

Memorandum

To: Joseph Pennachetti
City Manager, City of Toronto

October 13, 2011

Vince Sferrazza, Acting General Manager
Solid Waste Management Services Division

cc: Rob Orpin, Director Solid Waste Collections and
Gilbert Siu, Manager Operational Support,
Solid Waste Management Services Division

From: John Barrett and Peter Tonev, Ernst & Young LLP

Independent Review On The Contracting Out Of Curbside Collection (District 2) (Assignment # 9144-11-7001-Cat2MC11-11)

Introduction

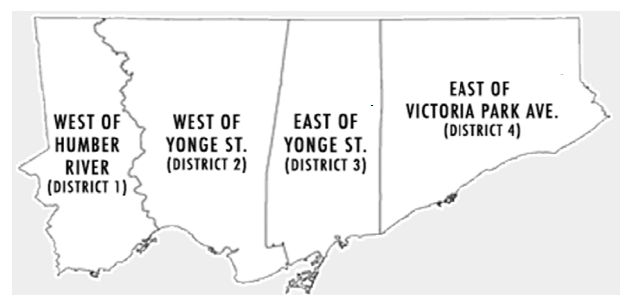
1. We have completed our engagement to review the analysis performed by the Solid Waste Management ("SWM") Services Division (the "SWM Division" or the "Division") of the City of Toronto ("the City") on the contracting out of daytime residential curbside collection in District 2 ("D2 Collection" or "the Services" herein). Our engagement was performed in accordance with our engagement agreement dated September 21, 2011, and our procedures were limited to those described in this report (the "Report").

Period covered by our procedures

2. During the period September 26, 2011 to October 7, 2011, Ernst & Young LLP ("E&Y") performed a review of the Division's analysis of the contracting out of D2 Collection operations. The conclusions resulting from our work are stated herein and supplemental details are provided in the Attachments.

Background

3. The City is currently divided into 4 collection areas (Districts 1 to 4, or "D1", "D2", "D3" and "D4"). In District 1 residential curbside collection is currently under contract with



Turtle Island. In 2010, the SWM Division began analysis on the in-house costs and the potential savings that could be realized as a result of contracting out residential curbside collection in District 2.

4. On April 14, 2011, the *Report from the General Manager, Solid Waste Management Services and the Director, Purchasing and Materials Management on Solid Waste Management Services Garbage Collection Request for Quotations (RFQs)* (the "Staff Report") was submitted to the Public Works and Infrastructure Committee. The Staff Report recommended the issuance of RFQs for several initiatives, among them daytime residential curbside collection in District 2, and the increase in City-wide mechanical litter vacuum operating services. The Staff Report outlined the financial impact and net savings from all initiatives.
5. As a result of City Council's meeting on May 17, 18 and 19, 2011, the General Manager of SWM Division was authorized to issue RFQs for these Services, subject to an independent review of both the bid/contract numbers and the cost for identical services provided by the City.
6. The D2 Collection RFQ was issued by the City on August 10, 2011, and bidders were required to submit their bids by September 27, 2011. This bid submission deadline was subsequently extended until noon on September 30, 2011.

Scope of our work

7. E&Y provided the following advisory services to the City as part of this engagement:
 - i. Conducted a review of the bids submitted through the RFQ process for the contracting out of D2 Collections and Litter Vacuum services;
 - ii. Compared the bid prices with the City's costs for providing the Services; and
 - iii. Discussed the bid evaluation process with the SWM Division, the Fairness Monitor and the Supervisor, Corporate Purchasing and reviewed the methodology used for comparing the bids to the City's costs to determine if reasonable and relevant.
8. The following activities were considered outside the scope of this engagement:
 - i. A review of the effectiveness of the current service provided;
 - ii. Identification of efficiencies or improvements to the existing service level;
 - iii. Recommendations for the modification of services level;
 - iv. Review of financial information for services that are not to be contracted out;
 - v. Review of the market value (sales or lease basis) of Ingram Transfer Station buildings and lands;
 - vi. Providing commentary as to bidders' ability to provide the services at their quoted fee; and
 - vii. Review of the procurement process, including drafting of the RFQ, technical evaluation of the bids (as undertaken by the Division) or fairness of the process.

Disclaimer

9. In preparing this Report, E&Y has been provided with and, in making comments herein, has relied upon unaudited financial information and projections prepared by the SWM Division and discussions with management of SWM Division (“SWM Management”), Human Resources, and the Purchasing and Materials Management Division. E&Y has not audited, reviewed or otherwise attempted to verify the accuracy or completeness of such information and, accordingly, E&Y expresses no opinion or other form of assurance in respect of such information contained in this Report. An examination or review of the financial forecast and projections, as outlined in the Canadian Institute of Chartered Accountants Handbook, has not been performed. Readers are cautioned that, since these projections are based upon assumptions about future events and conditions, the actual results will vary from the projections, even if the assumptions materialize, and the variations could be significant.
10. As outlined in our engagement agreement, our review is based on inquiries of, and discussions with, SWM Management. Audited financial statements were made available to E&Y, however since the audited financial statements were consolidated we were unable to determine the extent of any adjustments from financial data that exists in the SAP financial system. The SAP financial system data was assumed to be complete and accurate for the purpose of this Report.

Executive Summary

11. The SWM Division had estimated the City’s costs in the Staff Report and the potential savings from contracting out residential daytime curbside collection in District 2. Subsequently, the SWM Division amended its estimated savings figure and calculated a minimum savings threshold (MST) for any potential bidder. Based on the analysis performed by E&Y as described in this Report, the minimum savings threshold set by the SWM Division of \$25,975,030 (which would equal a savings of \$3,132,300) is reasonable.
12. E&Y was advised by the SWM Division that five bids were received, and that the bid received from GFL Environmental Corporation (“GFL”) is being recommended to council by the Solid Waste Management Services Division. As described in greater detail in this Report, the GFL bid represents, on a steady state (recurring) basis, annual savings of \$11,702,983 relative to the City’s current costs, and a favourable difference of \$8,196,356 relative to the minimum savings threshold.

Review of Existing Costs for Services

13. The SWM Division provided E&Y with data from the City’s SAP financial system to allow E&Y to assess the reasonableness of the financial assumptions and calculations prepared by the SWM Division in respect of the costs of providing the Services.

14. As part of this assessment process, E&Y undertook the following approach:
- i. A consideration of the cost and revenue elements that should be considered in assessing the cost of the Services; and
 - ii. An estimation of the relevance and materiality of the cost and revenue elements noted above.

15. In its analysis the Division has relied on two sets of figures from the SAP financial system to represent the baseline cost for D2 Collections:
- ▶ 2010 actual costs^{1,2}
 - ▶ 2011 budgeted costs

16. Both are shown in the table below. The breakdown of the totals provide a list of potential cost drivers from contracting out for consideration in analyses.

Cost Drivers	2010 Actual Cost	Percent	2011 Budget	Percent
Salaries and Benefits	20,882,319	76.1%	18,663,957	67.6%
Material and Supplies:				
Apparel	85,955	0.3%	144,648	0.5%
Medical and Dental	47,615	0.2%	48,000	0.2%
Other	22,530	0.1%	209,555	0.8%
Equipment	7,507	0.0%	127,171	0.5%
Services and Rent: ³				
Laundry	85,778	0.3%	82,535	0.3%
Telecom	31,600	0.1%	59,016	0.2%
Other	69,501	0.3%	65,394	0.2%
Inter-divisional charges				
Fleet	6,205,700	22.6%	8,330,039	30.2%
Other	17,723	0.1%	14,698	0.1%
Other Revenues & Expenditures	10,015	0.0%	154,900	-0.6%
Total	27,446,212	100%	27,590,113	100%

17. As can be seen from the table above, the primary costs are related to labour and the fleet of trucks used in collections.

¹ 2010, the most recently completed fiscal year, was used for analysis. Comparison to 2009 (pre-labour disruption) and to 2011 year to date, as performed both by the Division and E&Y, showed that the cost levels were almost unchanged. Therefore 2010 has been used as the baseline year for analysis purposes.

² Since the City of Toronto's audited financial statement are reported in a consolidated format across all programs, it was impossible to determine whether adjustments were made to the SWM Division figures alone. SAP financial data was assumed to be accurate for the purposes of our analysis.

³ Excludes D1 contract costs of \$7,837,942 (actual) from 2010, and costs of \$9,757,663 (budgeted) from 2011.

18. E&Y considered several other costs for inclusion in the base cost of providing D2 Collection services to assess potential other costs attributable and incremental to D2 Collection:

Costs Element	Amount	Notes
Base cost	\$27,446,212	<ul style="list-style-type: none"> Actual costs from Dec 31, 2010 SAP statements; see above for breakdown
Ingram Yard costs	\$150,000	<ul style="list-style-type: none"> Estimate from SWM management to operate the Ingram yard where D2 collection staff park the collection trucks, based on 1 FTE and utilities costs Ingram Yard is dedicated to D2 Collections, the cost of which will disappear if the City does not find an alternate use for the property.
Haulage for 183,360 tonnes	\$3,667,200	<ul style="list-style-type: none"> Approximately \$20 per tonne in payments to third party haulage companies; the remaining costs associated with disposal are primarily the amortized landfill disposal cost which could be reallocated to other areas and is not an incremental cost to D2 This cost will be approximately the same before and after contracting out
Revised total	\$31,263,412	

Review of Potential Savings for Services

19. SWM Division management estimated savings twice prior to the issuance of the RFQ:

Savings Calculation	Basis for calculations	Recurring net savings estimated by SWM Division
1. Shown in Staff Report dated April 14, 2011 ("Table 2" on page 6)	2011 budgeted costs	\$7,000,000
2. In response to City Council's meeting on May 17, 18 and 19, 2011 (minimum savings threshold calculations)	2010 actual costs	\$3,132,300

20. The different basis for calculations partially accounts for the differences in the Division's savings figures. E&Y also observed that changes in assumptions also contribute to the difference in savings calculated. Chief among the exclusions from the second calculation is \$3,000,000 related to the equipment reserve, based on SWM Division management's assumption that the contractor will have to purchase vehicles at the same price as the City would have to, and that this price would likely be included as part of the cost to the City in any bid.

21. E&Y reviewed how the Staff Report figures were calculated with assistance from Division staff and by referencing the document *2011 BRIEFING NOTE - Financial Impact of Contracting Out*. The table below summarizes our analysis of the figures in the Staff Report.

Table 2 item	Estimated Net Annual Savings	How Calculated by SWM management?	E&Y Comment
District 2 Operating Expenditures including Support Cists & Contribution to Equipment Reserve	\$7,000,000	<ul style="list-style-type: none"> • Calculation is stated as 15% of D2 2011 Approved Operating Budget less vehicle contribution (15% x \$30.7 million - \$3.0 million) or \$4,158,084; the Division rounded down to \$4,000,000 • 15% is the differential in wage rates between private and public rates (the former based on a benchmark study conducted by SWM management and presented in Confidential Attachment 1 to the April 14, 2011 Staff Report) • Equipment reserve is rounded off to \$3,000,000 	<ul style="list-style-type: none"> • The Division applied the 15% savings to the entire 2011 operating budget (less vehicle contribution) in this calculation, but applied the 15% savings only to the labour portion of 2010 costs in its revised calculation • Note that the Division used 2010 actual costs in their amended calculation (the MST calculation) to calculate wage savings (15% x 20,882,000 labour portion = \$3,132,300) • Equipment reserve is actually \$3,442,356. See Appendix A. • The Division did not use equipment reserve in its revised calculation based on the assumption that the contractor will have to purchase vehicles at the same price as the City would have to, and that this price would likely be included as part of the cost to the City in any bid. E&Y believes this assumption (the exclusion of the reserve) is reasonable, but stresses that savings related to reserve could be realized if the contractor uses fewer vehicles, and/or relies on fewer spares, to successfully perform the same services as the City (Division management cited an approximate 20% spare rate carried for service vehicles).

Table 2 item	Estimated Net Annual Savings	How Calculated by SWM management?	E&Y Comment
Contract Management/ Support	(\$1,000,000)	<ul style="list-style-type: none"> • 4% of \$25 million (\$25 million approximates the expected maximum D2 Collection contract cost) • 4% is nominal percentage used by Division to estimate City staff who may need to be deployed to assist contractor with first year transition challenges 	<ul style="list-style-type: none"> • In discussions with SWM management, this represents an additional cost to the Division in the first year of the contract, which approximates the cost of one Manager, four Supervisors and their respective vehicle expenses • The full extent of this cost is not expected to be permanent, however as of this writing the SWM Division had not decided on the organizational structure to manage the contract • E&Y adopted this figure and relied on the underlying assumptions in its revised savings calculation
Lease of Ingram Yard Revenue	\$850,000	<ul style="list-style-type: none"> • Based on preliminary market research (square footage rates for properties in the vicinity) 	<ul style="list-style-type: none"> • Lease cost was modified to \$444,000/yr by the time the RFQ was written to account for the SWM Division's intention to retain a portion for their own use, and for the fact that the tenant would be responsible for utility costs and realty taxes
Finance & Administrative IT Support & Desktop Costs	\$100,000	<ul style="list-style-type: none"> • 2.5% taken of 2011 budget amount of \$4,070,000 • \$4,070,000 is an allocation of City overheads to the SWM Division • 2.5% is nominal percentage used by the Division, representing lighter workload for City financial staff from fewer financial transactions (e.g. payroll) from contracting out 	<ul style="list-style-type: none"> • This amount is not included in E&Y's MST calculations as: (a) the amount is not material to the analysis and (b) the possibility that the allocation of overheads to the Division may not actually drop as a result of the contracting out

Table 2 item	Estimated Net Annual Savings	How Calculated by SWM management?	E&Y Comment
Insurance Reserve Contribution	\$50,000	<ul style="list-style-type: none"> • 2.5% taken of 2011 budget amount of \$1,950,000 • \$1,950,000 is an allocation of City overheads to the SWM Division • 2.5% is nominal percentage used by the Division, representing lower premium due to fewer vehicles after contracting out of District 2 	<ul style="list-style-type: none"> • This amount is not included in E&Y's MST calculations as: (a) the amount is not material to the analysis and (b) the possibility that the allocation of overheads to the Division may not actually drop as a result of the contracting out
Estimated Total Recurring Net Savings related to D2 Collections	\$7,000,000		

22. SWM Division management also estimated that 100 fewer vehicles would be needed at the start of the contract, each with a residual recovery of \$15,000 and resulting in a one-time revenue from the sale of equipment of \$1,500,000. According to SWM records, SWM has 107 vehicles currently in service in D2.
23. Assuming that SWM management is prohibited from retiring vehicles prior to 7 years and is not granted special permission to retire them earlier, then only the D2 vehicles retiring in 2012, and which need not be replaced, represent a non-recurring gain from the sale of assets. According to data provided by SWM Division management, 15 D2 vehicles are expected to retire (i.e. reach 7 years of age) in 2012, which actually represents a \$225,000 gain assuming \$15,000 average recovery per vehicle. This calculation only includes core service vehicles i.e. packers (vehicles other than packers, such as those driven by supervisors, are assumed to represent a much smaller amount).
24. D2 is currently serviced by a City-owned fleet of 107 packers. There will be a timing difference between the \$1,500,000 cited by the City in this calculation, and the eventual realization of \$1,500,000. The City may realize cost savings related to financing new vehicles as well as the deferral of the purchase of new vehicles for D3 and D4.

25. As part of the analysis of the City's costs, E&Y based its analysis on SWM management's wage savings and contract support assumptions and then extended the calculation to address certain other cost elements which E&Y deemed significant:

Costs Element	Current Recurring Cost	Expected Recurring Cost After Contracting Out		Notes
		2010 dollars	2012 dollars	
Base cost	\$27,446,212	\$24,313,864	\$25,975,205	<ul style="list-style-type: none"> • Wage portion of 2010 actual costs, less 15% • Inflation-adjusted by 3.36%⁴ over 2 yrs (to arrive at estimated 2012 cost) • This substantially represents SWM Division's amended savings calculation. The SWM Division arrived at a slightly different 2012 dollars figure of \$25,975,030 by starting with a rounded "Current Recurring Cost" of \$27,446,000.
Ingram Yard costs	\$150,000	-	-	<ul style="list-style-type: none"> • Bidders have option to use and operate facility with specific lease terms • The cost will disappear if the City does not find an alternate use for the property
Haulage for 183,360 tonnes	\$3,667,200	\$3,667,200	\$3,917,776	<ul style="list-style-type: none"> • No change in volume assumed from Contracting out • Inflation-adjusted by 3.36% over 2 yrs (to arrive at estimated 2012 cost)
Revised total	\$31,263,412	\$27,981,064	\$29,892,981	

26. The first row in the table above represents the Division's second calculation of savings from contracting out. The Division changed its assumptions from the first calculation, removing, among other things, the equipment reserve portion of the savings based on the assumption that the contractor will have as much need to provide a fleet as does the City. E&Y is in agreement with the revised calculation.

⁴ Inflation rate proposed by SWM Division management for use in calculations. E&Y was advised that this is the inflation rate used for 2010 in the District 1 daytime residential curbside collection contract with Turtle Island.

Minimum Cost Savings Thresholds

27. E&Y made three key observations regarding the Division's calculation of the minimum savings thresholds:
- ▶ The minimum savings thresholds ("MSTs") calculated by SWM management use, as their base, the D2 actual expenditures from SAP for the period ending Dec 31, 2010.
 - ▶ Savings as calculated by SWM management are estimated to be entirely comprised of a 15-20% differential of private sector vs. public sector hourly rates.
 - ▶ The savings are considered to be constant over the life of the contract
28. E&Y suggests that the MST needs to be viewed at two levels:
- ▶ The minimum savings that bidders must demonstrate in comparing the contractor-provisioned activities with the same City-provided activities based on actual costs and adjusted for inflation. This is represented in the preceding table at the "Base cost" line. Therefore to achieve this level of MST the bids must come in at less than \$25,975,205.
 - ▶ The minimum savings that SWM District 2 operations must meet in comparing the total costs attributable to D2 collection before and after contracting out. This is necessary since there are cost drivers that are not captured by the D2 cost centre grouping in SAP (such as Ingram Yard), as well as costs that are outside the scope of the bids (such as the retaining of excess vehicles or contract support costs in the first year). This broader MST is represented in the preceding table at the "Revised Total" line. Therefore to achieve this level of MST, D2 costs as a whole (in 2012 dollars) must come in at less than \$29,892,981.
29. If the winning bid falls below \$25,975,205, the City can conclude that the contractor can provide the same services for less than the City can provide them.

Life of Contract Comparison

30. E&Y compared the costs of the City with the MST over the life of the contract. This would allow the analysis to take into account major temporary differences that may be realized as a result of contracting out.
31. Appendix B shows the calculation described above and when the contract enters a "steady state" (year 3 and forward). In the first two years however, there are three significant temporary differences:
- ▶ The cost of carrying the reserve for excess vehicles (further explained in Appendix C)
 - ▶ A one-time gain from the sale of fleet assets
 - ▶ Contract support costs, representing City staff who may need to be deployed to assist the contractor with first year transition challenges
32. In summary, the City should expect to save at least \$22,652,243 over 7 years as a result of contracting out D2 Collections based on the MST.

33. Note that inflation has been excluded from E&Y's annual calculations after 2012 even though a provision has been made in the RFQ for annual inflation-related adjustments tied to the consumer price index and Toronto consumer price index. An adjustment for inflation to both the future City costs and future contract costs would not have a material impact on any comparison between the two sets of costs.

Review of Bid Evaluation Process

34. Key dates related to the bid process are as follows:

- ▶ RFQ issuance date: August 10, 2011
- ▶ Meeting #1 to answer bidder questions (Fairness Monitor in attendance): August 22, 2011
- ▶ Meeting #2 to answer bidder questions (focus on Ingram Yard; Fairness Monitor in attendance): September 14, 2011
- ▶ Addendum No. 4 extended closing time from September 27 to September 30, 2011
- ▶ Process was closed as of noon on September 30, 2011

35. Five bids were publicly opened on September 30, 2011 (E&Y was present at the opening, as was the Fairness Monitor hired by the City):

Bidder	Total Estimated Price Per Year
Green for Life Environmental East Corporation	\$17,471,353.25
Miller Waste Systems Inc.	\$20,978,787.46
Halton Recycling Ltd. dba Emterra Environmental	\$23,946,565.72
Waste Management of Canada Corporation	\$25,600,723.20
Waste Management of Canada Corporation (Alternative Bid)	\$23,836,800.00

36. Note that the total contract cost to the City (before harmonized sales tax) will be the lowest compliant bid that meets technical specifications.

37. E&Y discussed the procurement process with the City of Toronto's Purchasing and Materials Management Division ("Purchasing"). Purchasing outlined the mandatory requirements which, if met, deem the bidder to have been compliant with the procurement process. These requirements are set out in section 6 of the Request For Quotation and include (all section and page references are to the RFQ):

- ▶ Completed Statutory Declaration Form for Occupational Health and Safety set out in section 22.0
- ▶ Signed Quotation Request Form by an Authorize Signing Officer (page 1)
- ▶ Acknowledgement of receipt of all addenda (page 1)
- ▶ Provision of bid bond or equivalent bid security
- ▶ Responses to the policies listed in Schedule "A"
- ▶ Completed Schedule "B" - Price Form (all items)
- ▶ Completed Schedule "E" - Proposed Equipment Form

- ▶ Completed Schedule "M" - Utilization of Displaced Workers
 - ▶ Submitted one original and two hard copies of their quotation
38. In addition to the requirements above, the bidder must also have accepted (not altered) all terms and conditions set out by the City.
39. Mathematical errors, though checked by Purchasing, do not render a quotation as non-compliant. Three separate individuals within Purchasing check the quotations for mathematical errors.
40. As of this writing E&Y has been informed by Purchasing that the lowest bid received was compliant with the requirements as described above, and free of mathematical error.
41. E&Y received a copy of the lowest bid and confirmed that
- ▶ It appears to be compliant with the requirements set out above, and
 - ▶ The GFL bid appears to be free of mathematical errors in Schedule "B" of the bid response.
42. The next step was for the Solid Waste Management Services Division to perform their review of the quotations. The responsibility of the Division included:
- ▶ Determining compliance of the quotations with the technical aspects of the scope of work
 - ▶ Checking references provided
43. As of this writing, SWM management has confirmed that the lowest bid was also technically compliant.

Comparison of winning bid with City's Costs

44. As discussed with the City Manager's office and SWM Division, E&Y limited its comparison of bids to the bid being recommended by the SWM Division (submitted by GFL Environmental Corporation). A bid comparison with expected costs and savings should be conducted over the life of the potential contract. This would take into account major timing differences and provide a more accurate picture of the savings that may be realized as a result of contracting out.
45. This comparison can be found in Appendix D.

46. Two conclusions may be drawn from this analysis:

i. The City is estimated to save \$80,026,735 over 7 years under the GFL contract.

	Recurring (steady-state) annual cost	Life of contract (7 years)
Total D2-related costs before contracting out	\$ 33,399,608	\$ 233,797,259
Total D2-related costs with GFL	\$ 21,696,625	\$ 153,770,524
Savings	\$ 11,702,983	\$ 80,026,735

ii. The GFL bid favourably exceeds the minimum savings threshold by \$8,196,356.

	Recurring (steady-state) annual cost
Bid-level minimum savings threshold	\$ 25,975,205
Total bid cost	\$ 17,778,849
Improvement on MST	\$ 8,196,356

47. These illustrative savings over the life of the contract are higher than the potential savings estimated by E&Y in paragraph 32 as the GFL bid was approximately \$8 million lower than the MST per year.

Appendix A - Annual D2 Equipment Reserve

48. There are two ways to calculate the reserve burden carried by the SWM Division for D2 packers.

49. Using the monthly reserve rate from the *2012 Reserve Contribution Estimates from Monthly Charges* report, the annual reserve for District 2 fleet would be as follows:

Vehicle Type	Year Purchased	Life	Total Units	Monthly Reserve Rate	Total Annual Reserve
Read Load Packer	2004	7	13	\$ 2,139	\$ 333,684
Read Load Packer	2005	7	25	\$ 2,139	\$ 641,700
Read Load Packer	2006	7	7	\$ 2,139	\$ 179,676
Read Load Packer	2008	7	32	\$ 2,139	\$ 821,376
Side Load Packer	2003	7	4	\$ 3,909	\$ 187,632
Side Load Packer	2006	7	11	\$ 3,909	\$ 515,988
Side Load Auto Packer	2004	7	2	\$ 4,235	\$ 101,640
Side Load Auto Packer	2008	7	12	\$ 4,235	\$ 609,840
Side Load Auto Packer	2009	7	1	\$ 4,235	\$ 50,820
Total			107		\$ 3,442,356

50. Another accepted method to arrive at an estimated reserve amount is to take the purchase price and divide by 7 (the expected useful life) as shown below.

Vehicle Type	Year Purchased	Life	Replacement Cost	Total Units	Total Price
Read Load Packer	2004	7	\$ 180,000	13	\$ 2,340,000
Read Load Packer	2005	7	\$ 180,000	25	\$ 4,500,000
Read Load Packer	2006	7	\$ 180,000	7	\$ 1,260,000
Read Load Packer	2008	7	\$ 189,951	32	\$ 6,078,432
Side Load Packer	2003	7	\$ 285,000	4	\$ 1,140,000
Side Load Packer	2006	7	\$ 285,000	11	\$ 3,135,000
Side Load Auto Packer	2004	7	\$ 285,000	2	\$ 570,000
Side Load Auto Packer	2008	7	\$ 285,000	12	\$ 3,420,000
Side Load Auto Packer	2009	7	\$ 285,000	1	\$ 285,000
Total				107	\$ 22,728,432
Estimated annual fleet reserve cost (+7)					\$ 3,246,919

51. The difference between the two methods is 6%.

Appendix B - Life of Contract Costs

Year Period	2012	2013	2014	2015	2016	2017	2018	Life of Contract
	1	2	3	4	5	6	7	
Total D2 cost before contracting out								
Base Cost in 2010 dollars	27,446,212	27,446,212	27,446,212	27,446,212	27,446,212	27,446,212	27,446,212	27,446,212
Ingram Yard Cost	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Haulage	3,667,200	3,667,200	3,667,200	3,667,200	3,667,200	3,667,200	3,667,200	3,667,200
Total D2-related cost in 2010 dollars	31,263,412	31,263,412	31,263,412	31,263,412	31,263,412	31,263,412	31,263,412	31,263,412
Inflation adjusted (3.36%) for 2012 dollars	[A] 33,399,608	33,399,608	33,399,608	33,399,608	33,399,608	33,399,608	33,399,608	233,797,259
Expected D2 cost after contracting out (pre-bid opening to calculate minimum savings threshold)								
Base Cost in 2010 dollars	27,446,212	27,446,212	27,446,212	27,446,212	27,446,212	27,446,212	27,446,212	27,446,212
Less expected 15% labour savings	(3,132,348)	(3,132,348)	(3,132,348)	(3,132,348)	(3,132,348)	(3,132,348)	(3,132,348)	(3,132,348)
Total bid-level minimum savings threshold in 2010 dollars	24,313,864	24,313,864	24,313,864	24,313,864	24,313,864	24,313,864	24,313,864	24,313,864
Total bid-level minimum savings threshold in 2012 dollars	25,975,205	25,975,205	25,975,205	25,975,205	25,975,205	25,975,205	25,975,205	25,975,205
Ingram Yard Cost	-	-	-	-	-	-	-	-
Haulage	3,667,200	3,667,200	3,667,200	3,667,200	3,667,200	3,667,200	3,667,200	3,667,200
Fleet - temporary reserve burden [Appendix C]	644,345	353,657	-	-	-	-	-	-
Fleet - one time gain from sale of assets	(225,000)	-	-	-	-	-	-	-
Contract support costs	1,000,000	-	-	-	-	-	-	-
Total D2-related minimum savings threshold in 2010 dollars	29,400,409	28,334,721	27,981,064	27,981,064	27,981,064	27,981,064	27,981,064	27,981,064
Total D2-related minimum savings threshold in 2012 dollars	[B] 31,409,308	30,270,803	29,892,981	29,892,981	29,892,981	29,892,981	29,892,981	211,145,016
Expected minimum savings								
[A] - [B]	1,990,300	3,128,805	3,506,627	3,506,627	3,506,627	3,506,627	3,506,627	22,652,243

Appendix C - Temporary Equipment Reserve Burden
[referenced in Appendix B]

52. SWM carries approximately 1 spare truck for every 5 in service, and expects all vehicles in the D2 fleet within their 7 year useful life to be retained and used
- ▶ as spares and
 - ▶ to delay the purchase of new vehicles for D3 and D4
53. It is assumed that the City will not retire any vehicles that are less than 7 years old.
54. By retaining these vehicles, the Division will continue to incur a reserve cost (estimated as the original cost divided by 7) for each vehicle, beyond the start of the contracting out of D2 Collection and even after D3 and D4 vehicle retirements are accounted for.
55. According to the table on the following page, the SWM Division will carry an excess (relative to 2010 levels) of
- ▶ 51 packers after the start of the contract in August, 2012
 - ▶ 11 packers in 2013
56. Thereafter the need to purchase packers will resume.
57. The associated temporary cost of carrying these reserves is as follows:

	Excess of Available over Needed	
	From August 2012	In 2013
	51	11
Weighted average cost per available unit	\$ 212,255	\$ 225,054
Total Value of excess	\$ 10,825,000	\$ 2,475,599
Reserve on excess (Value ÷ 7)	\$ 1,546,429	\$ 353,657
Adjustment for partial year (no excess in first 7 out of 12 months of 2012 since contract is not active until August)	(\$ 902,084)	-
Final Excess Reserve	\$ 644,345	\$ 353,657

Vehicle Type	D3 Fleet / Additions Since 2003										Vehicles available from D2 fleet										
	Year Purchased	Life	Replacement Cost	Total Units	Total Price	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Reed Load Packer	2004	7	\$ 180,000	13	\$ 2,340,000		13								25						
Reed Load Packer	2005	7	\$ 180,000	25	\$ 4,500,000			25							7	7					
Reed Load Packer	2006	7	\$ 180,000	7	\$ 1,260,000				7						32	32					
Reed Load Packer	2008	7	\$ 189,951	32	\$ 6,078,432					32											
Side Load Packer	2003	7	\$ 285,000	4	\$ 1,140,000	4															
Side Load Packer	2006	7	\$ 285,000	11	\$ 3,135,000				11							11					
Side Load Auto Packer	2004	7	\$ 285,000	2	\$ 570,000		2														
Side Load Auto Packer	2008	7	\$ 285,000	12	\$ 3,420,000					12					1	1	1	1			
Side Load Auto Packer	2009	7	\$ 285,000	1	\$ 285,000	1	1			1											
Total				107	\$ 22,728,132	4	15	25	18	0	14	1	0	0	88	63	45	45	1	0	0

Vehicle Type	D3+D4 Fleet: Additions Since 2003										Vehicles needed in D3/D4 fleet										
	Year Purchased	Life	Replacement Cost	Total Units	Total Price	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
PACKER-R/L	2003	7	\$147,015.00	4	\$554,030.00	4									4	4	4	4			
PACKER-R/L	2004	7	\$130,000.00	9	\$1,520,000.00		9								9	9	9	9			
PACKER-R/L	2005	7	\$130,000.00	10	\$1,300,000.00			10							10	10	10	10			
PACKER-R/L	2006	7	\$130,000.00	46	\$6,280,000.00				46						46	46	46	46			
PACKER-R/L	2007	7	\$130,000.00	1	\$180,000.00					1					1	1	1	1			
PACKER-R/L	2008	7	\$139,951.00	22	\$4,178,922.00					22					22	22	22	22			
PACKER-R/L	2009	7	\$134,195.00	7	\$939,385.00						7				7	7	7	7			
PACKER-S/L	2003	7	\$235,000.00	18	\$5,130,000.00	4	14								18	18	18	18			
PACKER-S/L	2004	7	\$130,355.20	8	\$1,588,848.80		4	4							4	8	8	8			
PACKER-S/L	2005	7	\$97,007.90	1	\$97,007.90			1							1	1	1	1			
PACKER-S/L	2006	7	\$235,000.00	14	\$3,990,000.00				14						14	14	14	14			
PACKER-S/L	2007	7	\$130,193.61	5	\$559,213.21					5					5	5	5	5			
PACKER-S/L	2008	7	\$114,817.00	1	\$114,817.00						1				1	1	1	1			
PACKER-S/L	2009	7	\$140,382.84	2	\$280,765.68						2				2	2	2	2			
PACKER-S/L AUTO	2004	7	\$235,000.00	2	\$570,000.00		2								2	2	2	2			
PACKER-S/L AUTO	2008	7	\$235,000.00	22	\$6,270,000.00					22					22	22	22	22			
PACKER-S/L AUTO	2009	7	\$235,000.00	5	\$1,425,000.00						5				5	5	5	5			
PACKER-S/L AUTO	2010	7	\$230,585.00	22	\$6,504,570.00							22			22	22	22	22			
Total				199	\$ 44,232,540	8	29	15	50	6	45	14	22	0	37	52	112	118	163	177	199

Excess of Available over Needed						
2012	2013	2014	2015	2016	2017	2018
51	11					

Appendix D - Comparison of GFL Bid with City's Costs

Year	2012	2013	2014	2015	2016	2017	2018	Life of Contract
Period	1	2	3	4	5	6	7	
Total D2 cost before contracting out								
Base Cost in 2010 dollars	27,446,212	27,446,212	27,446,212	27,446,212	27,446,212	27,446,212	27,446,212	
Ingram Yard Cost	150,000	150,000	150,000	150,000	150,000	150,000	150,000	
Haulage	3,667,200	3,667,200	3,667,200	3,667,200	3,667,200	3,667,200	3,667,200	
Total D2-related cost in 2010 dollars	31,263,412	31,263,412	31,263,412	31,263,412	31,263,412	31,263,412	31,263,412	
Inflation adjusted (3.36%) for 2012 dollars	[A] 33,399,608	33,399,608	33,399,608	33,399,608	33,399,608	33,399,608	33,399,608	233,797,259
Estimated D2 cost after contracting out (using lowest bidder GFL Environmental Corporation)								
Bid price	17,471,353	17,471,353	17,471,353	17,471,353	17,471,353	17,471,353	17,471,353	
Add 1.76% HST not recovered by tax credit	307,496	307,496	307,496	307,496	307,496	307,496	307,496	
Total bid cost (meets minimum savings threshold) [C]	17,778,849	17,778,849	17,778,849	17,778,849	17,778,849	17,778,849	17,778,849	
Ingram Yard Cost								
Haulage	3,667,200	3,667,200	3,667,200	3,667,200	3,667,200	3,667,200	3,667,200	
Fleet - ongoing reserve burden	644,345	353,657						
Fleet - one time gain from sale of assets	(225,000)							
Contract support costs	1,000,000							
Total D2-related costs in 2010 dollars	22,885,394	21,799,706	21,446,049	21,446,049	21,446,049	21,446,049	21,446,049	
Total D2-related costs in 2012 dollars (meets minimum savings threshold) [D]	23,212,952	22,074,447	21,696,625	21,696,625	21,696,625	21,696,625	21,696,625	153,770,524
Estimated savings with GFL Environmental Corporation relative to D2 cost before contracting out [A] - [D]	10,186,656	11,325,161	11,702,983	11,702,983	11,702,983	11,702,983	11,702,983	80,026,735
Estimated savings with GFL Environmental Corporation relative to bid-level minimum savings threshold 25,975,205 - [C]	8,196,356	8,196,356	8,196,356	8,196,356	8,196,356	8,196,356	8,196,356	57,374,492

Appendix E - Impact of contracting out on workforce and labour cost savings

58. E&Y considered the impact on the size of the labour force from the contracting out of D2 Collections in light of the collective agreement which obligates the City to find work for Local 416 staff with over 5 years of tenure, thereby potentially limiting the realization of labour-relate cost savings.
59. The 2011 approved budget provides for the following complement of Hourly/Operations staff for daytime residential curbside collection:

District	Permanent / Full-time	Temporary / Seasonal / Casual Part-time ⁵
2	210	31
3	136	43
4	101	25
Total	447	99

60. Temporary employees are paid the same hourly rate as permanent employees, however they are not afforded guaranteed work status by the collective agreement. Temporary employees are mainly used in collections for two reasons:
- i. Seasonal work. Within Collections, fewer employees are required in the winter months for either:
 - o Yard waste collection
 - o Parks collections
 - ii. Back-fill for absent / injured employees (non-season work). The two-year collective agreement starting Jan 1, 2009 saw absenteeism rates rise by 12.6% (2009/2010 absenteeism average compared to 2007/2008/2009 absenteeism average) as employees were no longer able to “bank” sick days over their career and receive a payout at retirement. This has increased the need to augment staff to above historical levels.
61. In discussion with SWM management, a higher number of temporary staff is actually required than that shown in the 2011 approved budget figures which mainly represents seasonal workers. The *2010 Requisition for Local 416 Temporary Staff Report* provided by SWM management are more reflective of the total temporary staff needed (both seasonal and back-fill/non-seasonal):

Service area	Seasonal	Non-seasonal	Total
Collection (D2, D3, D4, Nights)	77 positions / 63 FTE	115 positions / 115 FTE	192 positions / 178 FTE
Litter	-	15 positions / 14 FTE	15 positions / 14 FTE
Parks	68 positions / 35 FTE	-	68 positions / 35 FTE
Total	98 FTE	129 FTE	275 positions / 227 FTE

62. All hourly employees in D2 have greater than 5 years of service with the City. Per the collective agreement, the City is obligated to find work for them elsewhere in the City. Also

⁵ Rounded to nearest whole number.

beginning in 2012, SWM Division has taken responsibility for staffing displaced employees. Therefore the contract for D2 Collections services could be incremental to the continuing cost of paying these employees until such time as the employees:

- ▶ Displace temporary employees elsewhere in SWM (such as D3, D4, litter, night collections, or transfer stations)
- ▶ Retire (there is no mandatory retirement age, but eligibility for unreduced pension begins at 30 years of service)
- ▶ Accept voluntary separation packages (VSPs) (only employees with 30 years of service or more are eligible)

63. The calculations below demonstrate that the number of temporary staff needed in Collections (using the requisition for 2011 temporary employees as a proxy) exceeds the number of D2 permanent staff to be absorbed; therefore there is no incremental wage cost burden when the contract begins.

Total D2 labour costs (2010 SAP financials)	\$ 20,882,319
Total Hourly/Operations employees	241
Total cost per employee	
Base using blended 2010 rate per collective agreement	\$ 54,502
Overtime allowance of 6%	\$ 3,270
Benefit rate of 20%	\$ 10,900
	\$ 68,672
Total employees	241
Temporary positions in D2 to be eliminated	31
Permanent D2 employees to be absorbed by SWM	210
VSPs taken per SWM management	45
Temporary positions (FTE) in Collections requisitioned for 2011 that could be replaced by D2 permanent staff in future years	227
Adjusted positions to be absorbed	0