**WASTE WATCH OTTAWA**


# DIVERTING MORE CURBSIDE WASTE IN OTTAWA WITH A USER PAY SYSTEM

**JUNE 25, 2019**

**ACKNOWLEDGEMENTS**

Waste Watch Ottawa (WWO) would like to acknowledge the contributions to this report made by the students of Dr. Mary Trudeau's spring 2019 University of Ottawa, Masters in Environmental Sustainability, Capstone Course, EVDS 5111. The Capstone Seminar involves groups of students working in inter-disciplinary teams with a community partner organization to address a specific sustainability issue or problem, or to contribute to advancing the objectives of an on-going initiative at a community, provincial, national or international scale. The three Capstone students who assisted WWO in reviewing the opportunities for a user pay / pay as you throw (PAYT) system to enhance Ottawa's waste diversion performance and to identify best practices were: Aaron Levine, Erica Louter and Tinotenda Makosa.

**Waste Watch Ottawa is a locally based environmental advocacy group that is committed to the promotion of waste management, recycling and composting best practices and the overall improvement of the City's environmental performance. More information on WWO may be found on our website at: www.wastewatchottawa.ca**

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Ottawa's waste diversion performance continues to be mediocre and is below the provincial average and well behind leading municipalities. One way of achieving significant improvement would be to implement a partial or full user pay system for garbage. User pay systems are widely used in Ontario municipalities and are a proven factor in achieving much better rates of waste diversion than is being achieved by the City of Ottawa.

A user pay program would provide direct financial incentives to householders to reduce their dependence on the garbage collection system and improve participation in recycling and organics programs. The user pay program would be financed by fees payable on garbage bags or carts. Under a user pay program for Ottawa all recycling and organics collection would continue to be provided at no direct cost to the householder and would continue to be funded through property taxes. In user pay systems municipalities fund their waste management programs more along the lines of a utility with residents required to pay directly, in whole or in part, for the waste management services that they actually consume. User pay waste systems operate much like other municipal utilities such as water where consumption is measured and residents are invoiced based on the water used. Similarly hydro and gas services are paid for based on the level of consumption.

Experiences elsewhere and a review of best practices shows that possible concerns about illegal dumping as a result of a user pay system are more imagined than real. Provision can be made for the collection of bulky items and effective promotion and education can ease implementation. Residents and families of all income levels are equally capable of avoiding garbage pick-up charges and maximizing their participation in the recycling and organics programs. The adoption of any kind of user pay program would shift the sources of revenue currently recovered from the direct $88 fee charged to property owners and from general property taxes to a either a partial or a full user pay funded mechanism. The shift in revenues would be dependent on the exact type of approach adopted and would depend on issues such as the number of bags or cans that would be picked up at no direct charge and the price set on either carts or individual bags or tags.

Waste Watch Ottawa recommends a two stage transition to a full user pay system. As a first phase the City should initially adopt a partial user pay program. Such a system would cover some portion of overall system costs through property taxes by allowing a number of "free" bags or cans to be collected with the remaining costs recovered through a user pay bag / tag program. A weight and/or volume based system should be considered and planned for as a second step towards a full user pay program and timed to coincide and be implemented along with any major retendering of the current collection contracts.

## 1.0 INTRODUCTION

In September 2017 Waste Watch Ottawa (WWO) released a critique of the City of Ottawa's mediocre waste diversion performance, *Improving The City of Ottawa's Waste Diversion Performance: Recommendations for Action,* which documented how Ottawa trails the performance of most other cities in Ontario in both its recycling and composting programs. WWO argued that action was needed to make the City an environmental leader and to extend the life expectancy of the City's Trail Road landfill site. Since the release of the report the only substantive action taken was a decision to allow residents to begin using *any* kind of plastic bags in their green bins beginning in mid - 2019. WWO and other local environmental groups opposed the move.

In August 2018 during the municipal election WWO released a *Waste Management Action Plan for the New Ottawa Council* which set out a six point platform to address the weaknesses in our municipality's waste, recycling and organics policies. WWO suggested that better waste management and improved diversion from disposal should be identified as high priorities for the 2019 – 2022 term of Council. One of the elements of the *Action Plan* was as follows:

- Plan to implement a partial or full user pay system for garbage, to require clear garbage bags and to reduce the number of bags/bins of garbage that can be set out for bi-weekly collection

This report describes the rationale for this recommendation and explores how a user pay system, sometimes called a pay as you throw (PAYT) system, could contribute substantially to a new era of waste diversion in the City.

*Focus on curbside residential garbage*

*This discussion of user pay systems focuses almost exclusively on its application to curbside residential waste collection and not to collection from multi-residential buildings. Multi-residential buildings have their unique challenges and do warrant special attention and should be a priority in the City's waste diversion program. User pay however does not apply easily to multi-residential buildings because there is no straightforward way to assign waste generation to any particular unit in an apartment or condominium or to an individual unit in a townhouse complex where waste, recycling and composting services are provided collectively.*

## 2.0 USER PAY: A MAJOR ELEMENT ON THE ROAD TO HIGHER WASTE DIVERSION IN OTTAWA

### 2.1 User Pay: What It Is and How Would It Work

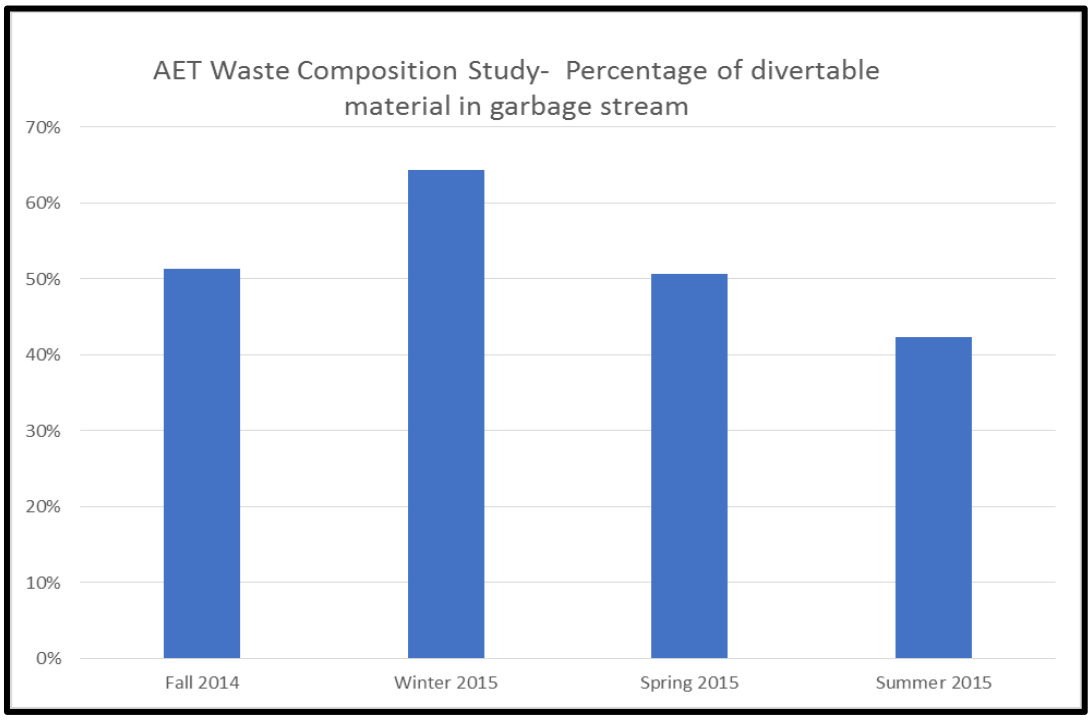
Traditionally municipal waste management services have been paid for collectively by all residents through their property taxes. Municipalities may directly provide the services themselves with municipally owned equipment and staff or they may contract with a private waste hauler or other private service provider to operate parts or all of the municipal waste management system. Ottawa operates a blended system of direct municipally owned and operated services and the use of private contractors. This applies at both the curbside collection stage as well as the sorting and processing of

recyclables and organics. Ottawa also owns and operates its own landfill site at Trail Road but contracts the processing of green material to Renewi and to Cascades for recyclables.

Under a traditional tax supported waste management program garbage collection is provided as a common shared service with no direct incentive to a householder to reduce the waste they generate and no direct incentive to increase participation in the recycling and green bin programs. A user pay program would provide direct financial incentives to householders to reduce their dependence on the garbage collection system which would be financed with fees payable on garbage bags or carts. Under a user pay program for Ottawa all recycling and organics collection would continue to be provided at no direct cost to the householder and would continue to be funded through property taxes.

Waste audits for Ottawa show that recyclables and organics end up in the garbage in significant quantities. The most recently available audit conducted for the City of Ottawa showed that single family residential waste that is going to disposal at the Trail Road landfill site included between 40% and 65% divertible material that should have been put into either the blue or black boxes or into the green bin.[1] Thus roughly half of material being sent to Trail Road should have been put into either the blue or black boxes or into the green bin.

**Figure 1. AET Waste Audit: Percentage of Divertible Material in the Garbage Stream**




The focus of a well-designed user pay program is to discourage the behaviour you do not want – garbage generation – and to reward the behaviour you do want – enhanced participation in recycling and the green bin programs. User pay is designed to financially reward waste reduction and to move

[1] AET Group Waste Composition Study, August 2016 figures 3.12, 3.13, 3.14 and 3.15

materials that would otherwise have ended up in the waste stream into the recycling and organics programs, thereby increasing the waste diversion rate and reducing reliance on landfill disposal.

The charge levied per bag of residual waste does not have to be based on full cost recovery. It relies on the "nudge "principle whereby a small charge is sufficient to encourage residents to make better choices. [2]

In most user pay systems municipalities fund their waste management programs more along the lines of a utility with residents required to pay directly, in whole or in part, for the waste management services that they actually consume. User pay waste systems operate much like other municipal utilities such as water where consumption is measured and residents are invoiced based on the water used. Similarly hydro and gas services are paid for based on the level of consumption.

Some services such as transit are commonly financed through a mixed user pay / tax system where in the case of transit the user pays for tickets or a monthly pass while a proportion of the total program is funded through property taxes paid collectively by all residents whether or not they use the transit system.

Municipal services which are deemed of broad benefit to all residents regardless of specific individual or family use and where use of the service cannot be tracked, such as police services, fire -fighting and snow plowing, are paid for by all residents collectively through property taxes.

"PAYT systems exist in many forms in two general categories known as either full or partial systems. The former refers to municipalities requiring their residents to pay a price for all of the waste that they generate. The latter system typically allows residents a certain limit of free waste, with all extra waste they generate having to be paid for. Additionally, for partial PAYT systems, residents are often charged a flat annual fee in combination with using waste tags or stickers for extra garbage generated".[3] The various types of PAYT strategies have been described by Lisa Skumatz and are displayed in Table 1.

[2] **"Nudge"** is a concept in behavioral science, political theory and behavioral economics which proposes positive reinforcement and indirect suggestions as ways to influence the behavior and decision making of groups or individuals..

[3] Aaron Levine, Erica Louter, Tinotenda Makosa, University of Ottawa Capstone project report April 2019, *Using Pay As You Throw (PAYT) Methods for Waste Diversion in Ottawa*, page 8

**Table 1. Description of User Pay / PAYT strategies**[4]

| PAYT Programs | Description |
|---|---|
| Waste Tag/Sticker | Pre-purchased tags or stickers must be affixed to garbage bags or bins; otherwise the waste (or just the extra waste in a partial system) will not be collected. |
| Volume-based (variable bin sizes) | Residents lease their garbage bins from the municipality and are able to choose from a variety of bin sizes and pay specific flat fees according to the number of bins and sizes chosen. With this method, only waste that fits into the residents' bin(s) will be collected. |
| Weight-based | An alternative strategy to volume-based programs, where residents are charged based on the total weight of the waste they put out for collection. Typically implemented using RFI (radio-frequency identification) technology. |
| Hybrid Approach | The most common approach, as it is extremely flexible. Typically combines a volume-based collection service, with the option to purchase additional tags or stickers for extra garbage (or a flat fee). |
| Bag program | Residents purchase specific bags with a visual identifying feature (municipal or hauler logo) and waste trucks will only collect waste in these bags. |

## 2.2 Best Practices and Positive Experiences Elsewhere

A literature review conducted as part of the Capstone project demonstrated that "regardless of the PAYT system implemented, evidence indicates that the system has a positive effect on (municipal solid waste) MSW diversion rates and does not increase the frequency of illegal waste dumping in a majority of municipalities."[5]

Volume-based user pay systems are an effective method although they can be expensive to implement because the municipality has to supply the various sized collection bins and deliver them to households. The literature review also demonstrated that "weight-based pricing results in the largest diversion rates, but it is also the most expensive to implement."[6]

A significant number of municipalities in Ontario of different sizes have adopted user pay systems of varying designs with the majority surveyed using bag/tag systems in a hybrid program where a certain

[4] Lisa Skumatz, Pay as you throw in the US: Implementation, impacts, and experience. *Waste Management,28*(12), 2778-2785, 2008

[5] Aaron Levine et al, Capstone page 10 - 11

[6] ditto

amount of waste was collected under the tax supported system with anything in excess being charged for with a tag or sticker. The Capstone study reviewed user pay / PAYT programs in 16 municipalities, and conducted interviews with municipal officials in Halton Region, Simcoe County, Waterloo Region and Markham. The type of PAYT system and the diversion rates as reported by the provincial Resource Productivity and Recovery Authority (RPRA) are shown in the following table. Ottawa's waste diversion performance and the average province wide performance are shown for comparison purposes.

**Table 2. User Pay / PAYT Programs in Ontario (Capstone 2019 and Ontario Resource Productivity and Recovery Authority RPRA 2017)**

| Municipality | Population (RPRA 2017) | User Pay PAYT type | Waste collection | Bag type | Number of bags | Tag /cart cost | Diversion rate (RPRA 2017) |
|---|---|---|---|---|---|---|---|
| Barrie | 147,000 | Bag / tag | Biweekly | Opaque | Unlimited 2 free bags | $3 | 52.1% |
| Belleville / Quinte | 169,276 | Bag / tag Full user pay | Weekly | Opaque | Unlimited | $3 | 55.3% |
| Dufferin County | 62,235 | Bag / tag | Weekly | Clear and privacy bags | Unlimited 1 free bag | $2 | 57.4% |
| Guelph | 131,000 | Cart | Biweekly | Clear | | Larger carts $35 | 57.7% |
| Halton Region | 562,302 | Bag / tag | Biweekly | Opaque | 6 bag limit 3 free | $2 | 55.5% |
| Niagara Region | 458,986 | Bag / tag | Weekly | Opaque | 4 bag limit 1 free | $2 | 56.5% |
| Northumberland County | 88,838 | Bag / tag Full user pay | Weekly | Opaque | 3 bag limit None free | $2.75 | 40.9% |
| Orillia | 31,128 | Bag / tag | Biweekly | Opaque | Unlimited 20 free tags /year | $2 | 63.3% |
| Oxford County | 110,862 | Bag /tag Full user pay | Weekly | Opaque | Unlimited None free | $2 | 50.7% |
| Peel Region | 1,421,000 | Cart / bag /tag | Biweekly | Opaque | Unlimited 5 free bags | $1 tag Cart free | 48.6% |
| Simcoe County | 319,743 | Bag / tag | Weekly | Opaque | 4 bags 1 free | $3 | 59.6% |
| Stratford | 31,465 | Bag / tag Full user pay | Weekly | Opaque | Unlimited | $2.60 | 39.6% |
| Toronto | 2,754,873 | Cart | Weekly | Carts | Unlimited | $5.11 | 51.6% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | bag / tag Full user pay | | Opaque bags | | tags Carts $99 - $486 size depend-ent | |
| Township of North Frontenac | 1,898 | Bag/tag Full user pay | Bring to landfill site | Clear 1 privacy bag | Unlimited | $2 | 75.5% |
| Waterloo Region | 594,100 | Bag / tag | Biweekly | Opaque | Unlimited 4 free | $2 | 56.2 |
| Wellington County | 96,440 | Bag / tag Full user pay | Weekly (biweekly in rural areas) | Opaque | Unlimited | $1.50 small $2.00 large | 39.4% |
| | | | | | | | |
| Ontario | | | | | | | 49.4% |
| | | | | | | | |
| Ottawa | 976,173 | N/A | Biweekly | N/A | 6 bag limit | N/A | 41.4% |

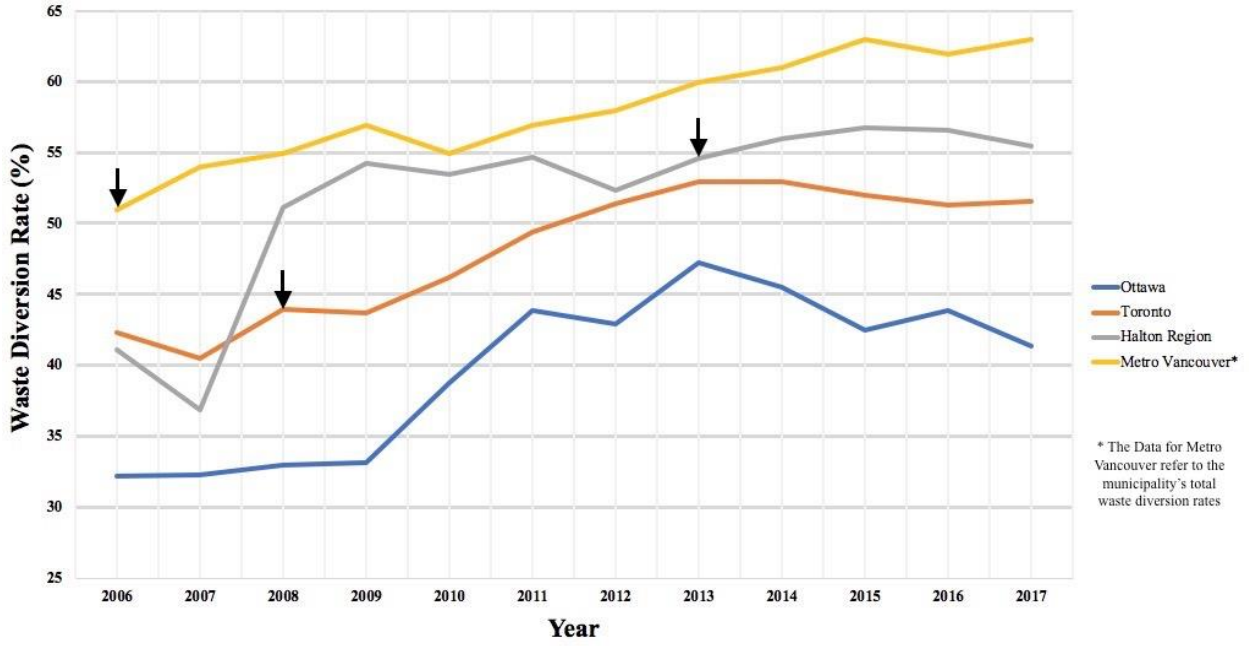
Bag/tag programs and hybrid systems are the most popular in Ontario. Toronto is the major example of a municipality with a volume-based system with cart fees varying from a low of $99.00/year for the small 75 litre cart to a price of $486.99/year for the largest 360 litre cart. There is no weight based system operating in Ontario.

Most of the surveyed user pay / PAYT municipalities are achieving higher rates of waste diversion than the overall provincial average residential rate of 49.4%[7]. With an RPRA reported 2017 waste diversion rate of 41.4% Ottawa is clearly performing significantly below the provincial average and well behind the majority of municipalities with user pay programs.

To better understand user programs further investigation was conducted on the Toronto and Metro Vancouver programs which both use volume based cart systems. With Halton Region and Ottawa for comparison an overview of the impact of the adoption of user pay programs in Toronto and Metro Vancouver are shown in the following Figure 2[8]. Dates of adoption of user pay are shown with subsequent and consistent annual improvements in waste diversion performance.

[7] Resource Productivity and Recovery Authority (RPRA) Excel spread sheet 2017 Residential Waste Diversion
[8] Aaron Levine et al, Capstone, page 50

**Figure 2. User Pay Systems Influencing Waste Diversion Rates**




Residential waste diversion rate comparison between Ottawa, Toronto, Halton Region, and Metro Vancouver. The black arrows indicate the year each municipality implemented its user pay / PAYT system. In the case of Metro Vancouver, this was a switch from a partial to a full user pay system.

Ottawa's waste diversion performance improved significantly with the roll out of the green bin program and the adoption of bi-weekly garbage collection in 2009 but there has been no improvement in the City's performance over the past years since a high of over 45% waste diversion was achieved in 2013.

## 2.3. Clear Bag Programs

The City of Markham which is part of York Region is unique in having a clear bag program but no user pay system. Markham operates a blue box recycling program and an organics green bin program but it requires residual garbage to be placed in clear bags for biweekly collection. Clear bags allow a determination to be made at the curb at the time of pickup as to whether there are any recyclables, organics, hazardous or electronic waste mixed in with the waste. If a significant amount of such materials are seen, the bag is not collected and a note is left explaining why. There is no limit on the amount of waste that can be put out for collection and up to 4 opaque bags are allowed for privacy. In addition to promoting waste diversion the City also argues that clear bags help avoid injuries to waste collectors.

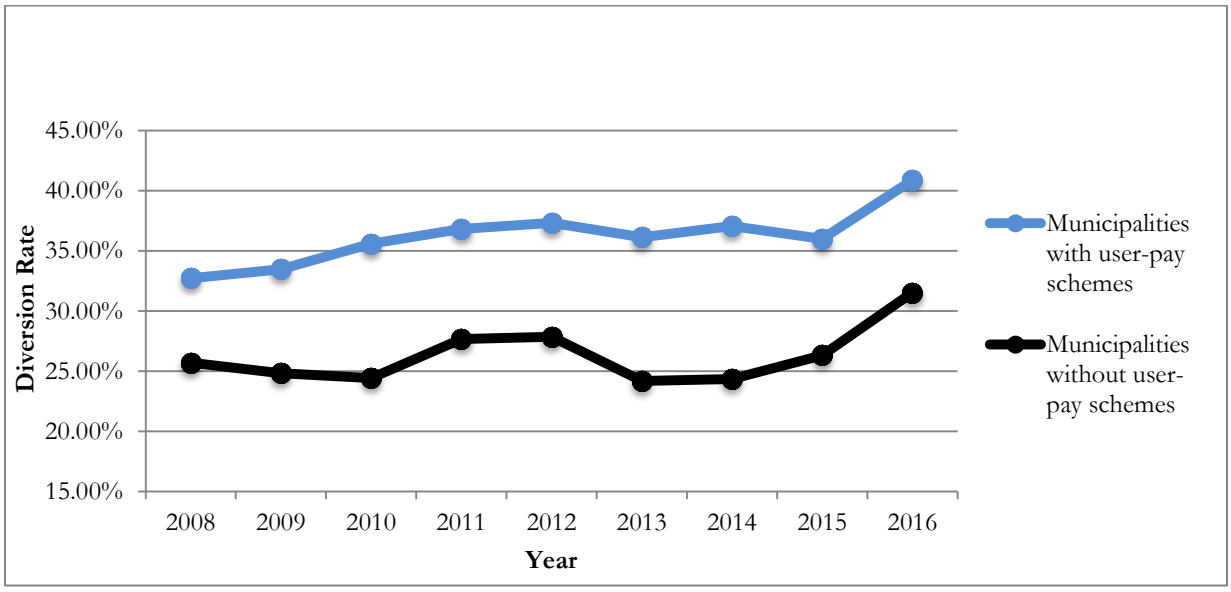
With a reported diversion rate of 80% (York Region's overall rage is 68%) Markham has arguably the highest rate of waste diversion in Ontario, if not in Canada. Clear bags are also used in Dufferin County and Waterloo Region along with bag/tag user pay systems. In both cases the rates of waste diversion are well above the provincial average at 57.4% and 56.2% respectively.

## 2.4 Chiasson Study of User Pay

An analytical study of user pay systems for garbage which supports the general findings of the Capstone study was conducted by Christina Chiasson in 2018 (*The price of garbage: an analysis the effect of user-pay programs on waste diversion in Ontario municipalities*).[9] Chaisson used the Ontario Resource Productivity and Recovery Authority database and performed a series of simple and multiple linear regressions to determine the relationships between user pay programs and diversion rates. "Between 216 -243 municipalities were considered over a nine-year period from 2008-2016. The results of the study indicate a significant relationship between user-pay schemes and increased diversion, and also indicate that the policies may be more effective in urban communities than in rural ones."[10]

The Chiasson data is plotted in the Figure 3 below. "On average, municipalities with a user-pay scheme had a 10% higher diversion rate than municipalities without one. The blue line . . . . which has a consistently higher diversion rate in all years (2008-2016), represents municipalities with user-pay schemes, while the black line represents municipalities without user-pay schemes. It can be seen . . . . that there are similar trends in the variation in diversion rates from year to year in both . . . . groups such as moderate decreases in 2013, and sharp increases in 2016."[11]

**Figure 3. Chiasson: Diversion Rates With and Without User Pay**




[9] Christina Chiasson *The price of garbage: an analysis the effect of user-pay programs on waste diversion in Ontario municipalities,* A research paper submitted in partial fulfillment of the requirements for the degree of Master of Science in Environmental Sustainability, Institute of Environment, University of Ottawa, April 2018

[10] Chiasson, Abstract, page 3
[11] Chiasson, page 31

## 2.5 Considerations

### Illegal dumping

One of the common criticisms of user pay systems is that people will engage in illegal dumping of waste, abuse commercial garbage containers and move their waste to neighbouring properties to avoid paying fees and charges. A number of municipalities reviewed by the Capstone project did identify some issues with dumping following the implementation of their user pay program but concerns were minor. To a significant degree dumping concerns are addressed by the partial / hybrid systems which allow a modest number of bags or containers to be picked without a fee being paid. The Capstone study reported that illegal dumping was more of a concern than an actual issue.[12]

### Special waste collections / bulky wastes

One way to minimize illegal dumping in addition to allowing a certain small number of bags or cans to be collected without a fee or a tag is to make provision for the collection of bulky items such as old furniture that can no longer sold or donated for second hand use. This can be done by making depots open for such disposal or by dedicating special waste collection days throughout the year, commonly in the spring and in the fall. Before the introduction of the modern large twin rear axle garbage trucks such special collections were commonly organized by municipalities including by Ottawa in the decades before the 1980's.

The City of Gatineau[13] which has implemented its own user pay system is a local example of a municipality that provides such special collections for bulky wastes. Bulky and household construction wastes can be put out for curbside collection on the identified days at no charge or can be taken by residents to waste transfer sites, again at no charge.

### Implementation

The primary implementation issue is giving the public sufficient notice of the change in the waste management system and to explain clearly and effectively the rationale and the overall benefits through improved waste diversion and reduction in reliance on landfill disposal. The municipalities interviewed by the Capstone team all emphasized the importance of effective promotion and education. Residents need to understand that this is not a new "tax" but simply a better, and indeed, a more effective way of distributing the costs based on actual usage of a service.

The adoption of a bag/tag program requires the printing and distribution of the tags / stickers. Options include retail outlets such as those that in Ottawa sell bus tickets and allow loading of Presto cards, perhaps retails stores that sell garbage bags and tags could also be purchased on line.

[12] Aaron Levine, Erica Louter and Tinotenda Makosa. Capstone page 2
[13] Ville de Gatineau, www.gatineau.ca, Encombrants

Implementation of a cart system such as that used in Toronto would be a more complicated and expensive approach requiring the purchase of carts, investments in new collection equipment and adjustments to the truck fleet to facilitate curbside pickup.

**Fairness**

Concerns have been expressed that user pay systems could discriminate against lower income residents and families who might be less able to pay for waste collection either through a bag/tag system or a volume based system. In the more common bag/tag system the cost of the extra bags can be avoided by more carefully sorting waste materials and using the recycling and the organics programs which are provided at no charge. The waste audit conducted by the City of Ottawa shows that there is considerable room for improvement in the current system and better participation in recycling and green bin collections can be conducted by all households regardless of income thereby avoiding any fees.

In a volume based system the same incentives to use the recycling and organics programs also exist. Residents and families of all incomes are equally capable of maximizing their participation in waste diversion. In the Toronto program the cost of garbage carts varies by size and maximizing participation in recycling and organics collection will reduce the necessity for a larger more expensive cart. In the case of rental units the purchase/ownership of carts could be the responsibility of the landlord. In the case of a lower income home owner the fee for the cart could be modest (in the Toronto example the price of the smallest cart is $99/year). Without a curbside user pay system the entire cost of curbside garbage collection would have to recovered through property taxes with much less ability to influence the amount paid.

**Budget and Costs**

Individual residential properties are currently charged an $88 per year fee for waste management services as a discrete line item on property tax bills and a second charge which is buried in the regular municipal property tax bill and based on the value of the specific house to which services are being offered.

The approved 2019 Ottawa budget identifies waste management expenditures by program (e.g. diversion/recycling; landfill operations/disposal and garbage collection) and by type (e.g. salaries, fleet costs and materials/services). Off-setting revenues are derived from landfill tipping fees, Stewardship Ontario grants for the blue box program and funds raised from the annual per household residential fee of $88. The 2019 budget shows total planned expenditures of $74,455,000, revenues of $51,920,000 and a net requirement of $22,535,000 which is raised as a percentage of individual property taxes.

The adoption of any kind of user pay program would shift the sources of revenue currently recovered from the direct $88 fee and from general property taxes to a either a partial or a full user pay funded mechanism. The shift in revenues would be dependent on the exact type of approach adopted and would depend on issues such as the number of bags or cans that would be picked up at no direct charge and the price set on either carts or individual bags or tags. The calculation of such costs requires more

detailed information than is currently readily available from the published City budget which is presented in a high level overview in two pages. In contrast Toronto's waste management budget is considerably more detailed and is presented in over 50 pages of information broken down into much more granular data than Ottawa publishes.

A user pay system would reduce the need to cover some portion of the net system requirements from the waste fee and property taxes. The net costs of operating the current waste management system are relatively modest compared to the provision of other services like policing and roads, so any shift away from funds raised through the current fee and individual property taxes would likely be modest in the bigger picture of things but nonetheless noticeable to an individual resident.

## 3.0 THE RATIONALE AND RECOMMENDED PAYT USER PAY APPROACH FOR OTTAWA

Based on the positive experiences of a significant number of Ontario municipalities, Waste Watch Ottawa recommends that the City of Ottawa implement a two phase transition of its waste management funding ultimately to a full user pay system.

### 3.1 User Pay Phase 1

As a first phase the City should initially adopt a partial / hybrid user pay program. Such a program would cover some portion of overall system costs through property taxes by allowing a number of "free" bags or cans to be collected with the remaining costs recovered through a user pay bag / tag program. Such a program would have a minimal operational impact by continuing the current collection system and the continued use of the current collection fleet. This means that the portion of costs being billed through the regular part of the property tax bill would remain approximately the same at least in the interim. At some future date the City of Ottawa may wish to revisit the current ratio of waste collection and processing costs on an average value residence being collected through the special fee. The question to address is whether this should be reduced or increased with higher or lower per bag user pay fees.

One model to consider is the City of Belleville where, as a matter of policy they chose to collect about 50% of their waste service costs through the sale of curbside tags with the remainder coming from general property taxes.

Detailed program design and costing for this first phase should be developed as part of the new Waste Management Master Plan (WMMP) that the City is only now re-embarking upon. This needs to be acted on as soon as possible to ensure maximum long term impact on garbage collection and waste diversion. The recommended key elements and steps for the Phase 1 implementation of a user pay program are as follows:

- Reduce the current limit of 6 bags/cans of residual garbage per bi-weekly collection to 3
- Require payment by tag or sticker for any bag or can over the permitted 3
- Set a price per bag/tag in the range of $2 - $3 comparable to other municipalities in Ontario
- Establish a program for collection of bulky wastes including special collection days and drop off depots

- Establish a system for the distribution and sale of bag / tags by perhaps building on the existing retail system of ticket and pass sales used by OC Transpo
- Expand current enforcement capacity to address any illegal dumping and other issues that might arise especially during the early days of program implementation.
- Prepare and use curbside notices to identify collection problems and violations and to provide positive reinforcement
- Develop a comprehensive promotion and education program to explain how the program works and the benefits
- Review and consider tightening requirements – e.g. reducing the unpaid bag limit and introducing clear bags - after 2 years of operation of the new bag / tag system

**3.2 User Pay Phase 2**

A weight and/or volume based system should be considered and planned for as a second step towards a full user pay program. Aside from setting maximum weights for full carts there are very few user pay systems currently in place that charge residents on both the number of times a bin is emptied and the actual weight collected. Because any weight and/or volume based system would require automated collection, especially for the largest carts, its implementation is closely linked to the timing and structure of contracting and providing garbage collection service. Such a major change would need to be timed to link with the award of new contracts because new equipment with larger capacity hydraulic lifting capacity would be required. Decisions would need to be made as to whether to utilize automated side loading trucks with grab arms that could lift and dump carts. In addition carts would need to be purchased and distributed in advance of any new volume based automated collection system and a payment system established.

Detailed costing and implementation strategies for any weight and/or volume based system could be better developed later as part of the new waste plan.

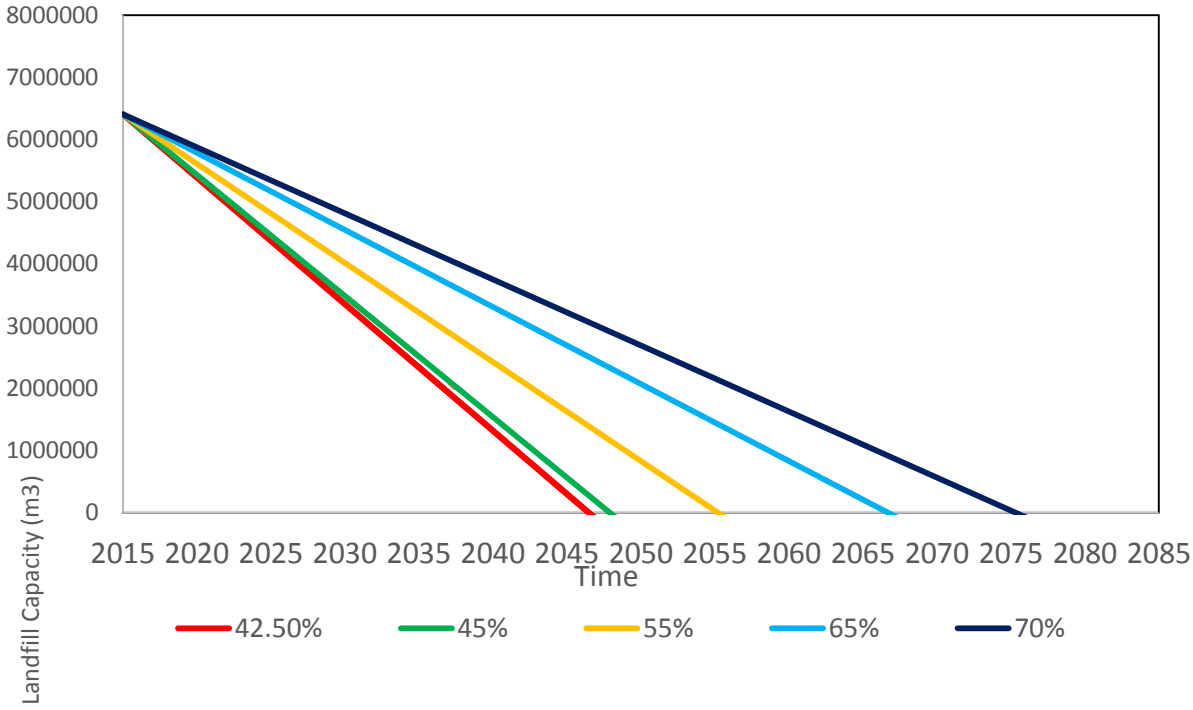
## 4.0 CONCLUSIONS

Ottawa's recycling and green bin programs continue to perform poorly. Our curbside waste diversion rates are still below the provincial average and behind the largest municipalities in the province. Based on the City's own waste audit there is considerable need for improvement with large quantities of recyclable materials and organics being put into the garbage stream. Ottawa's lack of even the most simple version of a user pay system is one factor in explaining the much better performance of the many other Ontario municipalities which have their own customized user pay systems.

The Trail Road landfill site is a finite resource and a valuable piece of municipal infrastructure that should not be squandered by accepting more waste than is absolutely necessary. Improving waste diversion by one percentage point per year – i.e. improving from 41% to 42% to 43% - starting now, with

the aim of reaching a rate of 65%, would extend the life expectancy of the Trail Road landfill by approximately 20 years beyond the current estimated closure date of around 2045[14].

**Figure 4: Trail Road Landfill Life Expectancy with Varying Rates of Waste Diversion**




Ottawa is fortunate to own and operate a landfill within its borders with significant disposal capacity and a life expectancy of over 25 years. There are many large municipalities across the country such as Metro Vancouver, Edmonton, Toronto, Montreal, and Saskatoon which, because they no longer have local landfill capacity or have landfills that are close to full, have had to resort to more costly options to manage their garbage including investing in transfer stations and trucking garbage some distance beyond their municipal boundaries. Finding a replacement for a landfill site is a time consuming and costly process fraught with community and political controversy. Large scale disposal facilities such as one which would need to be sited, engineered, and capitalized to replace a landfill the size of Trail Road could cost over $300 million and take upwards of a decade to select, approve and develop.

[14] Waste Watch Ottawa, Improving the City of Ottawa's Waste Diversion Performance: Recommendations for Action, September 2017

**CONCLUSIONS SUMMARY**

**Waste Watch Ottawa believes that there is a lot that the City can and should be doing to improve waste diversion performance. A user pay system should be a major part of any plan to increase the amount of garbage that is diverted from the Trail Road landfill.**

**Leadership and commitment from City Council is needed to implement such a program.**

**Other cities have shown that user pay can be successfully implemented and can reduce the amount of garbage sent for disposal. There is no reason the City of Ottawa cannot do so as well.**

## STATEMENT OF RESPONSIBILITY

All the analysis, reviews of available information, opinions and conclusions reached in this report are those of Waste Watch Ottawa and are the solely responsibility of Waste Watch Ottawa.

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