

STAFF REPORT ACTION REQUIRED

SSO Public Facility Business Plan – Recommendations of the Planning Study for Expanded Public SSO Processing Capacity

Date:	May 16, 2007
To:	Public Works and Infrastructure Committee
From:	Geoff Rathbone, Acting General Manager, Solid Waste Management Services
Wards:	All Wards. Ward 2 Etobicoke North, Ward 8 York West.
Reference Number:	p:/2007/swms/may/012PW.doc

SUMMARY

This report summarizes the results of the planning study for expanded public processing capacity for the City's source separated organic material (SSO) and recommends the construction of two SSO processing facilities, a new 55,000 tonne per year SSO processing facility at the Disco transfer station and, reconstruction of the Dufferin organics processing facility to increase its capacity to 55,000 tonne per year of SSO. This report also seeks authority to issue a Request for Proposals for contracted professional technical services to support the development of the new processing facilities.

Five City-owned properties located within the City were considered in the study. The planning study employed a rigorous decision making model to identify the preferred locations for new primary processing facilities for 110,000 tonnes per year of SSO. Financial, environmental, social and technical evaluation criteria were used to compare alternatives. Public opinion was obtained on the evaluation criteria and on the proposed facility developments at the five sites.

The planning study concludes that the preferred alternative is two new 55,000 tonne per year primary processing facilities, one located at the Disco transfer station and the other at the Dufferin Waste Management Facility. Both facilities would complete the initial physical and biological processing operations, including anaerobic digestion, required to convert SSO into compost. The remaining processing operations would be performed at a public or privately owned secondary processing facility not yet identified.

RECOMMENDATIONS

It is recommended that:

- 1. a new organics processing facility to process 55,000 tonnes of SSO using wet pretreatment operations and anaerobic digestion, be constructed at the Disco transfer station;
- 2. reconstruction of the Dufferin Organic Processing Facility to increase processing capacity to 55,000 tonnes of SSO using wet pre-treatment operations and anaerobic digestion;
- 3. staff continue to explore public and private options for secondary processing of the digester solids material to be produced by the new SSO facilities, including the possible development of a secondary processing facility at a City-owned property external to the City;
- 4. the Acting General Manager Solid Waste Management Services and the Director Purchasing and Materials Management be directed to issue a Request for Proposals (RFP) for contracted professional services to: provide contract administration services; conduct soils investigations at the Disco transfer station and Dufferin Waste Management Facility; prepare an RFP to design, build and operate the SSO processing facilities; and, provide construction supervision services, and to report the results of the RFP to the Bid Committee;
- 5. the Acting General Manager Solid Waste Management Services and the Director Purchasing and Materials Management be directed to issue a Request for Expressions of Interest (REOI) for the purposes of pre-qualifying and short-listing vendors of wet-phase pre-processing technologies for SSO, such as hydropulping, and anaerobic digestion technologies;
- 6. the Acting General Manager Solid Waste Management Services and the Director Purchasing and Materials Management be directed to issue a Request for Expressions of Interest (REOI) for the purposes of pre-qualifying and short-listing proponents to design, build and operate new SSO processing facilities employing processing technologies pre-qualified in accordance with Recommendation 5;
- 7. the Acting General Manager Solid Waste Management Services and the Director Purchasing and Materials Management be directed to issue a Request for Proposals (RFP) to proponents pre-qualified in accordance with Recommendation 6, to design, build and operate, for a term of up to 5 years, two 55,000 tonne per year SSO processing facilities, one at the Disco transfer station and one at the Dufferin Waste Management Facility;

8. Staff be directed to include additional funding requirements for the new SSO processing facilities in future capital and operation budget submissions.

Financial Impact

There are no direct financial impacts arising from this report.

Approval of Recommendation 4 contained in this report does not impose any additional financial implications at this time. Subsequent to a review of the proposals submitted in response to the RFP for contracted professional services Solid Waste Management Services will report to the Bid Committee recommending an award and the associated financial implications. Council Funding for this expenditure is contained in the Council approved 2007 Capital Budget for Solid Waste Management Services under Sub-Project CSW004-6 Additional SSO Processing Capacity.

Approval of all other recommendations contained in this report does not impose any additional financial implications at this time. Subsequent to a review of the proposals submitted in response to the RFP to develop the new SSO processing facilities, Solid Waste Management Services will report to Council recommending preferred Proponents and the associated financial implications.

The estimated capital costs for the new SSO processing facilities at the Disco transfer station and Dufferin Waste Management Facility are \$33 million and \$36 million respectively; \$69 million in total. The 2007 approved capital budget (CSW004-6) shows approved committed funding of \$23.714 million between now and 2011 and approved commitments and project estimates of \$49.750 million between now and 2012 for this project. The balance of the funds required to design and build the facilities will be included in future budget submissions.

The table below reflects the 2007 approved Capital Budget as well as forecasted capital expenditure requirements for the period 2007 - 2013.

Table 1: Forecasted Capital Expenditure by Year

2007 Approv	2007 Approved Capital Budget by Year (\$, in'000s)							
Sub- Project	2007	2008	2009	2010	2011	2012	2013	Total
CSW004-6	1,000	1,000	1,000	2,500	18,214	0	0	23,714
Fa a:1:4	Estimated Capital Expenditure by Year (\$ in '000s))			
Facility	2007	2008	2009	2010	2011	2012	2013	Total
Disco	100	5,000	12,600	14,400	3,800	0	0	36,000
Dufferin WMF	100	200	1,700	4,600	11,500	13,200	1,800	33,000
Total Both Facilities	200	5,200	14,300	19,000	15,300	13,200	1,800	69,000

DECISION HISTORY

At its meeting held on October 26, 27 and 28 2004, Council adopted Clause No. 12 of Report No. 8 of the Policy and Finance Committee, and in so doing directed that a subcommittee of the Works Committee be struck to develop and steer the SSO Business Plan for processing the remainder of Toronto's long-term SSO tonnage at a publicly owned facility or facilities, with a focus on expansion of the Dufferin organics processing facility and an acceleration of that expansion.

The above mentioned report can be found at: http://www.toronto.ca/legdocs/2004/agendas/council/cc041026/pof8rpt/cl012.pdf

The mandate of the sub-committee was not renewed after the November 2006 election.

At its meeting held on June 27, 28 and 29, 2006, Council adopted Clause No. 23(c) of Report No. 2 of the Works Committee, as amended, and in so doing:

- 1. confirmed that the public SSO processing system will have the capacity to receive and process 110,000 tonnes per year of SSO, plus any required amendment materials;
- 2. approved the following short list of SSO processing technologies:
 - mechanical bag openers and rotary drums for bag opening;
 - wet pre-processing for physical contaminant removal;
 - anaerobic digestion;
 - aerobic composting using in-vessel horizontal bays or basins with mechanical agitation and forced aeration, and, if sufficient buffer is available, enclosed static piles with forced aeration and periodic mechanical agitation for active phase aerobic composting;
 - indoor or outdoor aerobic curing and storage; and,

3. approved the following list of potentially suitable City-owned sites for consideration in the next phase of the SSO Planning Study:

in-City sites

- Disco, Dufferin and Ingram transfer station sites;
- closed Beare Road and Morningside landfill sites;
- 3301 Markham Road;
- North Toronto Treatment Plant site:

external sites

- Brock North landfill site;
- Brock South landfill site;
- Brock West landfill site; and,
- 4. authorized and directed the General Manager, Solid Waste Management Services to conduct public consultation with the municipalities, government agencies and boards and the public living in the vicinity of the sites under consideration to obtain feedback on potential impacts and mitigation measures.

The above mentioned report can be found at: http://www.toronto.ca/legdocs/2006/agendas/council/cc060627/wkscl023c.pdf

At its meeting held on September 25, 26 and 27 2006, Council amended Clause No. 5 of Report No. 6 of the Works Committee, and in so doing adopted Recommendation (2) contained in the Report (August 25, 2006) from the General Manager Solid Waste Management Services which directed that the General Manager, Solid Waste Management Services, in consultation with appropriate staff from Planning and Facilities and Real Estate Divisions, be directed to conduct a preliminary evaluation of the implications, advantages and disadvantages of expanding the study to include other appropriate public and private lands and report back with:

- 1. an assessment, in general terms (i.e. without identifying specific sites), of options for other appropriate public and private lands and a discussion of the advantages and disadvantages of expanding the study to include those lands; and
- 2. a recommendation as to whether the City should proceed with a system using only City-owned sites identified to date or expand the study to include other appropriate public and private lands.

The above mentioned report can be found at: http://www.toronto.ca/legdocs/2006/agendas/council/cc060925/wks6rpt/cl005.pdf

ISSUE BACKGROUND

Maintaining and expanding the SSO diversion programs is a key component of the City's plan to achieve its diversion goals. Existing SSO programs generate approximately 110,000 tonnes per year. Diversion program expansion and population growth could increase the quantity of SSO collected to 180,000 tonnes per year.

The City-owned Dufferin organics processing facility processes approximately 27,000 tonnes of SSO annually. The Dufferin facility was commissioned in 2002, and has been processing SSO at, or in excess of, its design capacity since 2004. Although control and treatment of odours requires constant attention, the Dufferin organics processing facility has demonstrated that it is possible to operate a SSO processing facility within the City.

The remaining quantity of SSO is processed at public and private facilities in Ontario and Quebec. Experience to date with contracted processing capacity at public and private facilities teaches that service disruptions and failures are common. Operators of public and private facilities are often unable to respond to disruptions or failures with adequate contingency measures. To maintain service continuity, the City has been required to procure contingency and replacement capacity and, as a result, has a number of short term contracts. Reliance on short-term contracts for processing capacity is not sustainable in the long term.

The City's SSO diversion programs cannot be expanded without new reliable processing capacity.

COMMENTS

The major components of the planning study are presented in the following sections which summarize information presented fully in technical memoranda prepared by the study team.

Site Short List

Detailed Assessment of Planning Approval Requirements

Following Council's acceptance of the list of potentially suitable, City-owned properties in June 2006, Solid Waste staff, with the assistance of staff from the City's Planning and Toronto Building Divisions undertook a detailed assessment of the planning approvals required for each property. Staff consulted with the Region of Durham, the City of Pickering and the Town of Ajax, the Toronto and Region Conservation Authority (TRCA), the Rouge Park Alliance and the provincial Ministries of Municipal Affairs and Housing and Transportation.

Based on the results of the detailed assessment of planning requirements, and other comments, staff concluded that the development of in-City sites could, and should,

proceed more quickly than the development of the external sites, and that some of the in-City sites should be removed from further consideration.

Separation of In-City Sites from Out-of-City Sites

All in-City sites require Site Plan Control. In addition to Site Plan Control, the Morningside Landfill, Disco transfer station and 3301 Markham Road sites require zoning bylaw amendments. The Morningside Landfill Site also requires amendment of the Toronto Official Plan. Except for the Morningside Landfill Site, it is expected that the required approvals for the in-City sites could be obtained within 12 months following the submission of complete applications. Amendments to the Official Plan and zoning bylaw designations for the Morningside Landfill Site could be considered because the property is not suitable for its current residential zoning designation, but would take longer than 12 months to process.

All three out-of-City sites require Official Plan amendments at the regional and local level, as well as zoning bylaw amendments and Site Plan Control. The regional and local municipalities are of the opinion that waste receiving, pre-processing and anaerobic digestion operations (referred to as primary processing) are essentially industrial operations and are incompatible with the uses permitted for these sites under the Official Plan designations.

All three out-of-City sites are within the area regulated by the Provincial Greenbelt Act which, as enacted through the regional and local Official Plans, limits extension of lake based services (i.e. sewer and water services). None of the out-of-City sites have sewer service and only one site has water service. Development proposals in the Greenbelt regulated area must be supported by studies and assessments to ensure natural heritage features, etc. are not negatively impacted.

The number and complexity of planning approvals for the out-of-City sites mean approval and development would take much longer than for the in-City sites. Also, being unable to extend water and sewer services to these sites makes them unsuitable for receiving, pre-processing and anaerobic digestion operations, which require both services.

Rather than delay the development of the in-City sites by a number of years to match the time lines for the out-of-City sites, development of primary processing facilities at the in-City sites was considered separately. Staff recommends that potential development of secondary processing facilities at the out-of-City sites be considered separately and on different timelines.

Removal of Some in-City Sites from the list of Potentially Suitable Sites

The TRCA strongly opposes the development of a SSO processing facility at the North Toronto Treatment Plant site because the site is within the Don River flood plain and they consider the proposed development contrary to their *Don Watershed Strategy* and their *Valley and Stream Corridor Management Program*. The TRCA has jurisdiction to

approve or reject proposed developments within the Don River flood plain. Since other options exist, this site was removed from further consideration.

The Rouge Park Alliance strongly opposes the development of a SSO processing facility at the closed Beare Road landfill site because the site is within the Rouge Park and because such a development is inconsistent with its development plans for the Rouge Park. The Rouge Park Alliance has jurisdiction to reject any proposed development considered inconsistent with an approved management plan. Since other options exist, this site was removed from further consideration.

Feasibility of Considering Other Public or Private Lands

As directed by Council, Solid Waste Management Services, with the assistance of staff from Facilities and Real Estate Division, completed an assessment of the advantages and disadvantages of expanding the study to include private lands. A commercial real estate broker was contracted to report on the general availability, cost and location of private properties potentially suitable for new SSO processing facilities. The broker completed a property background study which identified the number of private properties sold in 2005 and 2006 that satisfied the following screening criteria:

- located within the municipal boundary of the City of Toronto;
- minimum size of 1.6 Ha;
- maximum size of 5 Ha; and,
- zoned for industrial use.

The property background study concludes that:

- a total of 8 properties meeting the screening criteria were sold within the City in 2005 and 2006, suggesting that very few properties that meet the requirements of area and zoning are offered for sale in any 12 month period;
- the areas of the City in which potentially suitable properties are most likely to be found are Etobicoke, East York and Scarborough;
- based on 8 property sales in the past two years, the minimum, average and maximum cost per Ha are \$815,000, \$1,342,000, \$2,434,000 respectively;
- over time, rezoning of industrial land to residential or commercial uses will reduce the pool of industrial properties; and,
- a diminishing supply of industrial land will likely cause prices to increase beyond inflation.

Staff reviewed the 8 property sales documented in the property background study and concluded that many have adjacent or nearby land uses similar to those near the Cityowned in-City sites.

Joint or cooperative organic materials processing opportunities have been discussed with municipalities that have recently developed new processing facilities and with municipalities that have suggested that they may have public land potentially available for new processing facilities. Municipalities with new processing facilities (City of Hamilton, Region of Peel, Region of Durham) have declined to receive Toronto SSO because some materials accepted are incompatible with their processing operations. Municipalities who may have available public land are in the initial stages of planning and are considering alternative land use options. As a result, no conclusion on the potential availability of public land can be made at this time.

On the basis of this information, Staff conclude that there is no apparent advantage to expanding the scope of the study to include consideration of other private or public lands.

Processing Facility Options

The available area at the in-City sites is limited. The in-City sites can accommodate receiving, pre-processing and anaerobic digestion operations at capacities less than 110,000 tonnes per year. No in-City site can accommodate aerobic composting or compost curing or storage operations.

Therefore the in-City sites are suitable only for the primary site of a two-stage processing system; providing receiving, pre-processing and anaerobic digestion operations. The remaining processing operations, aerobic composing and compost curing and storage, would be completed at a secondary facility located at an external site, or elsewhere.

The sizes of facilities that were considered in the evaluation of the in-City sites, as determined by the available area, are presented in Table 2.

Table 2: Facility Size Options

	Size Options
In-City Site	(tonnes per year)
Disco Transfer Station	27,500, 55,000
Dufferin Waste Management Facility	27,500, 55,000
Ingram Drive Transfer Station	27,500, 55,000
Morningside Works Yard (and closed landfill)	27,500, 55,000
3301 Markham Road	27,500

Decision Model and Evaluation Criteria

A multi-criteria decision model was used to compare all alternatives, i.e. combinations of the five in-City sites and their corresponding facility size options, which provide a total SSO processing capacity of 110,000 tonnes per year. The decision model did not include either continuation of the status quo or a 'do nothing' alternative. As discussed in the Issue Background section of this report, the status quo is not recommended.

The decision model enables alternatives to be ranked by a consistent measure of overall performance, i.e. from most to least advantageous. Ranking is based on evaluation criteria, which capture the differences between alternatives that are important to the decision, criteria weighting factors which express the relative importance of each evaluation criterion, and measurements of the performance of each alternative. The evaluation criteria used to rank alternatives are presented in Table 3. The categories of evaluation criteria used in the decision model are consistent with the requirements of the provincial Environmental Assessment process.

Table 3: Evaluation Criteria: Ranking of Alternatives

Evaluation Cr	riteria and Category	Ranking of Alternatives	
Environmental	Predicted Emissions	Emissions associated with vehicle haul:	
	Released to	CO ₂ (tonnes/yr)	
	Atmosphere		
Environmental	Land Required	Amount and type of land displaced (Ha)	
Social	Potential for Land-	Number of Receptors within 500 metres (#)	
	Use Conflicts		
Technical	SSO System	Percentage of system capacity lost in event	
	Redundancy	of shutdown of the largest facility (%)	
Technical	Potential to Increase	Expansion capacity of the system	
	Capacity	(tonnes/yr)	
Technical System Development		Development time of the system (years)	
	Time		
Financial	Total Annual System	Total annual system cost (\$/yr)	
	Cost		

The decision model was also used to evaluate the net advantage of incorporating anaerobic digestion in the facility process design by comparing the best alternatives with and without anaerobic digestion. Anaerobic digestion produces biogas which can be converted into electricity and heat via a cogeneration system. The evaluation criteria used and the net benefits of anaerobic digestion are presented in Table 4. Because only two options are compared, i.e. with and without anaerobic digestion, weighting factors are not required.

Table 4: Evaluation Criteria: Net Benefits of Anaerobic Digestion

Evaluation Cr	iteria and Category	Net Benefits of Anaerobic Digestion	
Environmental	Predicted Emissions	Emissions associated with processing: CO ₂	
	Released to	(tonnes/yr), NOx, SOx, HCl, PM, VOCs	
	Atmosphere	(tonnes/yr), Pb, Hg, Cd (kg/yr), Dioxins (TEQ)	
		(gm/yr)	
Environmental	Predicted Emissions	Emissions associated with processing: Pb, Hg,	
	Released to Water	Cd (kg/yr), Dioxins (TEQ) (gm/yr), BOD	
	Courses	(kg/yr)	
Environmental	Potential Impacts on	Associated with processing: net energy	
Energy		consumed (GJ), net electrical energy consumed	
Consumption /		(MWh)	
	Generation		
Technical	Product/Market Risk	Quantity of Product Generated (tonnes/yr)	

Public Consultation and Criteria Weighting

The public consultation component of the planning study included focus groups and public open house events for the five in-City sites. Results gathered from resident focus groups were considered to be indicative of broader city-wide opinion. Public open house events revealed local site-specific opinions and concerns. The results of public consultation were used, along with Staff judgement, to establish weighting factors for the evaluation criteria used in the decision model to rank alternatives, i.e. combinations of sites and facility size options.

Focus Groups

Recognizing the complexity of the project and the need for informed responses, the focus group format was adopted as it provided an opportunity for participating members of the public to receive necessary background information before tendering an opinion. Two series of focus group sessions were conducted. The first series was conducted by a public research consultant and consisted of three resident focus groups all held on May 30th 2006, consisting of seven to eight participants per session. The objective was to develop an understanding of the concerns that residents would have if an organic waste processing system were being considered in their community.

The second series of focus group sessions were held on 18 and 19 October 2006, and on 1 December 2006, involving 12, 11 and 12 City residents respectively. A public research consultant was hired to recruit Toronto residents. Screening criteria were used to ensure representation from different areas, housing types and women and men. The objective of this focus group series was to solicit opinion on the relative importance of the evaluation criteria.

Open Houses

A total of six¹ open house events were conducted during March/April 2007 to solicit opinion from residents and businesses near each of the five potentially suitable in-City sites. Open house events and a summary of key themes are described in the Public Consultation Report: *Planning Study for Expanded Public Source Separated Organic Material Processing Capacity (April, 2007)* available at:

http://www.toronto.ca/involved/projects/new_organic/index.htm

Approximately 142 residents attended the six public open house events. Attendance at each open house event was found to be in approximate proportion to the number of local residents, which shows a high degree of interest in the proposed new SSO facility siting. Local residents were somewhat or strongly opposed to the proposal to locate a new SSO processing facility in their neighbourhood.

Concerns frequently expressed by residents at all open houses were:

- off-site odours;
- public health concerns;
- decreases in property value;
- increases in truck traffic will result in additional air pollution and traffic congestion; and,
- land used will compromise green space or has other more potentially suitable uses.

Criteria Weighting

Weighting factors for the criteria used to compare alternatives were derived from opinion solicited through public consultation activities and Staff judgement. The evaluation criteria weightings used in the decision model are presented in Table 5.

¹ Five consultation sessions were planned, one for each site. A sixth was added at the request of Councillor Cho.

Table 5: Criteria Weightings

Rank	Evaluation Criterion Ranking Of Alternatives	Weighting
1	Social (Potential for Land Use Conflicts)	25
2	Environmental (Predicted Emissions Released to the Atmosphere)	17
3	Financial (Annual Total System Cost)	15
4	Technical (System Redundancy - Lost Capacity)	13
5	Technical (System Development Time)	13
6	Technical (Potential to Increase Capacity)	9
7	Environmental (Land Required)	8
	Total	100

Preferred Option

The decision model compared 103 alternative combinations of the five in-City sites, facility size options, and process designs with and without anaerobic digestion using the evaluation criteria and weighting factors described in previous sections of this report.

Comparing best alternatives with and without anaerobic digestion concluded that anaerobic digestion offers a positive net benefit. An important benefit of anaerobic digestion is the ability to generate renewable energy in excess of the requirements of facility operations. Based on the performance of the anaerobic digestion operation at the Dufferin organics processing facility, it is estimated that the anaerobic digestion of 110,000 tonnes per year of SSO could produce approximately 17,640 MWh/yr of electricity in excess of plant operating requirements, equal to the annual electricity consumption of approximately 1,700 homes.

The top three ranked alternative systems, that include anaerobic digestion, are presented in Table 6.

Table 6: Top Three Alternatives

Rank	Description
1	Disco 55,000 + Dufferin 55,000
2	Dufferin 27,500 + Morningside 27,500 + Disco 55,000
3	Ingram 55,000 + Disco 55,000

The preferred alternative is the first ranked alternative; two new 55,000 tonne per year primary SSO processing facilities, one located at the Disco transfer station and the other at the Dufferin Waste Management Facility.

The new facility proposed for the Disco transfer station will be a completely new construction.

The new facility proposed for the Dufferin Waste Management Facility will be new construction to replace the existing organics processing facility. Existing processing equipment will be salvaged for reuse in the new processing facility where possible.

Estimated Capital and Operating Costs

The estimated total capital cost of two new primary processing facilities for SSO is approximately \$69 million, equivalent to \$54 per tonne (amortized over 20 years at 6 percent per annum). Estimated capital costs by facility and major cost component are presented in Table 7.

Table 7: Summary of Capital Cost Estimates

Cost Item	Dufferin Waste Management Facility ¹ \$ (in '000s)	Disco Transfer Station ² \$ (in '000s)
Engineering and Contract Administration	4,294	4,616
Site Works and Buildings	7,057	8,650
Process Equipment	14,345	15,229
Biogas Energy Recovery System	3,612	3,612
Odour Control	3,664	3,664
Total of Above	32,972	35,771

Notes:

- 1. Includes credit for salvaged processing equipment.
- 2. Includes extra for excavation and disposal of deposited waste, fill, and methane protection.

The estimated operating cost of two new 55,000 tonne per year primary SSO processing facilities is approximately \$10 million per year, equivalent to \$91 per tonne. Cost estimates are summarized in Table 8. The new facilities will employ similar processes at the same scale and will therefore have similar operation costs.

Table 8: Summary of Operating Cost Estimates

	Annual	Unit Cost
Cost Item	(\$, in '000s)	(\$ per tonne)
Facility Operating and	8,970	82
Maintenance Cost	0,570	02
Processing Residue	1,868	17
Disposal	1,808	17
Secondary Processing	1,706	16
Electricity Sales Revenue	2,560	23
Net Operating Cost	9,984	91

Combining estimated capital and operating costs produces the estimated total annual costs presented in Table 9.

Table 9: Summary of Estimated Total Annual Cost

	Annual	Unit Cost
Cost Item	(\$, in '000s)	(\$ per tonne)
Annualized Capital (20 years, 6% per annum)	5,993	54
Net Operating Costs	9,984	91
Total	15,977	145

The estimated capital costs are similar to those offered in response to previous RFP, and offered in unsolicited proposals. Operating and maintenance cost estimates have been verified by comparison to the operating costs of the existing Dufferin organics processing facility.

The estimated total unit cost (\$ per tonne) is comparable to the unit costs for SSO haulage and processing the City is currently paying under existing contracts. In 2006, the average cost for all SSO haulage and processing was \$ 135 per tonne.

Implementation Plan

The major milestones of the implementation plan are presented in Table 10. The new facility at the Disco transfer station will be completed first so that its new processing capacity can replace the capacity lost between the closure of the existing and commissioning of the new processing facilities at the Dufferin Waste Management Facility.

The major project milestones in the implementation of the new SSO processing facility at the Disco transfer station represent a very aggressive development schedule. Expeditious completion of all project tasks, up to and including the award of contracts to design, build and operate the new facilities, will be necessary in order for processing operations to begin on or before the first quarter of 2011. Dedicated staff from the City's Purchasing and Materials Management and Technical Services Divisions will need to be identified to

assist Solid Waste Management Services in the preparation and release of the REOIs and RFP, and in the evaluation of responses received.

The completion of the new processing facility at the Dufferin Waste Management Facility is scheduled for the third quarter of 2013 to coincide with the expiration of the terms of agreements for SSO processing services awarded under RFP 6035-07-3064.

Table 10: New Facility Implementation Schedule

Table 10.110.1\text{	Proposed New SSO Processing Facility		
	Disco Transfer Station	Dufferin Waste Management Facility	
Schedule Milestone	(Year and Quarter)	(Year and Quarter)	
Hire professional technical services consultant	2007, Q4	2007, Q4	
Issue REOI to prequalify processing technology vendors	2007, Q3	2007, Q3	
Issue REOI to prequalify design/build/operate proponents	2007, Q3	2007, Q3	
Issue RFP for Design/Build/Operate contracts to prequalified proponents	2008, Q1	2008, Q1	
Contract award	2008, Q4	2008, Q4	
Complete design, approvals, permitting	2009, Q2	2010, Q2	
Construction begins	2009, Q3	2011, Q2	
Commissioning begins	2010, Q3	2013, Q1	
Operations begin	2011, Q1	2013, Q3	

CONTACT

Brian Van Opstal Acting Manager, Operational Planning Solid Waste Management Services

Phone: 416-397-0143

E-mail: bvanops@toronto.ca

SIGNATURE

Geoff Rathbone Acting General Manager Solid Waste Management Services