as follows:*

“(c) the Morningside Avenue and Centennial Park compost sites only being used for composting leaf and minimal yard waste, including Christmas trees, and under no circumstances will other organic material, such as food waste and grass clippings, be accepted at the site;”;

- (2) *by amending Recommendation (II) of the Policy and Finance Committee by deleting Recommendation No. (1)(a) of the Works Committee embodied therein and inserting in lieu thereof the following:*

“(1)(a) amending Recommendation No. (2) contained in the report to provide authority for the issuance of Requests for Proposals for the organic containers, if required;”;

- (3) *to provide that residents be allowed to enhance their blue and grey boxes with special recycling bags or see-through blue bags for excess materials; and*

- (4) *by adding thereto the following:*

“It is further recommended that:

- (a) *Council encourage maximum buy-in and participation from all residents involved in this program and undertake any measures to enhance the acceptability and success of this program;*
- (b) *an evaluation of the program be undertaken in one year;*
- (c) *the evaluation criteria include the amount of waste diverted; areas for improvement/change; the number and types of complaints received; and that any recommendations from the evaluation be forwarded to the Works Committee for incorporation into the City-wide program;*

- (d) *when other parts of the City come on to the Source Separation Organics (SSO) Program, should there be changes in their methodology or approach, such changes also be made in the Etobicoke Community Council area, so that the City will have a harmonized approach;*
- (e) *in addition to a communications strategy which would include Etobicoke Community Council at an early stage, a Hot Line be established by the Works and Emergency Services Department, to run for a one-year period, to assist residents with their enquiries and issues;*
- (f) *the SSO container Request for Proposals include scenarios for various wheel options and costs related thereto, to enable the easy portability of the container to the curbside;*
- (g) *since Turtle Island is presently on contract in the former York Community area, the Commissioner of Works and Emergency Services be requested to submit a report to the Works Committee, in November 2001, on the possibility of extending the SSO program to the former York Community area at the same time as initiating it in the Etobicoke Community Council area;*
- (h) *the Commissioner of Works and Emergency Services be requested to establish one neighbourhood liaison committee (NLC) for each of the Morningside and Centennial Park sites, such committees to be comprised of local residents, local Councillors and staff, the meetings of such committees to be co-chaired by a neighbourhood member and a staff member, and shall take place quarterly, or at the Call of one of the co-chairs; the NLC will meet during the site design process and continue through the operational stage and will work with staff to develop a protocol to respond to complaints prior to the start of composting at either site;*
- (i) *with a view to attempting to achieve an accelerated implementation of the waste diversion program, the Commissioner of Works and Emergency Services be requested to submit a report to the Works Committee, in November 2001, on timetable options that could phase in the entire City of Toronto by the Fall of 2003, such report to include commentary on the implications of such timetables; and*
- (j) *City Council extend its appreciation and thanks to Councillor Betty Disero for her exemplary efforts as the Chair of the Waste Diversion Task Force and to Mayor Mel Lastman for his initiative in selecting Councillor Disero for the position; and*
- (k) *the following motion be referred to the Budget Advisory Committee for consideration during the 2002 Budget process:*

Moved by Councillor Lindsay Luby:

'It is further recommended that, since the City of Toronto can anticipate an increased amount of recycling materials as residents adapt to the SSO program, City Council approve once-a-week recycling for the area covered by this program (these costs would be approximately \$300,000.00 to \$500,000.00 in the Etobicoke Community Council area.' ”)

The Policy and Finance Committee recommends:

(I) the adoption of the following Recommendations of the Budget Advisory Committee, embodied in the communication (September 11, 2001) from the City Clerk;

“The Budget Advisory Committee recommends to the Policy and Finance Committee, and Council, the adoption of the report (August 29, 2001) from the Commissioner of Works and Emergency Services, entitled “Implementation Plan for a Three-Stream System and Other Recommendations of the Waste Diversion Task Force 2010”, subject to:

(A) amending Recommendation No. (4) to read as follows:

“(4) authority be granted to issue a Request for Proposals for the design of an addition to the Dufferin MRF or to examine private sector options to accommodate the processing of a comingled fibre and container stream, and the Commissioner of Works and Emergency Services, in conjunction with the Director of Purchasing and Materials Management, be authorized to negotiate with the preferred proponent(s) and report to the Works Committee recommending contract award; and further the RFP to be subject to consideration and approval of funding in the 2002 budget process;”;

(B) consideration being given, during the 2002 budget process, to funding the additional costs for the Three-Stream System from the Reserve Account dedicated to Waste Management in the Works and Emergency Services Department;

(C) the Morningside Avenue and Centennial Park composting sites only being used for composting leaf and yard waste including Christmas trees and under no circumstances will other organic material, such as food waste and grass clippings be accepted at the site; and

(D) there being a review of the Morningside Avenue and Centennial Park composting site operations to ensure that there are no environmental and odour problems that would impact on the surrounding communities six months after start up and report thereon to the

Works Committee, Scarborough Community Council and Etobicoke Community Council for information;

(II) the adoption of the following Recommendations of the Works Committee embodied in the following communication (September 10, 2001) from the City Clerk:

“The Works Committee unanimously:

- (1) endorsed the recommendations of the Budget Advisory Committee at its meeting on September 10, 2001, with respect to the report dated August 29, 2001, from the Commissioner of Works and Emergency Services, subject to the following:**
 - (a) amending Recommendation No. (2) contained in the report to provide authority for the issuance of a Request for Proposals for both the organic containers and public awareness/advertising component of the three-stream system together;**
 - (b) deleting the words “residual garbage” wherever they appear in the report and inserting in lieu thereof the words “residual waste resources”; and**
 - (c) community consultation being undertaken prior to the reopening of the Morningside Avenue and Centennial Park sites for the composting of leaf and yard waste; and**
- (2) recommended that the public education program determine ways in which to include the engagement of community organizations and schools; and**

(III) that the Commissioner of Works and Emergency Services be requested to submit a report to the Works Committee:

- (a) on how the timeframe to implement the Three-Stream System can be expedited; and**
- (b) providing a revised timeline that would expedite the Three-Stream System in the East York, York and Toronto area that is presently slated to begin in June, 2005.**

The Policy and Finance Committee submits the following communication (September 11, 2001) from the City Clerk:

Recommendations:

The Budget Advisory Committee recommends to the Policy and Finance Committee, and Council, the adoption of the report (August 29, 2001) from the Commissioner of Works and Emergency Services, subject to:

(A) amending Recommendation No. (4) to read as follows:

“(4) authority be granted to issue a Request for Proposals for the design of an addition to the Dufferin MRF or to examine private sector options to accommodate the processing of a comingled fibre and container stream, and the Commissioner of Works and Emergency Services, in conjunction with the Director of Purchasing and Materials Management, be authorized to negotiate with the preferred proponent(s) and report to the Works Committee recommending contract award; and further the RFP to be subject to consideration and approval of funding in the 2002 budget process;”;

(B) consideration being given, during the 2002 budget process, to funding the additional costs for the Three-Stream System from the Reserve Account dedicated to Waste Management in the Works and Emergency Services Department;

(C) the Morningside Avenue and Centennial Park composting sites only being used for composting leaf and yard waste including Christmas trees and under no circumstances will other organic material, such as food waste and grass clippings be accepted at the site; and

(D) there being a review of the Morningside Avenue and Centennial Park composting site operations to ensure that there are no environmental and odour problems that would impact on the surrounding communities six months after start up and report thereon to the Works Committee, Scarborough Community Council and Etobicoke Community Council for information.

The Budget Advisory Committee reports, for the information of the Policy and Finance Committee, and Council, having:

(a) requested the Commissioner of Works and Emergency Services to report to the Works Committee and the Budget Advisory Committee during the 2002 budget process, providing options and financial implications with regard to:

(i) some residents in all areas across the City of Toronto having access to the Three-Stream System for single family homes prior to the fall of 2003; and

(ii) apartment dwellers having access to the recycling program by the beginning of 2003, as identified in Recommendation No. (9) of the Waste Diversion Task Force 2010 Report; and

- (b) received the following communications and reports:
- (i) (July 12, 2001) from the Acting City Clerk;
 - (ii) (September 7, 2001) from the Commissioner of Works and Emergency Services;
 - (iii) (September 10, 2001) from Councillor Ron Moeser, Ward 44, Scarborough East;
and
 - (iv) (September 5, 2001) from the Acting Chief Administrative Officer and Acting Chief Financial Officer and Treasurer.

The following persons appeared before the Budget Advisory Committee in connection with the foregoing matter:

- Councillor Betty Disero, Ward 17, Davenport;
- Councillor Lindsay-Luby, Ward 4, Etobicoke Centre;
- Councillor Frances Nunziata, Ward 11, York South-Weston;
- Councillor Jack Layton, Ward 30, Toronto-Danforth; and
- Councillor Doug Holyday, Ward 3, Etobicoke Centre.

Background:

The Budget Advisory Committee at its meeting held on September 10, 2001, had before it a communication (July 12, 2001) from the Acting City Clerk advising that the Policy and Finance Committee at its meeting held on July 12, 2001, requested the Budget Advisory Committee to:

- (1) convene a meeting to review this matter prior to the September 20, 2001, meeting of the Policy and Finance Committee;
- (2) consider the cost of once a week collection of organic waste and recyclables as opposed to once every two weeks and report thereon to the Policy and Finance Committee; and
- (3) submit a report to the Policy and Finance Committee on the proposed plans compared to the cost of disposal in the year 2001, such increased cost to include the Capital and Operating cost for the next ten years; and the value of the resources collected.

The Budget Advisory Committee also had before it the following reports:

- (a) (August 29, 2001) from the Commissioner of Works and Emergency Services reporting on the specifics and cost implications of implementing the “three-stream” system recommended by the Waste Diversion 2010 Task Force; requesting the necessary authority to proceed with implementation; addressing the cost of achieving the 60 percent diversion target by 2006; commenting on some of the other initiatives related to the Task Force report; and recommending that:
 - (1) approval be granted to implement a three-stream system consisting of the co-collection of organics and comingled recyclables one week and organics and residual garbage the following week and the composting of organics and comingled processing of recyclables, subject to the stipulation that a phased approach to implementation be utilized to minimize the need for pre-budget approval and to allow for inclusion of long-term planning in the 2002 budget cycle;
 - (2) authority be granted, including pre-budget approval, to implement Phase 1 (70,000 homes) of the three-stream system including authorization for:
 - (i) an expenditure of approximately \$1.6 million to purchase 70,000 organic kitchen and curbside collection containers;
 - (ii) issuing a Request for Proposals as soon as possible for the purchase of the 70,000 organics containers and that the Commissioner of Works and Emergency Services, in conjunction with the Purchasing and Materials Management Division, be authorized to negotiate with the preferred proponent(s) and report to the Bid Committee recommending contract award;
 - (iii) design and rollout a public education program at a cost of \$600,000.00 in 2002;
 - (iv) securing the transition processing capacity through a Request for Proposals process for approximately 15,000 annual tonnes of fully comingled recyclables at an additional cost of \$200,000.00 in 2002; and
 - (v) entering into a contract for Alternating Co-Collection of Waste, Mixed Recyclables and Source Separated Organics – Manual Curbside Collection for Etobicoke, as recommended in the report entitled “Award of Contract for Tender Call 95-2001”;
 - (3) in order to ensure that Phase 2 of the three-stream system is implemented according to the schedule in this report, approval in principle is required, subject to consideration and approval of funding in the 2002 budget process and consideration of a range of operational options to reduce costs;

- (4) authority be granted to issue a Request for Proposals for the design of an addition to the Dufferin MRF or to examine private sector options to accommodate the processing of a comingled fibre and container stream, and the Commissioner of Works and Emergency Services, in conjunction with the Purchasing and Materials Management Division, be authorized to negotiate with the preferred proponent(s) and report to the Works Committee recommending contract award;
 - (5) more apartments be added to the recycling program so that all apartment dwellers, where the City currently provides collection, will have access to recycling by the end of 2003;
 - (6) the former Scarborough composting site located on Morningside Avenue just south of Highway 401 and the former Etobicoke composting site located near Centennial Park Boulevard and Rathburn Road be re-opened in order to compost a portion of the City's leaf and yard waste commencing in 2003 and staff investigate the Brock North site and private sector options to secure the remaining capacity required; and
 - (7) the request for funding for new and emerging technologies be considered as part of the 2002 Capital and Operating Budget process; and
- (b) (September 7, 2001) from the Commissioner of Works and Emergency Services advising of potential savings and additional sources of revenue that could have an impact on the Solid Waste Management Services Operating Budget over the next six years; and recommending that this report be received for information;
- (c) (September 10, 2001) from Councillor Ron Moeser, Ward 44 Scarborough East, recommending that:
- (1) the Morningside Avenue composting site only be used for composting leaf and yard waste including Christmas trees and under no circumstances will other organic material, such as, food waste and grass clippings be accepted at the site; and
 - (2) there be a review of the Morningside Avenue composting site operation to ensure that there are no environmental and odour problems that would impact on the surrounding communities six months after start up and a report to the Works Committee and Scarborough Community Council for information;
- (d) (September 5, 2001) from the Acting Chief Administrative Officer and Acting Chief Financial Officer submitting a document entitled "Briefing Notes – Waste Diversion Task Force 2010 Initiative – Financial Review".
-

(Report dated August 29, 2001, addressed to the
Works Committee and the Budget Advisory Committee
from the Commissioner of Works and Emergency Services)

Purpose:

To report on the specifics and cost implications of implementing the “three-stream” system recommended by the Waste Diversion 2010 Task Force and to request the necessary authority to proceed with implementation. The report also addresses the cost of achieving the 60 percent diversion target by 2006 and comments on some of the other initiatives related to the Task Force report.

Financial Implications and Impact Statement:

The appended Financial Summary compares the net operating expenditures before corporate overhead and capital financing of the Status Quo case with the three-stream system and the three-stream system plus new and emerging technologies. The three-stream system will result in a projected overall diversion of 42 percent by 2006. This diversion rate increases to 61 percent when new and emerging technologies are included.

The appended Financial Summary also includes the incremental capital expenditures for the three-stream system, and the three-stream system plus new and emerging technologies, compared with Status Quo. The expenditures are mainly for the purchase of containers for the source separated organics (SSO) program, construction of the Dufferin MRF, the addition of SSO processing capacity and partial replacement of the existing fleet of collection vehicles with co-collection vehicles.

Recommendations:

It is recommended that:

- (1) approval be granted to implement a three-stream system consisting of the co-collection of organics and comingled recyclables one week and organics and residual garbage the following week and the composting of organics and comingled processing of recyclables, subject to the stipulation that a phased approach to implementation be utilized to minimize the need for pre-budget approval and to allow for inclusion of long-term planning in the 2002 budget cycle;
- (2) authority be granted, including pre-budget approval, to implement Phase 1 (70,000 homes) of the three-stream system including authorization for:
 - (i) an expenditure of approximately \$1.6 million to purchase 70,000 organic kitchen and curbside collection containers;
 - (ii) issuing a Request for Proposals as soon as possible for the purchase of the 70,000 organics containers and that the Commissioner of Works and Emergency Services, in conjunction with the Purchasing and Materials Management Division,

- be authorized to negotiate with the preferred proponent(s) and report to the Bid Committee recommending contract award;
- (iii) design and rollout a public education program at a cost of \$600,000.00 in 2002;
 - (iv) securing the transition processing capacity through a Request for Proposals process for approximately 15,000 annual tonnes of fully comingled recyclables at an additional cost of \$200,000.00 in 2002; and
 - (v) entering into a contract for Alternating Co-Collection of Waste, Mixed Recyclables and Source Separated Organics – Manual Curbside Collection for Etobicoke as recommended in the report entitled “Award of Contract for Tender Call 95-2001”;
- (3) in order to ensure that Phase 2 of the three-stream system is implemented according to the schedule in this report, approval in principle is required, subject to consideration and approval of funding in the 2002 budget process and consideration of a range of operational options to reduce costs;
 - (4) authority be granted to issue a Request for Proposals for the design of an addition to the Dufferin MRF or to examine private sector options to accommodate the processing of a comingled fibre and container stream, and the Commissioner of Works and Emergency Services, in conjunction with the Purchasing and Materials Management Division, be authorized to negotiate with the preferred proponent(s) and report to Works Committee recommending contract award;
 - (5) more apartments be added to the recycling program so that all apartment dwellers, where the City currently provides collection, will have access to recycling by the end of 2003;
 - (6) the former Scarborough composting site located on Morningside Avenue just south of Highway 401 and the former Etobicoke composting site located near Centennial Park Boulevard and Rathburn Road be re-opened in order to compost a portion of the City’s leaf and yard waste commencing in 2003 and staff investigate the Brock North site and private sector options to secure the remaining capacity required; and
 - (7) the request for funding for new and emerging technologies be considered as part of the 2002 Capital and Operating Budget process.

Background:

At its meeting of June 26, 27 and 28, 2001, Council adopted, as amended, Clause No. 1 of Report No. 10 of The Works Committee, headed “Report of the City of Toronto Waste Diversion Task Force 2010”. On July 12, 2001, the Policy and Finance Committee dealt with the Task Force report recommendations, as amended by Council.

The primary recommendations in the Task Force report relate to the implementation of a three-stream collection system (source-separated organics, recyclables and residuals) for solid

waste in Toronto. This report provides an implementation plan for a three-stream system and also addresses some of the other initiatives contained in the Task Force report.

Comments:

Description of System:

Under the three-stream system, single-family households will separate their solid waste resources as follows:

Stream One:

Blue and grey box materials combined into a single recycling stream.

Stream Two:

Source separated organics including kitchen waste and other organics such as paper towels, tissues and diapers will be set out in a bin provided by the City, collected weekly and delivered to a composting plant.

Stream Three:

Residual garbage will be placed in a regular garbage bag or can.

Implementation Schedule:

Implementation of the three-stream system for single-family homes will be phased in over three years. Phase 1 will be implemented in the Etobicoke Community (70,000 homes) in July 2002 and therefore pre-budget approval is required. Phase 2, which will follow the normal budget approvals process, will be implemented in Scarborough (110,000 homes) in June 2003, North York (110,000 homes) in February 2004, a portion of East York, York and Toronto (100,000 homes) in October 2004 and the remainder of East York, York and Toronto (110,000 homes) in June 2005. Once the program is fully implemented, all 491,500 single-family homes in Toronto (expected to grow to 500,000 by 2006 due to new home construction) will be receiving three-stream collection.

Environmental and Service Benefits:

In addition to assisting the City meet its diversion goals, implementation of the three-stream system will result in other environmental benefits. Fewer trucks will be driving down residents' streets as co-collection vehicles are being used and fewer transport trailers containing garbage will be driving to Michigan, as significantly more waste will be diverted. There are also environmental benefits associated with anaerobically composting the source-separated organics compared to if this material was landfilled. The cumulative effect of these impacts will contribute towards the reduction of greenhouse gas production consistent with the City's targets.

From a service improvement standpoint, there should be less confusion for residents about their collections once the three-stream system is implemented. All material (organics, recyclables and

residual waste) will be able to be put out for collection by the resident on the same day. Collection will be standardized city-wide, collection calendars will be simplified and scheduling changes due to statutory holidays will be minimized. Telephone calls from residents will be responded to from one standardized location. Since residents will be able to comingle their recyclables, sorting will be easier and there will be less confusion about whether to put certain materials in the blue or grey box (e.g., juice cartons which are a container but made of fibre).

Collection:

Predominantly, one collection truck with two compartments will drive down the street on the same day each week. On one week the truck will collect organics and comingled recyclables. On the second week, the organics will be picked up again, this time along with the residuals (anything that cannot be recycled or composted). Leaf and yard waste will continue to be collected separately.

Truck requirements and productivity projections were based on the following key assumptions:

- (i) a source separated organics (SSO) generation of 167 kilogram/household/year;
- (ii) an average collection route of approximately 800 stops/run;
- (iii) a workday length of 10 hours and a collection week of four days;
- (iv) a payload capacity of nine tonnes for the co-collection vehicle with the garbage compartment limited to a configuration of seven tonnes;
- (v) alternating weekly collection of SSO/garbage and SSO/recyclables is done in such a way that in any given week half of the total number of single family households being serviced receive SSO/garbage collection and the remaining half receive SSO/recyclables collection;
- (vi) transition rear packers are not needed on the recycling week since the payload of the co-collection truck can accommodate the SSO/recycling quantities; and
- (vii) spare trucks required are estimated to be 15 percent of the actual on-route trucks required.

It is estimated that the total capital cost to purchase the co-collection vehicles is approximately \$42 million. All the costs associated with operating and purchasing the vehicles have been included in the appended Financial Summary and have assumed that Etobicoke and York remain contracted out.

Containers:

Both a curbside container and in-home container will be provided to all single-family homes for the collection of organics. Residents may also line the organic containers with plastic bags. Existing blue and grey boxes can be used for the comingled recyclables. We will also allow residents to enhance their blue and grey boxes with special recycling bags for excess materials.

An extensive investigation of containers was conducted and based on our analyses, we have concluded that the preferred physical characteristics for a curbside organics collection container for Toronto would be as follows:

- (i) 30 to 40 litres in capacity;
- (ii) the container must have a lid attached with a hinge;
- (iii) the lid should open 270 degrees from closed position;
- (iv) the locking mechanism should not hinder the efficient tipping of organic material into the hopper of the collection truck;
- (v) handles should be suitable for workers wearing work gloves and be at a grasping height of approximately 60 centimetres;
- (vi) handle placement and width of space between the handle and container should allow enough clearance/space so that workers wearing work gloves are not hindered by the lip of the container;
- (vii) weight of container, lid and organic and other material collected should not exceed the 20 kilogram residential by-law limit;
- (viii) the container should have a round, smooth and tapered body-design to promote easy dumping and facilitate the dislodging of frozen contents in the winter and should be free of sharp edges or catch points that could cause abrasion to collection workers and residents;
- (ix) the container should be sturdy and flexible and be able to withstand the banging of the container against the hopper and weather elements; and
- (x) weight of the container and lid should not exceed 3.0 kilograms and should stand upright when empty.

The preferred characteristics of a kitchen container would be as follows:

- (i) 7 to 10 litres in capacity;
- (ii) suitable to sit on a kitchen countertop and have the ability to be attached to a kitchen cabinet door;
- (iii) able to hold a grocery bag or bag of similar size; and
- (iv) have a hinged lid that is easily opened by resident using one hand.

Purchasing and Materials Management has recommended that a Request for Proposals (RFP) would be the preferred purchasing mechanism for the production and distribution of organic kitchen and curbside collection containers. We have prepared an RFP and we recommend that it be issued as soon as possible for the 70,000 containers required for the first phase of the

program. The RFP must be released in October in order for plastic manufacturers to respond and ensure that the production and timeline needs of Toronto can be met.

In order to ensure that the containers are ready for the first phase of the program, it is recommended that the Commissioner of Works and Emergency Services be allowed to evaluate the proposals, negotiate with the preferred proponent(s), and report to Bid Committee recommending contract award, in conjunction with the Purchasing and Materials Management Division.

It is estimated that the cost of the kitchen and curbside organic containers including distribution, insert of educational material and applicable taxes will be approximately \$11 million, which equates to \$22.00 per household. These costs have been included in the attached Financial Summary.

Benefiting Assessment:

As directed by Council, we have investigated whether benefiting assessment could be used to fund the containers. It was mentioned in the Task Force Report that benefiting assessment was used in the City of Halifax to pay for both the in-home and outdoor organics containers. Benefiting assessment is defined as a one-time bill (e.g., the cost of the containers) that is distinct from the cost of other municipal services and appears on a resident's municipal realty tax assessment. We have pursued this matter further with the City of Halifax and they have advised us that benefiting assessment was not used to fund the procurement of organic collection carts, as it was found that this type of tax assessment would only add another layer of complexity to municipal property taxes. The procurement of organics collection carts were funded through an increase in the City's budget.

We have discussed the possibility of benefiting assessment to fund procurement of the organics containers with our Legal and Finance Divisions. Legal has advised us that there are no legal barriers to applying a one-time charge to households or properties as a separate billing. However, Finance has advised that this approach would pose greater administrative complexities on the tax bill. Finance also indicated that until a comprehensive plan is established that would identify what households and/or properties would be required to pay and under what basis, it would be preferable that the cost for this item not be pursued through a one-time charge on the tax bill.

Transfer:

Modifications to our transfer stations and additional equipment will be required for the three-stream system. It is estimated that the total capital cost, including contingency allocations, to retrofit our transfer station infrastructure to accommodate the three-stream system will be approximately \$3.3 million. These capital costs along with the transfer operating costs for the three-stream system have been included in the appended Financial Summary.

Processing of Recyclables:

Under the three-stream system, Grey and Blue Box recyclable materials will be collected at the curb as a single-stream. This new single-stream material will require new approaches to processing. In order to process this material, processing capacity for 155,000 tonnes will be

required. A single stream materials recovery facility (MRF), which will have the capacity to process 100,000 tonnes per year, will be located at our current Dufferin MRF site.

An expanded Dufferin facility will be capable of effectively sorting and baling material, which will allow the City to sell material directly to the end markets. Concerns about cross contamination due to comingling of fibre and containers have been expressed by the paper industry. We are meeting with the paper industry to address their concerns. Experience at single stream MRFs has indicated that comingled fibre and containers can be properly processed to ensure product quality.

Scheduling estimates suggest that the Dufferin single stream MRF expansion will be completed by June 2003. According to the implementation schedule, collection of single-stream material will begin in July 2002. Therefore, there will be a gap of one year during which time the City will not have its own single-stream processing capacity. To ensure that the collected material is processed during this one-year period, we are investigating the possibility of having the single-stream material from the Etobicoke area processed at an existing single-stream facility such as Guelph or Northumberland County. The cost for this collection is included in the appended Financial Summary.

Based on the implementation schedule for the three-stream system, an additional 55,000 tonnes of processing capacity, over and above the expanded Dufferin MRF, will be required by October 2004. We are investigating the possibility of constructing a second MRF, possibly in the portlands, or contracting out the processing of this material to private sector MRFs. We will report further to the Works Committee on this matter.

The capital cost of constructing a single stream expansion at the Dufferin MRF is estimated to be approximately \$10 million. All costs and revenues including cost projections for the interim processing are included in the appended Financial Summary.

Processing of Source Separated Organics:

The City is currently constructing a small-scale anaerobic digestion facility at the Dufferin Transfer Station. This facility is designed to process 25,000 tonnes per year of source separated organics (SSO). The facility will be operational prior to implementation of the three-stream program and will have the capacity to handle the SSO until February 2004. The annual operating and capital costs of this facility have been included in the appended Financial Summary.

As SSO collection is provided to more households, additional capacity will be required. Ultimately, an additional 75,000 tonnes of capacity will be required, bringing the total capacity to 100,000 tonnes. To obtain the capacity required beyond February 2004, the small-scale Dufferin facility could be expanded, a new facility such as an anaerobic digestion facility in the portlands could be developed (currently being evaluated with the assistance of a grant from FCM), or we could utilize existing private sector capacity such as the CCI plant in Newmarket.

It is our expectation that the small-scale Dufferin facility will operate successfully; however, we feel it would be prudent to evaluate its performance for several months before considering

expanding the facility. We will report further to the Works Committee on the longer-term SSO processing options.

Communications:

A comprehensive communications program will be required to implement the three-stream system, particularly because of the change in behaviour required as a result of introducing source separated organics collection. The communications program includes such initiatives as advertising in newspapers, on litter bins, transit shelters and garbage trucks; newsletters, information cards, displays, mobile signs, posters, videos, media relations, community outreach through Waste Watcher volunteers and staff, and an increase in our customer service representatives. The total cost for the communications program is projected to be approximately \$600,000.00 in 2002, \$1.2 million in 2003, \$1 million in 2004, \$1.1 million in 2005 and approximately \$1.24 million every year thereafter to maintain the program. The promotional costs have been included in the appended Financial Summary.

Apartments:

In order to meet the diversion goals set out by Task Force 2010, we are recommending that staff continue to add more apartments to the recycling program so that all apartments currently receiving City garbage collection are brought on stream by 2004. Toronto's new residential solid waste management by-law, which makes recycling mandatory for all residential locations receiving garbage collection, will assist the Department in getting buildings on-line. In the year 2000, 21,731 tonnes of recyclables from apartments were diverted from landfill. It is projected that an additional 10,000 tonnes can be recovered from apartments by 2006, as summarized in the table below:

Year	2000	2001	2002	2003	2004	2005	2006
Total complexes served	3,500	3,620	4,660	5,100	5,100	5,100	5,100
Unserved complexes	1,500	1,405	415	0	0	0	0
Total complexes	5,000	5,025	5,075	5,100	5,100	5,100	5,100
Tonnes of recyclables	21,731	22,511	24,098	27,322	30,546	31,731	31,731

In order to meet the targets in the above table, it will be necessary to add two to three apartment buildings to our recycling program every day from September 2001 to December 2003. To sustain and support implementation of recycling programs in those apartment buildings not currently participating in the City's recycling program, the complement of staff will need to be increased. However, it is anticipated that the net savings that will occur from diverting this waste instead of disposing of it will offset any additional staff costs.

The separate collection of organics from apartments provides a significant challenge. Previous pilots in Toronto and elsewhere, and focus groups conducted by this Department have shown that apartment dwellers and property manager/owners have some concerns about separate food waste collection. Their main concerns are odours and infestation. Other barriers include lack of storage space, inconvenience and lack of financial incentives to divert waste. Diversion in the pilot programs ranged from five to 20 kilograms/unit/year.

Currently, Solid Waste Management Services is undertaking a pilot project in two City-owned multi-residential complexes testing the impact of the Tri-sorter chute system on recycling rates. There will be an organic component to the project in one of the buildings which will provide us with data on the potential of chute systems for source separated organics in Toronto.

Additionally, we plan to undertake another pilot project as soon as possible to test a different type of system for source separated organics collection from multi-family dwellings; the Molok system. Molok is a deep collection system in which two thirds of the collection container is underground. The design of the containers facilitates keeping the organic materials cool and odour free. Collection frequency is also reduced.

Results from the pilot projects will assist us in mapping out implementation plans and determining diversion potential for organics from multi-residential buildings with more certainty.

Leaf and Yard Waste Composting Site Search:

Leaf and yard waste will continue to be collected separately once the three-stream system is implemented. All of the 60,000 tonnes of leaf and yard waste material that is collected annually from Toronto residents is presently composted at the Avondale Composting facility located adjacent to the Keele Valley Landfill Site. Avondale's Provisional Certificate of Approval to operate the site will expire one year after the Keele Valley landfill closes on December 31, 2002. The purpose of the one-year extension for the composting site is to allow sufficient time to compost the material that will be collected in 2002. Therefore, a new site will be required to accept leaf and yard waste collected in 2003.

To replace the composting operation at Avondale, approximately 80 to 100 acres of land is required. We have begun a compost site search to replace Avondale and are examining properties located in the City and outside of its borders, private sector composting operations and potential opportunities with neighbouring Regions. Communities surrounding sites that are ultimately being considered for composting operations will be notified.

Given the size requirement of 80 to 100 acres to replace the Avondale Composting Site, we have been unable to identify a location in the City that could be used as a composting site for all of Toronto's leaf and yard waste. However, we have identified two sites that could potentially be used to compost a portion of the City's leaf and yard waste. Both are previous composting sites, one that was operated by the former City of Scarborough, the other by Etobicoke. The Scarborough site is located on Morningside Avenue just south of the 401 and the Etobicoke site is located near Centennial Park Boulevard and Rathburn Road. It is estimated that the Scarborough site could accept approximately 12,000 tonnes of leaves or 10,500 tonnes of leaves and brush annually. The Etobicoke site could accept approximately 10,000 tonnes of leaves or 8,000 tonnes of leaves and brush annually. Both of these sites have Provisional Certificates of Approval for compost operations. A Certificate of Approval Amendment would be required for the Scarborough site to increase the daily amount of material that could be accepted. Compost sites in these locations would permit collection trucks in the vicinity to deliver leaf and yard waste directly to the sites, which would reduce our haulage costs. There will be no source separated organics accepted at these sites and grass and plastic bags are no longer accepted in our leaf and yard waste program.

Another site that was considered is the former Toronto Parks Department composting facility in the portlands; however, City Planning has informed us that there are several harbourfront development plans for this area and therefore the site cannot be used for a composting operation. A few other sites within the City are under review by Planning, however, it is doubtful that a suitable site will be identified due to current or future land use requirements. At this time, it would appear that adequate capacity to compost all our leaf and yard waste will not be available within the City even if a combination of sites were considered.

We are also considering the City-owned Brock North landfill property in the Region of Durham as a potential location for a composting site to replace Avondale.

We have contacted the surrounding regions of Toronto to determine how their leaf and yard waste is being processed and to discuss their future plans for leaf and yard waste processing. The Region of Peel, Durham, York and Halton currently contract out the processing of their leaf and yard waste material and are not planning on establishing their own compost site in the future.

Contracting out the composting of leaf and yard waste is also an option. There are only two private composting operators, that we are aware of, that have available capacity located within a reasonable distance of Toronto; however, neither have adequate capacity to handle all our leaf and yard waste.

It is recommended that the aforementioned former composting sites in the areas of Etobicoke and Scarborough be re-opened in order to compost a portion of the City's leaf and yard waste commencing in 2003. The sites will be for composting leaf and yard waste only and under no circumstances will other organic material such as food waste be accepted. For the remaining leaf and yard waste composting capacity required, we will be further investigating the Brock North site and private sector options.

New and Emerging Technologies:

Implementation of the three-stream system will enable us to achieve an overall diversion rate of 42 percent by 2006. In order to divert the additional tonnage required to achieve the Waste Diversion Task Force 2010 diversion target of 60 percent by 2006, we plan to employ new and emerging technologies. Staff are currently researching and evaluating technologies for their applicability in the City of Toronto. For example, we are evaluating mixed waste processing; however, at the present time this technology is unproven as it is unlikely that the processed organic product would meet Provincial finished compost regulations. We feel that the necessary new and emerging technologies will evolve in the future and enable us to meet our waste diversion targets. It is recommended that the request for funding for new and emerging technologies be considered as part of the 2002 Capital and Operating Budget process.

Weekly Recycling Collection:

The Task Force report recommends weekly collection of organics and collection of recyclables and residual garbage every two weeks. The costs outlined in this report for Option 1 are predicated on this collection frequency. The Policy and Finance Committee requested that we report on the cost of the three-stream system if the recyclables were collected weekly instead of every two weeks. Once the program was fully implemented, there would be an additional

\$3 million in annual operating costs to provide weekly recycling service. There would be no impact on capital expenditures.

Implementation of the Three-Stream System as a Pilot Program:

Council has requested the Commissioner of Works and Emergency Services to report on the feasibility of implementing the three-stream program on an experimental basis in a small area of the City.

Should Council wish to implement the program on a smaller scale before committing to go city-wide, we recommend that the program be implemented in the entire Etobicoke Community. Collection routing efficiencies could be achieved by operating the program in one area as opposed to different wards in the City. In addition, three-stream collection would be approximately \$150,000.00 cheaper than status quo based on the results of a recent tender for collection in the Etobicoke Community, which is the subject of another report on the Works Committee agenda.

The financial implications of the pilot program would be comparable to the Phase One estimates of Option 1, as described in the appended Financial Summary. If Council chooses to just implement the pilot program, it is recommended that the pilot commences in July 2002 and operates for a period of one year. Staff would report to Works Committee on the results of the pilot in the Fall of 2003. Expansion of the program could then be considered in the 2004 budget approvals process and pending approval, phase-in of the program would commence in 2005.

Commercial Solid Waste:

Diversion of waste from the commercial sector serviced by the City is necessary to meet our waste diversion goals. Implementation of a full cost recovery system for commercial solid waste collection including separate organics and recyclables collection is expected to take place in the Fall of 2002. Consultation is currently underway with BIAs and trade associations and consultation with businesses will commence later this year. The Fall 2002 implementation date will allow time to receive input from the business community on how to implement a workable system for cost recovery and organics collection and to implement the program. We will be submitting a detailed report to the November meeting of the Works Committee on this issue. Based on preliminary estimates and a decision by Council at its December 2001 meeting, switching to full cost recovery will save the City \$2 to \$3 million in 2002, \$5 to \$8 million in 2003 and \$7 to \$11 million in 2004 and every year thereafter, based on current costs.

Agencies, Boards, Commissions and Departments:

In order to facilitate the Task Force recommendation that every Agency, Board, Commission and Department (ABC&D) submit, by January 1, 2002, a plan to achieve Council's waste diversion targets, we have prepared a draft waste diversion report template for their use. The template has been designed in a simple format so that the ABC&Ds can prepare their waste diversion reports fairly expeditiously. Each ABC&D will be given the option of completing a basic waste audit (determine what are the major waste materials using clear garbage bags for approximately one week) or a more detailed waste audit (separation of all waste materials to determine actual weights and composition percentages). Instructions on how to complete a waste audit will be included with the waste diversion report template package.

The draft template has been sent to Facilities and Real Estate for their review and feedback. It is expected that the final waste diversion report template will be sent out to all ABC&Ds in late September.

A comprehensive report on collection policies and user charges for ABC&Ds and schools is being prepared and will be submitted to the November meeting of the Works Committee. Based on preliminary estimates and a decision by Council at its December meeting, if a cost recovery system for waste management services provided to ABC&Ds and schools was approved, there would be a savings to Solid Waste Management Services of approximately \$3 to \$4 million in 2002, and \$6 to \$9 million in 2003 and each year thereafter, based on current costs.

Other Initiatives:

Council, when dealing with the Waste Diversion Task Force 2010 Report, requested that staff report in September 2001 on the following:

- (a) a phone campaign by volunteer Waste Watchers to contact everyone who has a backyard composter and offer tips, as well as asking about their interest in vermi-composting;
- (b) putting a compost display at Nathan Phillips Square to manage organic kitchen residuals generated at City Hall's Café on the Square;
- (c) putting one compost display in each Ward or community garden;
- (d) the establishment of a worm composter at City Hall, such report to be submitted by the appropriate staff to the appropriate Committee; and
- (e) staff give priority to exploring the "No Cost" proposal by Greentec to collect all used computer printer cartridges within the City boundaries.

Backyard Composting Phone Survey by Waste Watcher Volunteers:

The mandate behind the Waste Watcher Volunteer program is to assist the Toronto community at the grassroots level by helping put in place projects that are supported by programs operated by Works and Emergency Services. The work that has been traditionally done by the volunteers is active community outreach work such as assisting with a school's composting project, being part of a local green team, or helping out at an Environment Day.

There are approximately 160,000 residents who have backyard composters that were distributed by the City. It would likely take approximately 1,000 volunteers putting in their 40 hours of volunteer time to contact all these homes and discuss composting and provide tips. This would obviously take away from community outreach activities for a very long period.

We also have some concerns about our volunteers having to make cold calls to residents, some who may not want to be bothered. One system that may be preferable to both residents and volunteers is a mail-out to residents who have a backyard composter, that informs them we are available to discuss any backyard composting problems that they are experiencing. Interested residents would then call a specific number, leaving a message with their telephone number and when a convenient time would be for a return call. A Waste Watcher volunteer would then call them back and provide tips to solve their composting problem. We suggest that we try this out in a small area first to assess the response and ensure that the Waste Watcher volunteers are not overwhelmed and community outreach activities suffer.

Vermi-Composter and Display at City Hall:

Discussions were held with the Facilities and Real Estate Division of Corporate Services regarding the worm bin located in the loading dock area of Metro Hall and the feasibility of siting a vermi-composting unit at City Hall.

The Metro Hall worm bin was a pilot system when it was installed six years ago. It was designed to handle the food preparation waste from the cafeteria and the food and paper towelling waste from all non-public floors. To date, operation of the unit has been costly and it is diverting only a portion of the food waste generated in the building. Even if the unit was operating at its optimum level, operation is labour intensive and maintenance of the equipment can be costly. The Real Estate Division feels that it would be difficult to site a vermi-composting unit at City Hall particularly because the loading dock is already over-used. They also feel that there are cheaper composting alternatives than purchasing and operating a vermi-composting unit at City Hall and are investigating collecting food waste separately and shipping the material to a composting facility.

With respect to putting a compost display at Nathan Phillips Square to manage organic kitchen residuals generated at City Hall's Café on the Square, it is felt that the Square is not really conducive to setting up an active composting unit for food waste. Space is limited on the Square and it is often very busy with the public attending various events. Odours from the composting could also be a problem. Collecting food waste separately from City Hall, including the Café on the Square, and shipping it to a composting facility may be more appropriate.

Demonstration Sites in Each Ward or Community Garden:

Currently 14 of the 44 wards have official City composting demonstration sites located in high traffic areas such as parks, schools, colleges and golf courses. Vandalism is a problem at some of the sites and ongoing repairs have been needed. Some former demonstration sites had to be removed due to ongoing problems with vandalism.

The Department could add another 30 demonstration sites so there would be one in each ward. If this is desired, the cost would be approximately \$100,000.00 in up-front costs (compost units, signs/displays, site preparation, etc.) and approximately \$70,000.00 annually for a person and supplies to maintain the sites. If the program was expanded to community gardens as well, the overall costs would obviously increase.

Recycling of Cartridges:

A program to recycle the City's used printer cartridges is already in place. On June 19, 2001, Purchasing and Materials Management closed a Request for Quotations to sell the City's used toner cartridges. Five companies submitted bids and the successful bidder was A & M Computer Supplies. A & M Computer Supplies now holds the contract for removal of empty fax and laser jet toner cartridges from July 1, 2001 until June 30, 2002. The City is compensated at varying levels dependent upon the type of cartridge that is collected.

Therefore, the City is not in a position at this point in time to entertain offers from other suppliers to collect empty fax and laser jet toner cartridges since this service was the subject of a formal request for quotation process. We have advised Greentec that they should register with Purchasing and Materials Management so that they will receive any future request for quotations issued for this service.

Take It Back Program:

The Toronto Environmental Alliance (TEA), in partnership with Earth Day Canada (EDC), Weaver Tanner Miller and the City of Toronto will create a Catalogue of retail stores which will voluntarily take back used items from Torontonians. This program will be modeled after the successful "Take It Back Program" in the Ottawa-Carlton Region.

The first phase of this project has begun and includes the following activities:

- (i) development of a database tool for tracking participating retailers;
- (ii) attracting and training volunteers for surveying and recruiting retailers;
- (iii) an inventory of existing retailer take-back programs in Toronto;
- (iv) development a marketing and communications plan; and
- (v) development of a recruitment package and strategy for "Anchor Chains"

The project partners plan to present the results of their first phase activities and their recommendations for the future implementation of the project to a sub-committee of the Works Committee in September.

Conclusion:

Implementation of the three-stream system will result in an overall diversion rate of 42 percent by the year 2006 and still provides the opportunity to achieve 60 percent diversion as new and emerging technologies evolve. Staff will be investigating new and emerging technologies and it is expected that decisions will need to be made in mid 2002 in order to have new and emerging technologies in place to meet the 2006 goal. Implementation of the three-stream system will also result in environmental benefits such as a reduction in greenhouse gas emissions and will enhance the solid waste collection services that residents receive.

Contact Names:

Mr. Geoff Rathbone, Director, Policy and Planning, Solid Waste Management Services, Works and Emergency Services, Metro Hall, 19th Floor, Telephone: (416) 392-4715, Fax: (416) 392-4754, E-mail: grathbo@city.toronto.on.ca,

Mr. Richard Butts, Director, Solid Waste Management Services, Works and Emergency Services, Metro Hall, 19th Floor, Telephone: (416) 392-8286, Fax: (416) 392-4754, E-mail: rbutts@city.toronto.on.ca

Financial Summary - Diversion Task Force 2010

Operating Expenditures Before Corporate Overhead and Capital Financing (\$Millions)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Status Quo with All to Landfill	Net Operating Expenditures	\$87.1	\$95.0	\$144.5	\$150.7	\$156.4	\$162.2	\$168.3	\$174.5	\$180.7	\$187.1
	Diversion %	27%	28%	29%	29%	30%	30%	30%	30%	30%	30%
Three-Stream System	Net Operating Expenditures	\$87.1	\$95.4	\$144.9	\$152.8	\$158.7	\$164.5	\$171.2	\$178.0	\$184.1	\$190.2
	Diversion %	27%	29%	33%	37%	40%	42%	42%	42%	42%	42%
Three-Stream System with New and Emerging Technology	Net Operating Expenditures	\$87.1	\$96.8	\$146.7	\$151.5	\$157.2	\$164.0	\$170.8	\$177.6	\$183.6	\$189.7
	Diversion %	27%	30%	35%	37%	43%	61%	61%	61%	61%	61%
Capital Expenditures (\$Millions)											
		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Status Quo with All to Landfill	Capital Expenditures	\$21.1	\$28.5	\$16.1	\$17.2	\$10.2	\$13.7	\$5.9	\$6.0	\$5.9	\$5.9
	Capital Financing*	\$0.6	\$3.2	\$5.8	\$7.0	\$7.3	\$7.6	\$7.8	\$8.0	\$8.2	\$8.2
Three-Stream System	Capital Expenditures	\$21.1	\$31.0	\$42.3	\$41.3	\$26.5	\$13.9	\$5.9	\$6.0	\$5.9	\$5.9
	Capital Financing*	\$0.6	\$3.3	\$7.1	\$12.2	\$15.8	\$18.0	\$18.2	\$18.4	\$18.6	\$18.6
Three-Stream System with New and Emerging Technology	Capital Expenditures	\$21.1	\$44.8	\$37.3	\$43.4	\$70.7	\$35.9	\$5.9	\$6.0	\$5.9	\$5.9
	Capital Financing*	\$0.6	\$3.8	\$9.0	\$13.6	\$19.0	\$27.0	\$29.7	\$30.0	\$30.2	\$30.2
Total Operating Expenditures (\$Millions)											
		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Status Quo with All to Landfill	Net Operating Expenditures	\$87.7	\$98.2	\$150.3	\$157.7	\$163.7	\$169.8	\$176.1	\$182.5	\$188.9	\$195.3
	Diversion %	27%	28%	29%	29%	30%	30%	30%	30%	30%	30%
Three-Stream System	Net Operating Expenditures	\$87.7	\$98.7	\$152.0	\$165.0	\$174.5	\$182.4	\$189.4	\$196.4	\$202.7	\$208.8

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
	Diversion %	27%	29%	33%	37%	40%	42%	42%	42%	42%	42%
Three-Stream System with New and Emerging Technology	Net Operating Expenditures	\$87.7	\$100.6	\$155.7	\$165.0	\$176.2	\$191.0	\$200.6	\$207.6	\$213.8	\$219.9
	Diversion %	27%	30%	35%	37%	43%	61%	61%	61%	61%	61%
* Capital Financing for new capital and incremental vehicle replacement over Status Quo other than Perpetual Care Project which is self-funded from the Perpetual Care Reserve Fund.											

(Report dated September 7, 2001, addressed to
the Works Committee and the Budget Advisory Committee
from the Commissioner of Works and Emergency Services, entitled
“Potential Savings and Revenue to Solid Waste Management Services Budget”)

Purpose:

To advise the Works Committee and the Budget Advisory Committee of potential savings and additional sources of revenue that could have an impact on Solid Waste Management Services Operating Budget over the next six years.

Financial Implications and Impact Statement:

The appended tables summarize the potential budget impact.

Recommendation:

It is recommended that this report be received for information.

Background:

With respect to the report on your agenda, entitled “Implementation Plan for a Three-Stream System and Other Recommendations of the Waste Diversion Task Force 2010”, several Members of Council have requested that they be advised of the potential savings and additional sources of revenue that could have an impact on Solid Waste Management Services Budget over the next six years.

Comments:

Please see the attached tables which summarize the estimated potential savings and additional sources of revenue which could impact Solid Waste Management Services Operating Budget over the next six years.

Conclusion:

The estimated potential savings and revenues summarized in this report have not been included in the Financial Summary of the Three-Stream System Implementation Plan report and would impact Solid Waste Management Services Operating Budget if they materialize in future years.

Contact Names:

Mr. Geoff Rathbone, Director, Policy and Planning, Solid Waste Management Services, Works and Emergency Services, 19th Floor, Metro Hall, Tel: (416) 302-4715, Fax: (416) 392-4754, E-mail: grathbo@city.toronto.on.ca

Mr. Richard Butts, Director, Solid Waste Management Collection, Solid Waste Management Services, 19th Floor, Metro Hall, Tel: (416) 392-8286, Fax: (416) 392-4754, E-mail: rbutts@city.toronto.on.ca

Attachment 1

Operating Cost Savings/Revenue (\$ millions)					
	2002	2003	2004	2005	2006
Committed Savings/Revenue					
LCBO Funding	0.7	0	0	0	0
Doubtful Accounts Drawdown (\$3.0m)	0	1.0	1.0	0	0
Waste Management Reserve Drawdown (\$1.6 m)	0	0.7	0.9	0	0
Council Approved 2 Compartment Trucks	2.4 (capital only)	0	0	0	0
Total Committed	0.7	1.7	1.9	0	0
Potential Savings / Revenue					
WDO Funding	3.0 - 5.0	4.0 - 6.0	4.0 - 6.0	4.0 - 6.0	4.0 - 6.0
Commercial Rationalization	2.0 - 3.0	5.0 - 8.0	7.0 - 11.0	7.0 - 11.0	7.0 - 11.0
ABCD and School Rationalization	3.0 - 4.0	6.0 - 9.0	6.0 - 9.0	6.0 - 9.0	6.0 - 9.0
Sale of Avondale	0	0	1.6	0	0

Operating Cost Savings/Revenue (\$ millions)					
	2002	2003	2004	2005	2006
Industry Partners					
Bags	0.15	0	0	0	0
Dry Residue Processing	0.1	0.6	1.2	1.2	1.2
ICI Organics	0	0.1	0.2	0.2	0.2
Total Potential	8.2 - 12.2	15.7 - 23.7	20.0 - 29.0	18.4 - 27.4	18.4 - 27.4

Attachment 2

Waste Reserve Reconciliation (\$ millions)						
Total Operating Cost	2001	2002	2003	2004	2005	2006
Status Quo	87.1	98.2	150.3	157.7	163.7	169.8
3-Stream without New and Emerging Technology	N/A	98.7	152.0	165.0	174.5	182.4
Shortfall	-	0.5	1.7	7.3	10.8	12.6
Combined Reserve Opening Balance	-	4.6	4.8	3.1	1.0 *	1.0
Drawdown	-	- 0.5	- 1.7	- 2.1	-	-
Contribution	-	0.7	0	-	-	-
Closing Balance	-	4.8	3.1	1.0	1.0	1.0
Potential Savings Required	-	0	0	5.2	10.8	12.6
Potential Savings Estimate	-	8.2 - 12.2	15.7 - 23.7	20.0 - 29.0	18.4 - 27.4	18.4 - 27.4
* Minimum balance to allow for doubtful accounts reserve of \$1m.						

(Communication dated September 10, 2001,
addressed to the Budget Advisory Committee,
from Councillor Ron Moeser, Ward 44 Scarborough East)

It has come to my attention that Recommendation No. (6) in the report, entitled, "Implementation Plan for a Three-Stream System and Other Recommendations of the Waste Diversion Task Force 2010", which is before the Works Committee pertains to re-opening the former Scarborough composting site located on Morningside Avenue to compost a portion of the City's leaf and yard waste.

Given there have been odour problems at this location when the City of Scarborough operated this site, should Committee decide to approve this recommendation, I request that approval of the recommendation be subject to the following:

- (1) that the Morningside Avenue composting site only be used for composting leaf and yard waste including Christmas trees and under no circumstances will other organic material, such as, food waste and grass clippings be accepted at the site; and
- (2) that there be a review of the Morningside Avenue composting site operation to ensure that there are no environmental and odour problems that would impact on the surrounding communities six months after start up and a report to Works Committee and Scarborough Community Council for information.

(Document dated September 5, 2001, entitled "Briefing Notes
– Waste Diversion Task Force 2010 Initiative
– Financial Review", from the Acting Chief Administrative
Officer and the Acting Chief Financial Officer)

Issue/Background:

- (1) on January 29, 2001, the City of Toronto created the Waste Diversion Task Force 2010 with the purpose of developing a solution for meeting the target of a 30 percent diversion of household waste by 2003, 60 percent by 2006, and 100 percent by 2010;
- (2) in June 2001, the Works Committee and Council adopted in principle the recommendations contained in the Task Force Report, as amended, and amongst other things, requested the Commissioner of Works, in consultation with the Chief Financial Officer, to report back in respect of the implementation plan;
- (3) since June 2001, a staff working group has been developing the capital, operating and logistic requirements in keeping with the principles contained in the Task Force Report; and
- (4) Finance staff were requested to review the results of the work, including the financial implications and the underlying assumptions.

Key Point(s):

- (1) the City is currently achieving a disposal diversion rate of 27 percent for household waste, and in the absence of any structural changes to the City's current collection and recycling systems, it is projected that the diversion rate would reach a ceiling of 30 percent by 2005 and beyond (status quo situation);
- (2) in keeping with the principles established by the Task Force, Works staff have developed two alternatives to achieve higher rates of diversion;
- (3) the Three-Stream System involves the implementation of a three-stream source separated organics and co-mingled recyclables collection and recycling system;
- (4) Works staff project that such a system will achieve a household diversion rate of 42 percent by 2006 using existing and proven technologies;
- (5) this option would entail the replacement of existing collection vehicles with co-collection vehicles, modifications to the Dufferin MRF to accept co-mingled recyclables, expanding the capacity of anaerobic digestion to deal with source separated organics, and the provision of household organic collection containers; and
- (6) to achieve a diversion rate of 60 percent by 2006, the Three-Stream System will have to be supplemented with new and emerging technology.

Capital Requirements:

- (1) the estimated capital expenditure for Status Quo, the Three-Stream System and Three-Stream System with new and emerging technology is shown below:

(\$ millions)

	2001	2002	2003	2004	2005	2006	2001-2006
Status Quo							
Avondale Replacement	0.2	13.3	0.3				13.8
Commissioners MRF SOGR		1.1	6.3	0.8			8.2
Replacement Collection Vehicles		5.5	1.4	9.9	3.7	7.1	27.6
Other	20.9	8.6	8.1	6.5	6.5	6.6	57.2
Total	21.1	28.5	16.1	17.2	10.2	13.7	106.7

Option 1 – to get to 42 Percent							
Base Requirements:							
Avondale Replacement	0.2	13.3	0.3				13.8
Commissioners MRF SOGR		1.1	3.2				4.2
Other	20.9	8.6	8.1	6.5	6.5	6.6	57.2
New Initiatives:							
Containers	0.0	1.5	2.4	4.6	2.4		11.0
Dufferin MRF		5.1	5.1				10.2
SSO			5.3	14.8	6.9		27.0
New Collection Vehicles			16.1	15.3	10.8	7.2	49.4
Transfer	-	1.4	1.9	-	-	-	3.3
Total	21.1	31.0	42.3	41.3	26.5	13.9	176.2
Incremental over Base	-	2.6	26.3	24.1	16.4	0.1	69.5

Option 2 – to get to 60 Percent							
Base Requirements:							
Avondale Replacement	0.2	13.3	0.3				13.8
Commissioners MRF SOGR		1.1	3.2				4.2
Other	20.9	8.6	8.1	6.5	6.5	6.6	57.2
New Initiatives							
Containers	-	4.0	2.4	2.2	2.4		11.0
Dufferin MRF		5.1	5.1				10.2
SSO			5.3	14.8	6.9		27.0
New Collection Vehicles			16.1	15.3	10.8	7.2	49.4
Emerging Technologies (200,000 tpy @\$400/t)				10.8	44.2	22.1	77.0
Transfer	-	1.4	1.9	-	-	-	3.3
Total	21.1	33.5	42.3	49.7	70.7	35.9	253.2
Incremental over Base	-	5.0	26.2	32.5	60.5	22.2	146.5
Incremental over Option 1	-	2.5	- 0.0	8.3	44.1	22.1	77.0

- (2) the 2001 to 2006 status quo capital requirement is estimated at \$107 million as represented in the 2001 approved Capital Budget and 2002 to 2005 budget received by Council, with a projection to 2006, with a further amount of \$8.2 million in the base for state-of-good repair of the Commissioner's Street MRF; the assumption was that this expenditure would be required at that facility in the absence of any significant structural change to the existing collection and recycling system;

- (3) the Three-Stream System, as detailed by Works staff will require an additional \$69.5 million in capital expenditures to achieve the projected 42 percent diversion rate by 2006; and
- (4) the Three-Stream System with new and emerging technology will require a further \$77 million in capital expenditures to achieve a projected 61 percent diversion rate; this estimate is highly variable, depending on the technology actually chosen.

Operating and Capital Financing Implications:

The table below provides a comparison of the net operating, capital financing and total operating costs of the status quo situation and that of the two alternatives:

(\$Millions)

	2001	2002	2003	2004	2005	2006
	\$	\$	\$	\$	\$	\$

Status Quo with All to Landfill:

Operating Expenditures	87.1	95.0	144.5	150.7	156.4	162.2
Capital Financing	0.6	3.2	5.8	7.0	7.3	7.6
Total Operating Expenditures	87.7	98.2	150.3	157.7	163.7	169.8

Option 1 - Task Force 2010 without Mixed Waste:

Net Operating Expenditures		94.5	144.9	152.8	158.7	164.5
Capital Financing		3.3	7.1	12.2	15.8	18.0
Total Operating Expenditures		97.8	152.0	165.0	174.5	182.5

Option 2 - Task Force 2010 with Mixed Waste

Net Operating Expenditures		96.8	146.7	151.5	157.2	164.0
Capital Financing		3.8	9.0	13.6	19.0	27.0
Total Operating Expenditures		100.6	155.7	165.0	176.2	191.0

Option 1 Over Base	0.0	(0.4)	1.7	7.3	10.8	12.7
Option 2 Over Base	0.0	2.4	5.4	7.3	12.5	21.2

- (1) the table below provides a comparison of the incremental operating and capital financing cash flows of the status quo situation and that of the two alternatives (excluding corporate charges);

(\$Millions)

2002	2003	2004	2005	2006	2001-2006
\$	\$	\$	\$	\$	\$

Status Quo with All to Landfill:

Incremental Net Operating	7.9	49.5	6.2	5.7	5.8	75.1
Incremental Capital Financing	2.6	2.6	1.2	0.3	0.3	7.0
Budgetary Implication	10.5	52.1	7.4	6.0	6.1	82.1

Option 1 - Task Force 2010 without Mixed Waste:

Incremental Net Operating	7.4	50.4	7.9	5.8	5.8	77.3
Incremental Capital Financing	2.7	3.8	5.1	3.6	2.2	17.4
Budgetary Implication	10.1	54.2	13.0	9.5	7.9	94.7

Option 2 - Task Force 2010 with Mixed Waste

Incremental Net Operating	9.7	49.9	4.7	5.8	6.8	76.9
Incremental Capital Financing	3.2	5.2	4.6	5.4	8.0	26.4
Budgetary Implication	12.9	55.1	9.3	11.2	14.8	103.3

- (2) the most significant contributor to the increased operating budget impacts is related to the capital financing charges necessary for the new capital projects; outside of capital financing, the ongoing operational impacts are not significant between alternatives;
- (3) the total incremental operating impact for the three-stream system is \$12.7 million in 2006 over 2001 (the total debt charge impact will extend to 2016);
- (4) the three-stream system with new and emerging technology will require an additional \$8.6 million, for a total incremental impact of \$21.2 million over 2001 to 2006;
- (5) no funding source has been identified for these additional budget pressures; and
- (6) in respect of budget pressures, irrespective of the course followed, the City is facing a significant budget pressure in 2003 of up to \$52 to \$54 million, which reflects the closure of the Keele Valley landfill in 2002.

Potential Financial and/or Operational Risks:

- (1) as with any major undertaking of this magnitude, there will always be a potential for unanticipated financial and operational impacts:
 - (a) cost escalation beyond that assumed using current inflation factors could occur (in both capital as well as operating requirements);
 - (b) there could be difficulties in implementing new technologies or in scaling-up pilot stage processes to full-scale operations (i.e., anaerobic digestion);
 - (c) there could be volatility in market prices and product demand for materials such as recyclables (i.e., grey-box materials);

- (d) the expectation of public participation in the program may vary from that anticipated; and
 - (e) there is some uncertainty regarding the availability and/or large scale applicability of new and emerging technology to accommodate the desired levels of recovery from mixed wastes.
- (2) the phased-approach as recommended by the staff working group will allow for modification to the capital and/or logistical plans as dictated by emerging experience, public participation and waste trends, and should minimize the financial risk to the City.

Prepared for: Works Committee and Budget Advisory Committee

Contact for further information:

Mr. Joe Farag, Director, Development, Financial Policy and Research, Tel: 416-392-8108.

Mr. Bob Mavin, Director, Budget Services, Tel: 416-392-8095.

Mr. Adir Gupta, Manager, Financial Policy, Tel: 416-392-8071.

Date: September 5, 2001.

The Policy and Finance Committee also submits the following communication (September 10, 2001) from the City Clerk:

Recommendations:

The Works Committee unanimously:

- (1) endorses the recommendations of the Budget Advisory Committee at its meeting on September 10, 2001, with respect to the report dated August 29, 2001, from the Commissioner of Works and Emergency Services, subject to the following:
 - (a) amending Recommendation No. (2) contained in the report to provide authority for the issuance of a Request for Proposals for both the organic containers and public awareness/advertising component of the three-stream system together;
 - (b) deleting the words “residual garbage” wherever they appear in the report and inserting in lieu thereof the words “residual waste resources”; and
 - (c) community consultation being undertaken prior to the reopening of the Morningside Avenue and Centennial Park sites for the composting of leaf and yard waste; and
- (2) further recommends that the public education program determine ways in which to include the engagement of community organizations and schools.

The Works Committee reports, for the information of the Policy and Finance Committee and Council, having requested the Commissioner of Works and Emergency Services to:

- (i) submit a report directly to Council, in camera, for its meeting on October 2, 2001, on:
 - (a) the type of partnerships that are possible with the private sector and the discussions to date with respect thereto; and
 - (b) an update on the discussions on collection systems with the Toronto Civic Employees' Union – CUPE Local 416;
- (ii) meet with FoodShare Toronto, the Daily Bread Food Bank, the Food Policy Council and the Food and Hunger Action Committee, and report back to the Works Committee on options to partner with these groups within each phase of the implementation;
- (iii) report to the meeting of the Works Committee scheduled to be held on November 14, 2001, on:
 - (a) an alternative and accelerated implementation plan, as well as the associated costs, that would include an earlier phase-in for the Toronto, East York and York communities; and
 - (b) source separated organic initiatives for apartment buildings within 2003; and
- (iv) further report to the Works Committee on opportunities for the implementation of the three-stream system in a specific neighbourhood where services are currently not being contracted out, for comparison with the results in the Etobicoke community, if possible.

Background:

The Works Committee at its meeting on September 10, 2001, had before it a report (August 29, 2001) from the Commissioner of Works and Emergency Services respecting the specifics and cost implications of implementing the “three-stream” system recommended by the Waste Diversion Task Force 2010; addressing the cost of achieving the 60 percent diversion target by 2006 and commenting on some of the other initiatives related to the Task Force report; and recommending that:

- (1) approval be granted to implement a three-stream system consisting of the co-collection of organics and comingled recyclables one week and organics and residual garbage the following week and the composting of organics and comingled processing of recyclables, subject to the stipulation that a phased approach to implementation be utilized to minimize the need for pre-budget approval and to allow for inclusion of long-term planning in the 2002 budget cycle;

- (2) authority be granted, including pre-budget approval, to implement Phase 1 (70,000 homes) of the three-stream system including authorization for:
 - (i) an expenditure of approximately \$1.6 million to purchase 70,000 organic kitchen and curbside collection containers;
 - (ii) issuing a Request for Proposals as soon as possible for the purchase of the 70,000 organics containers and that the Commissioner of Works and Emergency Services, in conjunction with the Purchasing and Materials Management Division, be authorized to negotiate with the preferred proponent(s) and report to the Bid Committee recommending contract award;
 - (iii) design and rollout a public education program at a cost of \$600,000 in 2002;
 - (iv) securing the transition processing capacity through a Request for Proposals process for approximately 15,000 annual tonnes of fully comingled recyclables at an additional cost of \$200,000 in 2002; and
 - (v) entering into a contract for Alternating Co-Collection of Waste, Mixed Recyclables and Source Separated Organics – Manual Curbside Collection for Etobicoke as recommended in the report entitled “Award of Contract for Tender Call No. 95-2001”;
- (3) in order to ensure that Phase 2 of the three-stream system is implemented according to the schedule in this report, approval in principle is required, subject to consideration and approval of funding in the 2002 budget process and consideration of a range of operational options to reduce costs;
- (4) authority be granted to issue a Request for Proposals for the design of an addition to the Dufferin MRF or to examine private sector options to accommodate the processing of a comingled fibre and container stream, and the Commissioner of Works and Emergency Services, in conjunction with the Purchasing and Materials Management Division, be authorized to negotiate with the preferred proponent(s) and report to the Works Committee recommending contract award;
- (5) more apartments be added to the recycling program so that all apartment dwellers, where the City currently provides collection, will have access to recycling by the end of 2003;
- (6) the former Scarborough composting site located on Morningside Avenue just south of the 401 and the former Etobicoke composting site located near Centennial Park Boulevard and Rathburn Road be reopened in order to compost a portion of the City’s leaf and yard waste commencing in 2003, and staff investigate the Brock North site and private sector options to secure the remaining capacity required; and
- (7) the request for funding for new and emerging technologies be considered as part of the 2002 Capital and Operating Budget process.

The Works Committee also had before it a report (September 7, 2001) from the Commissioner of Works and Emergency Services respecting the potential savings and additional sources of revenue that could have an impact on the Solid Waste Management Services Operating Budget over the next six years; and submitting tables summarizing the potential budget impact.

The Works Committee also had before it the following:

- (i) Briefing Note (September 5, 2001) from the Finance Department providing a financial review of the Waste Diversion Task Force 2010 initiative;
- (ii) communication (September 6, 2001) from Ms. Barbara Biederman-Bukowski, Kirkland Lake, Ontario, expressing concern with respect to a deputation by a Kirkland Lake consortium with respect to a composting proposal for the Adams Mine site;
- (iii) communication (September 7, 2001) from Congressman David E. Bonior, Member of Congress for State of Michigan, United States House of Representatives, expressing concerns about any extension of the City's contract with Republic Services' Carleton Farms Landfill in Michigan; supporting the City's efforts to address its own waste disposal needs; and stating that the City of Toronto should end its contract with Republic Services;
- (iv) communication (September 7, 2001) from Ms. Mary Beth Doyle, Ecology Center, Ann Arbor, Michigan, in support of the recommendations from the Waste Diversion Task Force, but expressing concerns about the shipment of waste to Michigan; and requesting that prior notice be given with public consultation prior to any escalation of the City's contract with Republic Services;
- (v) communication (September 10, 2001) from Councillor Ron Moeser, Ward 44 - Scarborough East, requesting that approval of the report dated August 27, 2001, from the Commissioner of Works and Emergency Services be subject to the following:
 - (a) that the Morningside Avenue composting site only be used for composting leaf and yard waste including Christmas trees, and under no circumstances will other organic material, such as food waste and grass clippings, be accepted at the site; and
 - (b) that there be a review of the Morningside Avenue composting site operation to ensure that there are no environmental and odour problems that would impact on the surrounding communities six months after start-up, and report to the Works Committee and Scarborough Community Council for information;
- (vi) communication (September 10, 2001) from Councillor David Soknacki, Ward 43 - Scarborough East, on behalf of the Seven Oaks Community Association, requesting that the Committee allow a community consultation regarding the reopening of the Morningside Yard for composting; and

- (vii) communication (September 10, 2001) from Mr. George Fowler, Past President, Seven Oaks Community Association, requesting that the residents be consulted before Toronto Council decides to reopen the composting operation at the Morningside Yard site.

The following persons appeared before the Works Committee in connection with the foregoing matter:

- Ms. Debbie Field, Executive Director, FoodShare Toronto;
- Mayor Bill Enouy, and Mr. Don Studholme, Director of Economic Development, Town of Kirkland Lake, and submitted a proposal entitled “Enviroganic 2010 Waste Diversion Partnership”;
- Mr. Ben Walker, Director of Public Affairs, Abitibi-Consolidated, and submitted a Position Paper with respect thereto;
- Mr. Gord Perks, Toronto Environmental Alliance; and
- Mr. Rod Muir, resident.

The following Councillors appeared before the Works Committee in connection with the foregoing matter:

- Councillor Douglas Holyday, Ward 3 – Etobicoke Centre;
- Councillor Ron Moeser, Ward 44 – Scarborough East; and
- Councillor David Soknacki, Ward 43 – Scarborough East.

The Policy and Finance Committee reports, for the information of Council, having also had before it the following which were forwarded to all Members of the with the September 20, 2001, agenda of the Policy and Finance Committee and copies thereof are also on file in the office of the City Clerk, City Hall:

- (i) communication (September 6, 2001) from Ms. Barbara Biederman-Bukowski, Kirkland Lake, Ontario, expressing concern with respect to a deputation by a Kirkland Lake consortium with respect to a composting proposal for the Adams Mine site;
- (ii) an article (August 31, 2001) from the Gazette written by Bill McIntryre;
- (iii) communication (September 7, 2001) from Congressman David E. Bonior, Member of Congress for State of Michigan, United States House of Representatives, expressing concerns about any extension of the City’s contract with Republic Services’ Carleton Farms Landfill in Michigan; supporting the City’s efforts to address its own waste disposal needs; and stating that the City of Toronto should end its contract with Republic Services;

- (iv) communication (September 7, 2001) from Ms. Mary Beth Doyle, Ecology Center, Ann Arbor, Michigan, in support of the recommendations from the Waste Diversion Task Force, but expressing concerns about the shipment of waste to Michigan; and requesting that prior notice be given with public consultation prior to any escalation of the City's contract with Republic Services; and
- (v) communication (September 10, 2001) from Councillor David Soknacki, Ward 43 - Scarborough East, on behalf of the Seven Oaks Community Association, requesting that the Committee allow a community consultation regarding the reopening of the Morningside Yard for composting.

Mr. Brian Cochrane, President, Toronto Civic Employees' Union, CUPE Local 416, appeared before the Policy and Finance Committee in connection with the foregoing matter.

The following Members of Council also appeared before the Policy and Finance Committee respecting the foregoing matter:

- Councillor Olivia Chow, Trinity-Spadina;
- Councillor Frank Di Giorgio, York South-Weston;
- Councillor Betty Disero, Davenport;
- Councillor Jack Layton, Broadview-Greenwood;
- Councillor David Miller, Parkdale-High Park; and
- Councillor Frances Nunziata, York South-Weston.

(City Council at its meeting on October 2, 3 and 4, 2001, had before it, during consideration of the foregoing Clause, a confidential report (October 1, 2001) from the Commissioner of Works and Emergency Services, such report to remain confidential, in its entirety, in accordance with the provisions of the Municipal Act, given that it concerns labour relations.)

(City Council also had before it, during consideration of the foregoing Clause, a communication (September 10, 2001) from Mr. Jeff Surfus, Co-ordinator, Network of Waste Activists Stopping Trash Exports (NO WASTE) submitting comments with respect to the implementation plan for a three-stream system.)