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**Public Works
Operations & Waste Management Division**

**Waste Collection Procurement
Process for 2013-2020 (PW11030e)**

Public Works Committee
February 6, 2012


Providing services that bring our City to life !

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Overview

- Review
- Requested Information
- Recommendations
- Questions & Answers

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Review

- January 16, 2012 Public Works Committee
 - Presentation on Report PW11030d
 - Questions for follow up
 - Referral of report to February 6, 2012 Public Works Committee
- January 23, 2012 Information Update OWM1201
 - Preliminary information on questions
- February 6, 2012 Public Works Committee
 - Report PW11030e with remaining information
 - Revised recommendations to facilitate discussion
 - Modify / replace based on today's discussions

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Requested Information*

**Public Works Committee Minutes 12-003, p. 11 & 12*

1. RFP process issues**
2. Is there any cost savings to have bi-weekly bulk collection for Project 3? **
3. How do other municipalities address or promote bi-weekly garbage collection, especially pet waste and diapers and what could work in Hamilton?
4. Further details on landfill capacity and the waste diversion for the various options
5. Information on the proposed weekly Leaf & Yard Waste collection service on where staff and resources are utilized during the times of year when these materials are not being generated**
6. Provide a further summary of the cost of the various options and clarification of potential savings

****Addressed in Information Update OWM1201**

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Requested Information*

**Public Works Committee Minutes 12-003, p. 11 & 12*

7. Information on an acceptable reduction in the bi-weekly 6 bag limit as well as consider if this reduction would require a continuance of the Special Considerations policy. If the continuation of Special Considerations policy is to be considered staff are requested to provide information on making this system broader.
8. Consider a pilot Bulk Waste collection reuse event, with Dundas as a possible location
9. Consideration of keeping the selected system for seven years
10. Investigate the consequences of allowing pet waste and diapers in green carts, and provide details the additional financial costs and technical difficulties this would create** ***Addressed in Information Update OWM1201*
11. Compare the cost of waiving tipping fees to that of a bag tag system.

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Analysis of Preferred Collection System

Follow-up from Jan. 16th Public Works meeting
Summarized in Information Update OWM1201

Issue	Resolution
Bi-Weekly Container limit options	Limit of 2 to 3 containers to encourage diversion and supplemented with 'relief valves', e.g. garbage tag system
Diapers & pet waste	Collection through garbage stream to maintain compost quality for the organics program
Special Considerations	Continuation of special consideration policy with refinements to address households with diaper waste
Disposal options at CRCs	Voucher system provides flexibility; however, has an impact on revenue stream
Public Education	Marketing and education campaign required to notify the public of any system changes

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What about diapers & pet wastes?

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3. *How do other municipalities address or promote bi-weekly garbage collection, especially pet waste and diapers and what could work in Hamilton?*


- Information provided on Halton, Durham, Nanaimo, Verdun and Vaudreuil (Information Update OWM1201, Question 3, p. 3 of 18)
- What could work in Hamilton?
 - Keeping the Special Considerations Policy, with some refinements
 - Tags for extra bags of garbage
 - Vouchers at the Community Recycling Centres
 - Public Education, via calendar, information booklet and advance notification, working with community groups to address barriers (p. 16 & 17 of PW11030e)

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Landfill Capacity and Waste Diversion

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4. *Further details on landfill capacity and the waste diversion for the various options*

Description	Project 1 Current System	Project 3 Current System + Enhancements	Project 5 Bi-Weekly + Enhancements	Project 5 Bi-Weekly + Enhancements Alternative 1	Project 5 Bi-Weekly + Enhancements Alternative 2
Landfill Life (Approx. 28 years based on current diversion rate)	No Change	No Change	+ 3 years*	+ 5 years	+ 4 years
Diversion Rate Increase	0	0	5.7%	9%	7.7%

*Approx. 300,000 tonnes over 25 years with a value of \$24 million based on \$80/tonne

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Summary of Cost & Savings


6. Provide a further summary of the cost of the various options and clarification of potential savings

- Cost depends on Project and Additional Work selected

Description	Cost Difference compared to Current Costs (\$24.8 M in 2011 \$)		Cost Difference between Project 3 & 5 (2011\$)
	Project 3	Project 5	
Base Price for Project (Savings)	(\$3.1 M)	(\$3.9 M)	\$0.8 M (less for Project 5)
PW11030d (Savings)	(\$2.4 M)	(\$3.6 M)	\$1.21 M (less for Project 5 + Additional Work)
PW11030e (Savings)	\$0.237 M to (\$1.3 M)	(\$1.2 M) to (\$2.7 M)	\$1.46 M (less for Project 5 + Additional Work – Alt. 2)

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System Costs Components (2011\$'s)

System Cost	Project 1 (Status Quo)	Project 3 (Status Quo + Enhancements)	Project 5 (Bi-Weekly + Enhancements)
A. Base Price for Project incl. Operational Impacts at CCF (Garbage Limit)	\$19.84 M to \$21.10 M (1 weekly)	\$21.73 M (1 weekly)	\$20.93 M (2 bi-weekly)
B.1 Additional Garbage Containers	\$0.280 M (2 containers)	\$0.308 M (2 containers)	\$0.248 M (3 or more containers)
B.2 Recycling Container Alternatives (larger + lids)	\$0	\$0.343 M	\$0
B.3 Supply Front End Bins	\$0.018 M	\$0.020 M	\$0.018 M
B.4 Bulk Waste Events – All Wards Incl. disposal operational impacts	\$0.069 M	\$0.064 M	\$0.052 M
B.5 Garbage Tag System (\$2 /Tag) Collection Costs	\$0.068 M	\$0.297 M	\$0.057 M
Production, Revenues @ 80,000 tags	(\$0.145) M	(\$0.145) M	(\$0.145) M
TOTAL	(\$0.077) M	\$0.152 M	(\$0.088) M
B.6 Vouchers - 6 Free Vouchers for CRCs (Production, revenue loss)	\$0.915 M to \$2.433 M	\$0.915 M to \$2.433 M	\$0.915 M to \$2.433 M
B.7 Smaller Green Carts	\$0	\$0	\$0
TOTAL with selected Components	TBD	TBD	TBD

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Container Limit Options for Bi-Weekly Collection

7. Information on an acceptable reduction in the bi-weekly 6 bag limit as well as consider if this reduction would require a continuance of the Special Considerations policy. If the continuation of Special Considerations policy is to be considered staff are requested to provide information on making this system broader

System Refinement	Number of Garbage Containers				
	6	5	4	3	2
Special Considerations	Not required	✓	✓	✓	✓
Container Limit Amnesty Days	Not required	✓	✓	✓	✓
Voucher System (Disposal options at Community Recycling Centres)	Not required	✓	✓	✓	✓
Garbage tag system	✓	✓	✓	✓	✓

✓ Potential option for implementation


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Collection System Refinements

Container Limit - Why Three?
Limit of up to three containers on bi-weekly schedule

Financial Factors

- Collection system cost from RFP (Additional Garbage Containers)

Environmental Factors

- Increased diversion potential of 7.7% through bi-weekly collection

Social Factors

- Three containers bi-weekly is similar to status quo system of one container per week plus the two containers allowed for the 15 amnesty weeks
- Additional bi-weekly container provides flexibility to households to deal with extra garbage reducing potential for illegal dumping


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Collection System Refinements

Special Considerations
6 container limit bi-weekly for families with children, medical circumstances, home day care facilities and agricultural properties

Financial Factors

- No additional cost, included in RFP

Environmental Factors


- Limited number of households (~1,000), allowing overall diversion benefits of bi-weekly collection

Social Factors

- Maintains current program
- Eligibility broadened through lower age limit and number of children (2 children under 4 years of age) to accommodate extra garbage from diapers

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Collection System Refinements

Amnesty Days
Current program as of April 2012 has 15 collection weeks per year where up to 3 containers can be set out for collection

Financial Factors

- Collection system cost from RFP (Additional Garbage Containers)

Environmental Factors


- Increased number of containers may discourage diversion

Social Factors

- Additional containers provide flexibility to deal with extra garbage reducing potential for illegal dumping
- Set schedule may not meet needs
- Need to communicate the 15 of the 26 collection weeks where extra garbage is allowed

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Collection System Refinements

Voucher System
Six free vouchers per household per year, for up to 30 kgs each, for use at the Community Recycling Centres to supplement curbside collection

Financial Factors

- Potential impact on CRC revenues ranging from \$0.9 to \$2.4 Million and operating impacts at CRCs
- Voucher system preferred over free trips, to limit abuse and financial exposure

Environmental Factors


- May generate additional traffic at CRCs

Social Factors

- Addresses potential concerns with odours and waste storage during warmer months
- Flexible to use when needed
- Potential to reduce illegal dumping

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Community Recycling Centre Revenues

Vehicle Type	# Trips (2011 Actual)	2011 Budget	2011 Actual	2012 Budget
Minimum Fee (\$8.50 < 100Kg)	110,000	\$865,000	\$934,000	\$743,000
Residential Fee (> 100Kg)	93,450	\$1,643,000	\$1,740,000	\$1,676,000
Totals	204,000	\$2,508,000	\$2,674,000	\$2,418,000

- Approx. 25% (~51,000) of all minimum fee and residential trips in 2011 were single, one time visits
- The greater the number of vouchers the greater the risk to revenues
- Average weight of a Residential Fee vehicle was 181 kg
- The greater the weight value of the voucher the greater the risk to revenues (e.g. 6 vouchers x 30 kg = 180 kg)

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Collection System Refinements

Garbage tag system
Tag system to supplement container limit

Financial Factors

- Collection system cost from RFP (Garbage Tag System)
- \$2 per garbage tag could generate potential revenues of \$0.16 Million

Environmental Factors


- May impact waste diversion

Social Factors

- Increased flexibility for households to purchase tags to set out additional garbage if and when required

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Collection System Refinements

8. *Consider a pilot Bulk Waste collection reuse event, with Dundas as a possible location*

Bulk Waste Reuse Event
Pilot project in Dundas area

Financial Factors

- Cost of \$3,000 for Dundas pilot, cost would be \$52,200 (Project 5) per year to service all Wards considering collection and operational impacts

Environmental Factors


- Diverting bulk waste can reduce waste to landfill

Social Factors

- Social benefit by promoting bulk reuse
- Pilot will determine feasibility to expand this service to other areas of the City

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Keeping the System for Seven Years

9. *Consideration of keeping the selected system for seven years*

- Weekly garbage collection systems will make it difficult to improve curbside waste diversion during 2013-2020
- Bi-weekly garbage collection is a best practice to encourage diversion
- Voucher system at the Community Recycling Centres is independent of collection system and can be refined if required during the seven years

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Tipping Fees and Bag Tags

11. *Compare the cost of waiving tipping fees to that of a bag tag system.*

- Slides 15 & 17
- Waiving tipping fees through a voucher system can impact on revenues ranging from \$0.9 M to \$2.4 M depending on the number provided and how many are redeemed
- A bag tag system for garbage can be implemented at a relatively low cost

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Waste Collection System Analysis - Overview

Description	Project 1 (Current System)	Project 3 (Current System + Enhancements)	Project 5 (Bi-Weekly + Enhancements)
Financial <i>Total System Costs</i>	✓	✗	✓✓
Environmental <i>Diversion potential (e.g. ability to expand green cart program), collection efficiencies (green fleet)</i>	✗	✓	✓✓
Social <i>Results in service level improvements, ease of use, addresses illegal dumping concerns, provides flexibility</i>	✗	✓✓	✓✓

• Project 5 represents the best balance of financial, social and environmental considerations, making it the preferred waste collection system

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Analysis of Collection System Alternatives (Report PW11030e)²³

	Project 5 Bi-Weekly + Enhancements PW11030d	Project 5 Bi-Weekly + Enhancements Alternative 1	Project 5 Bi-Weekly + Enhancements Alternative 2 Recommended System
Services	<ul style="list-style-type: none"> •6 garbage containers bi-weekly = 156 containers/year •Bi-weekly bulk waste •Weekly organics, yard waste, recycling •Bin service •Larger recycling containers 	<ul style="list-style-type: none"> •2 garbage containers bi-weekly •Garbage tag system for 30 free tags/year = 82 containers/year •Sale of garbage tags •6 garbage containers bi-weekly for Special Considerations •Bi-weekly bulk waste •Weekly organics, yard waste, recycling •Bin service •Larger recycling containers 	<ul style="list-style-type: none"> •3 garbage containers bi-weekly •6 vouchers/year for free drop-off at CRCs = 84 containers/year •Sale of garbage tags •6 garbage container bi-weekly for Special Considerations •Bi-weekly bulk waste •Weekly organics, yard waste, recycling •Bin service •Larger recycling containers
Cost	\$21.19 Million	\$22.05 to \$23.56 Million	\$22.07 to \$23.59 Million
Key Features	<ul style="list-style-type: none"> •Special consideration policy & amnesty weeks not required •Diversion potential of 5.7% 	<ul style="list-style-type: none"> •Increased flexibility •Diversion potential of 9% 	<ul style="list-style-type: none"> •Increased flexibility •Addresses storage issue •Diversion potential of 7.7%

Budget Impacts

Comparison to current collection costs

System	2011 Costs (2011 \$s)
2011 Approved Budget (based on current contracts for collection operations)	\$24.81 Million
Project 5 – Alternative 2 - Base work with recommended additional work and operational impacts (Estimated Annual Value in 2011\$)	\$22.07 to \$23.59 Million
Annual savings from current Budget for Preferred Waste Collection System (Project 5 – Alternative 2)	\$1.28 to \$2.79 Million

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Recommendations

- a) Sets out service levels for the collection system for 2013-2020 (**Select Project 1, 3 or 5**)
- b) System refinements to support the service levels in a) (**ALL ITEMS ARE OPTIONAL**)
 - i. Container limit (**Select Limit**)
 - ii. Alternative Recycling Containers
 - iii. Supply of front-end bin containers for City facilities
 - iv. Special Considerations Policy (**Keep or eliminate**)
 - v. Bulk Reuse Pilot Program
 - vi. Phase-in of smaller green carts
- c) Voucher system for free drop off of extra garbage at Community Recycling Centres (**Optional, if adding, confirm number and 30kg weight per voucher**)
- d) Tag system for extra garbage (**Optional, if adding, confirm tag value of \$2**)

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Recommendations (Cont'd)

- e) Revision to Special Consideration Policy to amend provisions for families with 2 children under 4 years from 3 children under 5 years (**if keeping Special Considerations Policy**)
- f) Amendments to the Solid Waste Management By-Law to implement recommendations (a), (b), (c), (d) and (e)
- g) Selection of the Successful Proponent (**based on the recommended Project selected in recommendation a)**)
- h) Confirmation of the contract period as being 7 years starting April 1, 2013 with potential 1 year extension
- i) Authorization to finalize the agreement with the Successful Proponent
- j) Authorization to execute the agreement with the successful Proponent


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Recommendations (Cont'd)

- k) Withdrawal of the capital project for purchase of recycling vehicles and yard expansion to service the A zones by public forces
- l) Removal of the related items from the Public Works Committee Outstanding Business List
- m) Removal of the related item from the General Issues Committee Outstanding Business List

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Preferred Collection System

Next Steps

- February 8, 2012 Council Meeting for approval
- Feb. 2012 - Finalize Contract, Initiate procurement process for Public Sector vehicles
- April 2013 – New contract begins

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Questions?

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