NANOS RESEARCH

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Ottawa

City of Ottawa – Residential Waste Diversion Focus Group Report November 2010

Methodology

The primary objective of the focus groups was to explore the experiences of residents with respect to the sorting and management of their garbage and recycling. As a supplement to the focus group research, participants completed a biweekly (for curbside) or week-long (for multi-residential) journal of their waste diversion activities prior to the discussion.

Eight focus group discussions were conducted among residents of the City of Ottawa in Ottawa between November 16th and November 19th, 2010.

The eight groups were split by the level of service they currently received from the City based on the area where people lived (urban vs. rural) as well as housing type (Urban singles, semi-detached, etc vs. multi-unit). In addition to the service level profiles, a household sub-profile was also implemented to parse out households with children under 18 and those without children. Another sub-profile was implemented based on participants' attitude to recycling.

Each group contained six to nine participants for a total of 63 participants for all eight groups. The sessions included a mix of primarily English speaking as well as bilingual and allophone participants. Each session was 90 minutes in duration and was conducted in English.

Although a consistent discussion guide was applied – each group had a customized module specific to the profile of the residents in that group.

Readers should note that the findings of qualitative research cannot be projected to the populace or to a group but do provide an understanding of the potential context and nuance of opinion. This research project was completed in accordance with the standards of, and registered with, the Marketing Research and Intelligence Association of which Nanos is a Corporate Gold Seal member.

Participant Profiles

Service Types Sub-Profile

The City identified residential dwelling types which receive service from the City.

- Urban Single family homes, semi-detached, street-front town homes, including rural villages, condominium style town homes
- Rural (non-village)
- Multi-residential (high density or medium-sized apartment building with more than 8 units)

Household Type Sub-Profile

Given that the amount of waste put out by a household depends the number of individuals in a household and whether those households have children, the following sub-profile was applied to the resident recruitment.

- Households with children – One or two parent households with at least one child under the age of 18.
- Households without children – Households without any children under the age of 18.

Attitude towards Recycling Sub-Profile

Participants were also grouped based on their attitudes towards recycling. In the previous Solid Waste Study undertaken for the City of Ottawa by Nanos Research in 2008, respondents were grouped into three categories based on their views towards recycling. The category grouping was based on respondents' 1 to 7 disagreement/agreement scores for the following statement: "If the City stopped recycling it wouldn't affect the people in my neighbourhood." Respondents who completely disagreed with the statement were classified as "recyclers", while those who rated that they disagreed (2), somewhat disagreed (3) or were neutral (4) were classified as "fair-weather recyclers". Those respondents who somewhat agreed (5), agreed (6) or completely agreed (7) with the statement were classified as "non-recyclers". The same groupings were applied for the focus groups.

Group Profiles

	Night 1	Night 2	Night 3	Night 4
Group 1	**Service Sub-Profile** Urban Singles, semi-detached, street-front town homes, including rural villages and condominium style town homes	**Attitude towards Recycling Sub-Profile** Fair-weather and Non-Recyclers	**Service Sub-Profile** Multi-residential	**Service Sub-Profile** Urban Singles, semi-detached, street-front town homes, including rural villages and condominium style town homes
	Household Sub-Profile Households with children		**Household Sub-Profile** Households with children	
	Attitude towards Recycling Sub-Profile Recyclers		**Attitude towards Recycling Sub-Profile** Recyclers	**Attitude towards Recycling Sub-Profile** Fair-weather and Non-Recyclers
Group 2	**Service Sub-Profile** Urban Singles, semi-detached, street-front town homes, including rural villages and condominium style town homes	**Service Sub-Profile** Rural (non-village)	**Service Sub-Profile** Multi-residential	**Service Sub-Profile** Urban Singles, semi-detached, street-front town homes, including rural villages and condominium style town homes
	Household Sub-Profile Households without children	**Attitude towards Recycling Sub-Profile** Recyclers	**Household Sub-Profile** Households without children	**Attitude towards Recycling Sub-Profile** Fair-weather and Non-Recyclers
	Attitude towards Recycling Sub-Profile Recyclers		**Attitude towards Recycling Sub-Profile** Recyclers	

Executive Summary

Focus testing showed that there were a diversity of views and ideas on the provision of recycling and garbage services within the City of Ottawa. To follow is a summary of the focus group feedback on issues and barriers to recycling.

Key Differences between Profiles

Curbside Recyclers - These groups were more engaged in the idea of recycling for the benefit of the environment. Some of them enjoyed recycling and sorting their objects and felt the process in Ottawa was generally effective. These groups generally felt that their neighbours were also good recyclers but felt the City could recycle more items.

Curbside Rural Recyclers – The participants in this group generally had a positive experience with garbage and recycling, but did not rely on the City's program exclusively – most had composters or found ways to reduce or reuse waste on their property (through burning paper or storing for example). This group was more likely than other groups to indicate they would not mind having less frequent service than they currently receive for recycling in particular.

Multi-residential Recyclers – These groups generally wanted to be more engaged in the idea of recycling but felt that an apartment building was a more challenging environment as there were fewer incentives to participate and a diffusion of responsibility. Space in the home, accessibility of disposal areas and information about the program/the building's procedures were factors in how participants viewed recycling. These groups were less likely to feel that their neighbours were good recyclers. The accessibility of the Household Hazardous Waste program was frequently a concern for these groups in particular.

Fair-weather/Non-Recyclers - These groups were not opposed to recycling, but were less engaged in the process. Several participants did recycle but did not want to have to actively seek out information and therefore recycled selectively. There was a pattern in the fair-weather/non-recycler groups to highlight cost-related issues with recycling (related to taxes) more so than in other groups.

Executive Summary continued

Recycling Knowledge

There was confusion related to items like plastic food containers and milk cartons. For example, some indicated they had placed items in particular bins and because they had been picked up for collection, they had always believed they were recyclable. There was also some confusion as a result of participants coming from other municipalities or cities where particular types of plastic were picked up as part of the recycling program. Participants who thought they had high knowledge and engagement in recycling were dismayed that items like the clear plastic food containers were not recycled and felt that it was not common knowledge that particular items were not acceptable.

Views on Introduction of Options

Of note, most participants expressed satisfaction with the current frequency of their garbage and recycling. One of the common issues that arose however was that the acceptability of items was not as simple as it could be or very well communicated. Participants identified several things they liked and disliked about the various options introduced in the groups. Most were sensitive to cost implications of increasing the frequency of their collection and having to adopt different ways of recycling.

Views on Improving Experience

Confusion about what items were recycled as part of the City program was prevalent. Better information at the source (i.e. on bins or in buildings) was highlighted as a possible way to improve the experience. Most felt that sharing information with residents about how well residents' efforts were paying off for the City and the environment would be a good way to further motivate residents. For multi-residential participants, knowing how well their building was doing was seen as being a potential catalyst to increase participation in recycling. Improved access to the Household Hazardous Waste program by having collection service with more frequency was also perceived as something which could improve the recycling experience.

Perceptions of Ottawa's Recycling Program

Perceptions of Ottawa Residents

Participants were asked how they felt the residents of Ottawa were doing in terms of recycling. In general, participants felt that Ottawa was doing well, but saw room for improvement. To follow is a review of perceptions by group.

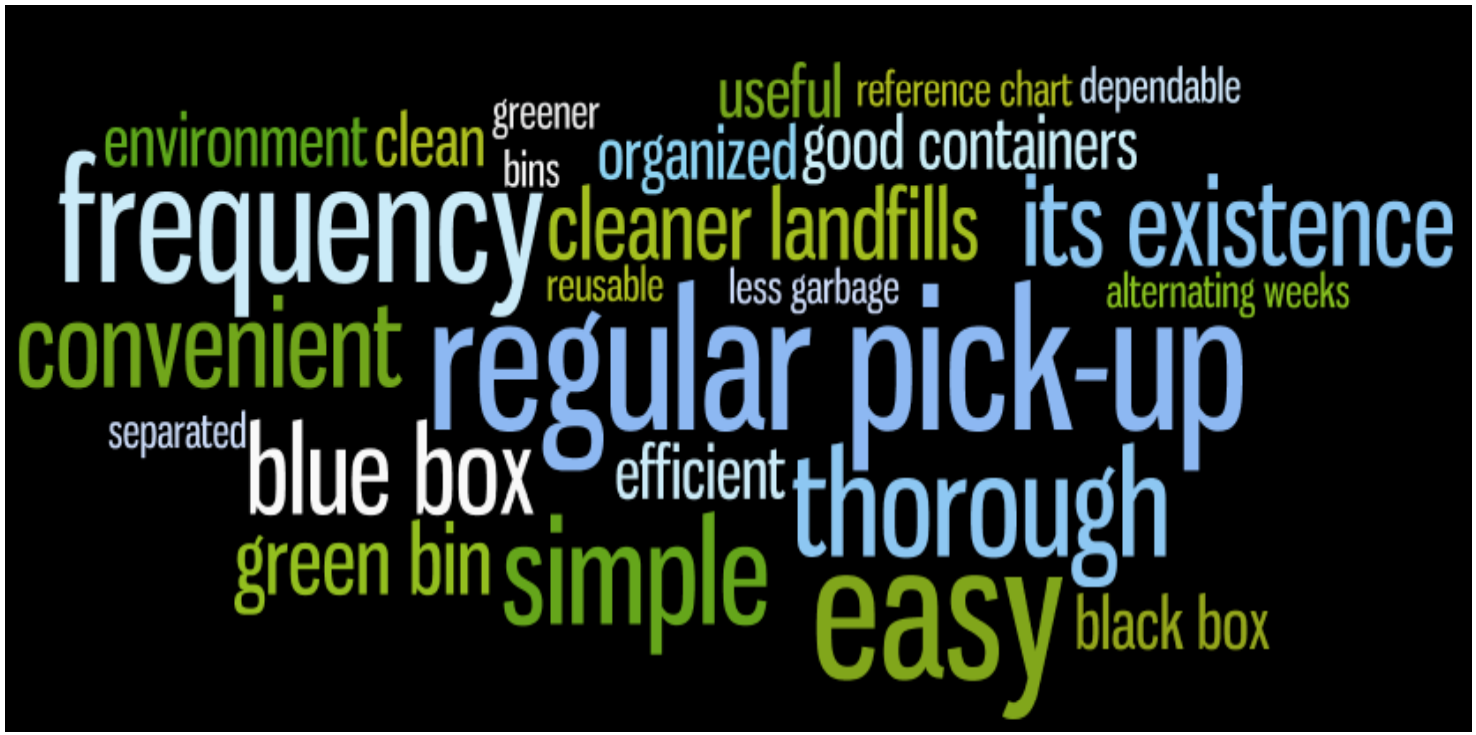
- **Curbside Urban/Suburban/Rural** participants had a very positive view of Ottawa residents as recycling adopters. This was based, primarily, on noticing the recycling habits of other residents in their neighbourhood. For the most part, this group believed Ottawa was doing well. Some participants also mentioned having read articles in the Ottawa Citizen about the recycling program and felt that Ottawa was doing fairly well based on the information they read.

- **Fair-weather/Non-recyclers** were comparatively less likely to feel that Ottawa was doing well. Some of the reasoning behind these impressions were based on the feeling that the green bin use was not sufficiently adopted (by themselves or their neighbours) or based on feeling that their neighbours often had more garbage than recycling on collection days.

- **Multi-residential participants** were cautiously optimistic. As a point of reference, some participants pointed out that there were more public recycling opportunities now than in the past. However, most felt that curbside recyclers were dramatically different than multi-residential in that there was a greater emphasis on garbage in apartment buildings (chutes for garbage bags only, for example, or not enough space in the apartment's recycling containers to accommodate everyone's recycling) and neighbours were less likely to interact or influence each other. Most multi-residential participants said it was hard to compare themselves to their neighbours because they did not frequently interact, but judging by the overflow of garbage in common disposal areas, they felt there was a lack of interest or encouragement to recycle.

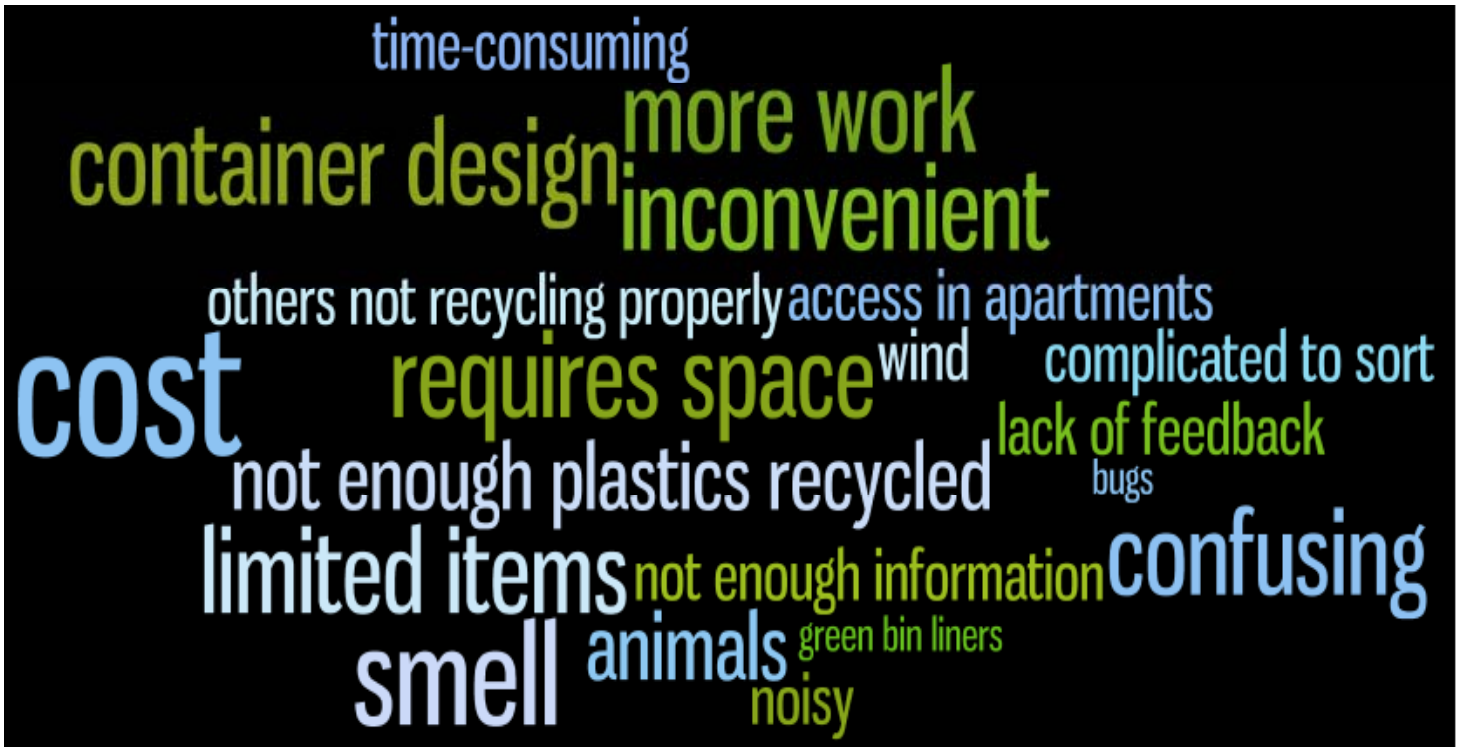
Positive Word Association

In order to identify feelings and attitudes towards the City of Ottawa's recycling program, participants were asked, prior to discussion, to write down three words that described what they liked about the City's recycling program. The following word cloud is based on their responses. A word cloud is a visual representation of words used by participants based on their frequency. Only words which were used more than once are included in the word cloud.



Negative Word Association

In order to identify feelings and attitudes towards the City of Ottawa's recycling program, participants were asked, prior to discussion, to write down three words that described what they disliked about the City's recycling program. The following word cloud is based on their responses. A word cloud is a visual representation of words used by participants based on their frequency. Only words which were used more than once are included in the word cloud.



Key Likes and Dislikes

When participants were asked to write down the top three things that came to mind when thinking about what they liked about the City's recycling program, followed up by the three words or phrases which described what they disliked about the City's recycling program, it appears that likes were more broad, while dislikes were more specific.

Key Likes

Positive associations with the City's recycling program included issues related to regular pick-up and frequency, the program being thorough, easy or simple, and that people were glad the program existed. Other positive associations included convenience, liking general aspects of the blue box, green bin and black boxes, and that the program contributed to cleaner landfills.

In the discussion groups, when prompted on what they meant when they said they liked the boxes and bins, several participants indicated they enjoyed the separation of items because they felt their separation at source positively contributed to the efficiency of the recycling program.

Key Dislikes

Negative word associations with the recycling program were diverse and often specific. Cost to taxpayers and smell were frequently cited dislikes, as were issues related to confusion or the complexity of recycling, inconvenience, recycling requiring space, as well as dislikes related to thinking the program accepted limited items or not enough plastics. Other common threads related to not having enough information or feeling that there was a lack of feedback about the City's success in diverting waste from landfills.

Several dislikes pertaining to the green bin were described, including smell, animals, bugs, general cost of the program and having to purchase green bin liners.

Recycling Knowledge

Purpose of the Sorting Exercises

In order to gauge recycling knowledge, participants were asked to complete a sorting exercise prior to the beginning the discussion. Participants completed the first sorting exercise without discussing their responses and handed back their answers to the moderator so that an analysis of responses could be done without participants influencing each others' answers.

There were 10 items placed on the table in front of participants: Styrofoam packaging, single-use batteries, a milk carton, laundry soap container, a single-serve yogurt container, dishwashing liquid container, a clear cookie tray, pink meat tray, plastic milk bag and a clear blueberry container. Participants were asked to indicate on a handout provided to them where they would likely place each item, based on the current program. The options were to place the item in either:

a) the blue box (or glass, metal, plastics container);
b) the black box (or paper and cardboard container);
c) the green bin;
d) garbage; or,
e) other (such as Household Hazardous Waste mobile depots or Take it Back! Partners across the city).

Later in the session, the participants were asked to complete the same sorting exercise – this time completing based on where they thought they *should* place each item, based on the rules of the current program.

Responses between both exercises were analysed in comparison in order to understand if their was a gap between what people usually did versus what they thought they should be doing.

Sorting Exercises

The sorting exercises revealed that there was a lack of awareness about the correct ways to recycle or dispose certain items. Of note, fair-weather/non recycler participants were more likely put items in recycling that belonged in the garbage or HHW. The single-use batteries also illustrated a disconnect between what participants knew about how the item should be recycled and the relative convenience of disposal.

- **Styrofoam packaging (Garbage) –** Many participants indicated they would likely put styrofoam in the blue box/GMP containers. This was comparatively more likely among fair-weather and non-recyclers. When asked where they believed styrofoam *should* be placed, based on the current rules, fair-weather and non-recyclers maintained their belief that styrofoam should be placed in the blue box (GMP recycling bins). Multi-residential participants were comparatively more likely to indicate in the second exercise than in the first that styrofoam should be placed in the black box (with paper and cardboard recycling).
- **Milk carton (Blue Box) –** Curbside recyclers were comparatively more likely to say they would put the milk carton in their blue box for both sorting exercises, while multi-residential and fair-weather/non-recyclers typically put the milk carton in their black box or paper and cardboard bins for both exercises.
- **Single-use batteries (HHW) –** While most participants in the groups said they would likely dispose of batteries at a Household Hazardous Waste depot, there were participants in every group who indicated they were likely to put batteries in the garbage even while they believed they *should* go to an HHW depot.

Sorting Exercise Discussion

Most Surprising Items

- Across the various groups, participants were more likely surprised that the the clear blueberry container and the single-serve yogurt container were considered garbage and not recycling. Several participants indicated they frequently put those items in their recycling.
- Many were surprised that the milk carton would be sorted into glass, metals and plastics bin and not with paper and cardboard.

How Recycling Decisions were Made

- Most commonly described ways of making sorting decisions were:
    1. based on the presence of recycling symbols or recycling numbers on the package, and,
    2. based on assumptions about the appearance of the material – i.e. if plastic, it could be recycled with other plastics, or similarly, things that looked/felt like paper belonged with the paper and cardboard recycling.
- **Reference Charts** - A few participants referenced City recycling charts they had received or the City's website for lists of what could be recycled to make decisions. To that end, charts with images on the items on them were seen as helpful and easily consumed.
- **Recycling Default** - A few participants indicated that when they were in doubt about an object's recyclability, they would err on the side of placing it in one of their recycling bins with the idea that if it were recyclable, it would get sorted out in one of the facilities and diverted to the right place.
- **Symbol confusion** - The recycling symbols on display items gave rise to confusion. Some also were shocked because they believed that plastics with a certain number were recyclable in Ottawa, or had been at some point in time. They questioned why these items could have a symbol on them and not feasibly be recycled in Ottawa.

Current Systems

Current System – Curbside Residents

Participants were asked to describe what they liked and dislike about the current system for recycling and garbage, with respect to containers and the frequency of collection. Curbside participants said they were generally satisfied with the current Blue and Black box program.

Key Likes

- **Alternating Weeks** - Many felt the alternating weekly schedule for recycling was sufficient as it gave the right amount of time between collection to replenish their bins.
- **Boxes are Easy to Use in the Home** - Several participants indicated they appreciated how the boxes helped to reduce waste in the home (for example, moving old newspapers out of sight) and that the boxes were fairly easy to store somewhere within the home.
- **Cost-Effective** – Most curbside participants felt that the current alternating frequency of collection was cost-efficient for taxpayers.
- **Size Options for Boxes** - For those who felt they had more recyclables than the standard blue or black box could contain, they were pleased that they could use more than one box or use larger boxes if necessary.
- **Weekly Garbage** - Most participants described the current frequency of garbage services as good.

Current System – Curbside Residents (cont'd)

Key Dislikes

- **Container Design** - Participants felt there could be some improvements to the current containers' design (rounded handles could be better when carrying a heavy load or having the option of wheels).
- **Pickup Time** - Some participants had issues with the time of their pickup in that they felt it was unpredictable or at a time that limited their ability to put it out in time if they could not put it out the evening before.

Unprompted Discussion

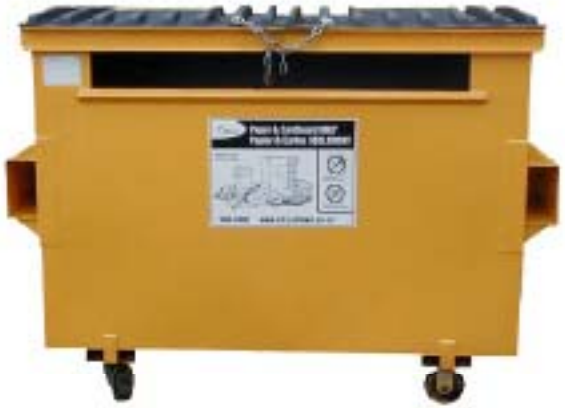
- Some people felt that increasing blue and black box recycling to weekly pickup for both boxes and less frequent garbage pickup would encourage more recycling.
- Bag limits/tags came up unprompted, however, some participants indicated the a bag limit would be unfair to larger families who typically produce more waste.
- Several curbside participants indicated that being able to see that their neighbours put out their boxes was a positive lever for influencing their behaviour. It also seemed to make them feel their efforts were meaningful if others were also involved.
- Participants were somewhat divided on whether or not they could deal with less frequent pickup of their blue and black boxes, though this did arise unprompted as something participants would be willing to do. This was less likely to be the case in the curbside groups with children living at home who felt that the current frequency was ideal for their families.
- Seasonal frequency changes for recycling around Christmas holidays were also mentioned as something they would consider useful, particularly if the current frequency was decreased. Collection of both boxes at the same time around these times could be beneficial.

Current System in Building - Multi-Residential

Participants were asked what they liked about the systems to manage garbage and recycling that were set up in the building where they lived.

Key Likes

- **Accessible at all hours -** Most multi-residential participants enjoyed having the ability to drop off their garbage and recycling whenever they needed to. This helped them manage recycling and waste within their home.
- **Large carts** – Participants appreciated the large carts for recycling and garbage disposal.
- **Chutes** – Some participants had chute access to their building's garbage rooms on their floor and found this was beneficial because it was very convenient for waste disposal and was also a way to ensure that smell of garbage was not prevalent on their floor. Another aspect to liking chute disposal was that participants enjoyed not having to go outside to sort their waste every time they had to dispose of an item or a bag.
- **External Bins –** Other multi-residential participants appreciated having the bins and carts for recycling and garbage outside their building because it diminished the smell issue that can happen in a garbage room indoors and because it was fairly easy to do if you wanted to drop off garbage on your way out of the building.
- **Superintendent Maintenance** – Superintendent supervision of disposal areas was a key like for some multi-residential participants because they felt the rooms remained orderly and clean.



Current System in Building – Multi-Residential

Participants were asked what they disliked about the systems to manage garbage and recycling that were set up in the building where they lived.

Key Dislikes

- **Disposing of Household Hazardous Waste** – Many of the multi-residential participants wished they had a drop-off point within their building for items like batteries or electronics. Many felt that it was unrealistic to expect residents to go to the HHW or Take It Back! locations and that these were biased towards people with their own vehicle.
- **Small Bins or Mess in Disposal Area** – Several participants were dismayed at how disorderly their recycling and garbage rooms would become if bins were over-filled. This discouraged properly sorting the recycling because if bins were too full, some participants indicated they might just throw things in the garbage or where there was room.
- **Access Issues with Bins** - Participants indicated that an outside bin/cart was at times problematic for them due to weather issues (wind, snow, rain) as well as issues related to heavier garbage and/or the difficulty of opening the lids of the cart.
- **Chutes** – Some participants did not think chute access was beneficial to their building as it required little effort and therefore did not support better diversion habits from all residents. Furthermore, some also indicated there were issues related to smell or mess in the chutes themselves as bags might split open or get stuck.
- **No composting ability** – A few participants from multi-residential groups indicated they wished their building had some way to incorporate composting or a green bin in their building. This viewpoint was not unanimously shared by all multi-residential participants, as some indicated smell and space in the home would be an issue.

Current System in Unit – Multi-Residential

Multi-residential participants were asked what they liked about the systems to manage garbage and recycling that were set up in their own apartment/unit.

Key Likes

- **Smaller Bags for Sorting** – Several participants indicated they sorted their recycling in grocery store plastic bags. Bags were typically hung up somewhere which allowed them to be somewhat out of the way. The size allowed also them to bring recycling down to their garbage and recycling room without being cumbersome.
- **Less Garbage** – Some participants felt good about doing their part with recycling in the home as it meant they would be producing less garbage in their home and building, as well as diverting away from landfills.
- **Glass, Metal and Plastics Recycling were Easier to Sort and Dispose of** – While not unanimously agreed upon, many participants felt that they were less likely to recycle their paper/cardboard in the home as these items had a tendency to significantly build up and were therefore less convenient to recycle. Glass, metal and plastics took up more space and were more apparent, and as a result, it was easier to recycle these items consistently. While paper/cardboard was viewed as less confusing, most multi-residential participants indicated they would, in general, be more likely to recycle glass, metal and plastics.

Current System in Unit – Multi-Residential

Multi-residential participants were then asked what they disliked about the systems to manage garbage and recycling that were set up in their own apartment/unit.

Key Dislikes

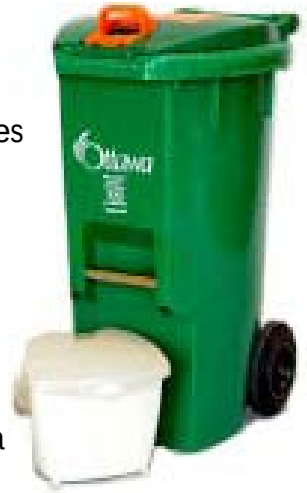
- **Lack of Space for Storing Recycling –** Many of the dislikes multi-residential dwellers had with their own systems to manage recycling within the home had to do with a lack of space for storing. As a result of a lack of space, they must be willing to drop them off at the disposal area frequently which can be frustrating at times. While many felt they generally did a good job recycling at home, they did recognize that they (or someone in their household) would throw things in the garbage even when they knew the items could be recycled.
- **Recycling is Not Out of Sight** - Some examples related to space issues had to do with having galley kitchens or small cupboard which did not offer ample space for storing waste out of sight.
- **Not Having Apartment-Friendly Storage Containers** – Some participants who previously lived in areas where they had curbside collection felt that the system of blue and black box type containers that were available in the curbside program made recycling easier, but the current box sizes they were aware of were not conducive to apartment spaces or to the taking recyclable waste out of the apartment to their disposal areas.

Options Explored

Option Explored

Rural Non-Village Participation in a possible Green Bin Program

- Most rural participants said they had no use for the green bin as they already composted waste on their property.
- One positive discussed was that more waste (such as meat products) could be included in the green bin than in a composter. However, most said that, in practice, they would not use the green bin.



Weekly Year-Round Collection of Green Bin

- **Urban/Suburban** - Likes were driven by the perception that it would be habit forming and dislikes were that it was not needed now based on a sense that not everyone was accustomed to, or had adopted the green bin, and it likely had a higher cost implication to collection and processing.
- **Rural** - Deemed unnecessary and undesirable by participants.
- **Fair-weather/Non-recycler** – Deemed unnecessary and costly.

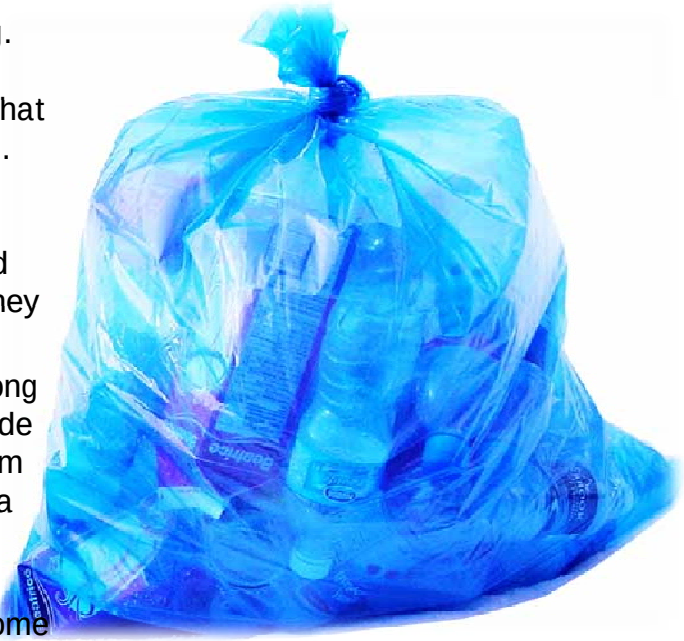
Weekly Year-Round Collection of Green Bin and Biweekly Garbage

- **Urban/Suburban** – Likes were that it could encourage people to use green bin. Seasonality was a consideration for some people (Christmas/holidays – more garbage).
- **Rural** – Green bin collection at that frequency was seen as unnecessary but the biweekly garbage collection aspect was seen as manageable.
- **Fair-weather/Non-recycler** – Viewed as contentious, in terms of the smell of garbage over two weeks if people did not use the green bin or had items like diapers in garbage.

Options Explored

Clear Blue Plastic Bag as a Replacement to the Blue Box

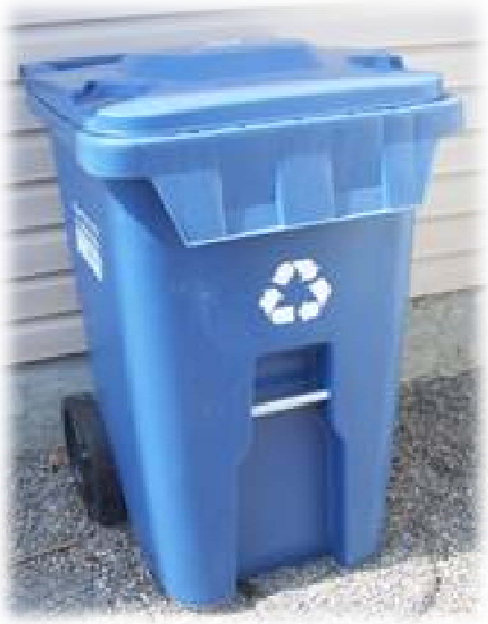
- **Urban/Suburban & Rural** – The urban/suburban groups had similar responses to those of the rural group when shown the blue plastic bag. Most felt that the clear plastic bag for blue box materials was not practical. Some concerns were that less materials could fit in a bag, that animals or sharp edges of cans would rip through bag and create mess. Others disliked the 'formlessness' of the bag in contrast to a bin. The environmental impacts of having extra plastic going to a landfill were also a concern. Many felt that using a bag which could not be recycled defeated the purpose of using it. Some participants mentioned that they would be concerned about all the blue boxes ended up in a landfill.
- **Fair-weather/Non-recycler** – Practicality of the bag was an issue among this group as well. Some felt uncomfortable that others could see inside your bag. Some thought the bag itself would not be a problem for them but they were concerned about the cost to buy the bags plus the extra environmental impact of more bags ending up in the landfill.
- Participants across groups frequently questioned whether they would have to buy the bags themselves or if the City would provide them. Some participants questioned the advantage of switching to a bag, in terms of having to purchase the bags and whether the bags would be recyclable.



Options Explored

Single Wheeled Container for Combined Blue and Black Box Materials with Biweekly collection

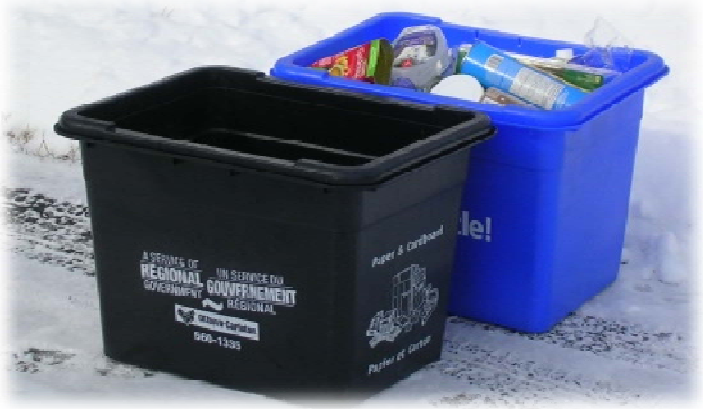
- **Urban/Suburban** – Advantages seen were that this option could encourage people to use the green bin more and that there might be less trucks on the road, but increases in frequency during certain times of year would need to be considered (e.g. Christmas/holidays – more paper). There was no strong opposition to this container but several people were concerned about the space needed for the container, moving it to end of driveway in winter, and whether it would be too heavy. The biweekly frequency was not seen as a major obstacle, but a few participants were concerned that the box would not accommodate all their recycling over two weeks.
- **Rural** – The bigger size and lid aspect were viewed as positives, but most expressed concerned about how practical the container would be for rural people considering it could become heavy and having to take it to the end of their driveways (particularly in winter) might discourage use. For those with long laneways, they said they did not mind their current method of driving their blue boxes down in their vehicle. This group responded positively to biweekly frequency.
- **Fair-weather/Non-recycler** – The fair-weather and non-recycler groups were comparatively more likely than other groups to find this option appealing as it would make sorting process feel easier. Concerns related to cost to taxpayers to roll out a new container and implement a new sorting process were highlighted, as were some concerns about the weight and winter issues which could arise.



Options Explored

Weekly Collection of both Blue and Black Materials

- **Urban/Suburban** – This option was not viewed as preferable or necessary for these participants because alternating weeks for blue and black box was seen as efficient and convenient.
- **Rural** – Viewed as excessive. Most rural participants indicated they would be happy to have their recycling picked up less frequently than even the current system.
- **Fair-weather/Non-recycler** – Mixed responses to this option. While several viewed it as more work to bring both boxes down, or as being unnecessary in terms of the volume they accumulated in a week's time, some of the positives identified were that it might be less confusing in terms of the schedule and that it could give recyclers a choice in terms of what they wanted to recycle that week (for example, if the volume they have built up over the week was not enough for one of the streams, they could bring the other box to the curb).



Green Bin in Multi-Residential

Multi-residential participants were asked whether they would be interested in participating the green bin program. These groups had mixed responses. A few participants responded very positively to the option of participating in green bin program, while several others strongly opposed using it in their apartment.

Key Likes and Dislikes

- The positive draws to the green bin in multi-residential participants were that it was a good way reduce the organic waste in their garbage and that they were doing something which would have a benefit to the environment.
- Dislikes were strongly focused on concerns about vermin, smells or bugs.

Other Concerns

- Some participants felt it would be manageable, but the containers for the apartment would need to be designed to effectively control odours or bugs.
- Others were concerned with having to move organic waste from the apartment to the disposal area (in addition to their other waste streams) and felt that this process would have to be more convenient for it to work for them.

Improving the Experience

Participants were asked to come up with ideas for how their experience of recycling could be improved. Many felt that improved communication about the residents accomplishments in diverting waste as well as improved program information about what could be recycled was the key to improving the experience.

- **Feedback on success of program would help residents feel a sense of ownership about their diversion activities** – Some suggestions were to include information on tax bills or on flyers about the amount of waste diverted and the amount of money saved by the City and by taxpayers.

- **Multi-residential participants echoed the need for feedback** - Because they felt they could not gauge how well their building neighbours were doing and would often see bins or carts overflowing, many felt they could not really tell if the program was a success. Some suggested it might be good to know how the building itself was doing in managing its waste and recycling, as results could provide an incentive to participate.

- **More information about what can be recycled was seen necessary**. Plastics were consistently mentioned as a source of confusion when sorting recyclable and non-recyclable waste. Information could come through a variety of ways (such as media coverage) but many felt that visual mediums were effective, such as ready references charts or stickers on the bins that showed the acceptable items, or demonstrations

- **Accepting more items**. Allowing more plastics to be recycled would improve the experience. Many felt that by accepting more items like clear plastics or bags, this would eliminate confusion and make recycling easier.

- **Finding ways to make Household Hazardous Waste disposal more accessible**. In practice, many participants felt that if it was not convenient for them to go to an HHW depot or find a Take It Back! partner close by, they would be more likely to put those items in the garbage.

Decision Priorities

Participants were asked to assign a proportion or percentage to the following priorities - cost, environment and convenience - based on how much they believed each variable should factor into the decision-making process for the City when making decisions about the provision of recycling and garbage services to its residents. Participants could add "Other" if they felt another criterion should be considered.

- The environmental implications of a decision were more likely to be considered important across groups of recyclers, while cost and convenience competed for second place. Those who placed a significant value on the environment felt that the whole purpose of recycling was to lessen our environmental impact. Other reasons for choosing environment over cost or convenience were that costs could not be avoided and that people were adaptable and could learn to do something properly. There was also a legacy aspect when considering the environment first. Several participants emphasized that a long-term view of the environment would be critical for the well-being of future generations and the quality of life looking 10 to 20 years ahead.

- Cost was viewed as important in terms of managing costs for taxpayers and for evaluating the efficiency or return on certain decisions. Cost implications were of comparatively higher importance to the fair-weather/non-recycler groups.

- While generally not the most significant factor, convenience was a factor for a number of people as a minimum requirement – for optimal participation, it must be easy for people to do or there will not be buy-in. Others balanced cost and convenience equally, saying that if the cost was too high or the option was too inconvenient, there would not be buy-in from residents. A couple other participants pointed out while a focus on the environment provided a long-term benefit, it does not provide a visible return to residents. A convenient method for residents to participate provides an immediate return.Those with children were comparatively more likely to find convenience important. Convenience was comparatively more important than cost to multi-residential participants with children.

Decision Priorities by Group*

GROUP	COST	ENVIRONMENT	CONVENIENCE	OTHER**
Curbside - Recyclers with Children - Suburban/Urban	29.0%	41.2%	29.8%	0.0%
Curbside - Recyclers without Children - Suburban/Urban	29.8%	46.5%	23.6%	0.0%
Curb/Multi - Non/Fair-weather Recyclers - Suburban/Urban/Rural	35.0%	41.9%	23.1%	0.0%
Curbside - Recyclers with/without Children - Rural	23.1%	46.4%	23.7%	6.7%
Multi-Res - Recyclers with Children - Suburban/Urban	16.7%	50.0%	26.7%	6.7%
Multi-Res - Recyclers without Children - Suburban/Urban	24.2%	46.0%	25.9%	3.9%
Curbside - Non/Fair-weather Recyclers - Suburban/Urban (2 groups)	39.1%	31.9%	27.8%	1.3%

* Average percentages, by group.

** Other responses: jobs (creation and maintenance), safety, personal satisfaction, retaining the value of one's property, compliance and buy-in, and efficiency.

Conclusions

The focus groups provided some key insights on the positive and negative features of the current recycling program as well as revealed some cross-cutting opportunities for the City of Ottawa moving forward.

- **Improved information about recycling that is simple and consumable.** Many participants, regardless of their attitude towards recycling, identified a disconnect between what they put in their recycling and what could actually be recycled in the City of Ottawa (i.e. the clear, clamshell plastics from the sorting exercise or other plastics). Many felt that through no fault of their own, this had never been clarified to them and therefore, opportunities related to education or awareness could be explored.

- **A mechanism to provide feedback to residents on how well they were doing was seen as a way to reinforce the positive aspects of their contribution.** When looking at current systems and service options, residents were more likely to view the system through the lens of their own personal contribution. Those who valued their contribution were able to see past issues such as the cost and convenience of sorting and managing waste. Those who did not feel their contribution was worth the effort were skeptical of the program's successes but did not have a high level of awareness about the program overall.

- **When communicating any configurations of service levels changes, it will be important to manage the narratives related to cost and convenience.** The environment as the key factor to consider will be an easy sell, but narratives related to cost and convenience will drive the benefit to the environment.