



Solid Waste and Recycling

Survey Report



Executive Summary

The survey completed is about household trash (solid waste) and recycling services. The goal of the survey is to help the city understand the needs and requests from the citizens of Oak Ridge. This will help to build the foundation of our request in preparation of the proposal for bidding.

The information was collected through a survey with multiple questions regarding current and possible future services associated with solid waste, recycling, and the convenience center, and leaf, brush and bulk trash pickup. The survey was mailed to 300 randomly selected customers. The survey was mailed out in the middle of December with 100 citizens participating.

The survey has five (5) categories. The first category asks specific questions about the household trash pickup. The second is about the recycling program, with specific questions asked. The third category is about the convenience center use, operation and number of days it should be open. The fourth is about leaf and bush pickup. The fifth category is about household bulk and trash, with specific questions asked to gauge these services.

The results of the survey are presented herein.

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Section 1 Household Trash

Several questions were asked so customers could respond regarding household solid waste trash pickup. Questions asked included the following:

- How many bags of trash generated in one week?
- If they take the trash can to the curb.

Results of Survey

The results indicate that the majority of households (80%) generate between one to four bags of garbage per week, with the remaining 20% generating lesser or greater amounts. Based on this information, 95 gallon trash cans are recommended to adequately hold the trash bags until pick up.

Approximately 60% of the survey results indicated that citizens sometimes or always take the trash can to the curb. This is good, since backdoor trash pickup is generally limited to certified handicapped homes in other communities.

Questions were also asked regarding the importance of weekly trash pickup, providing backdoor pickup for certified handicapped homes, continuing backdoor pickup, and costs associated with backdoor pickup for all citizens. The results support the removal of backdoor pickup for all citizens and limit it to only certified handicapped homes. As shown in the tables provided herein, the majority 64% indicated that providing backdoor pickup to certified handicapped homes was very important to somewhat important. Nineteen percent were neutral, neither for nor against, and the remaining 17% indicated it was of least importance or not important.

The weekly pickup of household trash should be continued since it was overwhelmingly considered very important to somewhat important by 96% of the surveys.

Continued backdoor pickup was important to some, 40% of those surveyed. The remaining 60% fell in the neutral (28%) or not important to least important range (32%).

The cost of backdoor pickup was also ranked based on importance. The majority of the surveys viewed the cost of service as very important or somewhat important at 61%. The remaining 39% fell in the neutral category at 29% and not important to least important at 10%. This also supports limited backdoor pickup since most do not want to pay for it.

The results of the household trash survey questions are provided herein.

Survey Results for Household Trash Pickup

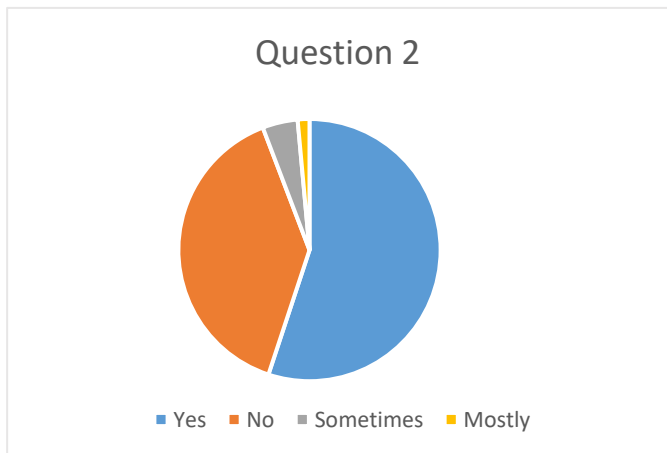
1. How many standard kitchen-sized garbage bags to you generate in one week?

Less than one bag	5	6.17%
1-2 bags	33	40.74%
3-4 bags	33	40.74%
5-6 bags	6	7.41%
Greater than 6 bags	4	4.94%



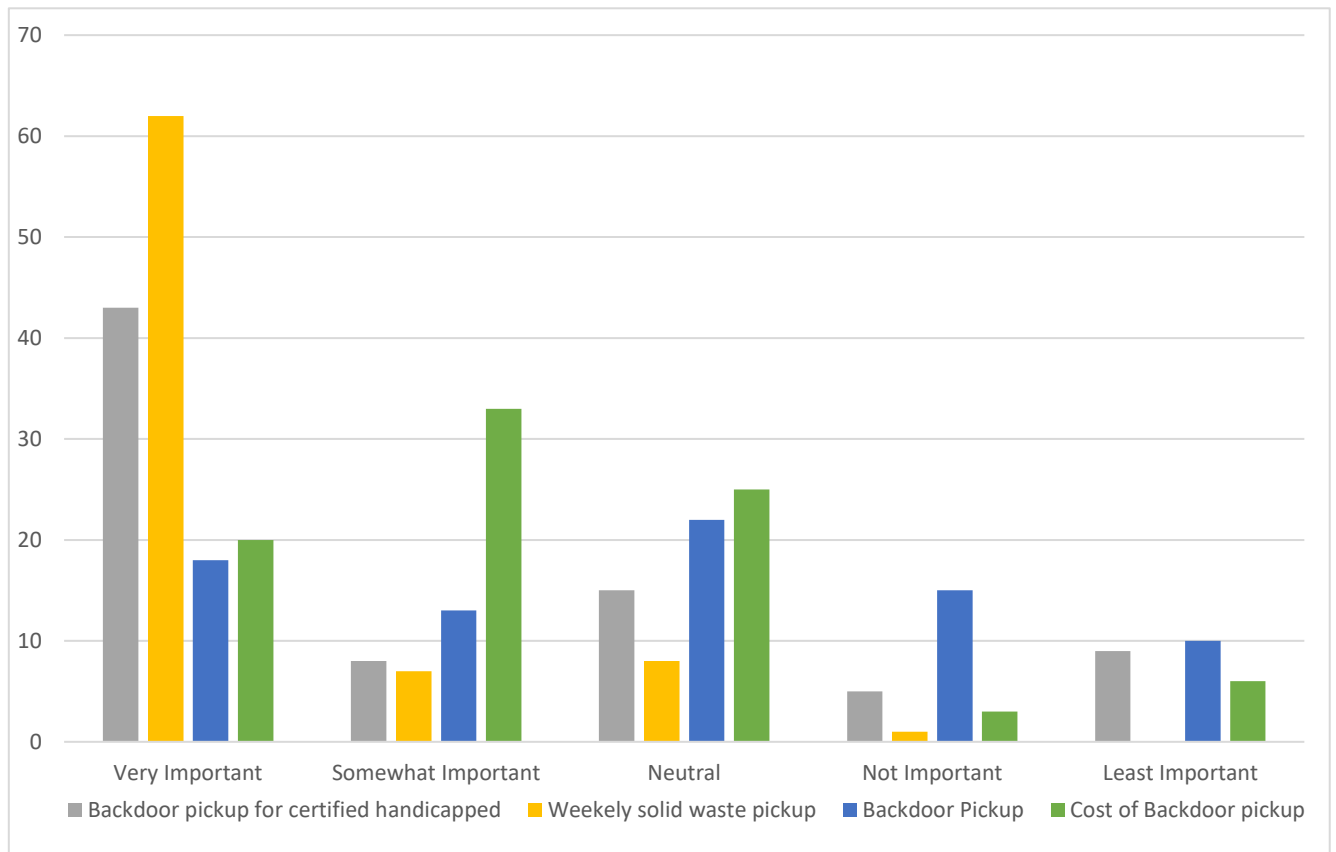
2. Do you take your trash can to the curb?

Yes	38	55.07%
No	27	39.13%
Sometimes	3	4.35%
Mostly	1	1.45%



Please prioritize the importance of the following services:

	Very Important	Somewhat Important	Neutral	Not Important	Least Important
Backdoor pickup for certified handicapped	43	8	15	5	9
Weekly solid waste pickup	62	7	8	1	
Backdoor Pickup	18	13	22	15	10
Cost of Backdoor pickup	20	33	25	3	6



Section 2 Recycling

Several questions were asked so customers could respond regarding recycling. Questions asked included the following:

- Do you recycle?
- If they had adequate opportunity to recycle?
- If they filled up the 95 gallon recycling bin on a weekly basis?
- Would you support recycling pickup on a bi-weekly basis?
- Would you support biweekly recycling if it resulted in a savings?
- Would you be interested in the City purchasing equipment to grind glass so it can be recycled?

Survey Results

It is very encouraging to see that 93% of those surveyed recycle and 81% of those think they have adequate opportunity to recycle. This is important, since communities as a whole have a responsibility to recycle to extend the lifespan of existing landfills and protect the environment. There is a direct correlation between the volume recycled and the longevity of landfills.

Approximately 59% of those survey indicate that they do not fill up the 95 gallon recycling bin, while 41% do. This could be due to the size of the household; since a larger household can generate more recyclables than a smaller household.

The majority, 65%, support recycling being picked up bi-weekly and the percentage increased to 79% if it resulted in a savings. The concern with recycling being changed from weekly pickup to bi-weekly is whether or not the households who typically fill the recycling bins would take the recyclable materials to the convenience center or throw it in with their trash, this would ultimately defeat the purpose of recycling.

The removal of glass from the recycle waste stream was upsetting too many Oak Ridge citizens. Approximately 58% support the city purchasing equipment to grind glass. The ground glass, could be used during construction, for bedding material and could be sold to generate revenue. It can be explored to see if grants could be utilized to fund the purchase of this equipment and a cost benefit analysis could be completed to see if grinding of the glass could be performed by the solid waste and recycling contractor.

The results of the survey are provided herein.

Survey Results for Recycling

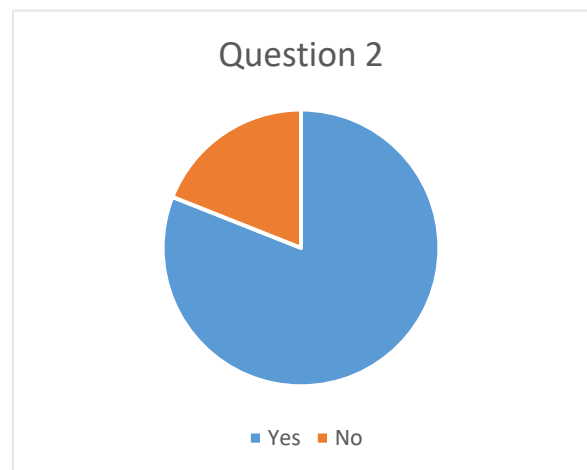
1. Do you recycle?

Yes	76	92.68%
No	6	7.32%



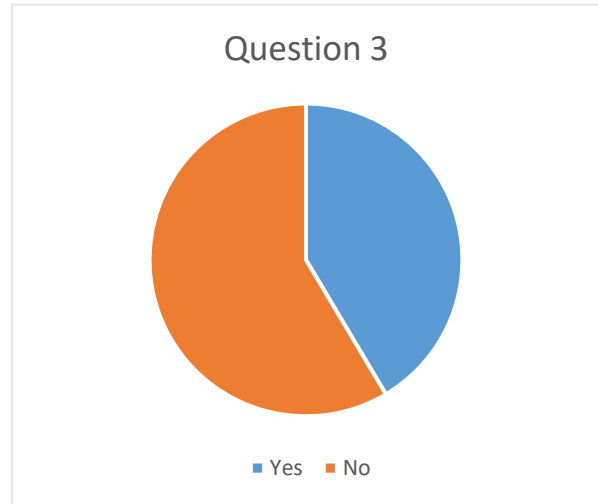
2. In your opinion, do residents have adequate opportunity to recycle?

Yes	64	81.01%
No	15	18.99%



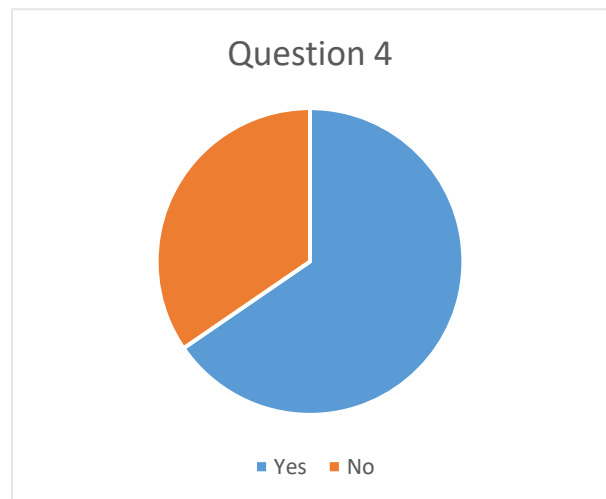
3. Do you generally fill up the recycling bin provided on a weekly basis?

Yes	34	41.46%
No	48	58.54%



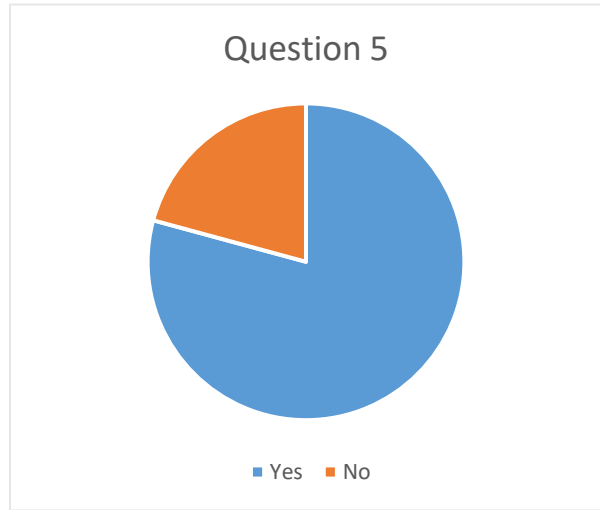
4. Would you support recycling being picked up every other week?

Yes	53	65.43%
No	28	34.57%



5. Would you support recycling being picked up every other week if it resulted in a savings?

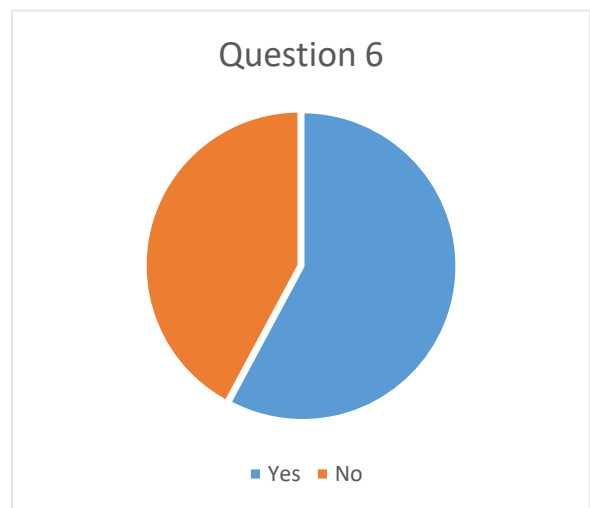
Yes	61	79.22%
No	16	20.78%



Some items that were recycled in the past, such as glass, are no longer recycled due to single-stream recycling, the damage as a result of broken glass on sorting machine equipment, and/or no market demand.

6. Would you be interested in the City purchasing equipment to grind glass into small particles for possible use in sidewalks, bedding material and other construction activities even if this resulted in increased operations cost to the City and subsequently an increased associated fee?

Yes	48	57.83%
No	35	42.17%



Section 3 Convenience Center

Several questions were asked for customers to respond to operation and services the convenience center provides. Questions asked included the following:

- What the convenience center is used for?
- How often they use it?
- How many days should it be open?
- And if they will support reducing the number of days open if it results in savings?

Survey Results

The survey shows that most citizens use the convenience center with only 6% indicating that they do not use this service. The convenience center is primarily used for the disposal of bulk items and yard waste at 38% and 20%, respectively. Approximately 13% use the center for the disposal of all items ranging from household trash to bulk. The remaining 23% indicate they use it for household trash and recycling disposal. This suggests that some of the households that generate more than 4 bags of household trash per week may be taking it to the convenience center for disposal.

With regards to the frequency of use, the majority (63%) indicate they use the center 3 to 4 times annually. Approximately 27% use the center more frequently ranging from greater than once weekly to monthly. Only 10% responded that they have never used the convenience center.

At the present time, the convenience center is open 7 days per week. It is recommended that the center be closed on Sundays since the landfill is closed on Sunday. This would allow time for maintenance work to be completed on equipment. Citizens were asked how often the center should be opened and the majority (86%), indicated 5 to 6 days per week. With 14% suggesting it should be opened 3 days per week. Many of the responses (74%) indicated they would support reduced operation days if it resulted in savings.

Most citizens view the convenience center positively and would continue using it for their needs. The results of the summary are provided herein.

Survey Results for Convenience Center

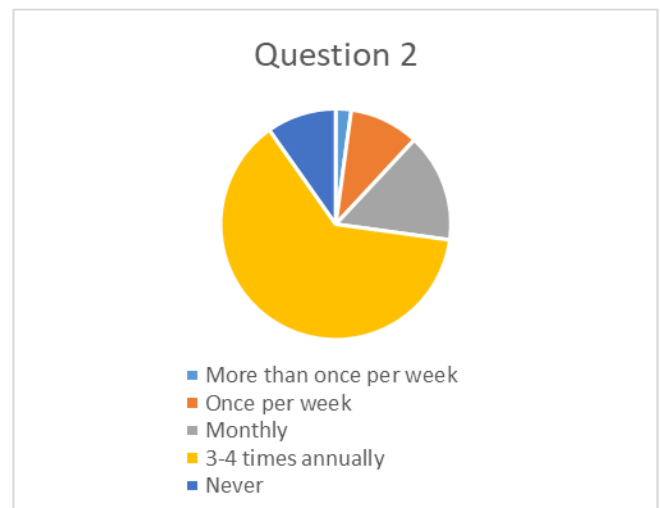
1. What do you use the convenience center for?

Household Trash Disposal	22	14.77%
Bulk items	57	38.26%
Recyclables	12	8.05%
Yard Waste	29	19.46%
All of the above	20	13.42%
Not used	9	6.04%



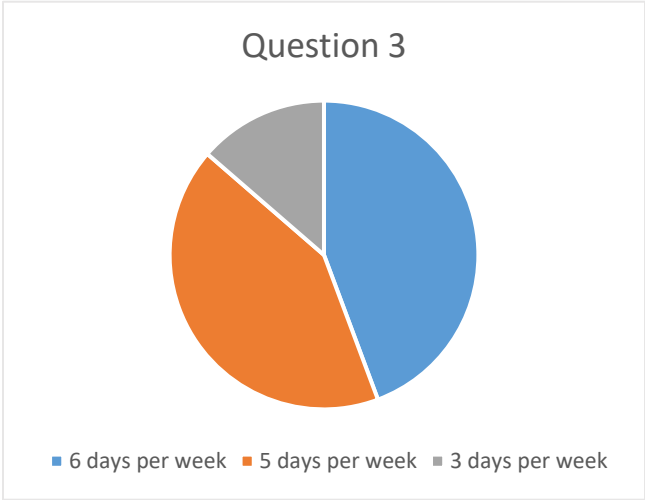
2. How often do you use the convenience center?

More than once per week	2	2.17%
Once per week	9	9.78%
Monthly	14	15.22%
3-4 times annually	58	63.04%
Never	9	9.78%



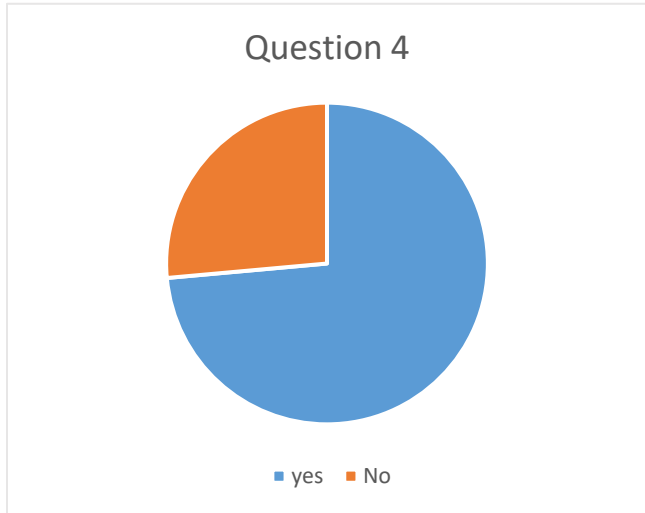
3. How often should the convenience center be opened?

6 days per week	39	44.32%
5 days per week	37	42.05%
3 days per week	12	13.64%



4. Would you support reduced days opened at the convenience center if it resulted saving money on your monthly fee?

yes	64	73.56%
No	23	26.44%



Section 4 Leaf and Brush

Several questions were asked if customers would respond regarding leaf and brush pickup services. Questions asked included the following:

- How important are the services?
- What factors are most important regarding these services?
- Are you interested in increasing these services to twice annually?
- Would you be interested in paying more for these services to be increased annually?
- Have you ever hired a contractor for this service?

Survey Results

It was surprising that 59% surveyed indicated that these services were not important, or they were neutral on these services. The remaining 41% indicated that these services were important to very important.

Timing of the service is most important at 61%, while 30% indicated the frequency of these services as important. The remaining 9% listed other such as:

- Customer do it himself.
- Written notification of the dates.
- Dates not reliable
- Do not use service.

When the question was asked if they would be interested in increasing these services to twice annual 54% indicated they were not interested, with 46% were very interested and somewhat interested in increasing these services.

When asked if they would pay more for these services to be picked up twice annually, the majority, 84% indicated they were not interested.

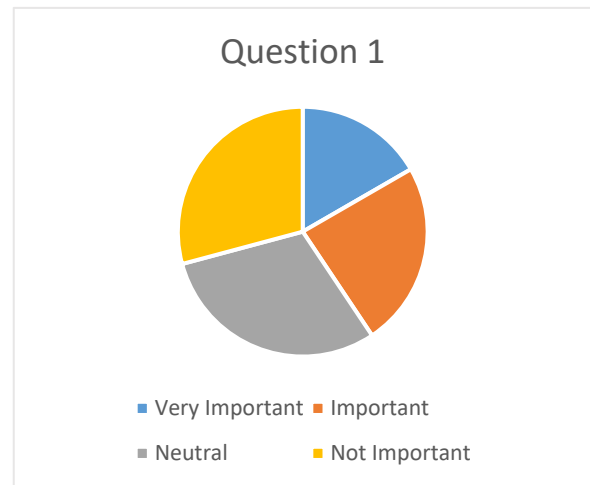
Citizens were also asked if they ever paid a contractor for these services and the majority, 78%, have not.

The results indicate that citizens are interested in getting leaf and brush picked up quicker or at different times during the year rather than increasing the service to twice annually. However, timing and frequency changes resulting in an increased cost changes the dynamics and most citizens are not interested in changes.

Survey Results for Leaf and Brush Pickup

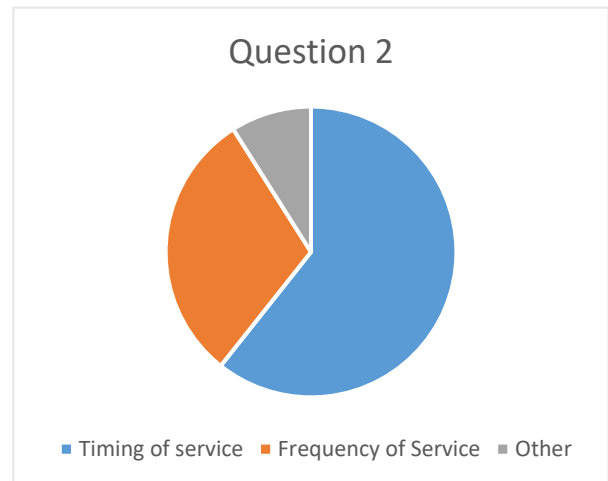
1. How important is leaf and brush pickup for you?

Very Important	16	16.67%
Important	23	23.96%
Neutral	29	30.21%
Not Important	28	29.17%



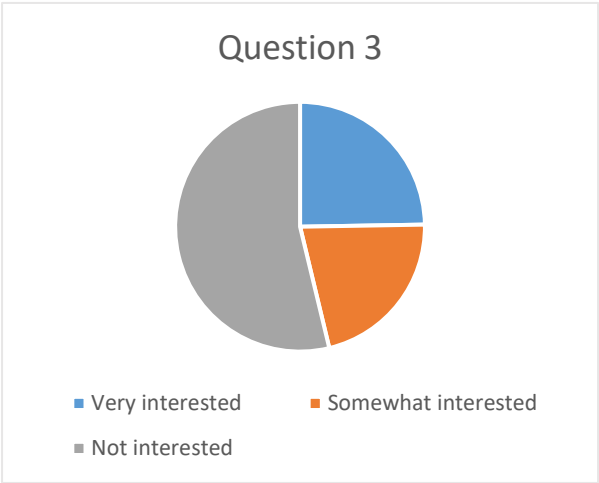
2. What factors are most important to you associated with leaf and brush pickup?

Timing of service	54	60.67%
Frequency of Service	27	30.34%
Other	8	8.99%



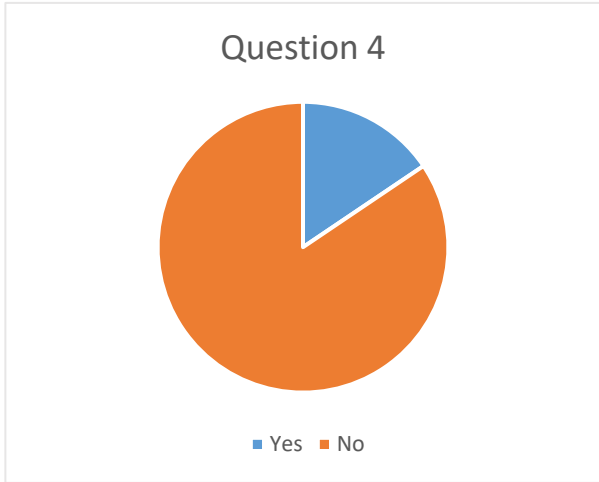
3. How interested are you in increasing this service to twice annually, fall and spring pickup?

Very interested	23	24.73%
Somewhat interested	20	21.51%
Not interested	50	53.76%



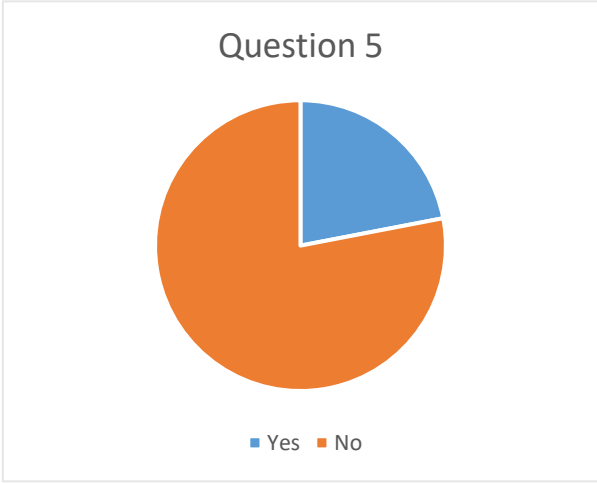
4. Would you pay more to have the pickup more frequently?

Yes	14	15.56%
No	76	84.44%



5. Do you have or have you ever hired your own contractor to complete this work on a pay-as-you-go basis?

Yes	20	21.98%
No	71	78.02%



Section 5 Household Bulk.

Several questions were asked if customers would respond regarding the bulk pickup service. Questions asked included the following:

- How important is the service?
- What factors are most important regarding this service?
- Are you interested in increasing these services to twice annually?
- Would you be interested in paying more for these services to be increased annually?
- Have you ever hired a contractor for this service?

Survey Results

It is an approximately 50/50 split on importance of this service. Approximately 51% responded that this service is very important or important to them. The remaining 49% are neutral or this service is not important to them. The use of the convenience center may be impacting the importance of this service. Bulk items had the highest percentage of disposal at the convenience center. Citizens that bring bulk items may not use or use infrequently the curbside bulk pickup. The citizens that use it may not have means to transport bulky items to the center for disposal, so it is important that they have this annual curbside service.

Surprisingly, the frequency of bulk pickup was ranked as most important rather than timing of service. This is supported by the next survey question asking if they would be interested in increasing this service to twice annually. Approximately 58% surveyed indicated they were very interested or somewhat interested in increasing this service to twice annual. The remaining 42% were not interested.

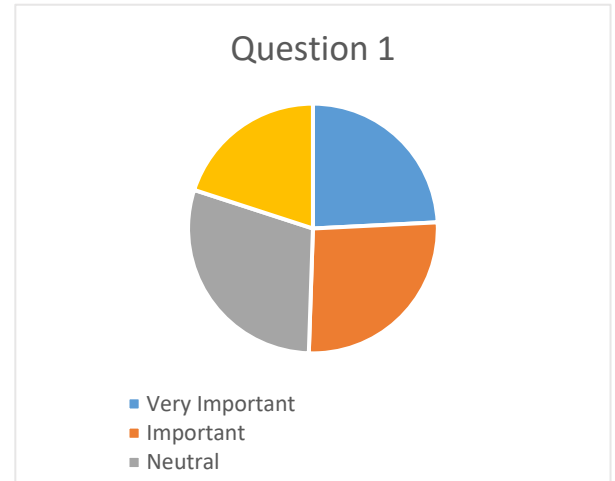
When asked if they would pay more for this service if the frequency was increased, 80%, indicated they would not. Therefore, unless the cost to increase this service had little to no impact on corresponding fees, citizens are not interested.

A question that was asked if anyone has paid a contractor to remove bulk waste and 82% responded they have not. The survey results are provided herein.

Survey Results for Household Bulk

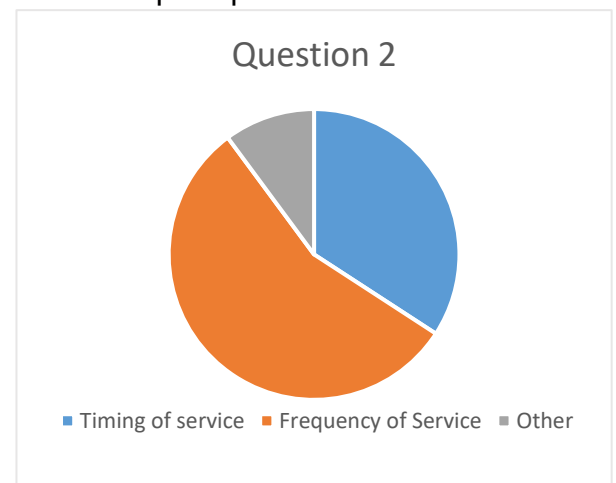
1. How important is bulk pickup for you?

Very Important	23	24.21%
Important	25	26.32%
Neutral	28	29.47%
Not Important	19	20.00%



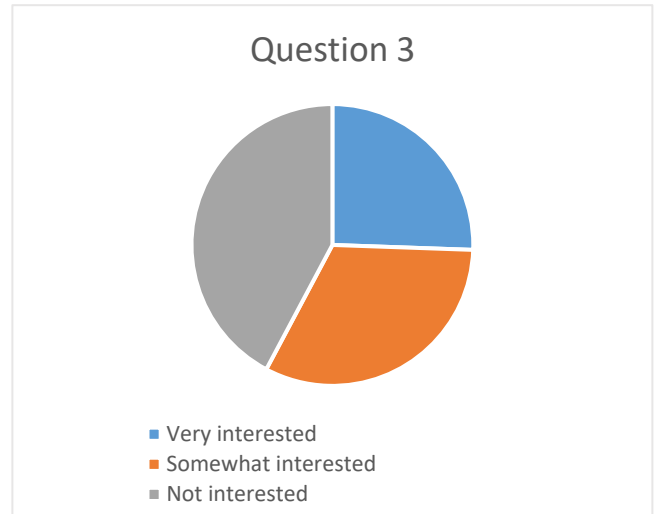
2. What factors are most important to you associated with bulk pickup?

Timing of service	27	34.18%
Frequency of Service	44	55.70%
Other	8	10.13%



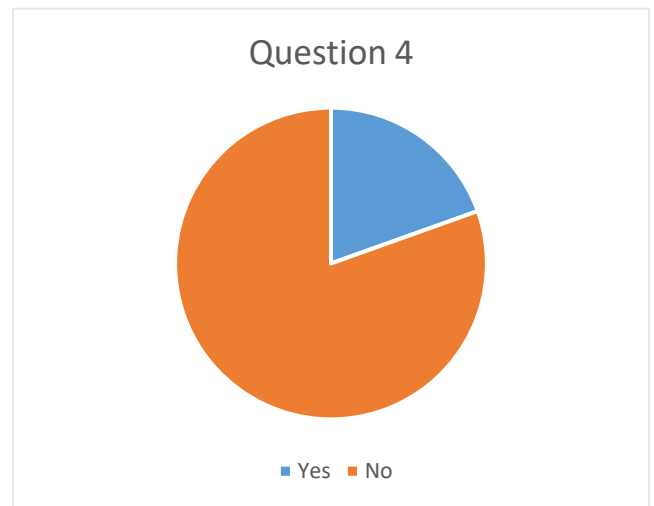
3. How interested are you in increasing this service to twice annually, fall and spring pickup?

Very interested	23	25.56%
Somewhat interested	29	32.22%
Not interested	38	42.22%



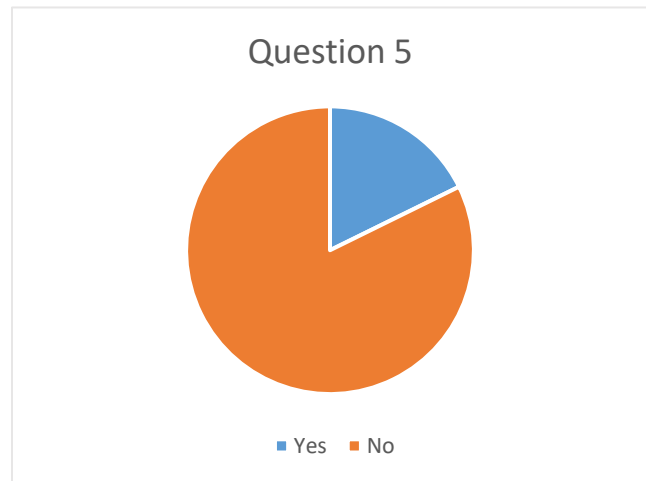
4. Would you pay more to have the pickup more frequently?

Yes	17	19.54%
No	70	80.46%



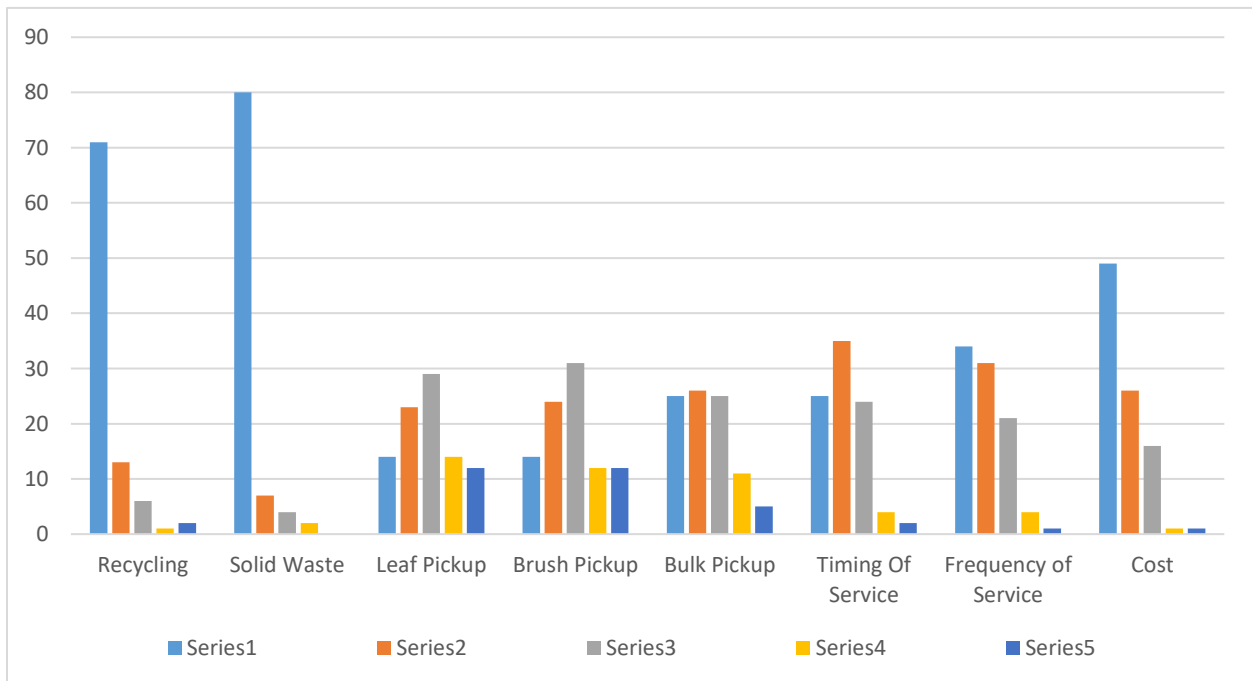
5. Do you have or have you ever hired your own contractor to complete this work on a pay as you go basis?

Yes	14	17.72%
No	65	82.28%



Please prioritize the importance of the following services:

	Very Important	Somewhat Important	Neutral	Not important	Less important
Recycling	71	13	6	1	2
Solid Waste	80	7	4	2	
Leaf Pickup	14	23	29	14	12
Brush Pickup	14	24	31	12	12
Bulk Pickup	25	26	25	11	5
Timing Of Service	25	35	24	4	2
Frequency of Service	34	31	21	4	1
Cost	49	26	16	1	1



Section 6 Recommendations

Based on the results of the survey responses, I recommend the following for consideration before bidding the contract for these services:

1. Household trash should be picked up weekly using 95-gallon trash cans. I recommend having two-line items for this service. One will be with the Contractor providing 95-gallon trash cans. The second will be for citizens to provide 95-gallon trash cans. (I believe it is advantageous if the Contractor provides the waste bin, since they will provide bins that are made to be picked up using the equipment on the trucks for disposal). This will likely be easier and more efficient than using different bins with different shapes and sizes.
2. I recommend that household trash pickup be at the curb with the exception of the 3 to 5 percent who are provided backdoor pickup for certified handicapped homes. Providing backdoor pickup service to all citizens is expensive and requires special trucks that can maneuver small driveways.
3. I do not recommend going to bi-weekly recycling pickup. My concern is that this will result in the generation of more trash which contradicts the purpose of recycling. The convenience center is available for recycling, however only a small portion surveyed indicated that they use the center to dispose of recyclables. We would be relying on citizens in the city to commit to bringing excess recyclables to the centers. If excess recyclables are thrown in the trash, it could increase costs associated with the disposal of trash at the landfill.
4. I recommend evaluating the costs associated with the purchase and use of a glass crushing machine. I was pleasantly surprised in the favorable response to this question. An evaluation can be completed in-house to determine costs and how it would impact solid waste fees.
5. I recommend bidding with two operation options for the convenience center. At a minimum it should be closed on Sundays since the landfill is closed. This will provide at least one day for maintenance on equipment at the site. The two bid options recommend are listed below and impacts on the solid waste fee should be determined before awarding.
 - Open 5 days/week Tuesday thru Saturday
 - Open 6 days/week Monday thru Saturday
6. Based on the results of the survey, I recommend continuing with the annual leaf and brush pickup, but changing the timeframe for completion or alternating the area in the City picked up first, second and last.
7. There is an interest in increasing bulk pickup to twice annually. Therefore, I recommend bidding the two options noted below and determining impacts on the solid waste fee before awarding.
 - Once yearly in the spring
 - Spring and fall pickup

It is likely that the cost associated with this service may increase due to several factors including gas and oil costs, landfill disposal costs, recycling center costs, and operational costs when bid. We plan to award to the lowest, qualified bid for a five (5) year contract with four (4) five years renewals. I would like to extend special thanks to Ms. Lauren Grey for helping me prepare questions and working with me to get this out to citizens for their response. I would also like to thank Ms. Gabby Ollis for helping with the tabulation and review of data and in the preparation of this report. Should you have any questions, or require additional information, please do not hesitate to contact me.

Sincerely,

Shira McWaters, P.E.
Public Works Director