



Region of Waterloo

Waste Survey

*Public Engagement with residents of Waterloo Region about
Possible Changes to Curbside Garbage Collection*

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Background/Project Scope

- The Region of Waterloo completed a Waste Management Master Plan (WMMP) to guide the future of waste management in the region for the next 20 years. The WMMP was finalized and endorsed by Regional Council in November, 2013.
- Citizen feedback was an important part of the WMMP and over 600 citizens responded to questions about diversion programs through social media, surveys, and attendance at Public Information Centres as part of the study.
- The final WMMP made the following recommendation for diversion based on environmental and financial considerations and public feedback:
 - Implement curbside collection policy changes to increase diversion (e.g. bag limits, bi-weekly garbage collection, standardized Regional residential waste collection), and consider "user pay" options (e.g. bag tags).

Background/Project Scope continued

- In December, 2014 Metroline Research Group was contracted to collect additional citizen feedback with respect to these potential changes to curbside waste collection programs.
- To maximize opportunities to give input, Metroline created both a demographic telephone survey and an open survey available online.



Research Methodology

- Metroline conducted a telephone survey with a demographically representative sample of 511 residents of Waterloo Region
- Quotas were placed on the sample to be representative of the population by gender, age, and geography (Source: 2011 Census)
- To qualify for this research, all respondents were:
 - male and female, 18 years and older
 - a resident of Waterloo Region
 - living in a single family home (detached or semi-detached)
- The results of this research can be considered accurate to within +/- 4.3%, 19 times out of 20 (95% Confidence Interval)
- Additionally, successful efforts to promote the open survey resulted in a total of 7,087 completed surveys. No margin of error can be provided as it was not a random sample, and open to all. This survey could be completed online or over the telephone.



Notes On Reading This Report

- Residents included in the demographic survey were specifically to be the male or female head of household, were living in single family homes and receive curbside waste collection – the results are representative of those living in single family home across Waterloo Region, however they are not necessarily projectable to the entire population
- All residents had the opportunity to be included in the open survey regardless of whether they received curbside collection. Residents had the opportunity to self-select their participation in this research
- While sophisticated procedures and professional staff have been used to collect and analyze the information presented in this report, it must be remembered that surveys are *not* predictions. They are designed to measure opinion within identifiable statistical limits of accuracy at specific points in time. This survey is in no way a prediction of opinion or behaviour at any future point in time

Executive Summary

What have we learned?



Executive Summary

What have we learned?

- Generally speaking, residents who participated in the open survey were more engaged in the topic, and were more likely to be using their Green Bins than those residents who participated in the demographic survey. This summary will primarily reflect the learning from the demographic survey
- On average, single family households in Waterloo Region are taking about 2 bags (mean score 1.7) of garbage to the curb on a weekly basis
 - larger households will generate more waste – in households of 5 or more people, the average was 2.4 bags per week)
 - regular Green Bin users (1.5 bags) will take less garbage to the curb on average compared to those who are not using a Green Bin (1.8)
- Virtually all (97%) of households claim to take a Blue box to the curb on a weekly basis, and almost half (49%) say they are regularly using two or more Blue boxes
- Half of households (50%) say they are regularly using a Green bin, compared to over two-thirds (68%) in the open survey



Executive Summary

What have we learned?

- Bi-Weekly Collection

- If Waterloo Region changed curbside garbage collection to be bi-weekly (with continued weekly Green Bin and Blue Box pickup), 50% of households say they could manage
 - larger households would have more difficulty with bi-weekly pickup (36% say they could manage)
 - households that don't regularly use Green Bins would also have more difficulty (40% say they could manage)
- One quarter (25%) of households feel that a change to bi-weekly garbage pickup would have a "big" impact on their household, and a further 29% feel that it would have "some" impact
 - there is a concern about Smell (44%), finding a place to store the garbage (38%), and Animals getting into their garbage (20%)
 - those with young families have concerns about disposing of diapers (Smell)
- Generally speaking, there is more concern about bi-weekly collection over the warmer/summer months than in the winter

Executive Summary

What have we learned?

- Bag Limits

- Residents were given the opportunity to suggest what limits they deemed most reasonable
 - based on their responses, a weekly bag limit of three bags would seem to suit about 87% of single family households in Waterloo Region
 - a bi-weekly limit of six bags would cover about 84% of households (16% of residents asked for a bi-weekly limit of 7 or more)
- Given three options of what to do with garbage that exceeds their weekly/bi-weekly limit, pre-purchasing bag tags was ranked as the best alternative most often
 - Pre-purchase bag tags 41%
 - Store items until there is a temporary bag limit increase 37%
 - Take items to transfer station and pay a fee to dispose 22%
- Bag tags seem to be the most convenient providing they are not too expensive and can be easily purchased, and some residents are aware of this method happening in other municipalities/regions

Sample Description



Sample Description

Geography	Demographic	Open	Age	Demographic	Open
Cambridge	25%	13%	18-34 years	20%	18%
Kitchener	45%	45%	35-44 years	24%	23%
Waterloo	20%	31%	45-54 years	22%	20%
Townships	10%	11%	55-64 years	16%	20%
Gender			65+ years	18%	17%
Male	46%	39%	Prefer not to say	--	2%
Female	54%	57%			
Housing Type			Household Size		
Single family (detached/semi)	100%	90%	1-2	41%	47%
Townhouse or row house	--	7%	3-4	45%	41%
Multi-residential	--	3%	5+	14%	12%

NOTES:

Demographic survey – sampled proportionate to population (Source: 2011 Census)

Open survey – self-selected non-probability sample



Findings

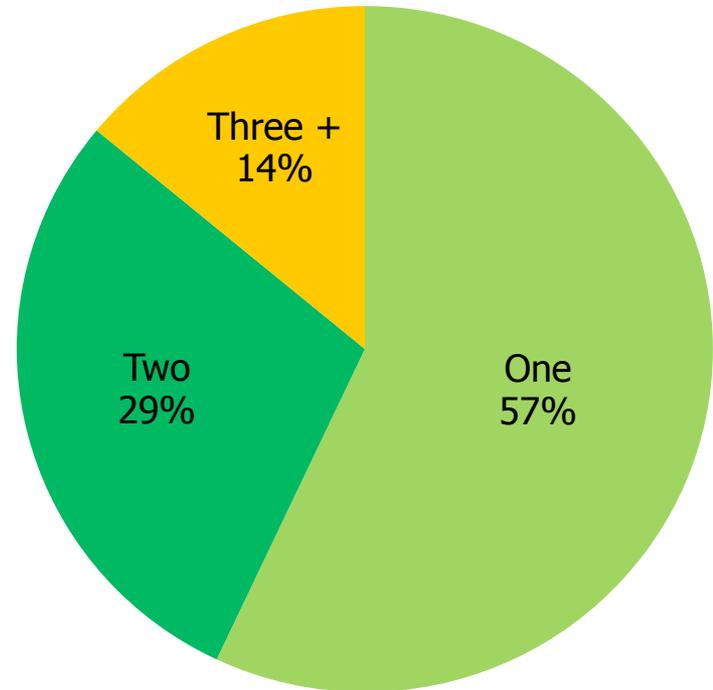


Curbside Collection - Garbage

How many bags of garbage does your household take to the curb in an average week? (Demographic)

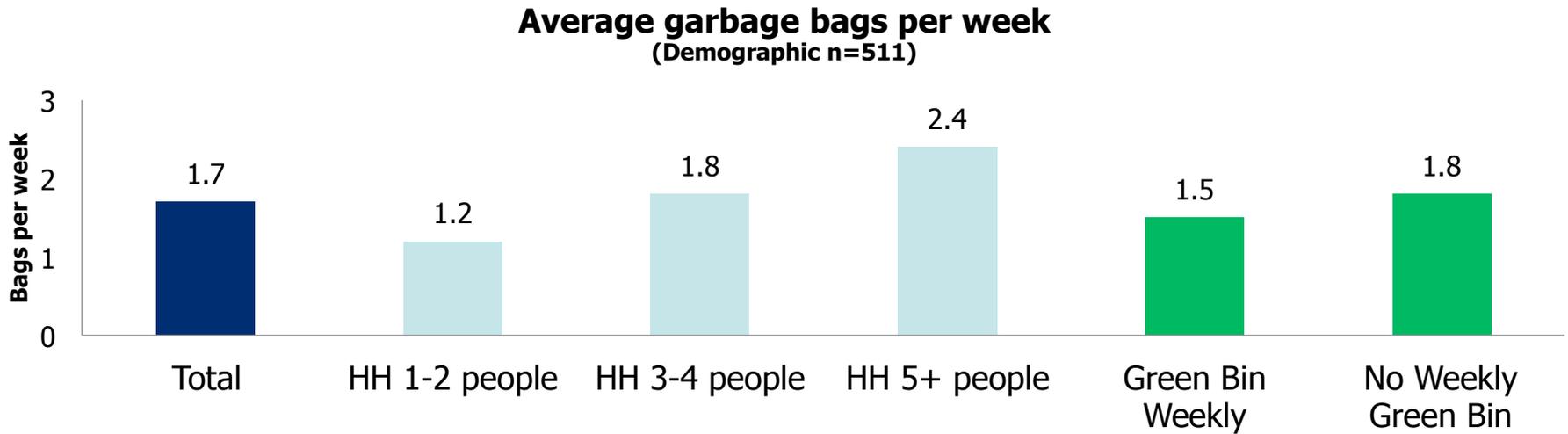
- Almost 6 in 10 households (57%) say they take one bag of garbage to the curb per week on average
- Across all households in the sample, the average (mean score) number of bags per week was 1.7
- 29% of households take two bags per week, and 14% of households take three or more bags of garbage to the curb in an average week

Garbage Bags Per Average Week
(Demographic n=511)



Curbside Collection - Garbage

How many bags of garbage does your household take to the curb in an average week? (Demographic)



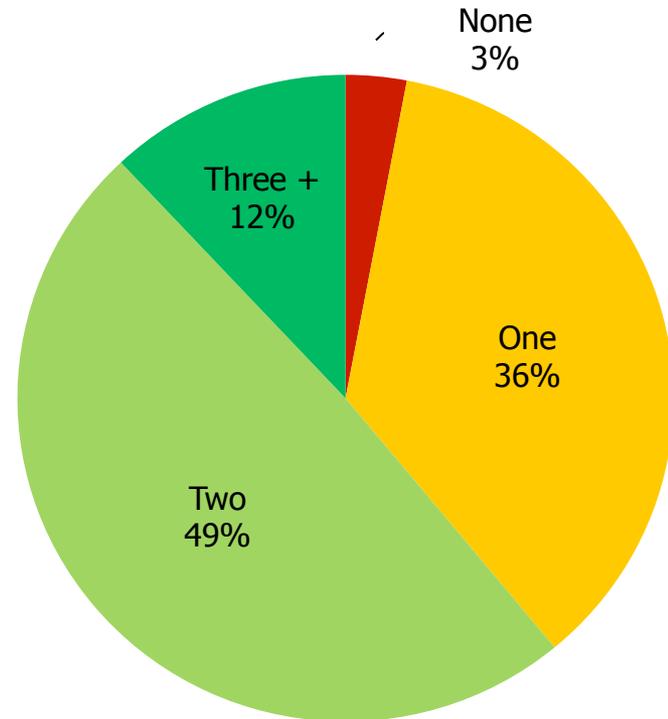
- Garbage bags per household in an average week is 1.7
- This varies depending on the size of the household, with the largest households (5 or more people) putting out more bags in an average week (2.4)
- Additionally, those who are using green bins weekly are statistically putting out fewer garbage bags in an average week (1.5 vs. 1.8)

Curbside Collection – Blue Box

How many blue boxes does your household take to the curb in an average week? (Demographic)

- 97% of all single family households in this study say they take a blue box to the curb in an average week
- About half of the households in this study (49%) participate in recycling by taking two blue boxes to the curb in an average week
- 12% are regularly using three or more blue boxes
- Larger households are likely to be putting out more blue boxes. Among 5+ person households, 32% put out 3 or more blue boxes

Blue Boxes In An Average Week
(Demographic n=511)

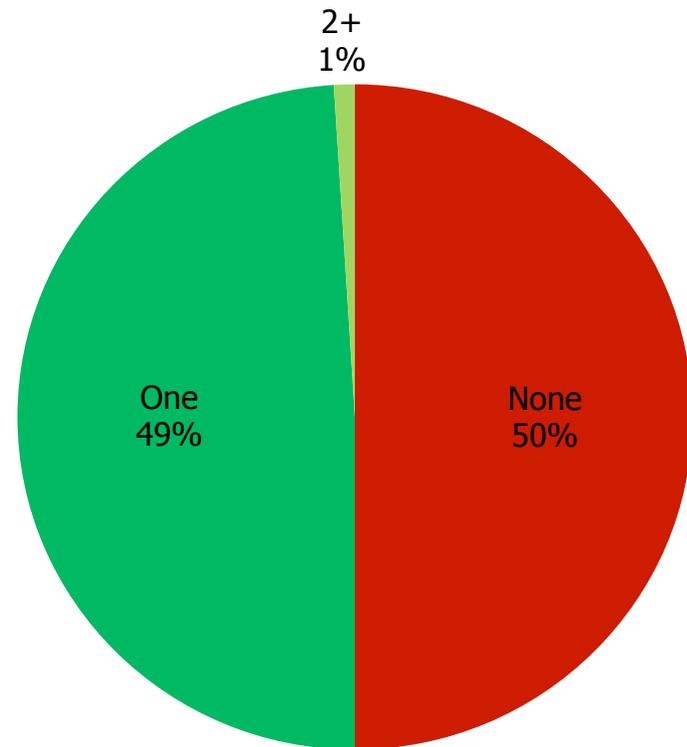


Curbside Collection – Green Bin

How many green bins does your household take to the curb in an average week? (Demographic)

- Half of the households we spoke to say they take a Green bin to the curb in an average week. Less than 1% of households claim to use more than one Green Bin
- Half of Waterloo Region single family homes say they do not use Green Bins weekly
- Among the non-weekly households, only 1 in 10 put it out monthly
- At this point in time, it implies that your household is using a Green bin regularly, or you don't use one

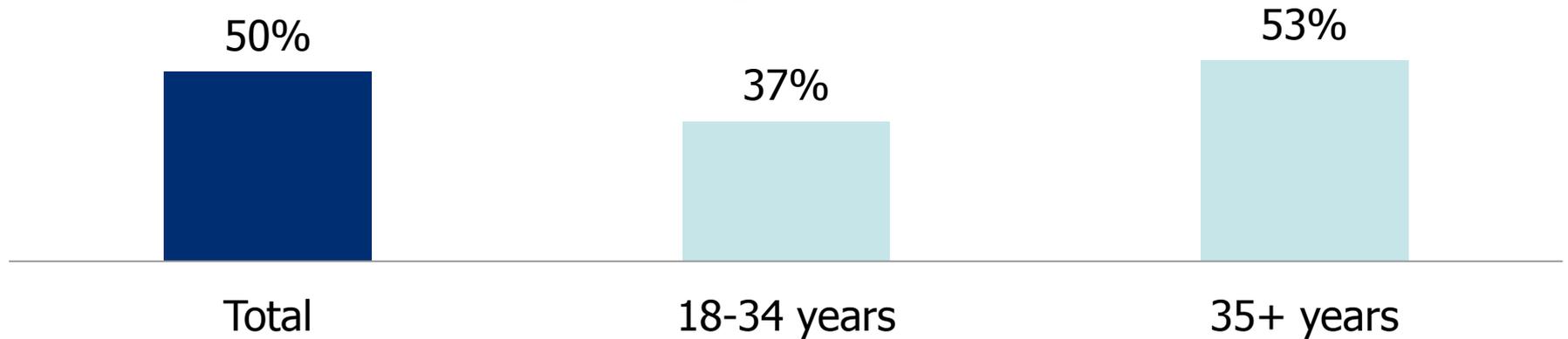
Green Bins In An Average Week
(Demographic n=511)



Curbside Collection – Green Bin

Differences among groups who put Green Bin out weekly (Demographic)

Percent putting out Green Bin Weekly
(Demographic n=511)



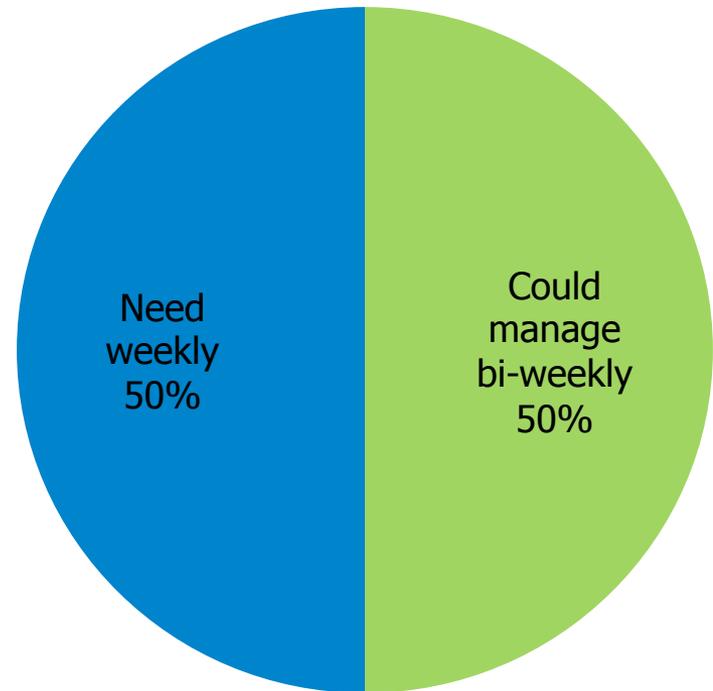
- Younger residents/families are least likely to be using a Green Bin weekly (37%)
- Size of household plays no statistically significant role in likelihood to be using a Green bin

Weekly/Bi-Weekly Collection

If unlimited blue boxes and green bins were collected weekly, could you manage bi-weekly garbage collection? (Demographic)

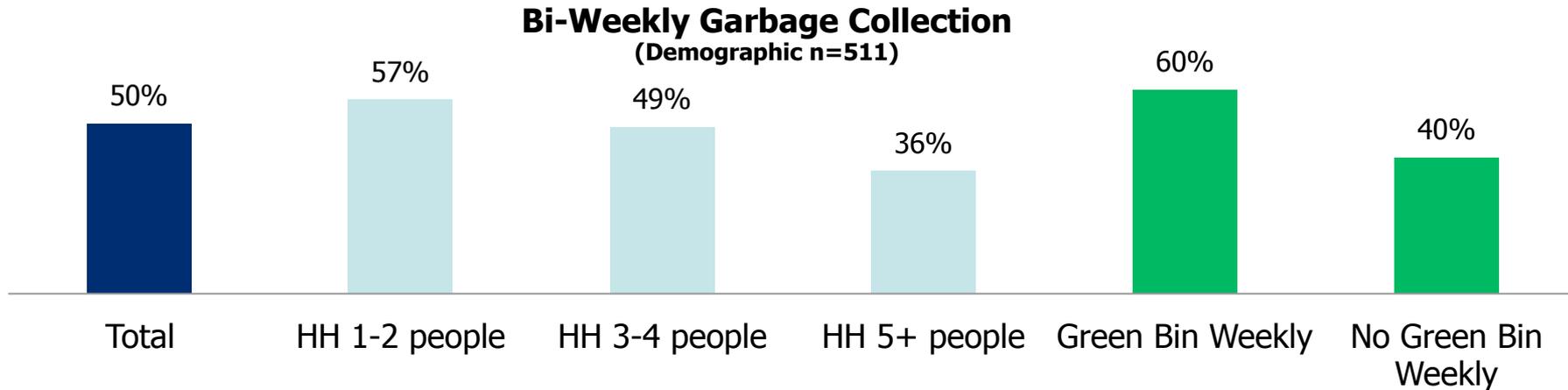
- Single family households in Waterloo Region are evenly split about whether they could manage bi-weekly curbside garbage collection, even if blue boxes and green bins were collected weekly

Weekly or Bi-Weekly
(Demographic n=511)



Weekly/Bi-Weekly Collection

*Percent who say they could manage bi-weekly garbage collection
(Demographic)*



- Although overall the results were evenly split, there are some households who would have more difficulty with bi-weekly pickup
 - Larger households still feel the need for weekly pickup (36% could manage bi-weekly)
 - Those who don't use Green Bins (40% could manage bi-weekly)
 - Age is not an indicator. Those 65 years and older are most able to manage bi-weekly pickup (72%)

Impact of Bi-Weekly Collection

If the Region collected garbage bags every two weeks, but collected your blue box and green bin every week, what would be the impact on your household? (Demographic)

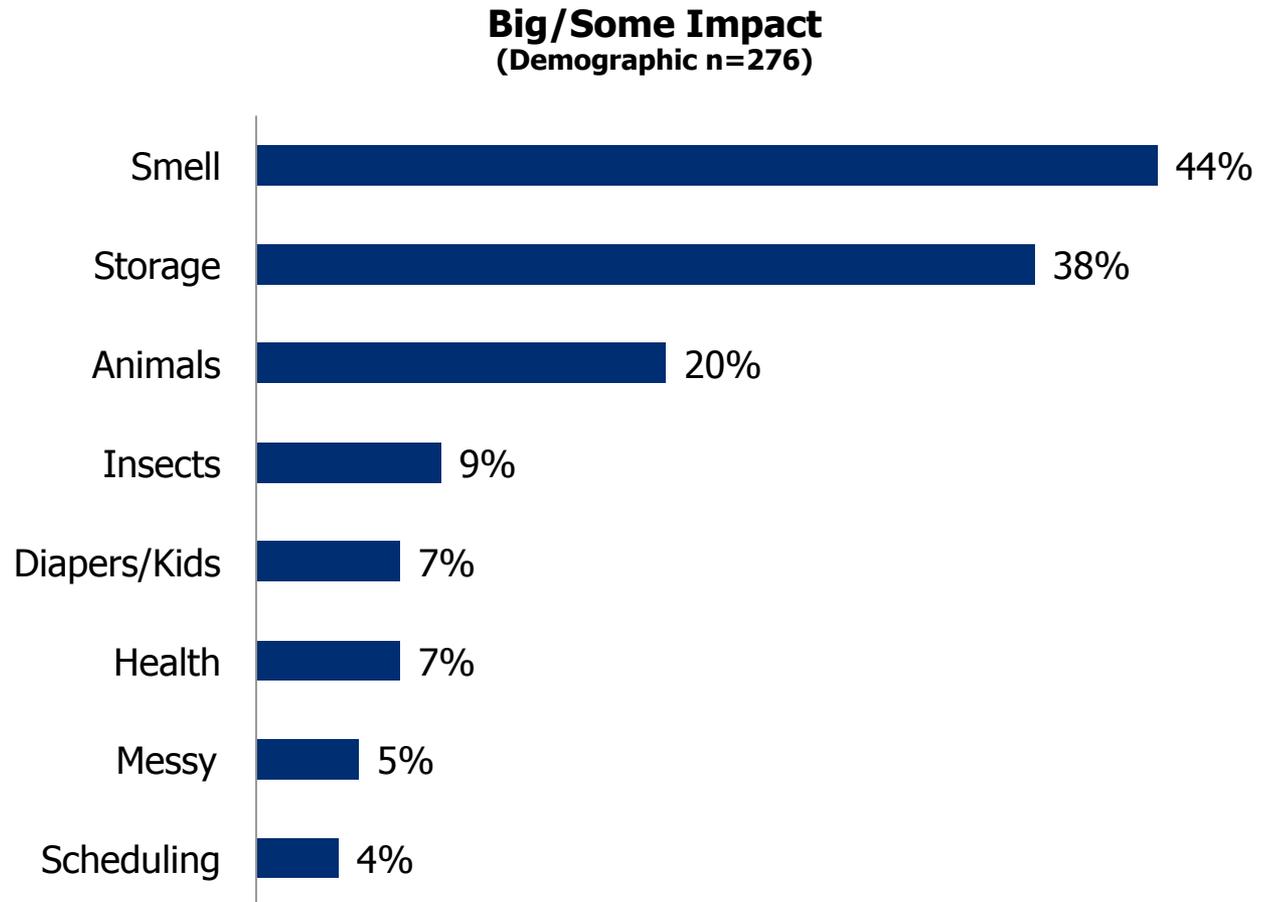
^a Demographic Sample (n=511)	Total	HH 1-2 people	HH 3-4 people	HH 5+ people	Green Bin Weekly	No Green Bin Weekly	Bi-weekly pickup OK	Need weekly pickup
Big impact	25%	19%	27%	39%	18%	33%	4%	46%
Some impact	29%	24%	33%	30%	26%	32%	20%	37%
Might or might not	7%	3%	11%	8%	9%	6%	9%	6%
Not much impact	22%	25%	18%	22%	24%	19%	35%	9%
No impact	17%	29%	11%	1%	23%	10%	32%	2%
Impact Ratio (Big/Some vs. Not much/no impact)	+15	-11	+31	+46	-3	+36	-43	+72

- One quarter (25%) of households feel that a change to bi-weekly garbage pickup would have a “big” impact on their household, and a further 29% feel that it would have “some” impact. Overall, a +15 compared to those who feel there would be little to no impact
- Larger households, those who do not Green Bin, and those who feel they need weekly garbage pickup would be most affected

Impact of Bi-Weekly Collection

Why would there be a big/some impact? (Demographic)

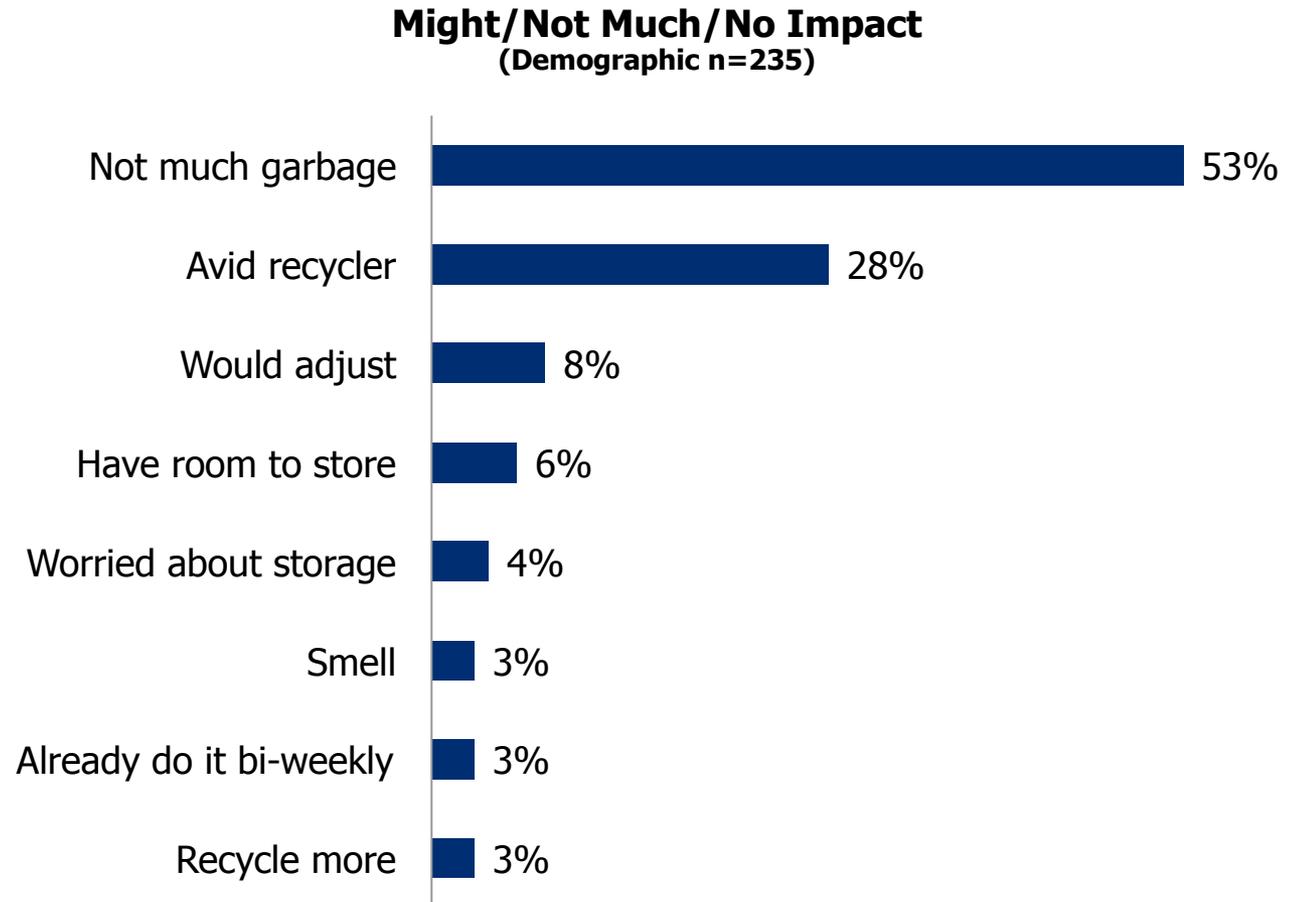
- Those who feel there would be a big/some impact to their household seem primarily to be concerned about the smell from their garbage, how they would store it, and that animals and insects would be into it or around it



Impact of Bi-Weekly Collection

Why might there be or be not much/no impact? (Demographic)

- Those who see less of an impact or no impact feel they do not create much garbage and/or they are avid recyclers already
- Less mentioned is their ability to adjust, or that they have room to store their garbage for two weeks

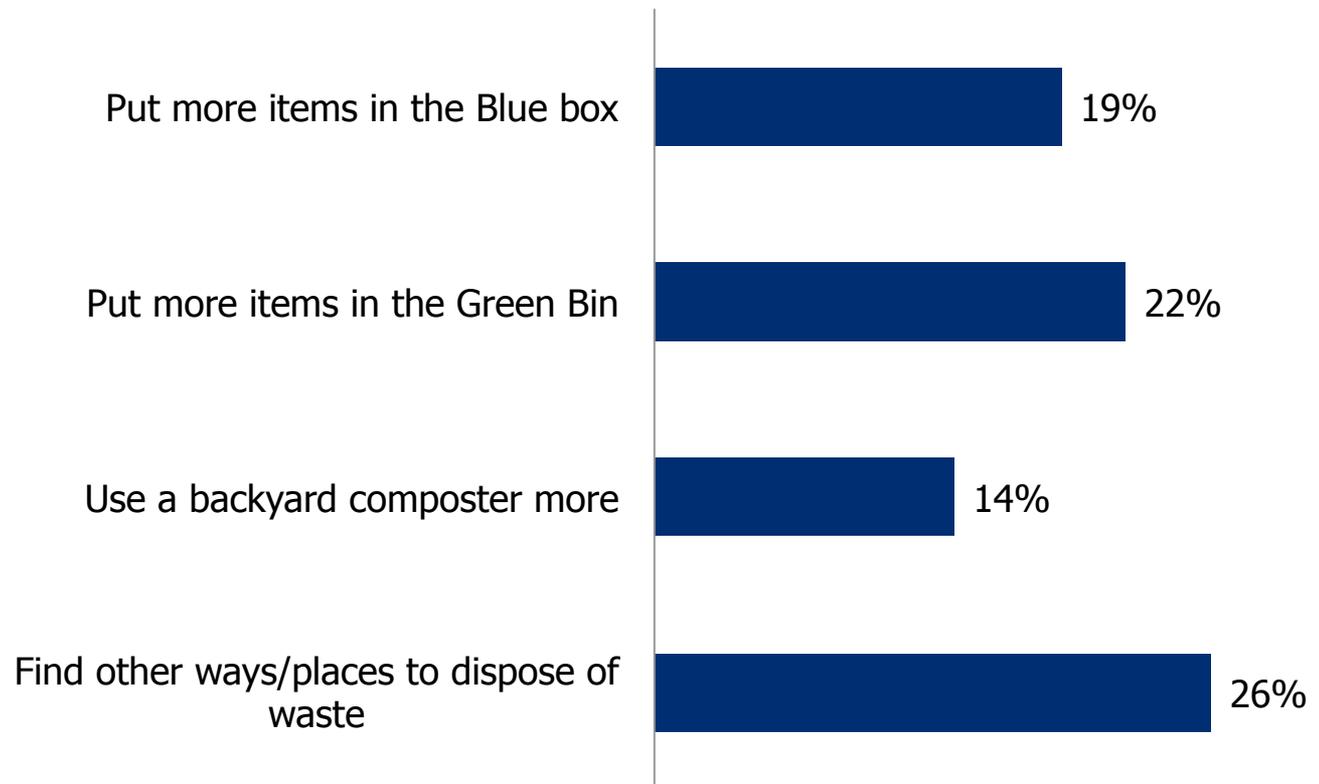


Impact of Bi-Weekly Collection

Possible Behaviour Shifts as a result of Bi-Weekly Collection (Demographic)

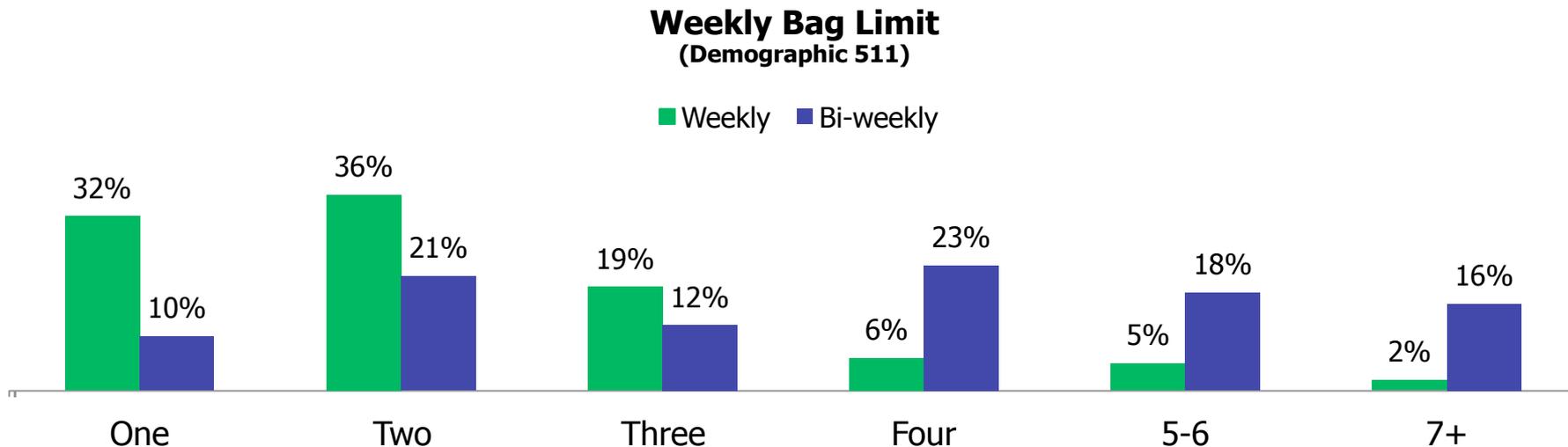
- If there is a change to bi-weekly collection, 22% of Waterloo Region residents say they are very/somewhat likely to put more items in their Green Bin, and 19% would use their Blue box more

Very/Somewhat Likely to do this if there is a change to Bi-Weekly Collection (Demographic n=511)



Bag Limits

What is the bag limit that is most reasonable to you if garbage is collected weekly/bi-weekly? (Demographic)



- Based on these limits, a weekly bag limit of 3 bags would seem to suit about 87% of single family households in Waterloo Region (32% one bag, 36% two bags, and 19% three bags)
- A bi-weekly limit of 6 bags would cover about 84% of households (16% asked for a bi-weekly limit of 7 or higher)
- Mean scores were 2.4 for weekly, and 4.3 for bi-weekly

Bag Limits

What is the bag limit that is most reasonable to you if garbage is collected weekly/bi-weekly? (Demographic)

- Overall, a weekly bag limit of 2.4 and a bi-weekly limit of 4.3 were the averages given
- Not surprisingly, those putting out more garbage bags today would like a higher limit
- There are other differences depending on green bin users and size of household

▪ (Demographic sample, n=511)

		Weekly (Mean)	Bi-weekly (Mean)
Total		2.4	4.3
Bags of garbage in an average week	1	1.9	3.2
	2	2.6	5.1
	3+	3.9	7.6
Green Bin weekly?	Yes	2.1	3.8
	No	2.6	4.8
Household Size	1-2	2.0	3.4
	3-4	2.4	4.8
	5+	3.0	5.6

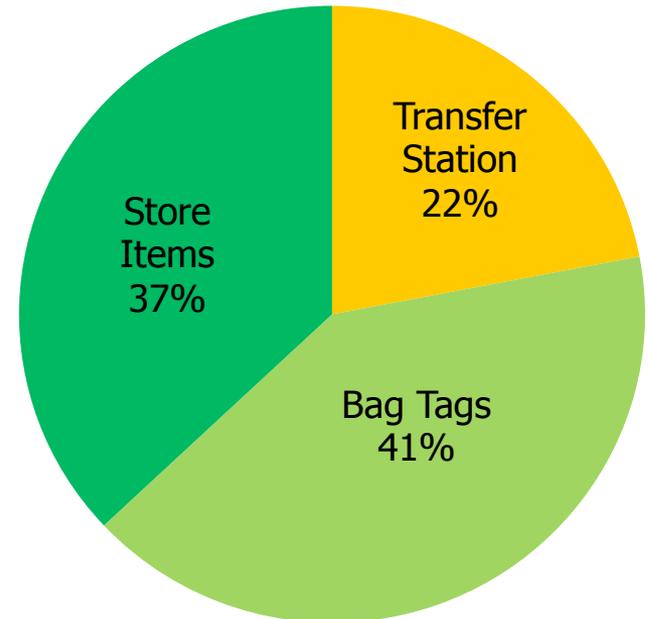


Bag Limits

Alternative Disposal Options for Waste that Exceeds Bag Limit

- Respondents were provided with three options, and then asked to rank them in order of preference as an alternative way to dispose of garbage that is over the limit
- Of the three options, the option of transporting waste to transfer stations was least accepted (22% ranked it first)
- Having bag tags to dispose of extra bags was ranked first most often, at 41%, but statistically even with storing extra items at 37%
- Note – There could be other options to consider, and residents were asked to rank only these three. The results report only that ranking, not that residents are in favour of any/all of these options. Further research would be needed to discuss this topic in more depth

**Alternative Disposal Options
Percent Chosen First
(Demographic n=511)**

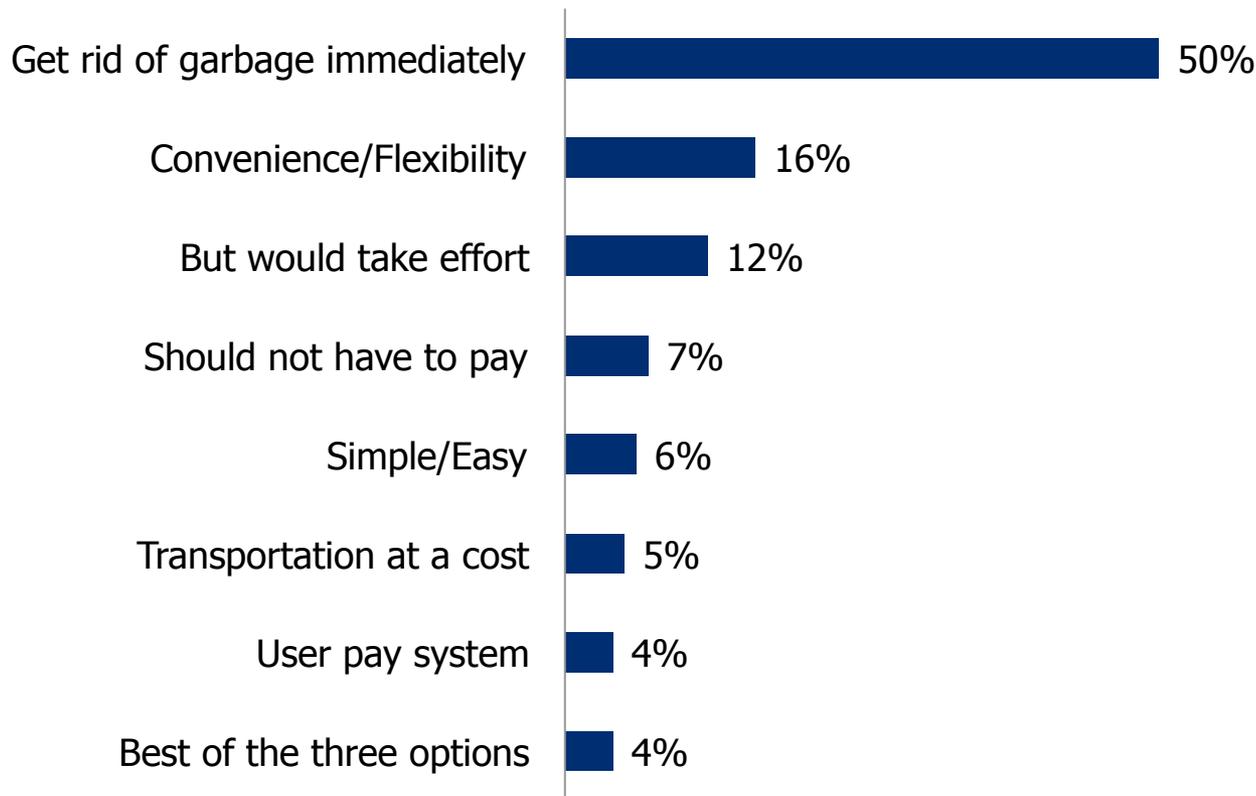


Bag Limits

Why choose “Take extra items to a transfer station and pay a fee to dispose of them” first? (Demographic)

- Those who would go to a transfer station/landfill want to be able to dispose of their garbage more quickly, or they have no issue going to a transfer station or landfill based on habit or proximity

Take to transfer station and pay a fee
(Demographic n=113)

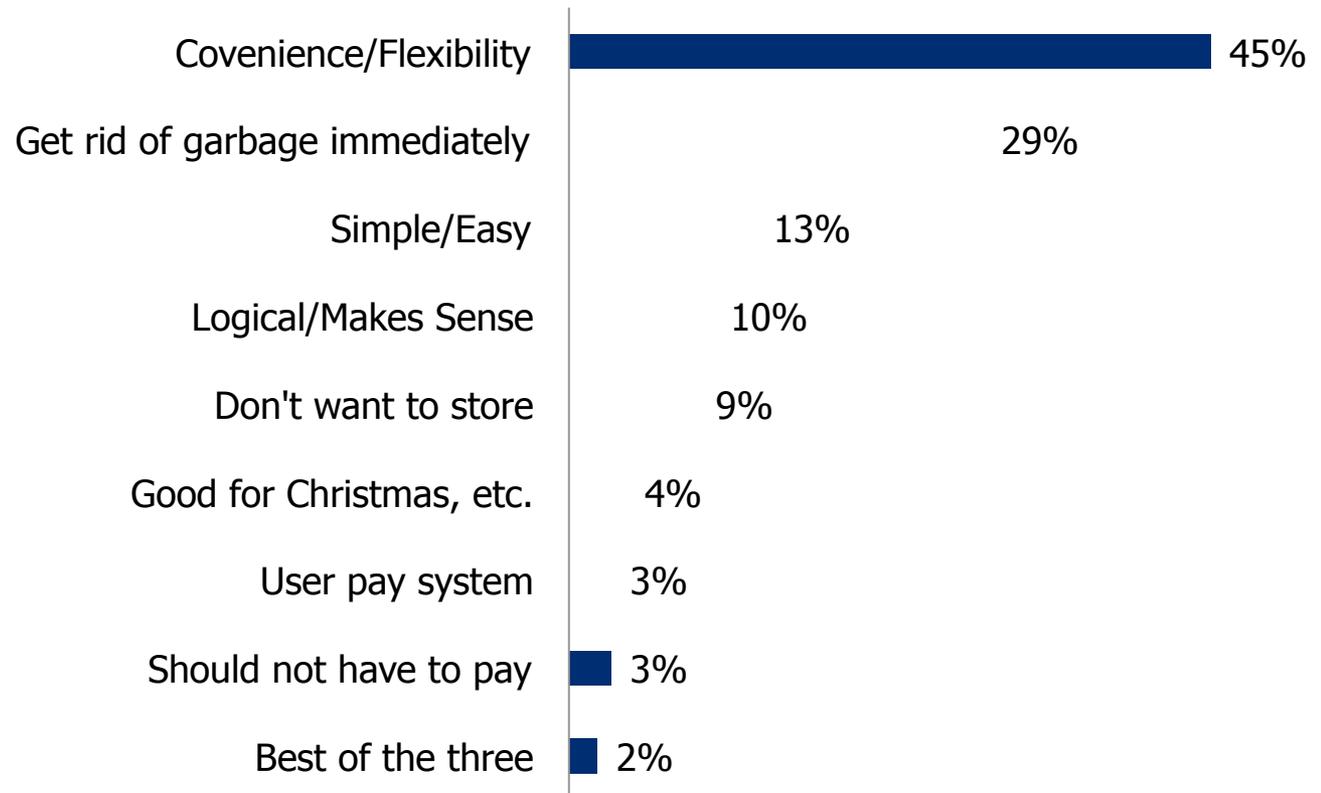


Bag Limits

Why choose “Pre-purchase bag tags that you can use throughout the year, to put extra items at the curb” first? (Demographic)

- Some residents had questions about the cost of bag tags and the ease of buying them, however this is something that is convenient, and who chose it first were aware of bag tags being used in other municipalities

Pre-purchase Bag Tags
(Demographic n=209)

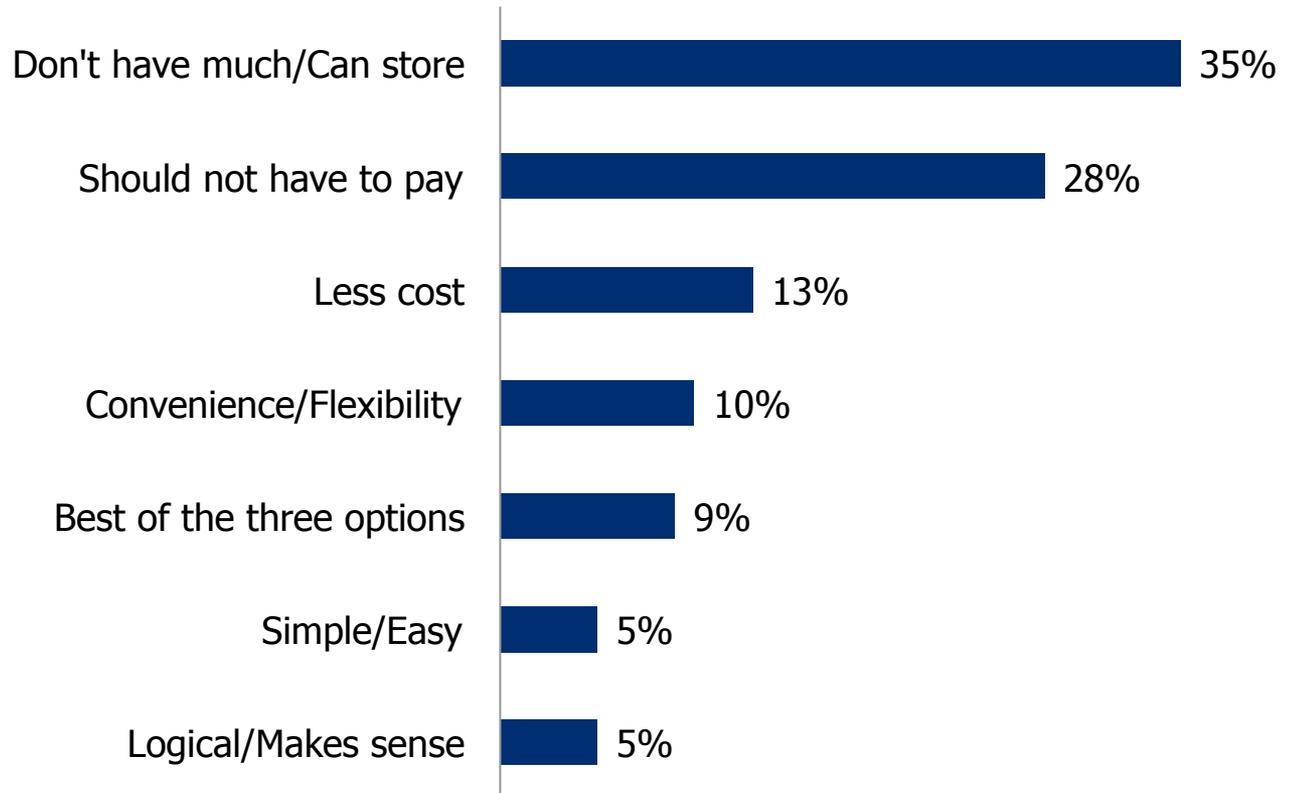


Bag Limits

Why choose “Store the item(s) until there is a temporary increase in the bag limit” first? (Demographic)

- Those who chose this option first tended to fit into three categories:
 - ✓ do not have much garbage
 - ✓ feel their taxes should already cover garbage collection
 - ✓ chosen because it was the free option out of the three presented

Store until temporary increase in bag limit
(Demographic n=189)

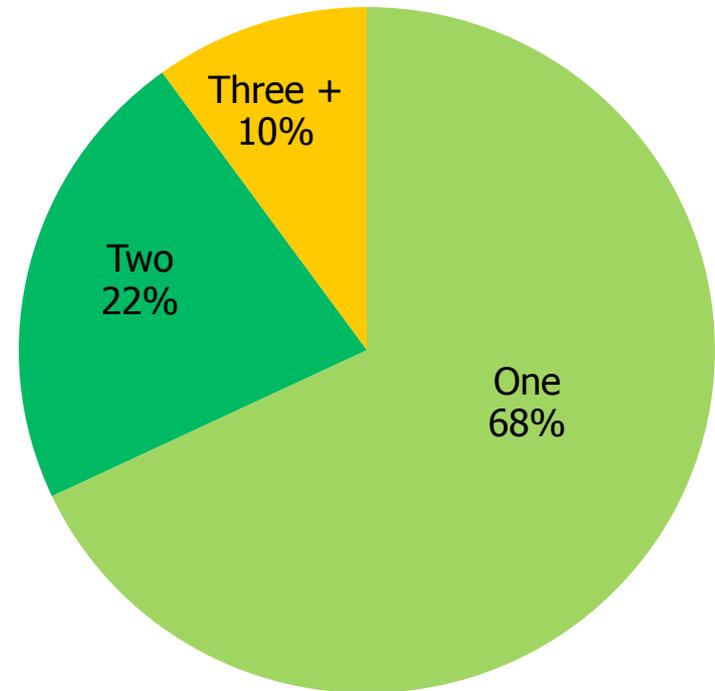


Curbside Collection - Garbage

How many bags of garbage does your household take to the curb in an average week? (Open)

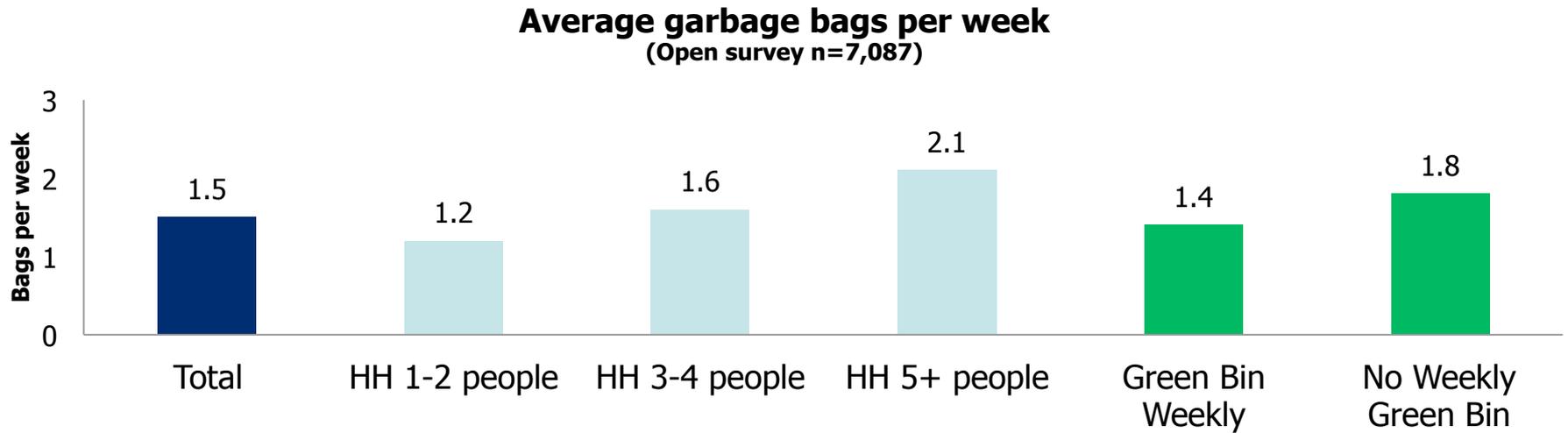
- About two-thirds of the open survey residents (68%) say they take one bag of garbage to the curb per week on average
- Across all households in the sample, the average (mean score) number of bags per week was 1.5, slightly lower than the demographic sample
- 22% of households take two bags per week, and 10% of households take three or more bags of garbage to the curb in an average week

Garbage Bags Per Average Week
(Open survey n=7,087)



Curbside Collection - Garbage

How many bags of garbage does your household take to the curb in an average week? (Open)



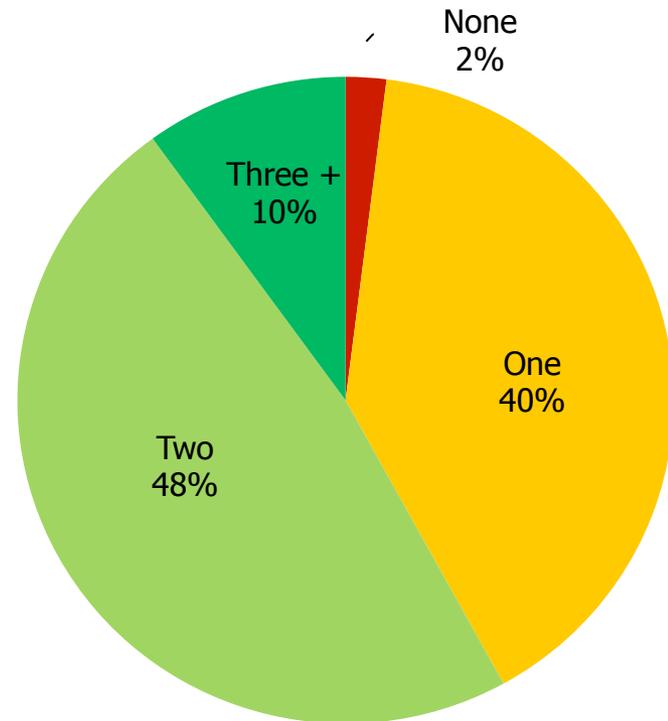
- Garbage bags per household in an average week is 1.5
- Like the demographic sample, the number of bags varies depending on the size of the household, with the largest households (5 or more people) putting out more bags in an average week (2.1)
- Weekly green bin users are statistically putting out fewer garbage bags in an average week (1.4 vs. 1.8)

Curbside Collection – Blue Box

How many blue boxes does your household take to the curb in an average week? (Open)

- 98% of all single family households in the open survey say they take a blue box to the curb in an average week
- Almost 3 in 5 households (58%) in this study participate in recycling by taking two or more blue boxes to the curb in an average week
- Larger households are likely to be putting out more blue boxes

Blue Boxes In An Average Week
(Open survey n=7,087)



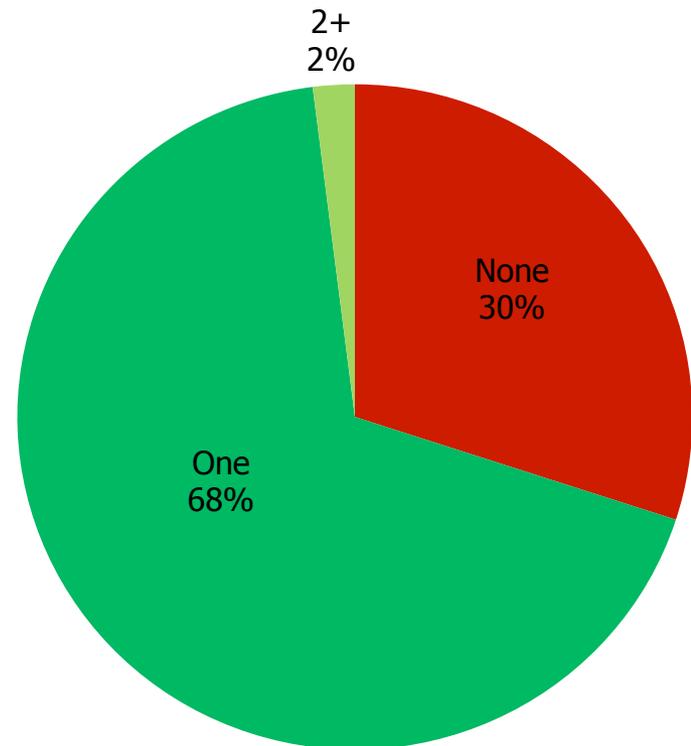
Household	1-2 people	3-4 people	5+ people
No box	3%	1%	1%
1 Box	59%	27%	12%
2 Boxes	35%	59%	59%
3+ Boxes	3%	13%	28%

Curbside Collection – Green Bin

How many green bins does your household take to the curb in an average week? (Open)

- Participants in the open survey are more likely to be using a green bin weekly. 70% of households who participated in the open survey say they take a green bin to the curb on a weekly basis
- 30% of participants do not use Green Bins weekly
- Among those not putting a green bin out weekly, only 1 in 20 put it out monthly
- At this point in time, it implies that your household is using a Green bin regularly, or you don't use one

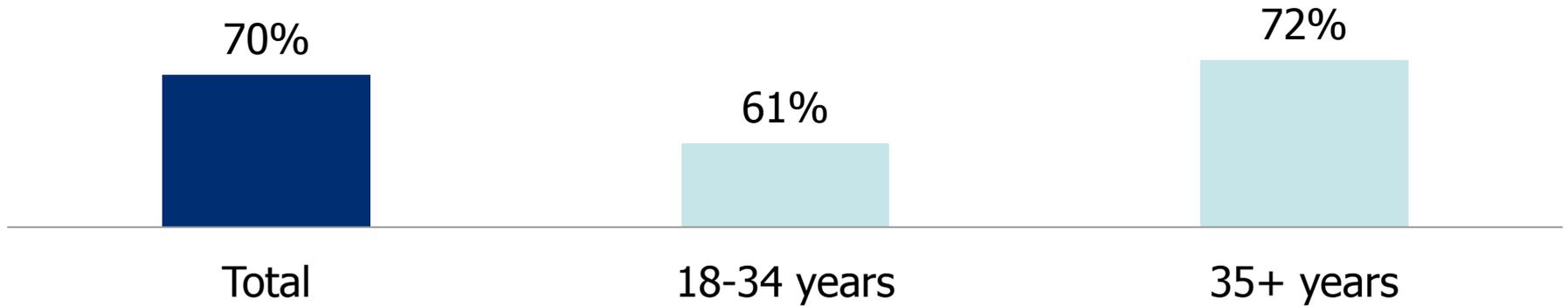
Green Bins In An Average Week
(Open survey n=7,087)



Curbside Collection – Green Bin

Differences among groups who put Green Bin out weekly (Open)

Percent putting out Green Bin Weekly
(Open survey n=7087)



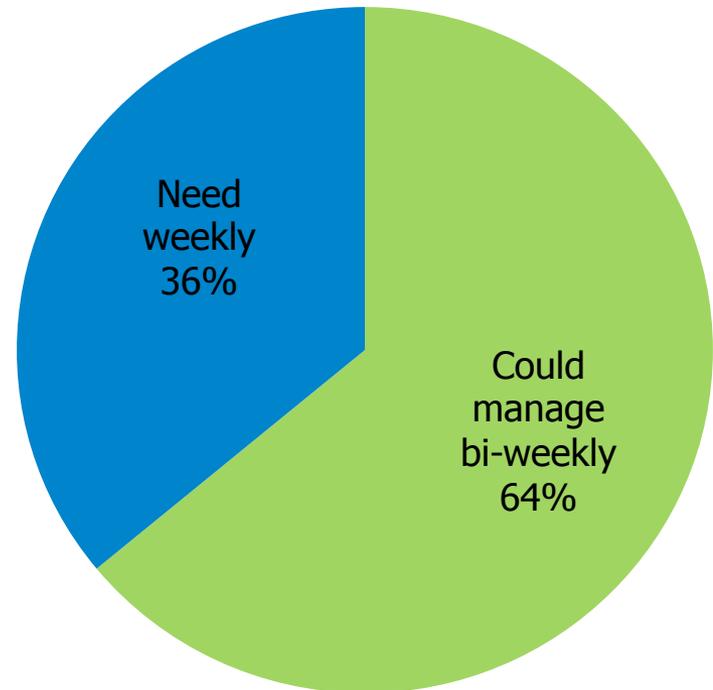
- Younger residents/families are least likely to be using a Green Bin weekly (61%)
- Size of household plays no statistically significant role in likelihood to be using a Green bin

Weekly/Bi-Weekly Collection

If unlimited blue boxes and green bins were collected weekly, could you manage bi-weekly garbage collection? (Open)

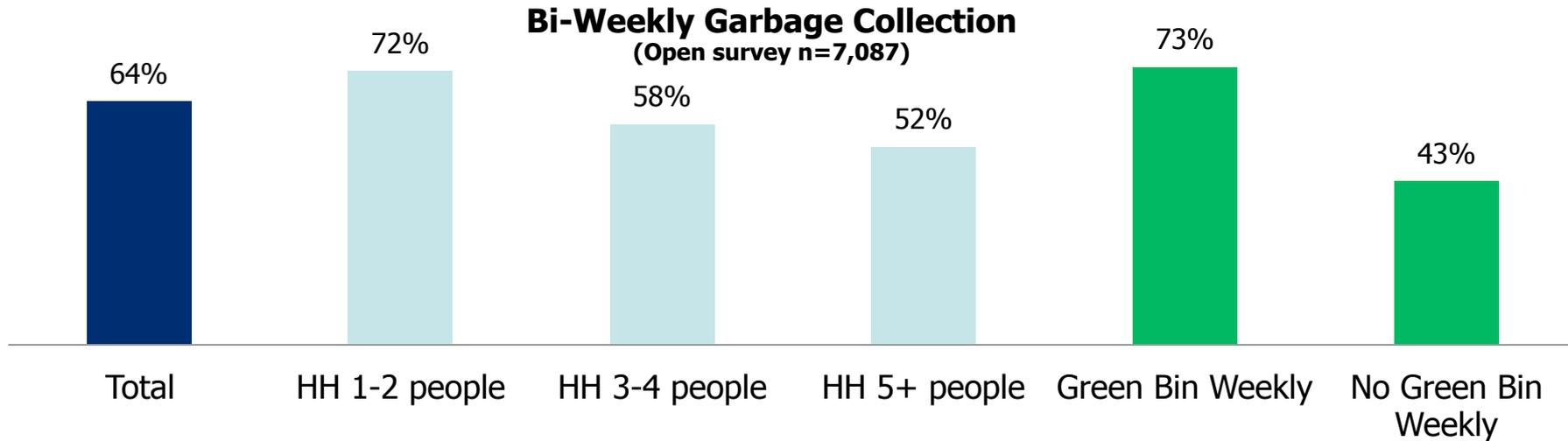
- Residents in the open survey are more open to bi-weekly garbage collection
- Almost two-thirds (64%) of those who completed the survey say they could manage bi-weekly collection

Weekly or Bi-Weekly
(Open Survey n=7,087)



Weekly/Bi-Weekly Collection

Percent who say they could manage bi-weekly garbage collection (Open)



- However, as with the demographic survey, there are some households who would find bi-weekly pickup more of a challenge
 - Larger households still feel the need for weekly pickup (52% could manage bi-weekly)
 - Those who don't use Green Bins (43% could manage bi-weekly)
 - Differences by age are correlated to the size of household. Those under 54 years are less likely to say they could handle bi-weekly collection (60%) Those 65 years and older are most able to manage bi-weekly pickup (76%)

Impact of Bi-Weekly Collection

If the Region collected garbage bags every two weeks, but collected your blue box and green bin every week, what would be the impact on your household? (Open)

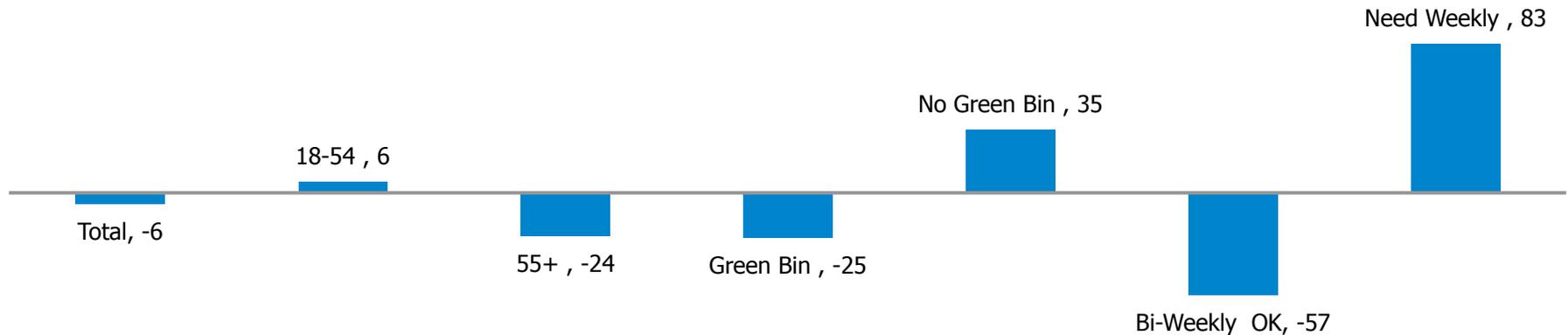
^a Open survey (n=7,087)	Total	HH 1-2 people	HH 3-4 people	HH 5+ people	Green Bin Weekly	No Green Bin Weekly	Bi-weekly pickup OK	Need weekly pickup
Big impact	18%	13%	22%	28%	11%	34%	1%	48%
Some impact	24%	19%	27%	29%	21%	29%	14%	40%
Might or might not	10%	8%	12%	12%	11%	9%	13%	7%
Not much impact	24%	26%	22%	19%	27%	15%	35%	3%
No impact	24%	34%	17%	12%	30%	13%	37%	2%
Impact Ratio (Big/Some vs. Not much/no impact)	-6	-28	+10	+26	-25	+35	-57	+83

- In the open survey, more residents said that a change to bi-weekly collection would have not much/no impact than those who said it would have a big/some impact (-6), reinforcing that participants in the open survey were more likely to be engaged in the topic than the demographic sample

Impact of Bi-Weekly Collection

If the Region collected garbage bags every two weeks, but collected your blue box and green bin every week, what would be the impact on your household? (Open)

Impact Ratio - Bi-Weekly Pickup
(Big/Some Impact vs. Not Much/No Impact - Open survey, n=7,087)

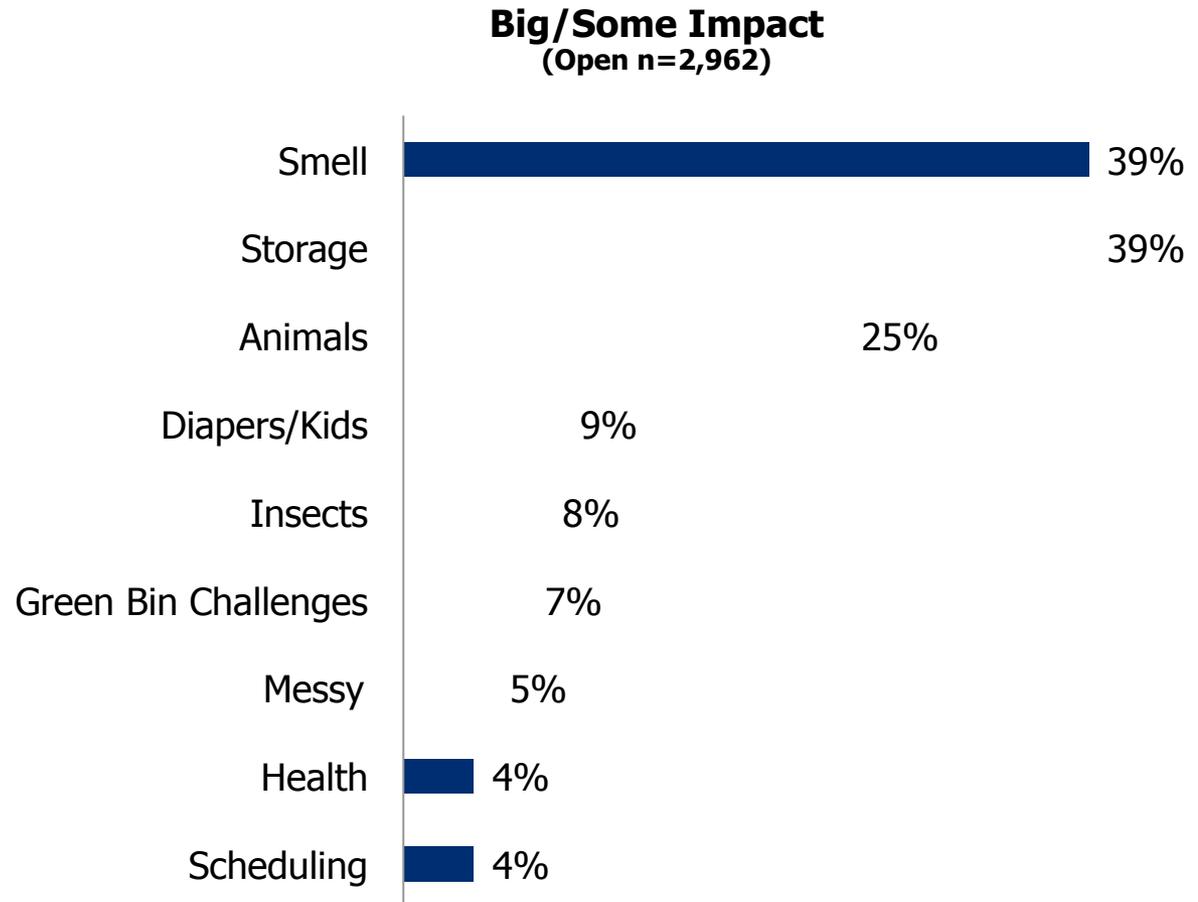


- Not surprisingly, there is a big gap in the impact ratio between those who would be able to manage bi-weekly garbage pickup (-57) and those who require weekly pickup (+83)
- Those over 55 years of age would be impacted less, as would those who currently use a Green Bin

Impact of Bi-Weekly Collection

Why would there be a big/some impact? (Open)

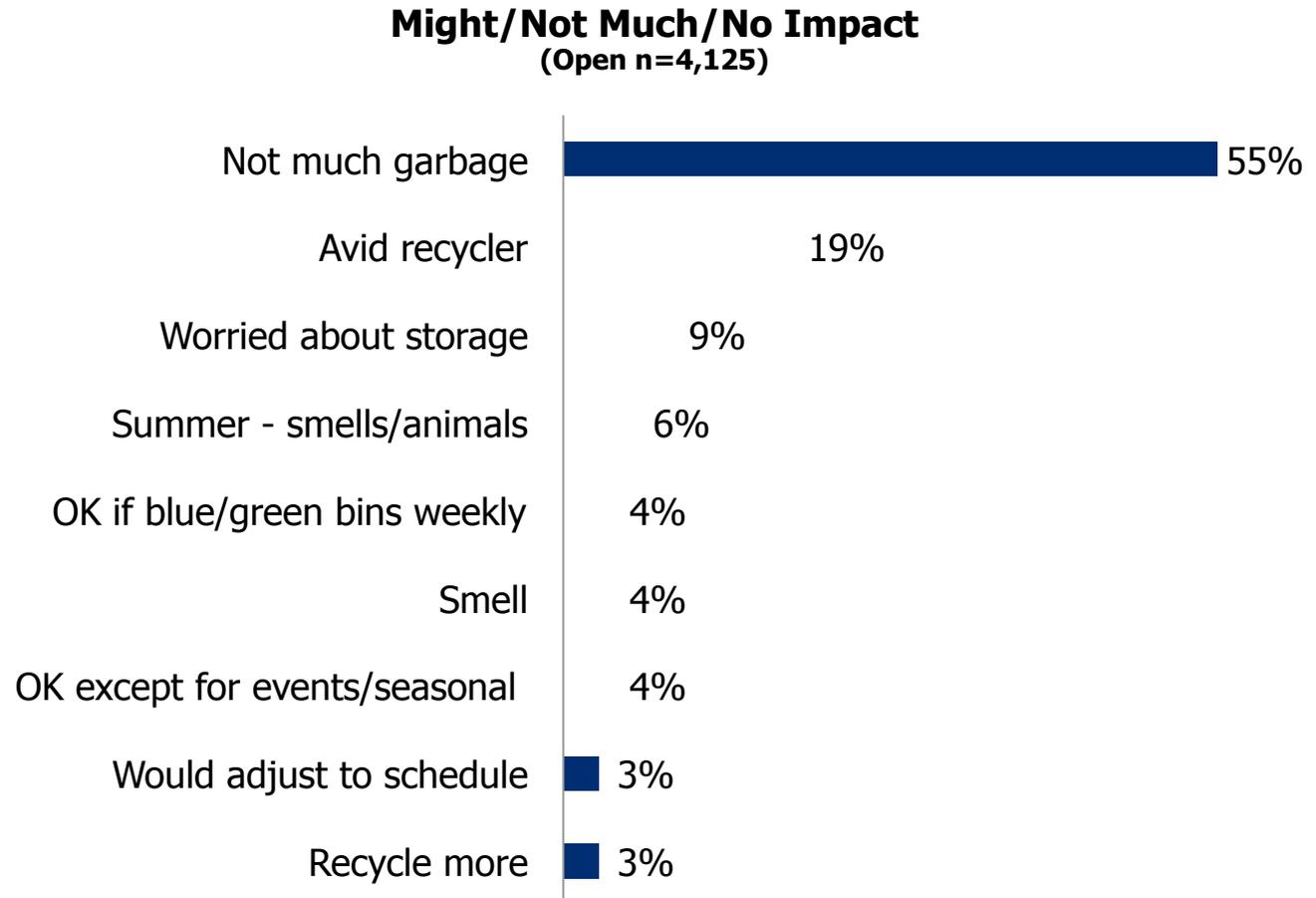
- Similar to the demographic survey, residents are concerned over the smell and storing their garbage, potentially animals getting into their garbage.
- Some are concerned about diapers/incontinence products



Impact of Bi-Weekly Collection

Why might there be or be not much/no impact? (Open)

- Those who see less of an impact or no impact feel they do not create much garbage and/or they are avid recyclers already
- Less mentioned is their concern over storing garbage, and challenges of smells and animals in the summer

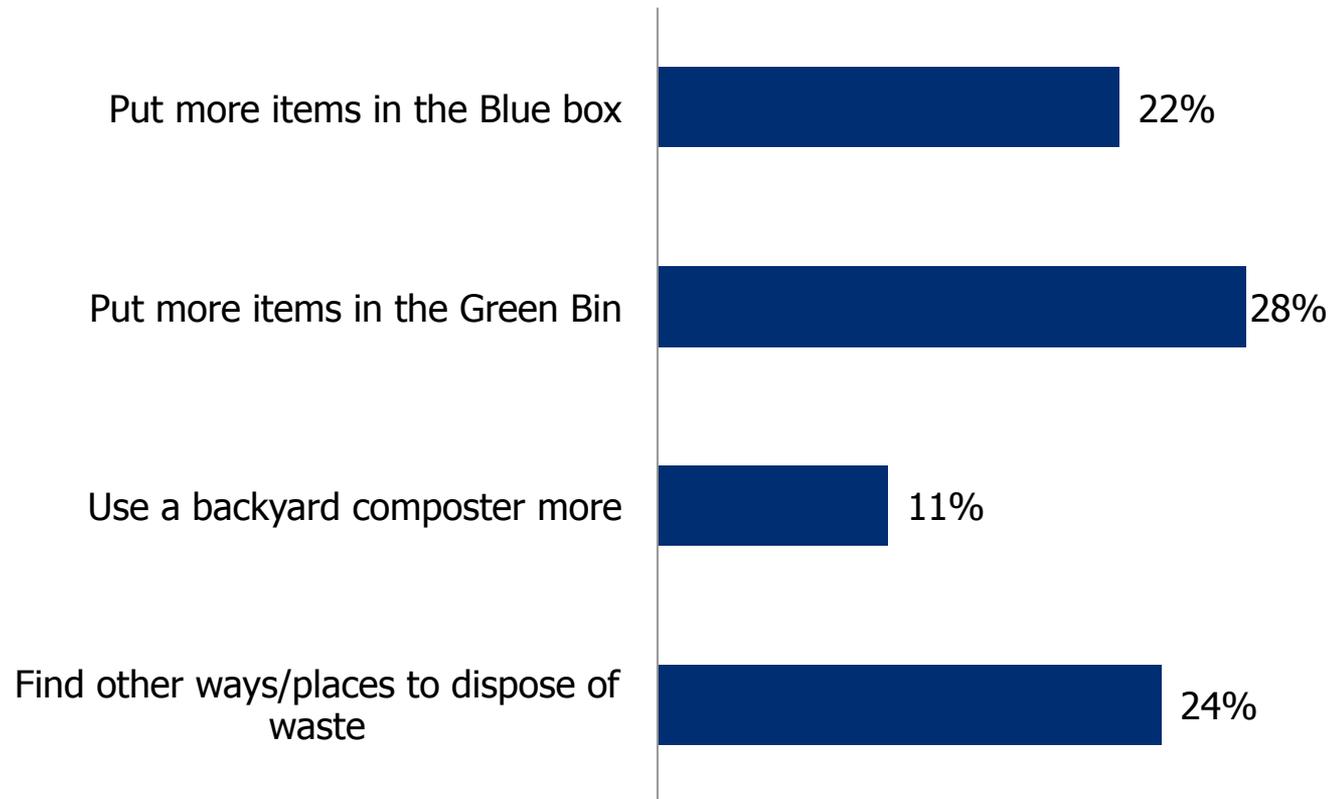


Impact of Bi-Weekly Collection

Possible Behaviour Shifts as a result of Bi-Weekly Collection (Open)

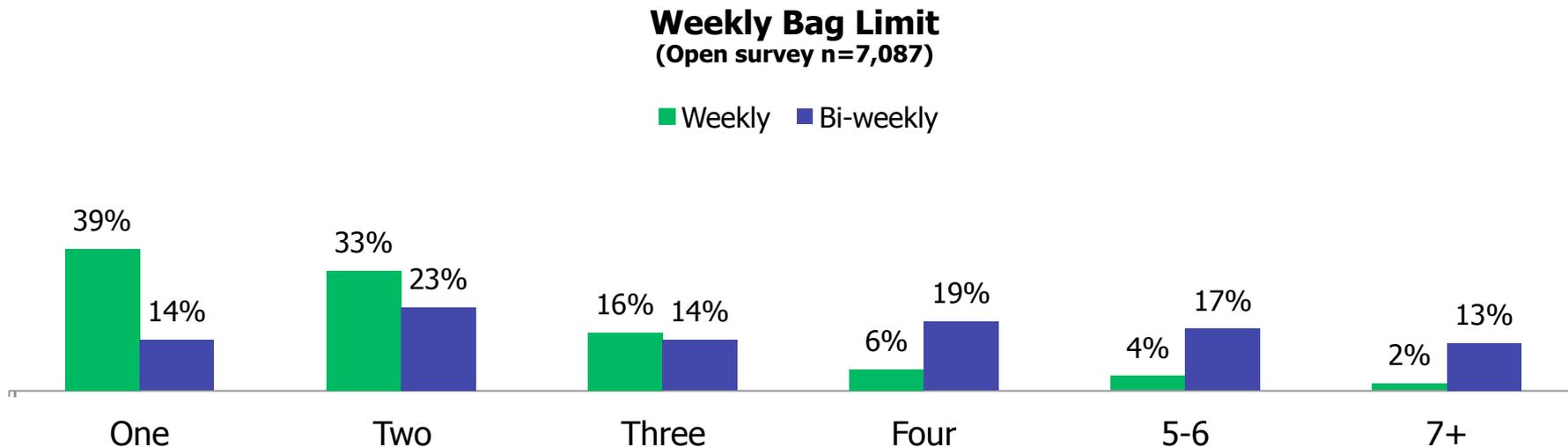
- More residents (28%) are likely to make better use of their Green Bin in the open sample (vs. 22%)

Very/Somewhat Likely to do this if there is a change to Bi-Weekly Collection (Open n=7,087)



Bag Limits

What is the bag limit that is most reasonable to you if garbage is collected weekly/bi-weekly? (Open)



- Based on these limits, a weekly bag limit of 3 bags would seem to suit about 88% of single family households in Waterloo Region (39% one bag, 33% two bags, and 16% three bags)
- A bi-weekly limit of 6 bags would cover about 87% of households (13% asked for a bi-weekly limit of 7 or higher)
- Mean scores were 2.3 for weekly, and 4.1 for bi-weekly

Bag Limits

What is the bag limit that is most reasonable to you if garbage is collected weekly/bi-weekly? (Open)

- Overall, a weekly bag limit of 2.3 and a bi-weekly limit of 4.1 were the averages given
- Not surprisingly, those putting out more garbage bags today would like a higher limit
- There are other differences depending on green bin users and size of household

▪ (Open survey, n=7,087)

		Weekly (Mean)	Bi-weekly (Mean)
Total		2.3	4.1
Bags of garbage in an average week	1	1.7	3.1
	2	2.8	5.4
	3+	4.4	8.2
Green Bin weekly?	Yes	2.0	3.6
	No	2.8	5.2
Household Size	1-2	1.9	3.3
	3-4	2.5	4.6
	5+	3.0	5.5

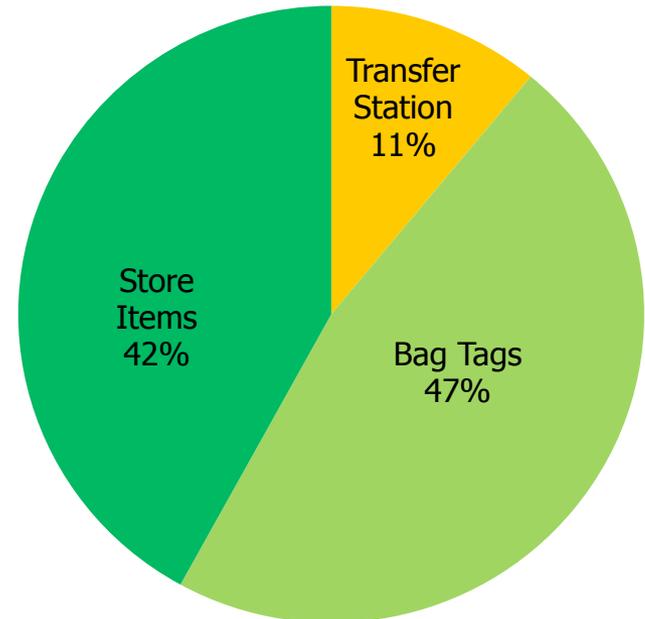


Bag Limits

Alternative Disposal Options for Waste that Exceeds Bag Limit

- Respondents were provided with three options, and then asked to rank them in order of preference as an alternative way to dispose of garbage that is over the limit
- Of the three options, the option of transporting waste to transfer stations was least accepted (11% ranked it first), significantly less than the demographic survey (22%)
- Having bag tags to dispose of extra bags was ranked first most often, at 47%
- Note – There could be other options to consider, and residents were forced to rank only these three. The results report only that ranking, not that residents are in favour of any/all of these options. Further research would be needed to discuss this topic in more depth

**Alternative Disposal Options
Percent Chosen First**
(open Survey n=7,087)



Bag Limits

Why choose “Take extra items to a transfer station and pay a fee to dispose of them” first? (Open)

- Those who would go to a transfer station/landfill are already making trips to dispose of some items (yard waste, Styrofoam packaging, construction waste, etc.), want to be able to dispose of their garbage more quickly, or find it more convenient

Take to transfer station and pay a fee (Open n=774)



Bag Limits

Why choose “Pre-purchase bag tags that you can use throughout the year, to put extra items at the curb” first? (Open)

- The main advantage is convenience. Little has to change in current household patterns
- There is a cost to this which may encourage diversion
- Some feel they could use this on the few occasions they would go over the limit

Pre-purchase Bag Tags
(Open n=2,127)

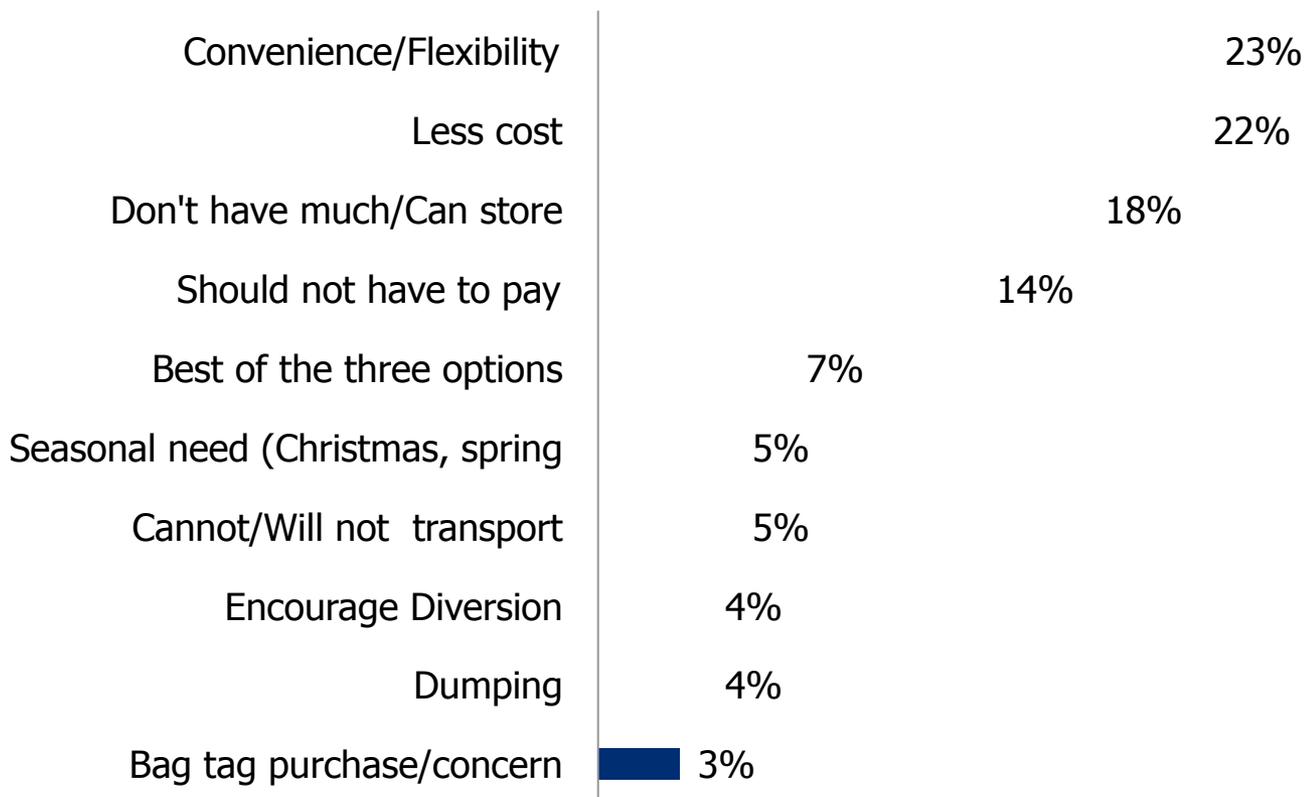


Bag Limits

Why choose “Store the item(s) until there is a temporary increase in the bag limit” first? (Open)

- This was the option that had no cost attached
- Residents choosing this tended to say they produce less garbage, and/or will hang on to garbage over the limit until the next pickup
- There was a sense that residents should not have to pay extra for garbage pickup, as it is part of their taxes

Store until temporary increase in bag limit (Open n=4,186)



Other Comments

What other comments or suggestions related to garbage collection would you like to share with the Region of Waterloo?

- Additional comments and suggestions were collected and will be appended to this report.