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**CUPE**

# **Costs and Consequences of Solid Waste Collection Alternatives in Peterborough**

Report prepared by CUPE National with CUPE 504

*Report Updated and Revised April 2010*

## Contents

<b>1. Summary</b> .....	<b>1</b>
<b>2. Introduction</b> .....	<b>3</b>
<b>3. Peterborough’s publicly-delivered garbage collection costs are low in relation to other comparable Ontario municipalities</b> .....	<b>5</b>
3.1 Introduction.....	5
3.2 Comparisons using cost per tonne .....	5
3.3 Comparisons using cost per household .....	7
3.4 Cost per truck and per person.....	8
3.5 Costs for comparable municipalities.....	8
3.6 Conclusion.....	10
<b>4. Comparative costs of solid waste collection: public versus private</b> .....	<b>11</b>
4.1 Introduction.....	11
4.2 Wide range of factors influence costs.....	11
4.3 Econometric Analyses.....	12
4.4 Comparative costs within Ontario municipalities .....	14
4.4.1 <i>City of Ottawa</i> .....	14
4.4.2 <i>City of Toronto</i> .....	15
4.4.3 <i>City of Hamilton</i> .....	16
4.5 Conclusion.....	17
<b>5. Analysis of solid waste costing in reports provided to and by the City of Peterborough</b> .....	<b>18</b>
5.1 McCormick Rankin BMA report .....	18
5.2 Genivar Collection Vehicle Costs memo .....	19
5.3 City of Peterborough Waste Collection Discussion paper February 2008.....	19
5.4 Conclusion.....	21
<b>6. Other costs and benefits related to waste collection that are often ignored</b> .....	<b>22</b>
6.1 Contracting out adds overhead and transition costs and increases risk for the city in ways that are rarely considered in cost analyses. ....	22
6.1.1 <i>Overhead Costs</i> .....	22
6.1.2 <i>Transition Costs</i> .....	23
6.1.3 <i>Increased Risks</i> .....	24
6.1.4 <i>Recent Experiences in Peterborough</i> .....	24
6.2 Contracted out work severely reduces the flexibility to deal with changing circumstances and changing public priorities – and increases the costs of doing so.....	25
6.3 Public delivery ensures that services can directly respond to public priorities, such as waste diversion and other environmental concerns.....	26
6.3.1 <i>City of Peterborough Waste Diversion Bag Limits</i> .....	26
6.3.2 <i>Peterborough: Floods and Special Pick-Ups</i> .....	27
6.4 Conclusions.....	27

## **Background**

This paper was prepared in response to proposals to contract out garbage collection in the City of Peterborough. The report was written by Toby Sanger, Economist with CUPE National, with the assistance and input of representatives and members of CUPE and CUPE local 504, particularly Karin Jordan, Shelly Gordon, Alison Davidson, Phil Jacobs and Grant Darling, and input from City of Peterborough officials, particularly Erika Arkell. All facts and statements are the responsibility of the author.

## 1. Summary

The City of Peterborough's publicly-delivered garbage collection costs are low in relation to other comparable Ontario municipalities, whether measured by cost per tonne, cost per household, cost per truck or cost per resident.

*Peterborough's operating costs of garbage collection were 15% below the Ontario median average on a per tonne basis and 48% below the provincial median on a per household basis in 2007 (latest year for province-wide data). If Peterborough's costs were at these provincial averages, it would cost the city and residents from \$175,000 to \$899,000 more per year.*

*Peterborough residents receive excellent value for money from their public garbage collection services, with operating costs amounting to about \$13 a year per resident or only three and a half cents a day.*

There is no consistent evidence showing that contracted out private sector waste collection is less costly and more efficient than in-house public sector waste collection.

*Most reputable studies show that the overall costs are generally comparable, with many studies showing lower costs for the public sector. These results are confirmed through recent evidence in Ontario. Auditors' reports and staff studies for Ontario cities that have both in-house and contracted waste collection have found no on-going cost savings from contracting out, with some reporting substantial savings from in-house collection.*

There is strong evidence elsewhere that the cost of private sector waste collection increases at a faster rate than in-house collection costs. Initial cost savings from privatization tend to evaporate as private sector costs increase at a more rapid rate.

*Examples in Ontario also reflect this tendency, with the costs of private contracted service increasing at a more rapid rate than costs for public waste collection. This has led to a number of municipalities subsequently contracting back in these services in order to gain savings.*

Consultants' reports provided to the City of Peterborough dealing with the issue of the cost of solid waste collection were flawed and do not provide reliable evidence for their stated conclusions. They are selective in their comparisons, provide few details, contain little or no substantiation and neglect important issues related to cost and quality impacts. Some of the fundamental issues neglected include:

- *Contracting out increases risk and adds overhead and transition costs that are often ignored or underestimated in comparative cost analyses.*
- *Public delivery provides a greater level of control and predictability over costs, quality, level and type of services.*
- *Public delivery allows for higher quality of work and provides the potential for additional benefits to the city and community.*
- *Contracted out work severely reduces flexibility to deal with changing circumstances and changing public priorities.*
- *Public delivery ensures that services can directly respond to public priorities, such as waste diversion and other environmental concerns.*

Municipal analyses of different forms of program delivery should consider a broad range of impacts – and not just focus on narrow short-term cost comparisons.

Proceeding towards competitive bidding comes with added costs and risks:

- The City of Peterborough has already spent about \$140,000 or more in consultants' fees to develop strategic plans and other studies for public works, not including the expense of staff and council time to consider this issue. Proceeding further would mean additional external and internal costs.
- Comparative analyses of costs frequently exaggerate the public sector costs of providing services and underestimate the costs of private sector contracting. Unless costs and benefits are thoroughly analyzed up front, this means communities end up paying more for contracted out services, often without knowledge of this unless and until audits are conducted.
- Thorough analysis of the alternatives should take account of a wider range of factors than just the narrow short-term costs and also include consideration of quality of service, risk, flexibility, transition and monitoring costs, and environmental and social considerations. These broader factors have not been considered in the analysis for the City of Peterborough to date.
- Transitioning from public delivery to private delivery and then back again to public delivery can be costly in terms of disposal and repurchase of fleets, other capital equipment, labour and systems. Disposal of fleets is often at a loss.
- Effective monitoring of private sector waste collection amounts to about 20% or more of average contract costs, according to a number of studies. Without this, experience has found there is often contract failure and subsequent contracting back in of services.
- Contracting out leads to increased risks of private operators defaulting, failing to provide expected services and lack of flexibility to adjust to changing circumstances and public priorities. These are especially a concern with core services such as garbage collection.
- Private contracts for garbage collection – which are generally for five to ten years – are restrictive, have trouble meeting different public priorities, and put the municipality in a vulnerable situation if they need or want to change or improve waste management policies and processes on terms that can be extortionate. This may be one reason that municipalities with contracted out garbage collection tend to have much lower rates of residential waste diversion than municipalities with public collection.
- The fundamental question is: if Peterborough already has relatively low costs for garbage collection, maintains good and flexible service and has been able to achieve high rates of diversion, why proceed in a direction that is bound to involve more costs, increase risks and provide less ability to improve services?

## 2. Introduction

This report was originally written in 2008 to provide input to municipal officials in Peterborough when they were actively considering contracting out of solid waste collection to a private company as part of a broader corporate agenda to increasingly contract out city services.

The city had recently commissioned reports from two different sets of consultants that addressed the issue of solid waste collection: one a more comprehensive *Strategic Business Analysis for Public Works* prepared by McCormick Rankin and BMA Consulting (January 2007) and the other a short memo on *Collection Vehicle Costs* prepared by MacViro/Genivar Consultants (March 2008). Both these documents suggested costs of waste collection would be lower if it were contracted out instead of performed by municipal employees.

While the report recommended a method of managed competition, it recognized that this can be difficult to achieve, especially in a city the size of Peterborough. At the same time, the McCormick Rankin report recognized that there could be problems with contracting out this service, particularly with little competition in the waste management business, and that the city needed to put fair accounting methods in place to calculate the true cost of its service delivery.

After receiving this report, city finance officials took the constructive step of working together with public works employees (and their union representatives—CUPE 504) to calculate the actual costs of solid waste collection for the city. This was a very positive and enlightened decision because it was led by city finance officials and involved public works employees. These are the people who are most knowledgeable about the actual costs of the service. The result of this joint work was a comprehensive and detailed calculation of the costs of solid waste collection.

It may seem like common sense to have the city employees who are most knowledgeable conduct the analysis but unfortunately many municipalities and governments don't do this. A number of much larger jurisdictions hire outside consultants to do this analysis, and so-called "fairness commissioners" to make recommendations. The cost calculations from this type of outside process have often been superficial and biased. They have generally exaggerated the costs of in-house public collection and underestimated the true costs of contracting out. This has been subsequently confirmed by auditors, who have found major savings from public collection (see discussion below in this report).

As part of its involvement in this costing process with the City of Peterborough, CUPE 504 requested that CUPE National's economist review the studies the city commissioned from outside consultants on the relative costs of solid waste collection, analyze the costing model developed by the city, and meet with city officials to discuss it. This report was originally written for that purpose.

It shows, contrary to the consultants' claims, that:

- Peterborough's publicly-delivered garbage collection costs are low compared to average costs for other comparable municipalities on all major measures of comparison.
- There is no consistent evidence showing that contracted out costs of private waste collection remain lower than public costs, and private costs tend to rise much faster rate than public costs.
- Public delivery of this service provides many other benefits that are rarely if ever considered in cost comparisons. Contracting out this service leads to a loss of flexibility and exposes municipalities to greater risks in a number of different areas.

Despite the major problems with the reports prepared by consultants for the City of Peterborough, city officials worked constructively with its employees and the union to transform this process into a more positive outcome.

The first draft of this report was presented to and discussed with city officials in April 2008, who appreciated the analysis and provided helpful comments and clarification. City officials recognized that contracting out this service could ultimately be more costly, lead to a loss of control, reduced flexibility and expose the city to other vulnerabilities and risks, as well as foregoing the opportunity to benefit from ongoing improvements.

Circumstances and priorities change over time. There will always be new developments that require flexibility while maintaining a core element of stability and security. This can be achieved through a collective agreement that is developed through a respectful relationship with public employees, but is more difficult to achieve through a lengthy and rigid contract with a private company.

Instead of contracting out this service, city officials worked with CUPE 504 to identify areas where cost efficiencies and service improvements could be achieved. A number of these were included in subsequent collective agreements with the workers: first a one-year agreement that expired at the end of 2009 and in February 2010 a three year collective agreement that runs until the end of 2012. These agreements helped to maintain cost control while providing workers with wage and benefit improvements without concessions. The union and senior administration now meet regularly to discuss work arrangements: the city now has no corporate plan to contract out substantial amounts of the local's work. The latest collective agreement was settled in a much more positive environment than previous rounds of bargaining.

Since this report was first prepared, Peterborough's costs for waste collection have increased. However, they have increased at a slower rate than the median average for all Ontario municipalities to 2007 (latest currently available). This is true whether these costs are measured on a per tonne basis or on a household basis. Peterborough's costs have also increased at a much lower rate during this period than the benchmark median and average for the 14 different municipalities that participate in the Ontario Municipal CAO's Benchmarking Initiative (OMBI). This version of the report has been updated to include more recent figures. These numbers continue to demonstrate that Peterborough residents continue to receive excellent value for money from their public garbage collection services.

And for 2008 (the latest year for which Peterborough's figures are available) the increase in costs has been even more modest: less than 3% on a per tonne basis. This is even more noteworthy because the amount of solid waste collected in the city has declined slightly as the city's solid waste diversion rates have increased (which would otherwise tend to increase these costs). In 2008, Peterborough's solid waste diversion rate was over 50% compared to an average of 22% for all Ontario municipalities. In fact, the cost of solid waste collection per household in Peterborough declined slightly from 2007 to 2008. These types of savings would be very hard to achieve on an ongoing basis if the service were contracted out.

The outcome in Peterborough could have become negative. The city could have proceeded on a route of contracting out and privatization or demanding deep concessions from its workers. This would have poisoned labour relations and led to a deterioration of job quality in the city, on top of a loss of the city's capacity to deliver decent public services to its residents.

Instead, the outcomes have been much more positive. City officials chose to work constructively with their workers and union counterparts to improve service efficiency for residents and improve working conditions. The result has been continued excellent value in terms of costs, improved service quality and a much more positive relationship between the city administration and its workers.

### 3. Peterborough's publicly-delivered garbage collection costs are low in relation to other comparable Ontario municipalities

#### 3.1 Introduction

The most common way of comparing solid waste collection costs is by tonne or by household. These are the methods required by and reported through Ontario's Municipal Performance Measurement Program (MPMP) and by Ontario Municipal CAO's Benchmarking Initiative (OMBI)<sup>1</sup>. The City of Peterborough reports to the Ministry of Municipal Affairs and Housing and to the public use cost per tonne figures.

Comparisons using these figures show that Peterborough's publicly-delivered garbage collection is cost-efficient in relation to other comparable Ontario municipalities on both a cost per tonne and a cost per household basis. Analysis also shows that Peterborough's costs are lower on a cost per truck and on a per resident or a per household basis than comparable communities that have contracted out their garbage collection.

#### 3.2 Comparisons using cost per tonne

Peterborough ranks well below the provincial averages and below the average for all comparators in terms of operating cost for solid waste garbage collection per tonne and by household<sup>2</sup>.

In all the past four years for which comprehensive province-wide (MPMP) data are available, Peterborough's costs for solid waste collection have been below provincial averages and the average costs for similar-sized municipalities. Peterborough's costs for the 2004 to 2007 period averaged \$66.33 per tonne. This was

- 15% lower than the \$78.50/tonne median for all Ontario municipalities (71 reporting).
- 9% lower than the \$73.00/tonne median for other mid-sized (10,000 to 100,000 population) southern Ontario single-tier municipalities (~10 reporting).

If Peterborough's costs were at these provincial averages, it would have cost the city and residents from \$87,000 to \$159,000 more per year.

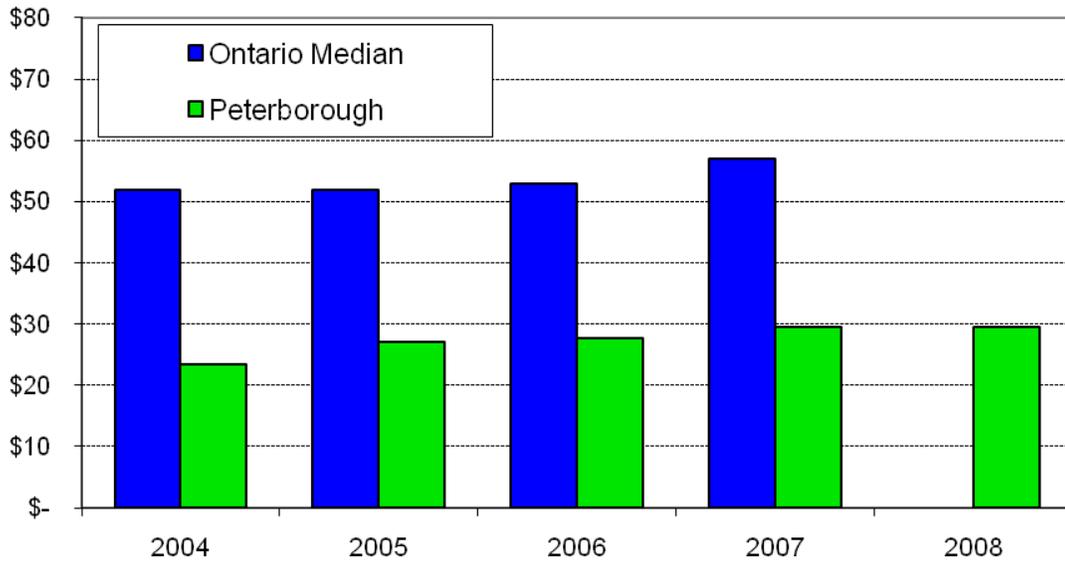
While Peterborough's costs, like virtually all other municipalities, have increased over the past few years, they have remained consistently below provincial averages. They have also ranked consistently below the averages for the 14 larger municipalities that report through the Ontario Municipal CAO's Benchmarking Initiative (OMBI).

Peterborough's costs have averaged 18% below the median costs and 29% below the average costs for these benchmarking municipalities for the 2005 to 2008 period. Peterborough's costs on a per tonne basis have increased at a lower rate during this period than the average for all Ontario municipalities and at considerably lower rate than the average and median costs for this benchmark group (see charts on following pages).

<sup>1</sup> Ontario Municipal Performance Measurement Program (MPMP) reports available through: <http://www.mah.gov.on.ca/Page297.aspx>. Ontario Municipal CAO's Benchmarking Initiative (OMBI) reports available through <http://www.ombi.ca/docs/newsinfo.asp>. Individual municipal data available through the Ontario MPMP Financial Information Return database at: <http://csconramp.mah.gov.on.ca/fir/Welcome.htm>.

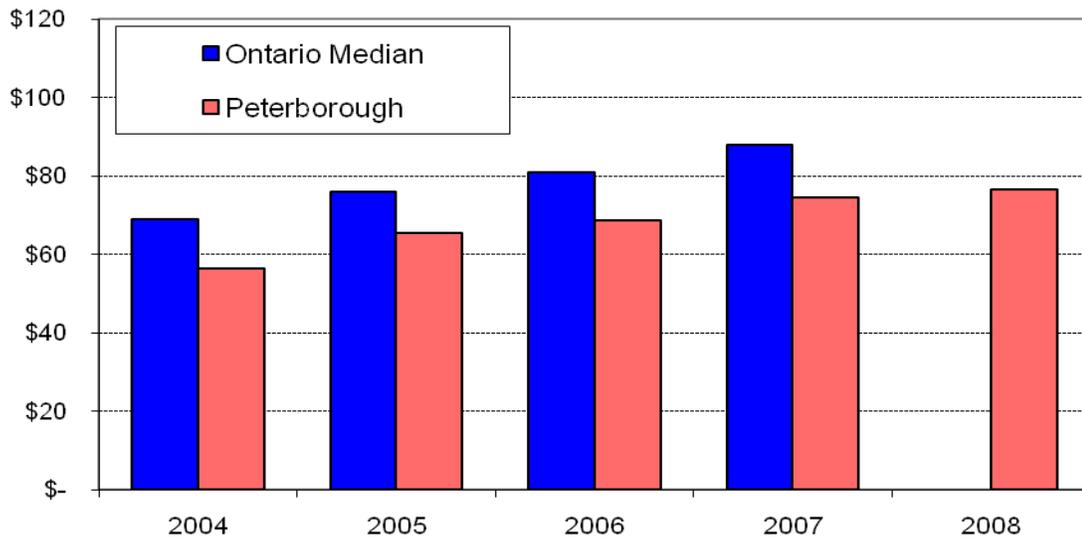
<sup>2</sup> Operating costs reported through the MPMP program and the OMBI reports are supposed to be consistent and are based on the reports through the Municipal Financial Information Returns. These include: salaries, wages and employee benefits, materials, contracted services, rents and financial expenses, external transfers (from 2005 on), transfers between departments, and allocation of program support. For solid waste, revenue from the sale of resources should be netted out, but tipping fees and user fees are not netted out. Allocation of program support for indirect overhead costs should follow the OMBI method. Haulage to transfer stations is included.

**Median Operating Cost for Garbage Collection per Household  
Ontario Municipal Average and Peterborough, 2004-2008**



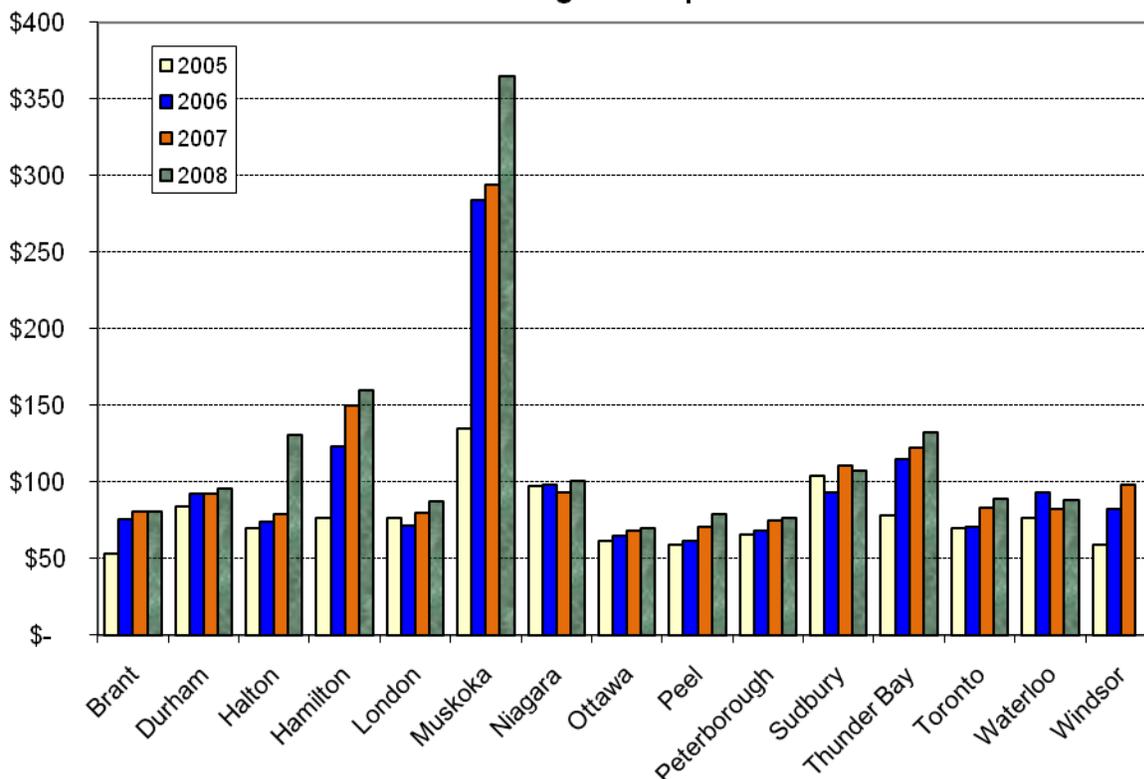
Sources: Ontario Government MPMP Reports 2004-2007 (2008 not yet available); Peterborough figures calculated from MPMP and FIR Reports 2004-2008.

**Median Operating Cost for Garbage Collection per Tonne  
Ontario Municipal Average and Peterborough, 2004-2008**



Sources: Ontario Government MPMP Reports 2004-2007 (Ontario averages not yet available for 2008); City of Peterborough MPMP Reports 2004-2008.

**Operating Cost for Residential Garbage Collection Per Tonne  
Ontario Benchmarking Municipalities 2005 - 2008**



Sources: Ontario Municipal CAO's Benchmarking Initiative and City of Peterborough MPMP reports

**3.3 Comparisons using cost per household**

Peterborough doesn't directly report its operating costs for garbage collection by household, but many other Ontario municipalities report these figures through the Municipal Performance Measurement Program. Comparisons with these results also show that the cost of Peterborough's in-house garbage collection services is well below the averages for Ontario as a whole and for comparably-sized municipalities, as shown in the attached chart<sup>3</sup>.

Peterborough's operating costs for garbage collection averaged \$26.97 per household from 2004 to 2007. These costs were:

- Half the provincial median average of \$53.50 for all reporting Ontario municipalities (139 in total).
- 21% below the average of \$34 per household for other single tier mid-sized southern Ontario municipalities reporting in this group (total of 4).

If Peterborough's costs of garbage collection had been at these provincial averages, it would have cost the city and residents from \$231,000 to \$871,000 more per year for this service.

<sup>3</sup> These figures were calculated for Peterborough by using garbage collection figures reported in Peterborough's annual MPMP reports and estimates of the number of households in Peterborough provided directly to CUPE by the city accountant's office. See the following sources:  
<http://www.mah.gov.on.ca/Page1637.aspx>  
[http://www.peterborough.ca/Business/Finance/Municipal\\_Performance\\_Measurement\\_Program.htm](http://www.peterborough.ca/Business/Finance/Municipal_Performance_Measurement_Program.htm)  
[http://www.peterboroughpolice.com/files/reports/annualreports/Annual\\_Report\\_2005.pdf](http://www.peterboroughpolice.com/files/reports/annualreports/Annual_Report_2005.pdf)

Peterborough’s operating costs of garbage collection have increased at a slower rate than these provincial averages from 2005 to 2007 and then even declined slightly in 2008. When the 2008 provincial averages are available, they will likely show even greater savings.

These operating costs of garbage collection work out to only eight cents a day for each Peterborough household and only three and a half cents a day for each resident – representing excellent value for money.

**3.4 Cost per truck and per person**

Cost comparisons of garbage collection are generally always provided on a cost per tonne or cost per household basis. However, one of the consultant’s reports and the city’s waste discussion paper used cost per truck comparisons in its analyses.

Since these figures are rarely reported, it has not been possible to provide comparisons with municipal averages. CUPE 504 undertook original research to calculate these costs for communities of a comparable size with contracted out garbage collection that were highlighted in the McCormick Rankin report. This research shows that Peterborough also has lower costs on a cost per truck and a cost per resident basis than other municipalities (see table below).

<b>Operating cost of garbage collection per truck and per resident Peterborough and comparable communities</b>				
<b>Municipality</b>	<b>Population</b>	<b>Direct Cost</b>	<b>Cost per truck</b>	<b>Cost per resident</b>
Cornwall	47,000	\$726,056	\$181,514	\$15.34
Brantford	91,584	\$1,097,700	\$219,540	\$11.98
Newmarket	76,835	\$1,080,000	\$216,000	\$14.07
Peterborough <sup>4</sup>	75,780	\$763,000	\$152,600	\$10.07

**3.5 Costs for comparable municipalities**

Peterborough city staff asked CUPE to provide costs for other comparable municipalities that provide similar levels of service to Peterborough for the collection of solid waste: e.g. weekly collection of two bags a week from residential sources.

Specific information on bag limits and service levels is not available in one central site and must be obtained from each municipality, which is time-consuming. Nevertheless, CUPE surveyed 15 municipalities of roughly comparable size to Peterborough (populations of 40,000 to 110,000). Only two of these had similar bag limits and service levels:

- Kawartha Lakes, population of 74,561 (2006), has a two-bag limit for residential and four-bag limit for commercial with weekly pick-up, similar to Peterborough. Garbage collection is contracted out to a private operator at a cost of \$128.19 per tonne in 2006 – almost twice the cost per tonne as for Peterborough. The total cost of garbage collection amounts to \$52.43 per household – 63% higher than for Peterborough.
- Sault Ste Marie, population of 74,948 (2006) has a two-bag limit with weekly pick-up. Garbage collection is performed by a combination of city crews and contracted staff. The cost per tonne was \$51.22 in 2006. Total costs are equal to \$31.15 per household – just slightly below the average Peterborough reported.

<sup>4</sup> Costs for Peterborough include total direct costs and the costs of depreciation of fleet trucks. Overhead administrations, supervisory and corporate cross charges are excluded as they generally are excluded with estimates of private sector contracting costs.

All other municipalities surveyed had a higher bag limit or no bag limit, with a number also on a bi-weekly collection schedule. Higher bag limits lead to lower costs per tonne because they involve fewer stops to collect a tonne of waste. A bi-weekly schedule should also lead to relatively lower costs, if other factors are the same. Inclusion of business and commercial with higher or no bag limits and bulk waste collection would also lead to lower costs on a per tonne basis.

This survey shows a considerable range in garbage collection costs per tonne, both for services contracted out and those provided directly by a municipality. Average operating costs for the municipalities surveyed worked out to about \$82 per tonne for 2006.

Even though all these municipalities had similar or higher bag limits compared to Peterborough, the costs of garbage collection in Peterborough were still 17% below this average of \$82 per tonne.

Overall, there is little difference in the average operating cost per tonne between those municipalities that contract out waste collection and those that provide the services directly by public employees. Other factors – level of service, mix of waste, community characteristics, etc – have a much greater impact on the costs<sup>5</sup>.

Comparisons can always be made with a select group of municipalities but this is misleading because other factors have a much greater impact on the costs. If a smaller select group is chosen, it can either represent a biased selection, or other influencing factors can have a disproportionate impact on the costs.

The type of indicator chosen to compare costs also makes a big difference. For instance, collection costs per household are arguably a more appropriate indicator to use than collection costs per tonne because:

1. reducing waste and increasing diversion is a municipal priority.
2. costs per household are more relevant for taxpayers and citizens of the community.

If we just take the group of municipalities that were selected<sup>6</sup> for comparison in the McCormick Rankin *Strategic Business Analysis for Public Works* Report and calculate costs of collection per household based on the latest Financial Information Return data, the conclusions are completely different.

The McCormick Rankin report states “Peterborough’s collection costs at \$56 per tonne are higher than all the municipalities in the survey using contracted services.”

Municipality <sup>7</sup>	2004 MPMP Cost per tonne	FIR Cost per Household 2006	Diversion Rate
Sarnia	\$32	\$ 25.12	33.5%
Cornwall	\$38	\$ 50.69	19.8%
Brantford	\$39	\$ 37.27	30.0%
Chatham-Kent	\$40	\$ 43.30	29.0%
Newmarket	\$53	\$ 71.68	38.0%
<i>Average Contract</i>	<i>\$41</i>	<i>\$ 45.61</i>	<i>30.1%</i>
Peterborough	\$56	\$ 32.07	47.2%
in relation to average		-30%	
<i>Sources: McCormick Rankin report, p. 48; FIR2006 Reports to calculate cost per household, using total revenue fund expenditures; MPMP reports from each municipality for diversion rates.</i>			

<sup>5</sup> Both the MPMP and OMBI reports itemize a number of these many factors that can affect results.

<sup>6</sup> The McCormick Rankin report did not explain the basis for their selection of these municipalities.

<sup>7</sup> Garbage collection for the town of Ajax was uploaded to the region of Durham in 2006. Operating costs for contracted out garbage collection in the Durham region were \$91.93 per tonne in 2006. Costs per household for the Durham region were not provided, nor are they comparable because some municipalities in the region provide these services in-house.

This comparison of costs per household, involving the same group of municipalities but using what is probably a more relevant indicator, shows virtually the opposite result: Peterborough's costs of collection per household were 30% *below* the average of those using contracted out services and were only higher than one of the municipalities chosen – Sarnia.

The latest figures from these same municipalities also demonstrate similar results. In 2008, Peterborough's cost for garbage collection of \$29.56 per household per year were 25% below the average for this group of five municipalities and was the second lowest among the group—only marginally higher than the cost per household in Sarnia of \$28.30.

### 3.6 Conclusion

This comprehensive (rather than selective) analysis has shown that Peterborough's public solid waste collection service has provided consistently lower costs of garbage collection on a per tonne and per household basis than Ontario provincial averages, as reported through the Ontario government's *Municipal Performance Measurement Program (MPMP)* and the *Municipal Financial Information Returns*.

Peterborough's costs also continue to be well below the provincial benchmark medians and averages reported through the Ontario Municipal CAO's Benchmarking Initiative. Furthermore, its costs have increased at a slower rate than these costs for other municipalities in recent years.

Peterborough's public waste collection service has also enabled the city to put greater emphasis and benefit from much higher rates of waste diversion and recycling than other municipalities. This is an achievement that the city should be justifiably proud of, just as city officials and workers should be proud of providing public garbage collection to its residents at a very affordable cost for each household.

This section has provided an analysis of the specific costs of waste collection for Peterborough in relation to average and median costs across Ontario and in relation to other representative or selected municipalities using a range of different measures.

However, these comparisons don't directly address the question of whether the costs of solid waste collection are likely to be ultimately less if the service is contracted to the private sector or not.

To analyse that question, it is necessary to either take account of other influencing factors through "econometric analysis" and/or to make comparisons between public and private collection in different zones in the same city, in an attempt to adjust for these other factors.

Evidence from both these approaches is discussed in the following section:

- Comprehensive econometric analyses have shown little ongoing difference in costs between public and private collection, when other factors are accounted for.
- Comparisons of costs within Ontario municipalities with both public and private collection in different zones have found either no significant cost savings from private collection that can't be explained by other factors (Toronto and Hamilton), or else lower costs with collection by public crews (Ottawa).

## 4. Comparative costs of solid waste collection: public versus private

### 4.1 Introduction

There is no consistent evidence showing that contracted out private sector waste collection is less costly and more efficient than waste collection provided by public employees.

In fact, most reputable studies show the overall costs are generally comparable, with many studies showing lower costs where collection is done by public employees. These results are confirmed through recent evidence in Ontario. Auditors' reports and in-depth staff studies for Ontario municipalities that have both in-house and contracted waste collection have found no ongoing cost savings from contracting out and some have reported substantial savings from in-house collection.

There is strong evidence that the cost of private sector waste collection increases at a much faster rate than in-house collection costs. Initial cost savings from privatization soon tend to evaporate as private sector costs increase at a more rapid rate.

Experience in Ontario municipalities has confirmed this tendency as well, with the costs of private contracted service increasing at a more rapid rate than internal costs of garbage collection. There are a number of different possible explanations for this that are discussed below. These include an erosion of fundamental cost savings in the private sector as their equipment and workforce ages, initial underbidding by private contractors, and attempts by private contractors to exploit their bargaining power to raise prices.

This has resulted in a number of municipalities subsequently contracting back in these services to gain savings, even though they have often lost valuable capacity and expertise during this time.

### 4.2 Wide range of factors influence costs

A wide range of factors can affect the cost and efficiency of municipal garbage collection. Many of these factors are itemized in the MPMP and OMBI reports. These include:

- Size of community, economies of scale
- Rural/urban mix
- Density: distance between collection points
- Distance to landfill sites or transfer stations
- Congestion, traffic obstructions
- Weather, environmental factors
- Mix of waste between residential, multi-unit and business
- Level of service: frequency of service and bag limits
- Quality of service
- Special collection services provided
- Diversion rates
- Type, quality and cost of fleet and other capital equipment
- Cost and quality of other inputs and services
- Cost and productivity of labour
- Accidents, injuries, safety standards, work accommodation costs
- Cost, efficiency of management and coordination of services and of overhead costs
- Competitiveness of market forces, and power of respective actors in the market
- Level of regulation, policies, taxes, fees

In the last year for which comprehensive reports were available at the time of preparing this report, Ontario municipalities reported operating costs that ranged from \$19 per tonne to \$834 per tonne: a difference of 44 times. On a per household basis, the operating costs ranged from \$1 to \$172 per household, an even larger difference of magnitude.

With such a wide range of factors influencing cost and efficiency and such a wide range of costs, it would be easy to take only a selected group of municipalities and then claim that the costs of garbage collection in Peterborough or any other municipality are too high or very low (using per tonne, per household or other ratios) for whatever reason. But doing this would be misleading.

As noted above, there are three appropriate methods to make cost comparisons or to determine the impact of influencing factors:

1. *Overall averages from large samples.* This allows the varying influence of other factors to be evened out to some degree. This method is more relevant for communities of average size and characteristics, which happens to be the case for Peterborough. These comparisons were made above and demonstrate that Peterborough's costs are relatively low and below average using a full range of different measures.
2. *Using econometric analysis with models that account for other influencing factors.* This requires detailed analysis with data on a range of influencing factors. It was not possible to undertake econometric analysis for this report, but a number of these studies have been done comparing the relative costs of public vs. privately delivered garbage collection. These are summarized below.
3. *Comparisons with or within identical municipalities and circumstances.* This is hard to achieve because there are so many other influencing factors. However, a number of Ontario municipalities that maintain both public and private garbage collection have done analyses of the comparative costs. These are also summarized below.

### 4.3 Econometric Analyses

A number of in-depth econometric studies been conducted analysing the comparative costs of solid waste collection between public production (in-house) and private (contracted out) production.

Fortunately, a recently published academic paper analyzed and summarized all the published econometric studies of water and waste production in cities since 1965. This paper, entitled *Privatization of Solid Waste and Water Services: What happened to the costs savings?* conducted a meta-analysis of 35 different econometric studies in total<sup>8</sup>. In summary, they found:

*“Little support is found for a link between privatization and cost savings. Cost savings are not found in water privatization and are not systematic in solid waste collection. Theoretical expectations for cost savings arise from the benefits of competition and the incentives of private ownership. However, empirical results show the importance of market structure, industrial organization of the service sector and government management, oversight and regulation.”*

While the results have varied between regions and over the years, a majority of the studies – including the most recent studies – found no significant difference in costs between municipal and private production. One-third of the studies on waste collection costs found lower costs with private collection, but the majority found no cost or efficiency difference.

Some studies have found higher costs with private contracting out, others found initially lower costs, depending on what factors were considered (size, density, quality, technology, factor prices, mix of waste, market forces, form of financing, etc). While some studies found that municipalities may have achieved some initial costs savings from contracting out, these have invariably quickly eroded or disappeared in following years. In particular, more recent studies have shown very little difference in costs.

<sup>8</sup> Bel, Germa and Warner, Mildred, 2007. *Privatization of Solid Waste and Water Services: What happened to the costs savings?* Working Paper Cornell University, July 2007.

Among the findings:

*“Cost savings from privatization appear to erode over time as there were no cost differences between cities that had privatized earlier and those that retained public production”.*

*“We have seen considerable concentration in the waste sector over the last twenty years. So in neither service area is competition expected to be maintained over time.”*

*“Indeed only six of the 18 studies found cost savings with privatization and most of these were using data from the 1970s”.*

*“Failure of cost savings, especially in the more recent studies, derives from incentives, regulatory structure and industrial organization of the sector itself. The sources of cost savings under private production tend to be due to technology and productivity arising from more flexible work practices – which speaks to an industrial organization perspective.”*

*“The issue is not so much public or private ownership, as management quality and market context. Managers should be cautious about choosing private production when there is uncertainty in the contracting process, high asset specificity, non-standardized processes and difficulty in measurement. All these factors are highly related to contract failure. These factors are not unusual in waste, and are highly common in water distribution.”*

*“Waste collection is characterized by weak competition or collusion, because of a trend to concentration in the market. Water distribution is characterized by asset specificity which leads to monopolistic production and incumbent dominance in the event of concession re-bidding.”*

There are a number of possible explanations for the costs of private waste collection to increase at a faster rate than public waste collection:

- Initial underbidding by contractors.
- Private contractors gain bargaining power through initial contract and use it to raise prices and gain market power.
- Weak competition and collusion by private operators.
- Initial savings from using more up-to-date technology and a younger workforce soon erodes over time as the equipment ages and the cost of workforce injuries mount.
- Costs increase at a faster rate for private contractors for other reasons.
- Prospect of contracting out may encourage greater in-house efficiencies.
- Calculation of public in-house costs may be inflated and private costs underestimated.
- Public sector can gain efficiency savings from public waste collection on an ongoing basis while if this service is contracted out, these benefits go to private firms throughout the life of the contract.

It is very difficult to determine what factors are responsible for costs of private waste collection to rise faster, particularly when the details of the costs of private contractors are secret and not publicly available, unlike the costs for public waste collection.

However, it likely reflects a combination of both fundamental cost factors—an erosion of initial cost savings as the equipment and workforce ages—and strategic decisions by private contractors. Initial bids may be lower to gain entry and then the operator uses its incumbent advantage to raise prices. There have also been growing mergers and acquisitions within this industry around the world and in Canada, which has likely led to rising prices as the remaining companies have been able to take advantage of very weak competition.

#### 4.4 Comparative costs within Ontario municipalities

A number of Ontario municipalities maintain a mix of both public and private waste collection. Reports from the municipalities show similar findings to those summarized from the studies above.

##### 4.4.1 City of Ottawa

In Ottawa, the city's auditor found that in-house collection of solid waste in Zone C4 provided it with *savings of \$2.2 million over seven years* – or an average of about \$316,000 per year<sup>9</sup>.

While the cost per tonne for in-house collection had increased for a number of reasons (higher fleet and labour costs, increased losses on disposal of vehicles, and increased work due to the introduction of an organic waste pilot project in this zone) in-house costs were still considerably lower than the average cost for private contractors.

Total costs (capital and operating) of in-house collection of all streams of solid waste collection in Ottawa averaged \$80.27 per tonne in 2006, 7.3% below the average per tonne cost of \$86.60 for private contractors. Ottawa's in-house costs for garbage collection alone (not including recycling, leaf yard and organics) were considerably lower: \$64.36 per tonne total and \$57.83 per tonne (excluding vehicle depreciation).

In more recent years, in-house collection by public employees in the City of Ottawa has saved the city and its residents even more money. As confirmed by the deputy city manager and its outside auditors Ernst and Young, in-house collection of solid waste saved the city \$3.8 million dollars over the three years from 2006/7 to 2008/9, or an average of almost \$1.3 million a year<sup>10</sup>. These savings represent almost 40% of the total annual costs of in-house collection. This means the next highest bid was almost 40% higher than the actual costs incurred by the city.

What is particularly revealing about these audit reports from the City of Ottawa is that the actual costs for in-house collection have always been lower than the costs estimated through the "city bid" in this managed competition process. These "additional savings" have amounted to an average of over \$330,000 a year. This represents over 10% of the actual cost of the service. This means that its calculation of in-house costs through the "city bid" have exaggerated its actual costs by an average of 10% a year.

This finding from these audit reports have been confirmed by our analysis of what was included in one of these city bids for a zone that was contracted out to a private company. The City of Ottawa could have saved more from in-house collection, except that its estimation of in-house costs through the bidding process overestimated the actual cost by including attributed "ghost charges" (such as for insurance, letters of credit) and amounts for municipal overhead costs such as for the budget process and tax collection.

These overhead costs are required whether the collection is in-house or by contract and so should not be included in the calculation of costs for one alternative and not for the other. Our analysis of these "ghost charges" in the calculation of internal costs for a City of Ottawa zone that was contracted out suggest that internal costs appear to have been overstated by at least 8%.

In some cases, these overhead costs are higher when services are contracted out, but these additional costs are rarely included in the analysis of the cost of contracting out options. In addition, the costs to municipalities of private contracting are very often underestimated because they don't include all the additional transactions costs of tendering, monitoring and enforcing contracts (see more on this below).

<sup>9</sup> City of Ottawa, Audit Report – Financial Statements for In-House Solid Waste Collection, 2006.

<http://ottawa.ca/calendar/ottawa/citycouncil/occ/2007/05-09/pec/ACS2007-PWS-UTL-0008.htm>

<sup>10</sup> City of Ottawa Audit Report - Financial Statements For In-House Solid Waste Collection – 2009

<http://www.ottawa.ca/calendar/ottawa/citycouncil/occ/2010/02-24/pec/12%20-%20ACS2010-ICS-ESD-0005%20-%20Audit%20report%20In-house%20Solid%20Waste%20Collection.htm>

#### 4.4.2 City of Toronto

A 2003 City of Toronto report analyzed per tonne costs in different districts of the city for both in-house collection and contracted collection<sup>11</sup>. In general, in-house collection is more concentrated in the downtown core. This involves many challenges – such as greater traffic congestion, parked cars obstructing pickup, one-way streets, snow windrows – that slow the collection function and increase costs compared to other areas of the city.

Other factors have also added to higher in-house costs, including older and less efficient trucks, and the inclusion of modified workers costs, such as accommodation of injured workers in other assignments. These additional costs would remain whether or not the operation remains in-house or not because of the city's policies to accommodate injured workers.

The city's report found that the per tonne costs of private contracted collection had increased at a rate of over 13% per year – more than twice the rate of increase for in-house collection. Private sector costs increased at a much faster rate even though in-house tonnage declined by over 20% and at more than twice the rate of decrease in contracted tonnages. Lower tonnage collected usually leads to higher per tonne costs as a result of fewer economies of scale.

As a result, the cost differential between in-house and contracted work narrowed considerably – despite the above-mentioned qualitative factors that increased in-house costs.

The report notes:

*Any efficiencies the private sector realizes by internal modifications are not passed on to the City during the life of a contract.*

*Our in-house costs always tend to be compared to the lower bidder, whether or not the bidder has, in fact fully loaded all costs associated with providing the service to the City. In many areas of the City our in-house cost per tonne is currently comparable to our contractors that charge an hourly rate. In addition, our productivity (tonnes collected per day) is comparable with the private sector<sup>12</sup>.*

The report also mentions the additional customer services provided by in-house crews, the higher costs and lower productivity caused by use of older vehicles overdue for replacement, and the significantly higher age of in-house collection crews compared to the private sector.

While younger crews in the private sector may result in initially lower costs for new private sector contracts, injuries and the cost of accommodation increase over time, leading to more rapidly escalating costs for contracted services.

The City of Toronto's solid waste division was able to reduce overall in-house waste collection costs by almost \$2.3 million in the two years from 2000 to 2002 (despite \$2 million in wage increases) by working together with the union to improve schedules, routes, vehicle productivity, and also working closely with the union to address health and safety issues.

The costs of private sector contracting of solid waste had increased so much relative to internal costs that the City of Toronto decided in 2007 to contract-in curbside collection of solid waste in the former York region. It also decided to contract-in the collection of white goods (such as appliance pickup) in the former East York, Etobicoke, Scarborough and York regions.

<sup>11</sup> City of Toronto Staff Report, 2003. *2002 Curbside Collection Costs*, April 24, 2003.

<sup>12</sup> City of Toronto Staff Report, 2003. *ibid*

The savings from contracting in curbside collection in the York region as opposed to re-tendering the work to an outside contractor are estimated at \$4 million annualized. Contracting in white goods collection is estimated to save \$400,000 a year<sup>13</sup>.

#### 4.4.3 City of Hamilton

Since 2002, the City of Hamilton has provided waste collection services using both the public and private sector in a roughly 50/50 split, with zones that were created to have similar collection characteristics. The city established an "Activity-Based Costing" (ABC) model to monitor and track costs in each zone, worked together with city staff and union representatives and decided up front that no outside consultants would be hired to prepare or create the model.

A staff report to Hamilton city councillors concludes<sup>14</sup>:

*"The results of the ABC model show that public sector provision of waste collection services is competitive in the waste collection industry.*

*The public costs would be lower than the private sector costs if work accommodation costs were not considered in the ABC model<sup>15</sup>.*

*Analysis of this data showed that in general, service complaints were comparable between the Public and Private Sectors."*

A companion report recommended continued use of this combination of public and private service providers for a further five years from 2006 on. The report also notes serious concerns with the option of moving to a 100% private waste collection service, including:

- *Concern of loss of control of program and inability to make adjustments to service levels without experiencing increased costs or unwillingness by the contractor to amend service provision.*
- *Need for contracts to be clear and concise with respect to consequences for failure to provide service and other related concerns (i.e. late calls, discourteous behaviour, etc).*
- *Benefits may not outweigh costs in the long-term.*
- *Loss of in-house expertise.*

It is not clear from the report exactly what costs Hamilton included in its Activity-Based Model. However, other uses of Activity-Based Cost accounting with fully allocated cost-accounting have tended to exaggerate the real costs of internally-provided services and significantly underestimate the costs of contracting out and privatization of services.

A leading expert on municipal finances and the economics of privatization, Cornell University professor Elliot Sclar, states:

*"fully-allocated cost-accounting can lead to a significant over-statement of savings (from privatization) ...it even makes possible privatizations that actually increase public expenses and still permit claims of savings. There is widespread professional agreement that cost comparisons in situations of privatization should be made on an avoidable-cost basis.<sup>16</sup>"*

<sup>13</sup> Toronto Staff Report. *Etobicoke, York, Multi-unit Residential and White Goods Collection Contracts*, January 31, 2007.

<sup>14</sup> City of Hamilton Public Works Department, *Activity Based Costing/ Waste Collection Services W04113 – City Wide*, September 22, 2004.

<sup>15</sup> The report notes that "It is not known how the private sector chooses to fund these costs associated with their work accommodated employees." (p. 6).

<sup>16</sup> Elliot Sclar, 2001. *You Don't Always Get What You Pay For: The Economics of Privatization*. Cornell University Press, p. 160.

#### **4.5 Conclusion**

This section has shown there is no consistent evidence that contracted out private waste collection ultimately costs less than public waste collection. This has been demonstrated through econometric analysis and also by relative costs within Ontario communities that have had both public and private waste collection.

However, estimates of the relative costs of public and private waste collection overstate the costs of public collection through “in-house” or “city bids” (as experience in Ottawa and elsewhere has confirmed), underestimates the costs of private collection and neglects related benefits from maintaining public waste collection. This is particularly a problem with many upfront estimates of relative costs when a decision is made to contract out. The next section provides a critical analysis of recent consultant and costing reports commissioned by the City of Peterborough on costs of solid waste collection.

## 5. Analysis of solid waste costing in reports provided to and by the City of Peterborough

CUPE was provided with a number of reports and costing analyses from the City of Peterborough on solid waste collection costs. These include:

- *Strategic Business Analysis for Public Works*, prepared by McCormick Rankin Corporation and BMA Management Consulting Inc. January 2007.
- *Collection Vehicle Costs Memo*, prepared by Dan Lantz from Genivar.
- Draft Waste Collection Discussion paper prepared by the City of Peterborough, together with costing spreadsheets.

This section critically analyzes these reports in the context of more comprehensive publicly available information, demonstrates where the reports are flawed and identifies relevant factors that were not considered in their analysis.

### 5.1 McCormick Rankin BMA report

The McCormick Rankin BMA report conducted a cursory and simplistic comparison of costs between in-house and contract provision of solid waste that shows little understanding of the economics of solid waste collection.

It appears from the report that the consultants selectively chose municipalities and cost data in an attempt to “prove” their predetermined conclusion that private waste collection is less expensive.

- While the report refers to MPMP data, it neglects to compare Peterborough’s costs with any provincial averages, which are central to the MPMP Summary report.
- There is no rationale provided for the selection of municipalities chosen for cost comparisons.
- There are no references to comparative cost studies, or even to data sources.
- There is no discussion of appropriate cost measures to use.
- The report mentions in passing a few other factors that impact the cost of service, but doesn’t discuss or consider them in any way.
- The report also completely ignores other important factors that impact cost and service of alternatives.

Any responsible and objective examination of comparative costs should involve analysis in relation to average costs, including for a group of representative municipalities. As is shown above in the first section of this report, the City of Peterborough’s publicly-delivered garbage collection costs are low in relation to other comparable Ontario municipalities, whether measured by cost per tonne, cost per household, cost per truck or cost per resident.

For instance, the McCormick Rankin report states “*All municipalities that contract garbage collection service experience lower costs on a per tonne basis than those providing the service internally.*” However, this “survey” used a selective group of just nine municipalities of different municipal types as the evidence for this statement. It conveniently excluded a number of similarly-sized municipalities that pay much higher costs for contracting out their waste collection services and also excluded a number of municipalities that have lower internal costs of garbage collection.

The point is not just that all municipalities should be included: it is that a wide range of factors can influence costs. Any credible analysis of comparative costs and the reasons for these must take reasonable account of other factors that can have an impact on costs in different communities.

Basic scientific method requires that any suggestions of causality (for instance that the cost of contracted garbage collection is always lower than public sector collection) must take account of other influencing factors and not use a selective group simply in order to try and make a point. This was not done, nor was any reference made to the considerable literature and research in this area.

### 5.2 Genivar Collection Vehicle Costs memo

The city's *Waste Collection Discussion Paper*, dated February 19, 2008, reports that MacViro Consultants (now operated by Genivar) calculated best estimates for the city to provide waste collection in the city. MacViro determined in a review of three municipalities "similar in nature to Peterborough" that "[f]or a one-man side loader, 2008 costs are approximately \$145,000 (\$138,000 in 2006) to operate a single truck".

There is no specific information on where these figures came from. A footnote says that "some come from municipalities with multiple contractors and/or internal crews" while a memo from Genivar reports "these costs are grounded in data available from municipalities in Ontario that have recently gone through an RFP/tendering process for a new collection contract". The memo only provides a general breakdown of costs, with \$50,000 for capital, amortized over seven years, \$40,000 for labour and \$55,000 for operating.

The information provided by the consultants in relation to this memo is general and vague, provides few details, no information about sources, and no substantiation of how the figures were arrived. The consultant's memo does not even indicate which municipalities were used for comparison. The discussion paper also states that "some come from municipalities with multiple contractors and/or internal crews." As a result, there is no way to evaluate this information provided by the consultant.

However, CUPE 504 researched costs on a per truck basis and compared Peterborough's costs with those of other municipalities with contracted out service. This analysis found that Peterborough's costs remain lower than these other municipalities (see below).

### 5.3 City of Peterborough Waste Collection Discussion paper – February 2008

CUPE was provided with a *Waste Collection Discussion paper* drafted by City of Peterborough staff that provides a comparison of the internal costs and costs of contractor costs for waste collection.

The contractor costs included in this were drawn directly from the Genivar/MacViro Consultants memo discussed above. As noted above, this calculation of costs includes no specific background, sources, or substantiation for how these figures were derived.

These contractor costs do not directly use the more widely-accepted cost comparisons of cost per tonne or cost per household. Instead they use cost per truck comparisons developed by the consultant to indirectly develop estimates for the cost per tonne for private contracting. The method of costing solid waste collection costs by truck is not widely used and so few comparisons are publicly available.

Based on this costing the city estimates that the full cost for contractor solid waste collection would amount to \$690,000 per year (\$138,000 times five trucks) plus additional overhead costs for the city of \$34,000 a year, for a total comparable cost of \$724,000 a year or \$55 per tonne in 2006, based on 13,079 tonnes a year. However, these costs appear to be significantly underestimated, as is explained below. These figures are also out of line with others numbers that CUPE has researched.

Municipal averages for these ratios are not available because they are not often used in cost comparisons. However, because the city has used these ratios, CUPE 504 undertook research to calculate costs on this basis for comparable communities that were highlighted in the reports commissioned from consultants by the City of Peterborough.

This research shows that costs of garbage collection on a per truck are considerably higher than these estimates provided by Genivar/MacViro Consultants to Peterborough. They also show that Peterborough's costs are less expensive than other municipalities of a comparable size with contracted out garbage collection on different measures.

<b>Actual Cost of garbage collection per truck and per resident Peterborough and comparable communities</b>				
<b>Municipality</b>	<b>Population</b>	<b>Direct Cost</b>	<b>Cost per truck</b>	<b>Cost per resident</b>
Cornwall	47,000	\$726,056	\$181,514	\$15.34
Brantford	91,584	\$1,097,700	\$219,540	\$11.98
Newmarket	76,835	\$1,080,000	\$216,000	\$14.07
Peterborough <sup>17</sup>	75,780	\$763,000	\$152,600	\$10.07

In contrast to the estimates provided by the private consultant, City of Peterborough staff developed very detailed and impressive estimates of internal costs, based on a “grass-roots” build-up of actual costs. These calculations were developed together with input from CUPE members and staff and provided in a “Garbage Collection Model” spreadsheet. (Incidentally, the much more detailed internal cost estimates calculated by city staff compared to the consultants’ estimates provide further evidence of the benefits of maintaining services and expertise in-house.)

While the “Garbage Collection Model” calculations are very detailed, there are a number of areas where it appears that the estimated costs of internal collection are overestimated and other areas where the total costs to the city for contracted services are underestimated.

The calculation of “Comparable Internal Costs” for fleet vehicles includes the addition of \$76,000 as a replacement premium above the \$80,000 already included for estimated depreciation amounts. This inclusion of an extra \$76,000 increases the calculation of internal costs by \$5.81 per tonne based on 2006 waste volumes. With higher diversion rates expected, the calculation of this “replacement premium” on a per tonne basis would no doubt be higher.

While it can be appropriate to include a replacement premium to compare with external contractors who are required to use newer equipment, this would also mean that maintenance costs would be considerably lower and so those lower costs should be taken into account in the calculation of internal costs. The maintenance costs included for the 2006 calculations of internal costs amounted to over \$140,000, or over \$10 per tonne. Newer vehicles can also provide increased productivity and efficiency which should also be taken into account in the calculation of the internal costs.

As noted, the calculation of internal costs includes an amount for depreciation of the existing fleet. However, the city has been able to operate a number of trucks in its fleet for longer than their projected 10-year lives. This has provided the city with additional value beyond the original cost, and beyond the amounts depreciated over 10 years. Costs of depreciation for the entire fleet need to be included for accounting purposes, but this additional value from owning the vehicles should also be taken into consideration. The additions to depreciation associated with vehicles beyond their projected 10-year lives for the 2004 to 2006 period amounted to an average of over \$35,000 a year, or over \$2.50 per tonne.

<sup>17</sup> Costs for Peterborough include total direct costs and the costs of depreciation of fleet trucks. Overhead administration, supervisory and corporate cross charges are excluded as they generally are excluded with estimates of private sector contracting costs.

The estimates of the internal costs of managing and administering a private contract for waste collection are also likely to be too low. These are estimated at only a quarter of the current estimated internal costs for management and administration: \$31,000 a year (plus additional services of \$3,000 a year currently provided by public works) instead of the estimate of \$124,000 per year for overhead supervisory and administrative costs of internal garage collection services. This \$34,000 overhead for contracted out service works out to less than five per cent of the cost of the contract.

As discussed below, studies show that on average monitoring costs add nearly 20% to the contract cost. Applied to this example, 20% of the suggested private sector contract cost would amount to \$138,000 per year, \$104,000 higher than what was included – and equivalent to an extra \$7.95 per tonne for the estimated cost of a private sector contract.

Even taking the unsubstantiated estimates of private sector costs per truck as given, analysis shows that claims for cost savings from contracting out evaporate with more realistic calculations of internal and external costs. Just these two sets of adjustments to estimated costs – using actual depreciation costs over 10 years for internal fleet costs and comparable costs for overhead of contracted out services – would reduce the estimated cost difference of internal collection compared to contracted service to less than \$1.40 per tonne, only \$18,000 a year, and a “premium” of only two per cent over internal costs.

Internal efficiencies developed in cooperation with city staff could easily achieve this level of cost savings. Keeping this service public also provides the opportunity to achieve further efficiencies and flexibility in future years. In contrast, contracting out the service would tie the city into a long-term contract with a private firm with very little flexibility to achieve savings or change services in future years.

#### **5.4 Conclusion**

This section has shown that there were significant flaws in consultants' reports to the City of Peterborough dealing with relative costs of solid waste collection. They are selective in their comparisons, provide few details, contain little or no substantiation while other more comprehensive measures show opposite results.

Finally, these reports and costing comparisons did not consider other factors that can have a very significant impact on the ultimate and ongoing costs to the city and taxpayers, quality of service, the overall impact on the community, and the ability to achieve other priorities, including environmental objectives. These factors include:

- A range of monitoring and overhead costs.
- Transition costs.
- Costs associated with increased risks.
- Loss of flexibility to deal with changing priorities, including higher environmental standards.
- Additional benefits that can be provided by a public crew under direct control.
- Broader economic, social and environmental impacts on the community.

Many of these factors are discussed in more detail below.

## 6. Other costs and benefits related to waste collection that are often ignored

Most analyses of the costs of private and public waste collection ignore or underestimate the value of other costs related to contracting out.

These include overhead monitoring (or “transactions” costs), transition costs from moving to private sector collection, and increased risks associated with private sector contracting. Also widely ignored are associated benefits available as a result of the flexibility retained from keeping this as a directly controlled public service.

This section considers these factors using specific experiences from communities in Ontario, including many from Peterborough.

### 6.1 Contracting out adds overhead and transition costs and increases risk for the city in ways that are rarely considered in cost analyses.

Analyses of the comparative costs of publicly-delivered services and contracting out frequently ignore or underestimate additional costs involved with private delivery, including:

- Overhead and “transaction costs”.
- Transition costs.
- Costs resulting from increased risks.

#### 6.1.1 Overhead Costs

Overhead and “transaction costs” include the costs of administration, tendering, supervision, monitoring, legal costs, enforcement and review of contracts. As Elliot Sclar has written:

*“Too often, transaction costs are ignored. But, as we have seen over and over again, these costs do not disappear. They merely grind the privatization initiative to a halt at some future point, leaving taxpayers stuck with higher costs and fewer alternatives.*

*The economics of organization teach us that when a service is frequently or regularly used, providing it internally because of the transactions costs generated by supervising outside providers often pays.<sup>18</sup>”*

Information about these additional overhead transaction costs are rarely provided because they are rarely included in the calculation of the costs of private sector contracts. These costs can be hard to estimate in advance because in the case of contracting out, privatizations and P3s they often involve unpredictable, risky and high costs such as for legal proceedings, settlements, etc. However, reliable estimates are that the standard costs of effective monitoring account for approximately 20% of contract costs<sup>19</sup>.

*Monitoring is not cheap: it averages nearly 20 percent of contract costs. Yet, when governments fail to monitor performance of private contractors, they are much more likely to revert to in-house provision, presumably because service levels do not meet expectations<sup>20</sup>.*

The City of Peterborough’s costing exercise, included in the *Draft Waste Collection Discussion paper* dated February 19, 2008 includes an estimate of \$31,000 for overhead, supervisory and administrative costs associated with a contracting out bid for garbage collection. This amounts to 4.5 per cent of the suggested full cost for contracted out services (which in itself is very likely to be an underestimate) based on 2006 volumes.

<sup>18</sup> Sclar, op cit, p. 160.

<sup>19</sup> Amir Hefetz and Mildred Warner, 2004. “Privatization and Its Reverse: Explaining the Dynamics of the Government Contracting Process”. *Journal of Public Administration Research and Theory* 14:171-190 (2004), p. 180-181.

<sup>20</sup> Chang et al. *Managed Competition in Indianapolis: The Case of Indianapolis Fleet Services*. School of International and Public Affairs, Columbia University, New York, December 2005, p. 12.

The amount of 20% for monitoring costs is four times what was included in the city's analysis for administration costs for private sector contracts. The costs are likely to be proportionately larger for a smaller contract because they involve a number of fixed costs<sup>21</sup>.

Of course, municipalities can spend much less on tendering, supervising, administration, monitoring, enforcement and review of contracts and many do spend considerably less. This is why contracting out frequently fails. A survey of over 600 municipalities in the U.S. found that 88% brought at least one contracted out service back in house. Follow-up interviews, including for a number involved in residential garbage collection, determined that the main reasons for bringing services back in-house were: poor quality of contracted services, a lack of competitive market of alternative suppliers, difficulties with contract specification, and the high cost of monitoring<sup>22</sup>.

However, fewer than half of those surveyed reported any monitoring system. As the report on managed competition from Columbia University concluded:

*Governments frequently carry out competitions to the point of letting a contract, but then fail to follow up; in fact fewer than half perform even minimal monitoring of contracts. Finally, monitoring is an expensive but necessary element of successful contracting; when organizations do not monitor, they frequently terminate privatizations and revert to public provision<sup>23</sup>.*

Other costs also add up considerably. In the past few years, Peterborough has already spent over \$140,000 in consultants' fees to develop a strategic business plan for public works and an optimization study for recycling, with questionable quality resulting from the reports in relation to this issue. These costs do not include the additional expense of staff and council time to consider the issue of contracting out. Monitoring can also be outsourced, but then the monitors also need to be monitored themselves<sup>24</sup>.

### 6.1.2 Transition Costs

The transition costs of moving from public delivery to private delivery and then back again are also frequently ignored. These include the costs and potential losses from selling equipment and facilities and the transitioning of staff and systems.

Peterborough has well over \$1.3 million in garbage collection fleet assets. In fact, until the recent fleet purchases, over half of the fleet was beyond its expected 10-year lifespan for depreciation, but still providing service and value to the city.

Many municipalities that have contracted out or sold off their vehicles for other reasons have had a difficult time realizing decent values from their asset sales. For instance, the City of Ottawa's external auditor reported losses of over \$158,000 on the sale of waste collection fleet vehicles in 2006.

If and when municipalities have to subsequently contract back in these services, they could be required to purchase new capital equipment in short order at a considerable expense.

Other costs for the transitioning of staff and systems are more difficult to quantify, but are also very real.

<sup>21</sup> Amir Hefetz and Mildred Warner, 2004. "Privatization and Its Reverse: Explaining the Dynamics of the Government Contracting Process". *Journal of Public Administration Research and Theory* 14:171-190 (2004), p. 180-181. Chang et al. *Managed Competition in Indianapolis: The Case of Indianapolis Fleet Services*. School of International and Public Affairs, Columbia University, New York, Dec. 2005, p. 12.

<sup>22</sup> Warner, M., Ballard, M. and Hefetz, A. 2003. Contracting Back In: When Privatization Fails. *International City/County Management Association Municipal Year Book 2003*, Washington D.C. p. 30-38.

<sup>23</sup> Chang et al op cit. p. 15.

<sup>24</sup> Prager, J. Contracting-Out Government Services: Lessons from the Private Sector. *Public Administration Review* 54 (2): 176-84.

### 6.1.3 Increased Risks

Costs associated with increased risks from contracting out are rarely if ever considered. Some public service managers assume that risks are reduced by contracting out to the private sector, but in fact contracting out increases risk in many ways.

Private companies can and often do default, or do not deliver to the quality standards required. These risks are hard to predict and are usually ignored in cost analyses.

There are numerous examples of contract failures that have led to subsequent contracting back in by municipal governments. Most of these involve risks that were unforeseen during the development of the contracts. A number have also involved business failures by the private contractors, including failures of subsidiaries of large multinational corporations.

These risks invariably involve increased costs, but these have rarely been tabulated, even after the fact. Risks are likely to be higher when the contracted service involves expensive capital equipment, longstanding city services and expertise, direct services to the public and possible environmental consequences.

In Ottawa, the city contracted out part of its residential garbage collection to a smaller firm called Exel Environmental in 1996. However, the company consistently failed to provide minimum service, paid extremely low wages and had an unreliable fleet. The company was unable to meet its contractual obligations and terminated the contract after 21 months of difficulties. This resulted in the municipality paying large premiums to other private contractors to take over this work<sup>25</sup>.

Public provision of this service has not only saved the city millions of dollars directly; it also provides Ottawa with the insurance of very effective and flexible back-up services. If another private contractor fails, city crews can be employed to back-stop without the city having to pay large sums to a private contractor. These crews can also be used in other emergency situations. The value of this effective "insurance" in terms of a backstop public service has never been included in cost analyses.

Risks are not limited to financial impacts. Contracted out services can also increase the environmental and political risks.

In Stouffville, Ontario, Waste Management International (WMI) was involved in dumping 60 million gallons of industrial waste into landfill sites sitting on top of two underground aquifers during the 1970s and 1980s<sup>26</sup>. Miscarriages, birth deformities and cancers were documented before the company was forced to close the site.

### 6.1.4 Recent Experiences in Peterborough

Peterborough has had its own share of problematic experiences with services contracted out to the private sector. The following is a summary of some of these recent experiences:

*Municipal Airport.* After operating the Peterborough Municipal Airport for many years, the city decided to contract out its operations. In 2008, the contractor decided to leave part way through the term of the contract. The city found that the equipment at the airport had not had its legal ownership changed nor had it been kept up to safety standards. Because the equipment was not licensed and was in poor condition, city mechanics were taken away from their regular duties to fix this equipment.

*Grass Cutting.* In recent years a portion of city-owned lands were contracted out for grass cutting and litter pick up. During these years, city workers were often directed to do work that the contractor had not done properly. A new tender was issued for this work in 2007 and only one bid was submitted, nearly double the price of previous years. The city then decided to purchase the equipment needed and bring the service back in house.

<sup>25</sup> Reported partly in the chronology in: [www.city.ottawa.on.ca/calendar/ottawa/archives/rmoc/Regional\\_Council/27May98/P&E6\\_02.pdf](http://www.city.ottawa.on.ca/calendar/ottawa/archives/rmoc/Regional_Council/27May98/P&E6_02.pdf)  
<sup>26</sup> Some chronology reported in <http://www.stopwmx.org/cr3.html#stouf>

*Beavermead Campground.* The city campground was contracted out to private contractors from 1994 on. One contractor, who operated the park for a number of years, had several complaints filed against him from campers, the public and even city staff. There were investigations into accusations that the contractor was stealing picnic tables and city-supplied supplies to use in his other campgrounds. The contractor ended up leaving part way through the term of his contract. Another contractor was brought in who also left early in the camping season. A third contractor was then brought in and the problems started once again. Police were called to the park several times to deal with matters between the new contractor and an old contractor who was camping in the park. The operator at that time was arrested and spent two different times in jail over the summer. As was stated in a city report, “the campground has experienced a decline in service quality, goodwill and sustained facility maintenance.” The city decided to bring the operation of the park back in-house.

*Del Cray Park Marina.* This operation was brought back in-house following several years of being contracted out. The city once again realized the benefits of operating services with internal staff.

These are just a few of the problems that have arisen with contracting out in Peterborough. They show how, after some experience with contracting out, the city has then incurred substantial costs to deal with problems caused by the contractors and has, in some cases, brought these operations back in-house.

Peterborough city officials have wisely decided to contract back in a number of these services. However, it could have avoided these substantial additional costs, poor services and problems if these services had not contracted in the first place.

## **6.2 Contracted out work severely reduces the flexibility to deal with changing circumstances and changing public priorities – and increases the costs of doing so.**

Contracts tie municipal governments to specific and narrow terms that require monitoring and enforcement and put the municipality in a vulnerable position in relation to contractors, who can often exact high premiums for changes to terms.

A number of Ontario municipalities have discovered the severe problems that can result from contracting out waste collection services. In many instances this is because private contractors are bound by contracts that need to be relatively rigid and specific and may lack flexibility in their own operations. In other instances, it appears that private contractors want to take advantage of their bargaining power under exclusive contracts.

The City of Toronto’s experience with a private contractor in the former York region is an instructive example. Toronto maintained a contract with two private contractors to collect waste and recycling in the York community. When the city decided to implement a source separated organics (SSO) Green Bin program by 2004, it required a renegotiation of their contracts with the private companies, Miller Waste Systems and Turtle Island Recycling, which ran until June 2007.

Extensive review and negotiations by city staff with these companies resulted in additional cost proposals of over \$7.5 million, including an additional payment for tonnage diverted out of the waste stream into a SSO program at the prevailing rate per tonne. In effect, one of the companies was demanding to be paid at the prevailing rate for *not collecting garbage* – for waste that was being diverted to organic collection. Alternatively the companies said they could be bought out from the existing contracts for a total of over \$2.2 million.

As a city staff report noted, their proposals would have resulted in a cost increase of 78% per year – far above the 36% cost associated with starting a SSO Green Bin program in a similar community. This represented a premium of about \$1.2 million a year above what these reasonable cost increases would have been.

The City of Toronto subsequently brought the York community curbside collection contract back in-house last year in 2007. With the cooperation of CUPE 416, this was achieved with negligible additional costs or staff – and is projected to save the City of Toronto approximately \$4 million a year<sup>27</sup>.

### **6.3 Public delivery ensures that services can directly respond to public priorities, such as waste diversion and other environmental concerns.**

Publicly-delivered services provide the flexibility to deal with new priorities, especially new environmental priorities, in a cost-effective manner.

Peterborough, together with other municipalities across Canada, is putting renewed and increased emphasis on environmental concerns. Waste reduction and management is a big part of these concerns. The city and residents of Peterborough have achieved a relatively high recycling and diversion rate and reduced household generation of solid waste through a number of policies and practices.

Municipalities with public waste collection services tend to have much more extensive environmental and waste diversion programs. CUPE's survey of 15 comparable municipalities found that average diversion rates for municipalities with public waste collection averaged 41%, while diversion rates for municipalities with private garbage collection averaged only 32%.

Privatizing services not only reduces the level of direct public control, but it can also make governments vulnerable to legal actions from private companies seeking damages through investor protection guarantees in trade deals<sup>28</sup>. These provisions can also make it more difficult to return to public operation.

With significant changes planned to Peterborough's solid waste collection system, and additional uncertainty about environmental and climate change impacts and regulations, maintaining flexibility through direct public control will be ever more important in coming years.

In-house service also provides the ability to deal flexibly with special events, changes in the waste stream and other unforeseen events. These factors are expected to increase in future years.

Municipalities have benefited from the greater flexibility and goodwill that can be provided when services are provided in-house.

#### **6.3.1 City of Peterborough Waste Diversion Bag Limits**

Peterborough has gradually instituted tighter garbage bag limits for weekly collection pickup. The limit dropped from six-bags in 1990 to two-bags a week by 1995. These bag limits have made a major contribution to the Peterborough community's high waste diversion rates. Peterborough's diversion rates, at close to 50%, are far above the provincial average of about 28%.

Moreover, as the Ontario Centre for Municipal Best Practices reports, this was achieved with a 20% reduction in combined total recycling and garbage collection costs after the implementation of the two-bag limit and with lower than average operating costs per tonne for waste diversion programs<sup>29</sup>.

<sup>27</sup> See City of Toronto Staff Report. *Cost to Amend Curbside Waste Collection Contract to Include Source Separated Organics in the York Community*, June 13, 2003. City of Toronto Staff Report. *Etobicoke, York, Multi-unit Residential and White Goods Collection Contracts*. January 31, 2007.

<sup>28</sup> See summary of *NAFTA Chapter 11 Investor-State Disputes* by Scott Sinclair for the Canadian Centre for Policy Alternatives for a summary of the NAFTA Chapter 11 Investor-State disputes.  
[http://www.policyalternatives.ca/sites/default/files/uploads/publications/National\\_Office\\_Pubs/2005/chapter11\\_january2005.pdf](http://www.policyalternatives.ca/sites/default/files/uploads/publications/National_Office_Pubs/2005/chapter11_january2005.pdf)

<sup>29</sup> Ontario Centre for Municipal Best Practices, *Best Practice Summary Report SW-WD-04-01*, June 2004.  
[http://www.amo.on.ca/AM/Template.cfm?Section=What\\_s\\_New5&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=12241](http://www.amo.on.ca/AM/Template.cfm?Section=What_s_New5&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=12241)

It is very unlikely Peterborough would have been able to achieve these diversion rates and cost savings if the city had been tied into a multi-year contract with a private waste collection company. As Toronto's experience has shown, private contractors can see any changes to a contract as an opportunity to exact extortionary private profits from a municipality at the expense of taxpayers or other city services. In contrast, city crews with the public interest in mind are much more flexible and willing to adjust their work to meet new public priorities – at little cost and often at cost savings for the municipality.

### 6.3.2 Peterborough: Floods and Special Pick-Ups

After major floods in Peterborough in 2004, the city had a number of staff and equipment at hand available for cleanup. Without their own garbage trucks, the city would have paid a large premium to contract trucks for this work. Other municipalities also sent their staff and city-owned trucks to assist. These were unionized city employees who may not have come if Peterborough was a city with largely contracted out services.

With the staff and equipment on hand, city crews are available for special event pickups, such as Earth Day, sports events, and assisting other city organizations such as City Hall, police, arenas and recreation with any special pickups needed without requiring any costly negotiating or changes to contracts. Outside contractors often charge a high premium for any additional pick-ups.

The City of Peterborough recently annexed new property. By making some minor routing changes city workers were able to pick up at hundreds more houses with no cost increases. Similarly, it is highly unlikely that an outside contractor would have provided these additional services without charging a premium to the city.

## 6.4 Conclusions

This analysis and report has shown that:

- Peterborough's publicly-delivered garbage collection costs are low in relation to other comparable Ontario municipalities whether measured on cost per tonne, cost per household, cost per resident, or cost per truck.
- There is no evidence that private sector waste collection is consistently lower than public sector waste collection.
- The cost of private sector waste collection has tended to increase at a much faster rate than public sector collection.
- Consultants' reports on waste collection for the City of Peterborough were highly selective in their analysis and contained little or no substantiation.
- Calculations of the cost of internal waste collection are likely overestimated and the costs of private collection underestimated.
- Contracted out waste collection significantly increases risks for the city and increases other types of costs often not considered in many comparative cost analyses.
- Straight cost comparisons neglect to account for other broader social, environmental and economic factors, which can be considerable.
- Contracted out services severely reduce the flexibility to deal with changing public priorities and circumstances; these contribute to the other benefits of keeping waste collection public.