



Solid Waste Planning Grant Executive Summary – Rock Island County Waste Management Agency

Rock Island County Waste Management Agency (RICWMA) is a municipal joint action agency serving 13 governments in Rock Island County Illinois, to assist and coordinate its members in solid waste management. The Villages/Cities of Andalusia, Carbon Cliff, Coal Valley, Cordova, East Moline, Hampton, Milan, Moline, Port Byron, Rapids City, Rock Island, and Silvis along with Rock Island County are members. RICWMA was awarded a Solid Waste Planning Grant in FY2022. This grant was to help RICWMA understand the amount of waste and recycling managed within Rock Island County. RICWMA hired an intern to facilitate this study with oversight by RICWMA staff coordinators.

There were two avenues to seek data on residential recycling. A survey was used and data was collected from the regional material recovery facility/recycling center operated by the Waste Commission of Scott County, and a private recyclable hauler serving the majority of the communities in Rock Island County. A survey was created to collect information from Rock Island County communities about their household recycling. The survey is attached to this summary. There was also outreach done with the Waste Commission of Scott County and Republic Services to receive information on different types of materials being recycled and the tonnage amount to supplement the survey data. At the end of the data collection project, there was a PowerPoint presentation to the RICWMA board that included all of the data collected on residential recycling. This summary provides full details of the information received; however, each community's individual information was shown anonymously in the presentation so as not to call out one community over another.

RICWMA programs include Curbside White Goods (Appliances) and Curbside Tires collection, Household Hazardous Waste (HHW) drop-off program, E-Waste (Electronics) recycling program, and Member Government Tires program. The curbside program is a contract with Weikert Iron & Metal Recycling, and the HHW and E-waste are contracted with the Waste Commission of Scott County. The tonnage collected from these programs is reported monthly to the RICWMA Board. In 2022, 428.15 tons were collected from the programs as part of RICWMA's recycling efforts. These programs are provided to residents of Rock Island County at no cost and are funded by the solid waste fee imposed at the two landfills in Rock Island County.

Beyond RICWMA programs, residents can bring their appliances, shingles, and tires to the Waste Commission of Scott County for a fee. The Waste Commission operates a material recovery facility where these items are processed for recycling markets. These collections are separate from RICWMA's contracted programs. The Waste Commission was contacted to determine how many items were dropped off from Rock Island County residents outside of the RICWMA contracts. A total of 83 appliances, 242 shingles, and 49 tires were brought to the Waste Commission from Rock Island County. The Waste Commission of Scott County accounted for 12 cities/villages in Rock Island County, including; Andalusia, Carbon Cliff, Coal Valley, Cordova, East Moline, Hampton, Illinois City, Milan, Moline, Port Byron, Rock Island, and Silvis. This came out to 373.61 items that were recycled at the Waste Commission of Scott County from residents in Rock Island County.

RICWMA was also able to determine the type of items being recycled at the Waste Commission of Scott County and at what percent based on their records. There was a range provided from FY2010-FY2023. These numbers account for all recyclable materials at the Waste Commission and are not specific to Rock Island County residents recycling. The PowerPoint presentation attached has the full details, but there were some notable decreases and increases. Mixed Paper decreased from 65% in FY2010 to 36% in FY2023. Cardboard increased from 12% in FY2010 to 26% in FY2023. This shows that as years go on there will be gradual changes in what type of items are recycled. This type of information will help RICWMA educate residents on what is being recycled the most and what items have a low recycling percentage, but should still be a priority.

The Waste Commission is the primary recipient of recyclable materials from Rock Island County collected predominately by Republic Services from residential recycling programs in Rock Island County. There was one small community that used a different recyclable hauler, and another large community that contracted with another recyclable hauler within their community. No recycling volumes were able to be determined by the small community. The Waste Commission of Scott County and Republic Services provided RICWMA staff with tonnages for recycling and garbage collected from communities in Rock Island County. The Waste Commission provided recycling numbers from FY2022 for seven communities in Rock Island County that included Coal Valley, East Moline, Milan, Moline, Port Byron, Rock Island, and Silvis. The total amount of tonnage from these communities was 1,073.57 tons. This was hauled by Republic Services and brought to the Waste Commission. It was also reported that Moline recycled 2,347.96 tons hauled by Midland Davis and brought to the Waste Commission.

The Waste Commission also reported on the specifics of Moline's curbside recycling weight collected in tons. Moline is one of the communities in Rock Island County that has mandatory recycling. The data collected showed tonnage has been increasing from FY2017-2018, which was at 1,788.39 tons to now over halfway in FY2022-2023 at 1,552.77 tons. This is on track to beat the previous fiscal year at 2,379.94 tons. The PowerPoint has Moline concealed. Republic Services shared recycling and trash tonnage from Port Byron, Rapids City, East Moline, Coal Valley, Carbon Cliff, and Rock Island. These communities were anonymous in the presentation. This data determined how much of each community's waste is handed over to the recycling program/curbside. All communities were around the same percent, and it was estimated that an average of 9.11% of Rock Island County communities' trash is recycled.

Lastly, the survey collected data from the communities of Cordova, Rapids City, Coal Valley, Hampton, Carbon Cliff, Moline, East Moline, and Milan. The details of the survey are attached. Some key takeaways from the survey include how many households are served, participation rate, and recycling levels. Only three of these communities have mandatory

recycling, and the total amount of households in all the communities was 26,918. All of the communities besides East Moline had a percentage greater than 50% of participation in the curbside program. There were responses from members of five communities who selected that their recycling has increased in the past 5 years, and members of three communities selected that it has stayed the same. The details of this survey remained concealed from the board, but were shown anonymously.

In conclusion, data collection focused on public recycling and found it difficult to collect exact tonnages. Since Rock Island County has many smaller communities, the amount of trash and recycling from those communities is not enough to fill a whole truck. It would be inefficient for Republic Services to take a quarter truck over to the Waste Commission of Scott County when the truck can keep filling up from other communities. RICWMA needs to take a step further by acquiring a consultant with expertise in solid waste data collection and estimation to better represent residential household and commercial recycling. RICWMA attempted to obtain initial commercial recycling data based on historic data collection contacts. However, many commercial businesses did not respond to inquiries or would not share that data or report it. In some cases, the initial contacts didn't monitor volumes or further contact with contacts not in the local area was needed. The residential effort took longer than anticipated, and it was found that many RICWMA members do not request volume reporting in their recycling collection contracts. The next step would be to pursue a subsequent Solid Waste Planning Grant through the Illinois EPA to contract with a solid waste planning consultant with greater expertise in data collection and estimation. The survey results and PowerPoint presentation are attached.

Q1 Community Name

Answered: 8 Skipped: 0

Village of Cordova

Village of Rapids City

Village of Coal Valley

Village of Hampton

Village of Carbon Cliff

City of Moline

City of East Moline

Village of Milan

Q2 Community Representative

Answered: 8 Skipped: 0

Waste Management Trustee

Clerk

Village Administrator

Clerk

Director of Community & Administrative Services, Zoning Officer,
Floodplain Manager, & Notary

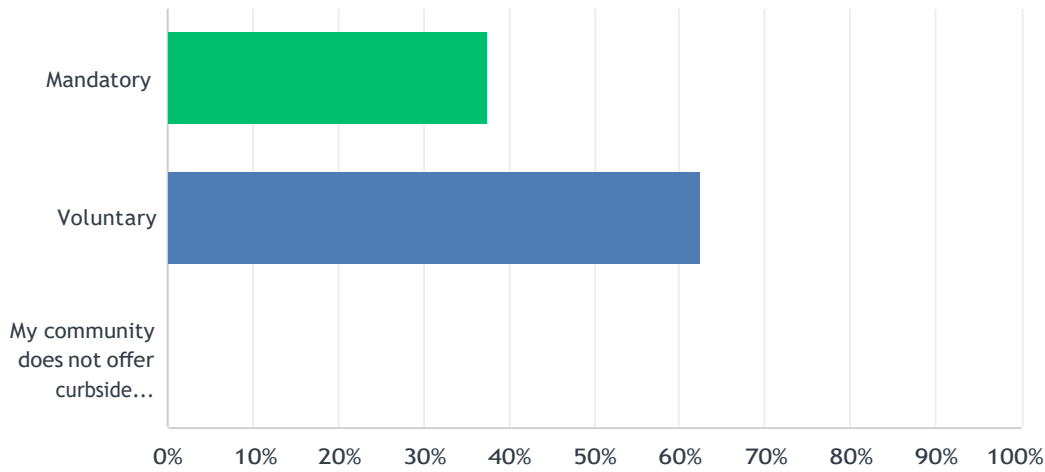
Municipal Services General Manager

City Administrator

Public Works Superintendent

Q3 Is curbside recycling mandatory or voluntary in your community?

Answered: 8 Skipped: 0

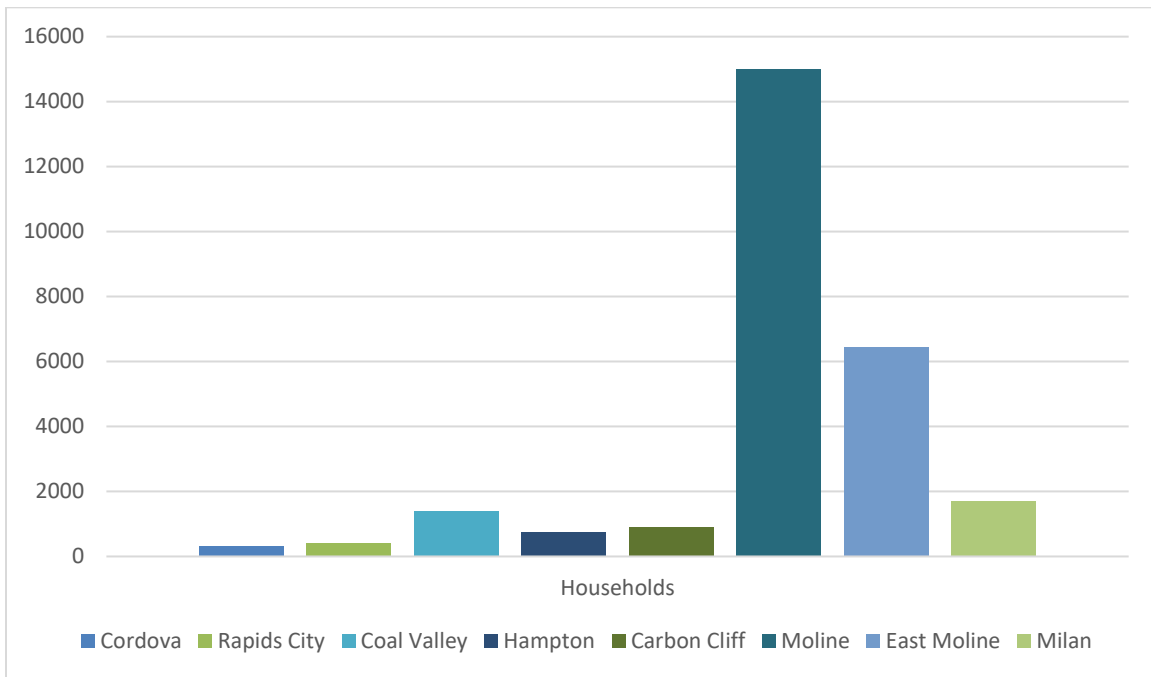


ANSWER CHOICES	RESPONSES	
Mandatory	37.50%	3
Voluntary	62.50%	5
My community does not offer curbside recycling.	0.00%	0
TOTAL		8

Mandatory	Voluntary
Carbon Cliff	Cordova
Moline	Rapids City
Milan	Coal Valley
	Hampton
	East Moline

Q4 On average, how many households do you serve?

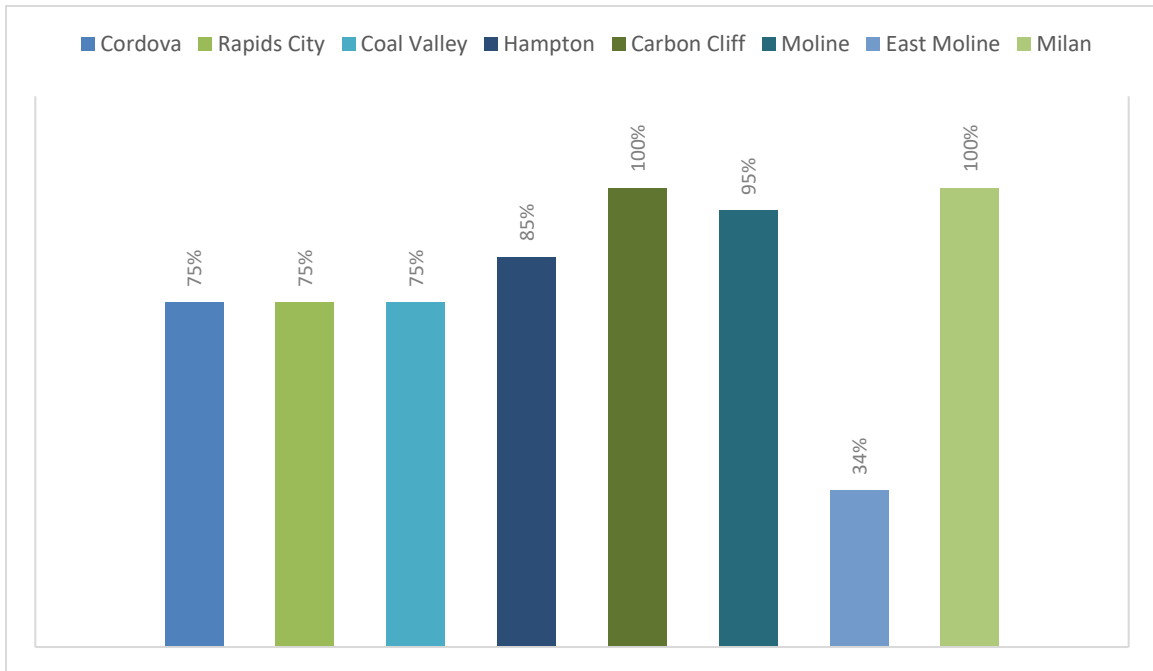
Answered: 8 Skipped: 0



ANSWERS	RESPONSES
Cordova	309
Rapids City	409
Coal Valley	1398
Hampton	750
Carbon Cliff	900
Moline	15000
East Moline	6436
Milan	1716

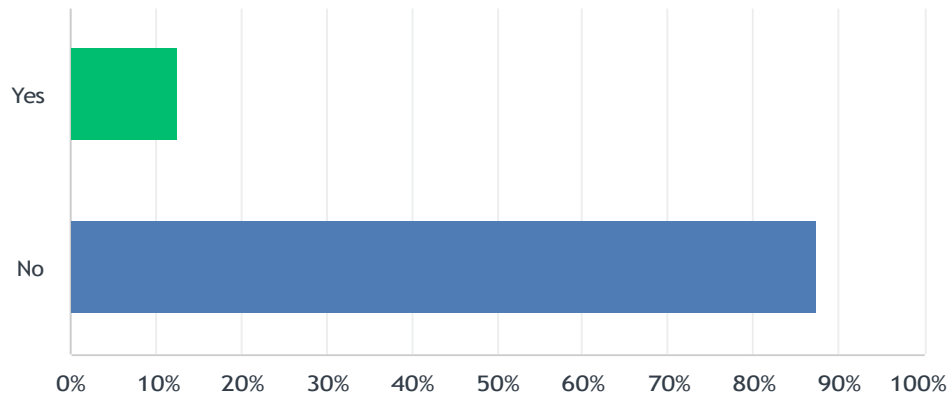
Q5 What is the participation rate of your curbside recycling program as a percentage?

Answered: 8 Skipped: 0



Q6 Do you offer a drop-off site?

Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	12.50%	1
No	87.50%	7
TOTAL		8

Yes	No
East Moline	Cordova Rapids City Coal Valley Hampton Carbon Cliff Moline Milan

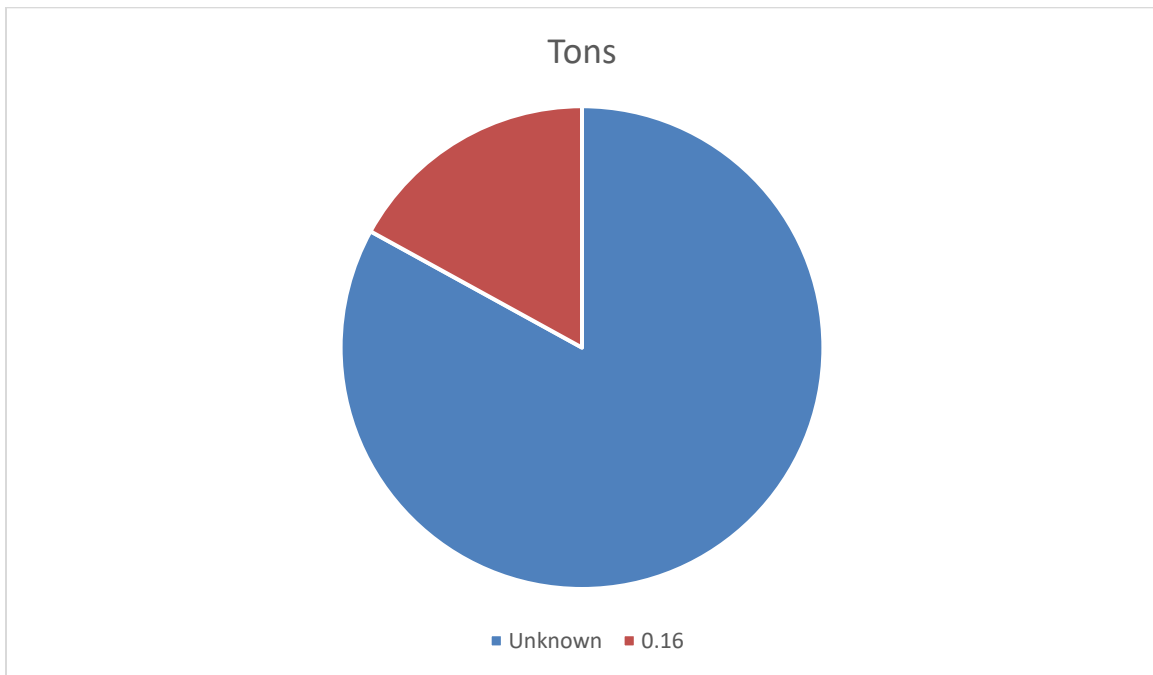
Q7 If yes, what is collected for the drop-off site?

Answered: 1 Skipped: 7

East Moline: Paper, Plastic, Cardboard

Q8 What are the annual tons recycled per household?

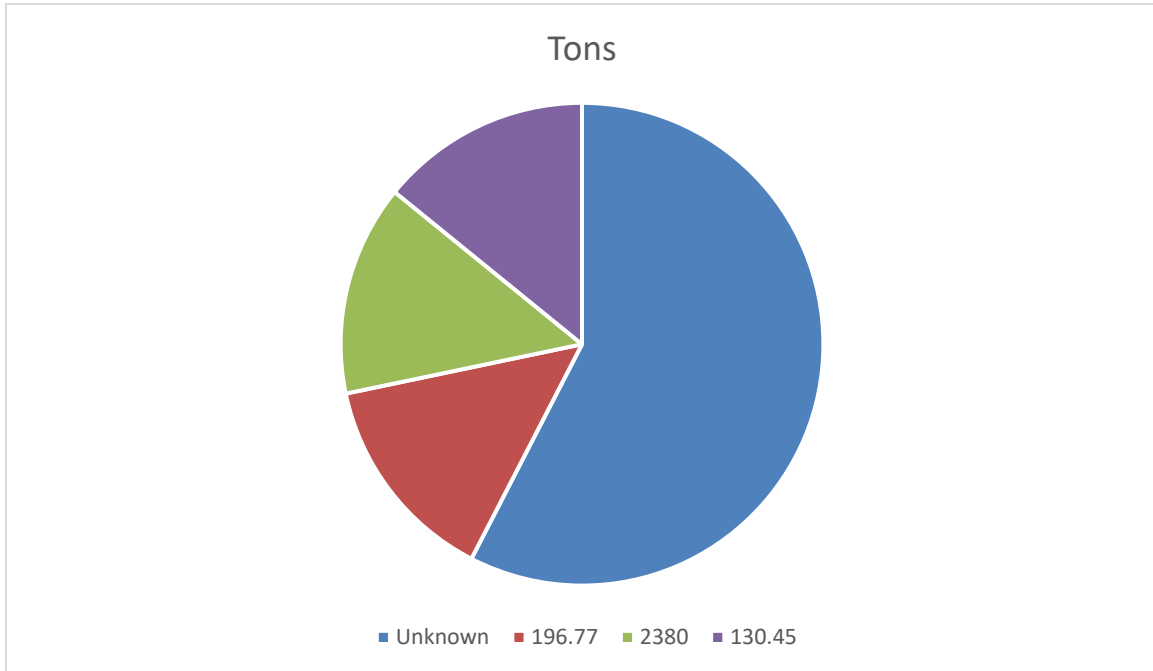
Answered: 6 Skipped: 2



Unknown	.16 Tons
Cordova Rapids City Coal Valley Carbon Cliff East Moline	Moline

Q9 How many tons of recyclable materials were collected in your community in the 2022 calendar year?

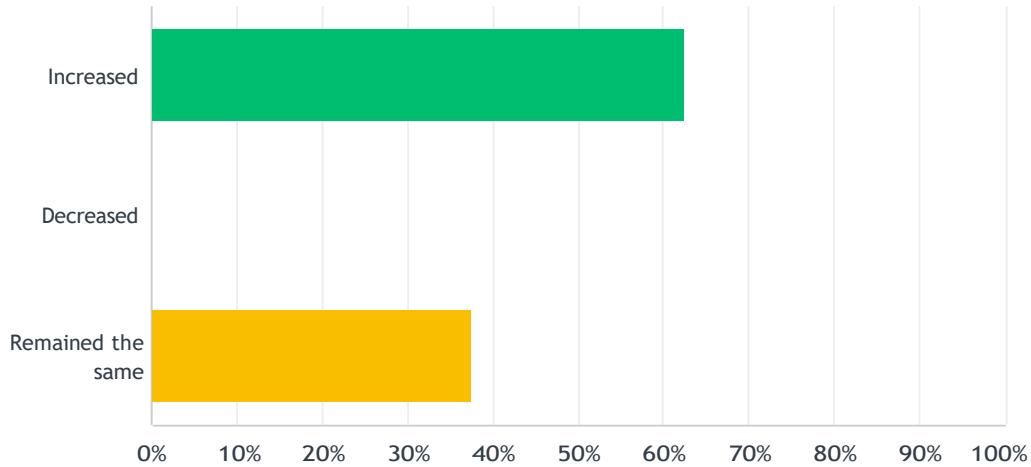
Answered: 7 Skipped: 1



Unknown	196.77 Tons	2380 Tons	130.45 Tons
Cordova Rapids City Carbon Cliff	Coal Valley	Moline	Milan

Q10 Based on the data you've received in the span of five years, has recycling...

Answered: 8 Skipped: 0

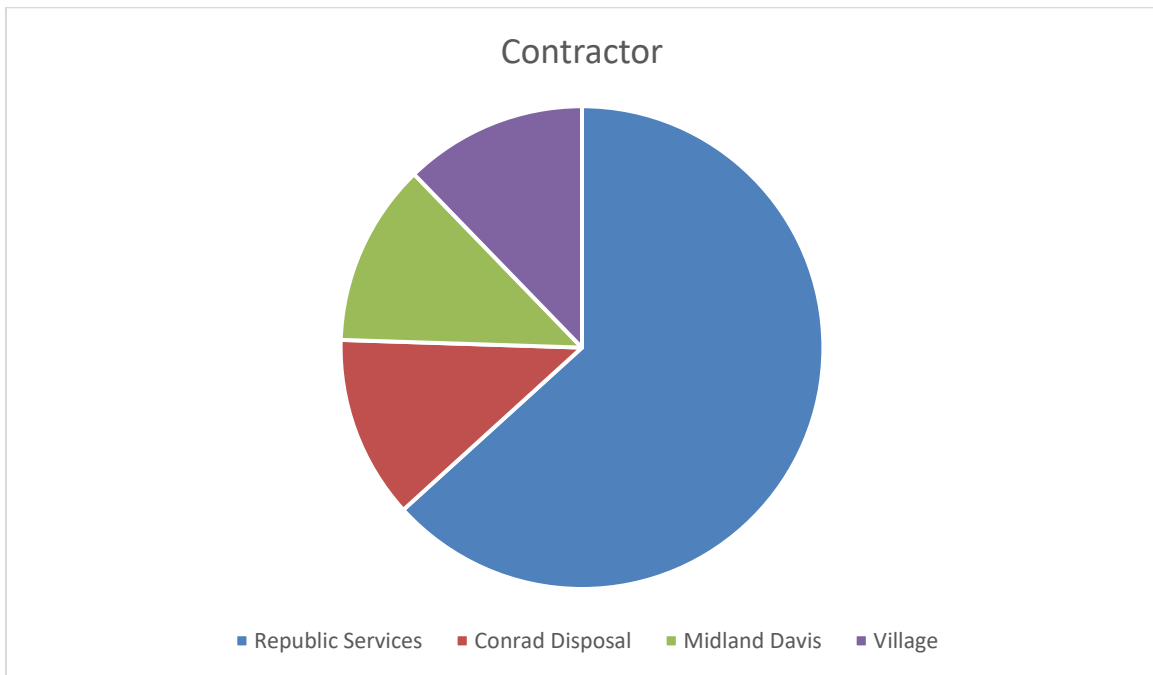


ANSWER CHOICES	RESPONSES	
Increased	62.50%	5
Decreased	0.00%	0
Remained the same	37.50%	3
TOTAL		8

Increased	Decreased	Remained the same
Cordova Rapids City Coal Valley Hampton East Moline		Moline East Moline Milan

Q11 What is the name of the contractor that collects your recycling?

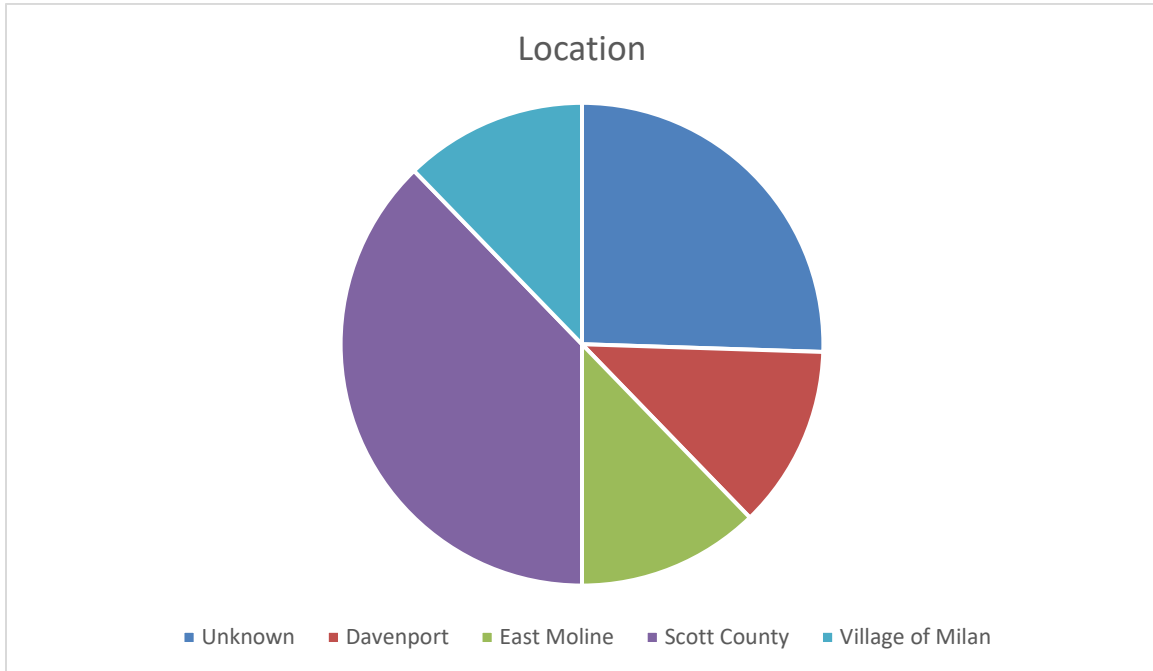
Answered: 8 Skipped: 0



Republic Services	Conrad Disposal	Midland Davis	Village
Cordova Rapids City Coal Valley Carbon Cliff East Moline	Hampton	Moline	Milan

Q12 Where does your contractor take recyclable materials to be processed?

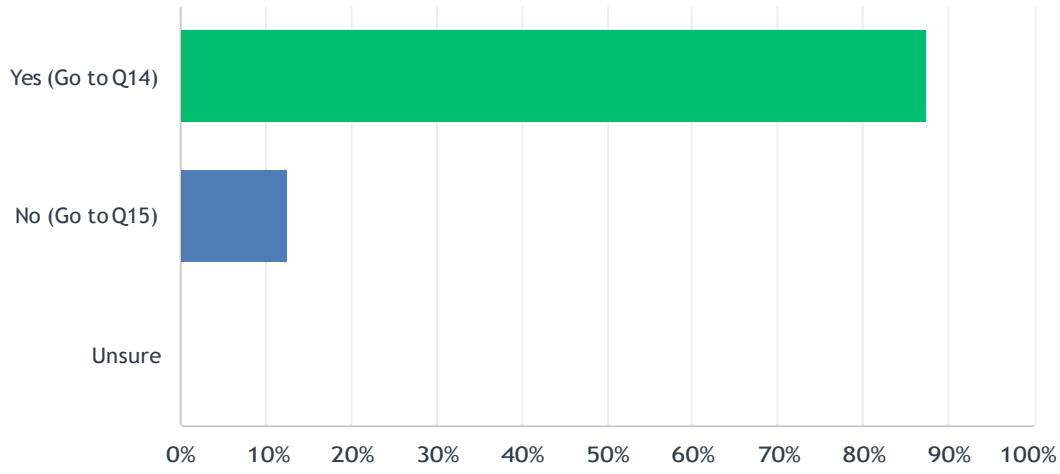
Answered: 8 Skipped: 0



Unknown	Davenport	East Moline	Scott County	Village of Milan
Cordova Carbon Cliff	Rapids City	Coal Valley	Hampton Moline East Moline	Milan

Q13 Does your community handle yard waste?

Answered: 8 Skipped: 0

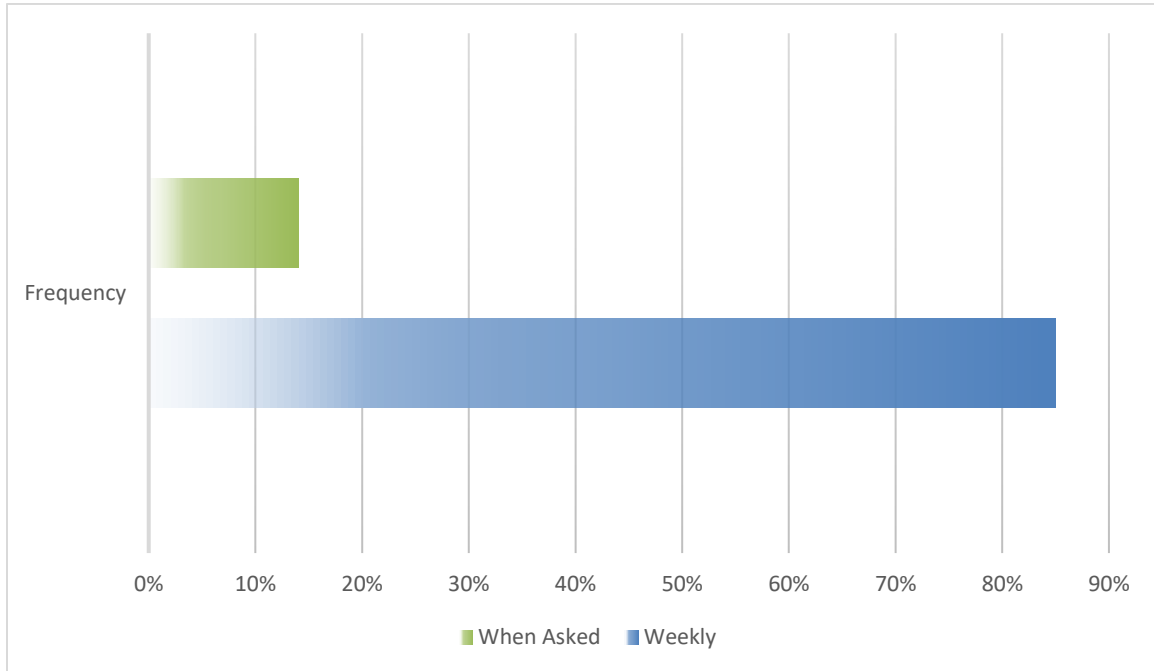


ANSWER CHOICES	RESPONSES
Yes (Go to Q14)	87.50% 7
No (Go to Q15)	12.50% 1
Unsure	0.00% 0
TOTAL	8

Yes	No
Rapids City Coal Valley Hampton Carbon Cliff Moline East Moline Milan	Cordova

Q14 What is the frequency of your yard waste collection? (Weekly, Monthly, etc.)

Answered: 7 Skipped: 1

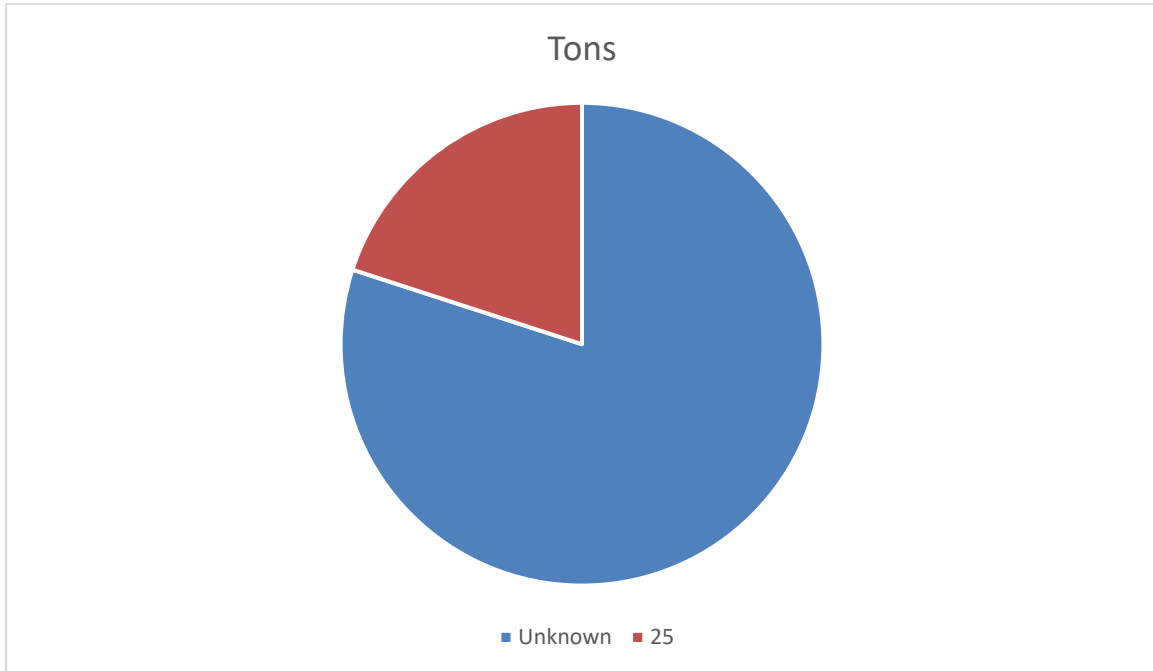


ANSWER CHOICES	RESPONSES	
When Asked	12.50%	1
Weekly	87.50%	6
TOTAL		7

Weekly	When Asked
Rapids City	Coal Valley Hampton Carbon Cliff Moline East Moline Milan

Q15 If available, how many tons of yard waste was collected in your community in the 2022 calendar year?

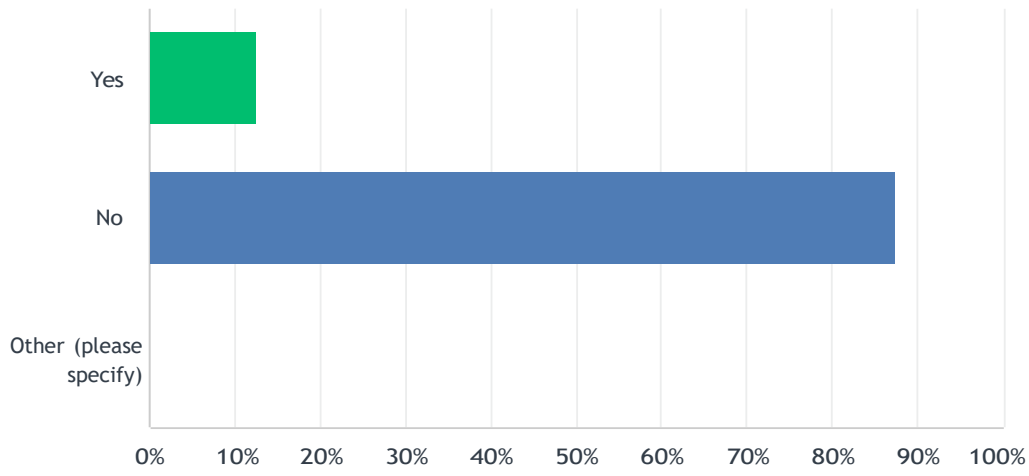
Answered: 5 Skipped: 3



Unknown	25 Tons
Rapids City Coal Valley Carbon Cliff East Moline	Milan

Q16 Does your community have a burn ban.

Answered: 8 Skipped: 0

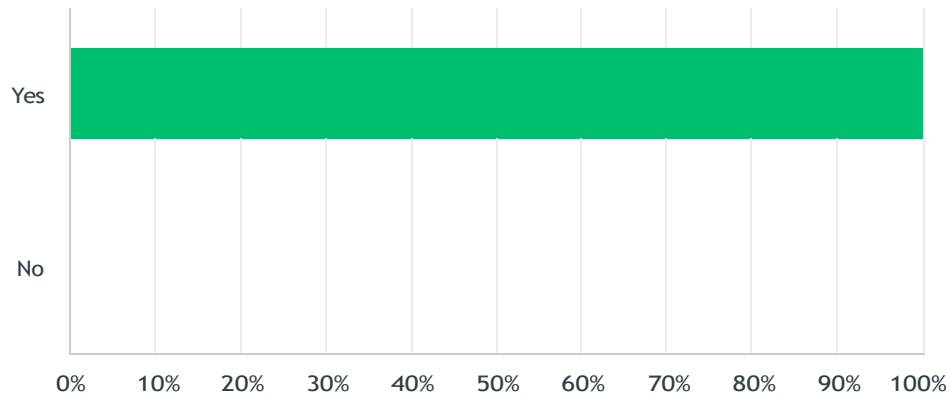


ANSWER CHOICES	RESPONSES
Yes	12.50% 1
No	87.50% 7
Other (please specify)	0.00% 0
TOTAL	8

Yes	No
Moline	Cordova Rapids City Coal Valley Hampton Carbon Cliff East Moline Milan

Q17 Do you collect bulky waste as a special collection?

Answered: 8 Skipped: 0

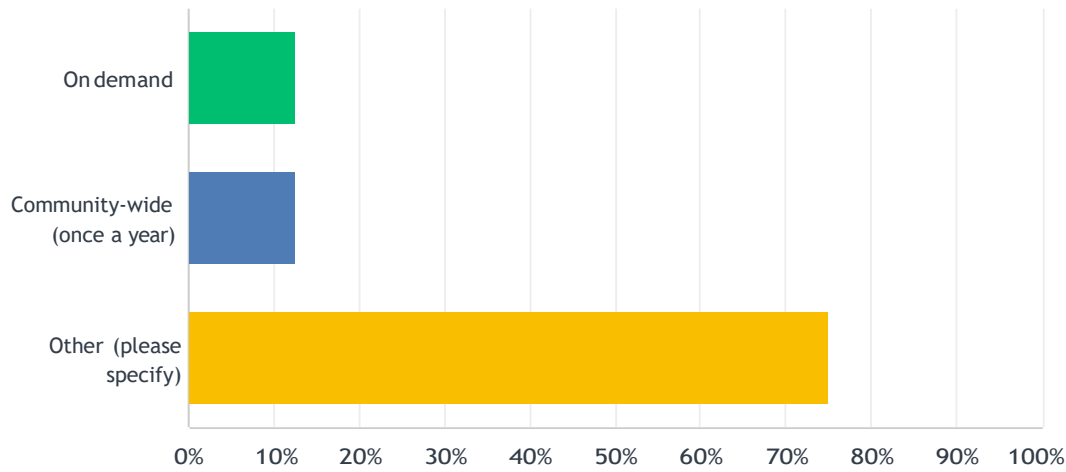


ANSWER CHOICES	RESPONSES	
Yes	100.00%	8
No	0.00%	0
TOTAL		8

Yes	No
Cordova	
Rapids City	
Coal Valley	
Hampton	
Carbon Cliff	
Moline	
East Moline	
Milan	

Q18 If yes, what is the frequency of bulky waste drop-off?

Answered: 8 Skipped: 0



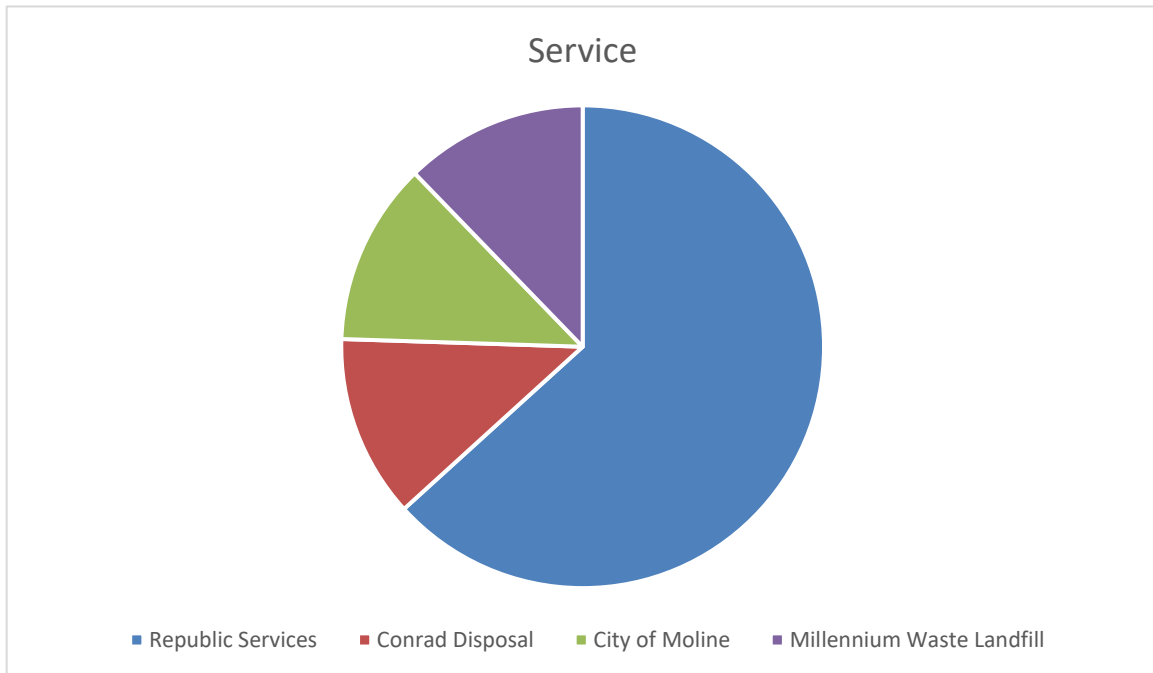
ANSWER CHOICES	RESPONSES
On demand	12.50% 1
Community-wide (once a year)	12.50% 1
Other (please specify)	75.00% 6
TOTAL	8

On demand	Community-wide (once a year)	Other (please specify) →
Moline	Carbon Cliff	Cordova Rapids City Coal Valley Hampton East Moline Milan

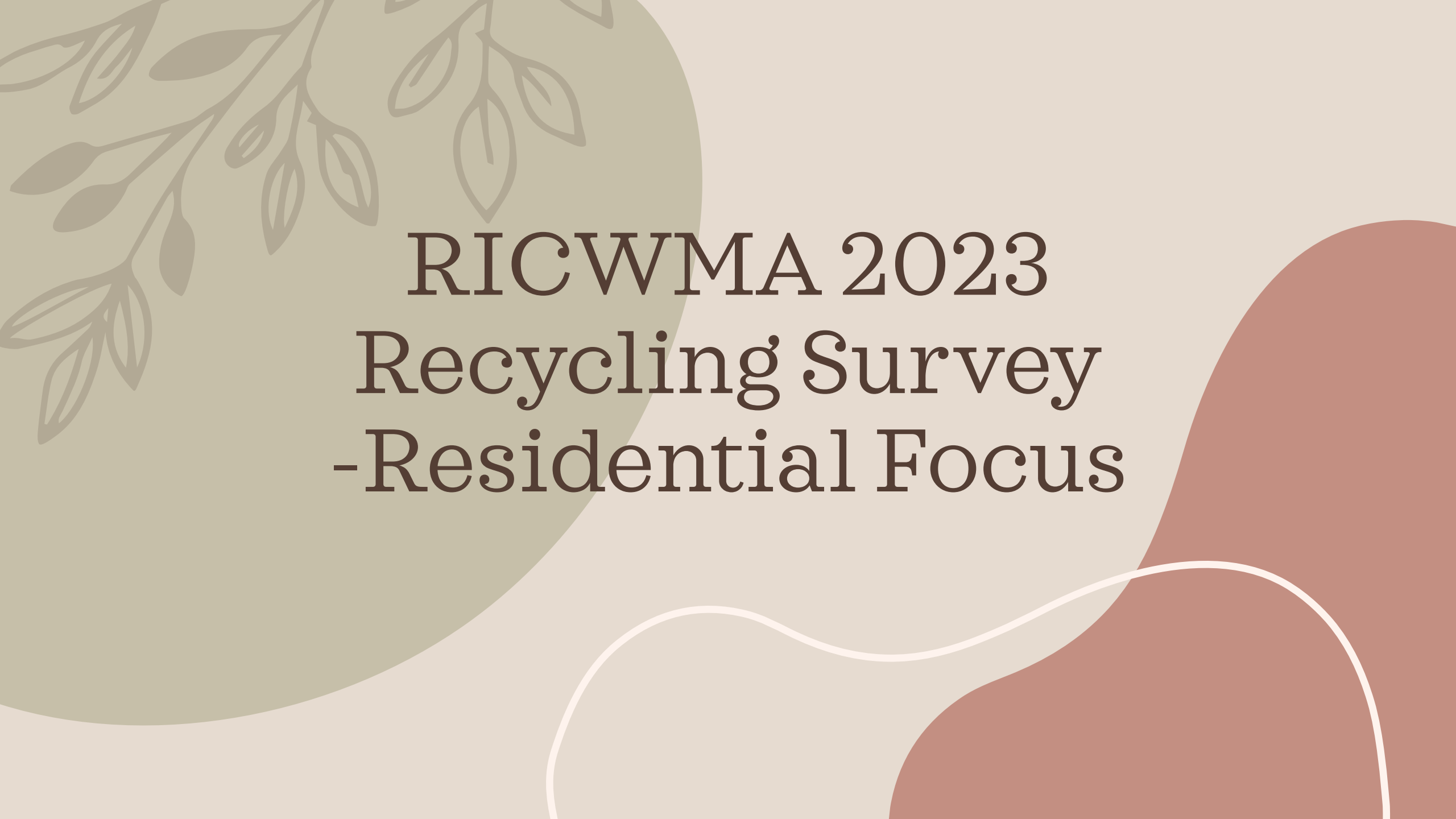
Cordova	Dumpsters for residents, twice a year
Rapids City	Once monthly, a list is provide to Republic Services for those addresses needed a bulk item pick-up.
Coal Valley	Republic offers 1 free bulk item pickup a month per household
Hampton	We offer one large item on the last pick up of the month.
East Moline	Community once annually and on demand year round
Milan	Fridays with a call in

Q19 What is the name of the service that provides bulky waste intake?

Answered: 8 Skipped: 0



Republic Services	Conrad Disposal	City of Moline	Millennium Waste Landfill
Cordova Rapids City Coal Valley Carbon Cliff East Moline	Hampton	Moline	Milan



RICWMA 2023
Recycling Survey
-Residential Focus

Purpose

To divert 25% recycled materials from landfills

Considerations:

- Illustrate amount Rock Island County is recycling
- Identify special recycling services provided
- Identify contractors within the county serving cities and unincorporated areas
- Identify where does the material go

Conclusion/Observations

- Curbside recycling data records inconsistent, blended with other communities or not collected at the community level
- Curbside recycling tonnages consolidated by trip
- Curbside recycling contractor data snapshot
- Material Recovery Facility – Limited to where contractors take recyclable materials

Monthly RICWMA Program Data Collections 2022 (tons)

White Goods:

Jan: 145
 Feb: 55
 Mar: 128
 Apr: 95
 May: 142
 June: 217
 July: 194
 Aug: 171
 Sep: 99
 Oct: 149
 Nov: 157
 Dec: 146
 Total: 1,698
 In Tons: 169.8
 Average: 141.5

Curbside Tires:

Jan: 206
 Feb: 134
 Mar: 123
 Apr: 241
 May: 469
 June: 389
 July: 520
 Aug: 347
 Sep: 185
 Oct: 211
 Nov: 464
 Dec: 230
 Total: 3,519
 In Tons: 35.19
 Average: 293.25

HHW: Number of Residents Served:

Jan: 76
 Feb: 68
 Mar: 149
 Apr: 160
 May: 177
 June: 172
 July: 205
 Aug: 129
 Sep: 144
 Oct: 164
 Nov: 151
 Dec: 160
 Total: 1,755
 Average: 146.25

E-Waste: Number of Residents Served:

Jan: 363
 Feb: 399
 Mar: 454
 Apr: 465
 May: 545
 June: 562
 July: 439
 Aug: 447
 Sep: 495
 Oct: 494
 Nov: 570
 Dec: 518
 Total: 5,751
 Average: 479.25

Total landfilled:
410,854 tons

Total Programs: **428.15 Tons**

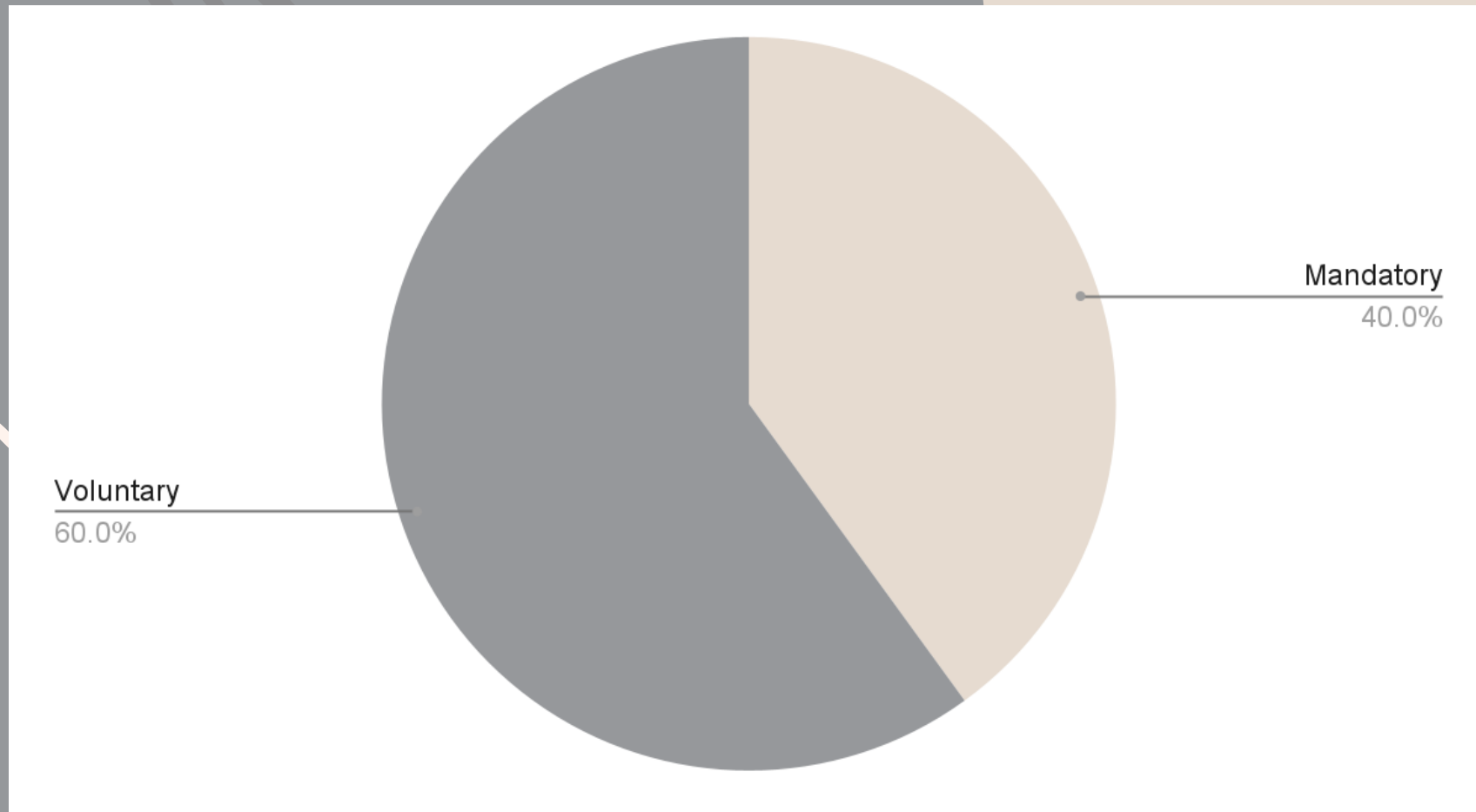
2022 RICWMA Program Recycling Diversion as Percent of Total Waste Stream 0.1%

The background features a light grey base with a large, dark brown circular shape on the left side. To the right, there is a large, muted green shape. In the top left corner, there are faint, stylized illustrations of pine branches. A white, wavy line graphic curves across the bottom right area.

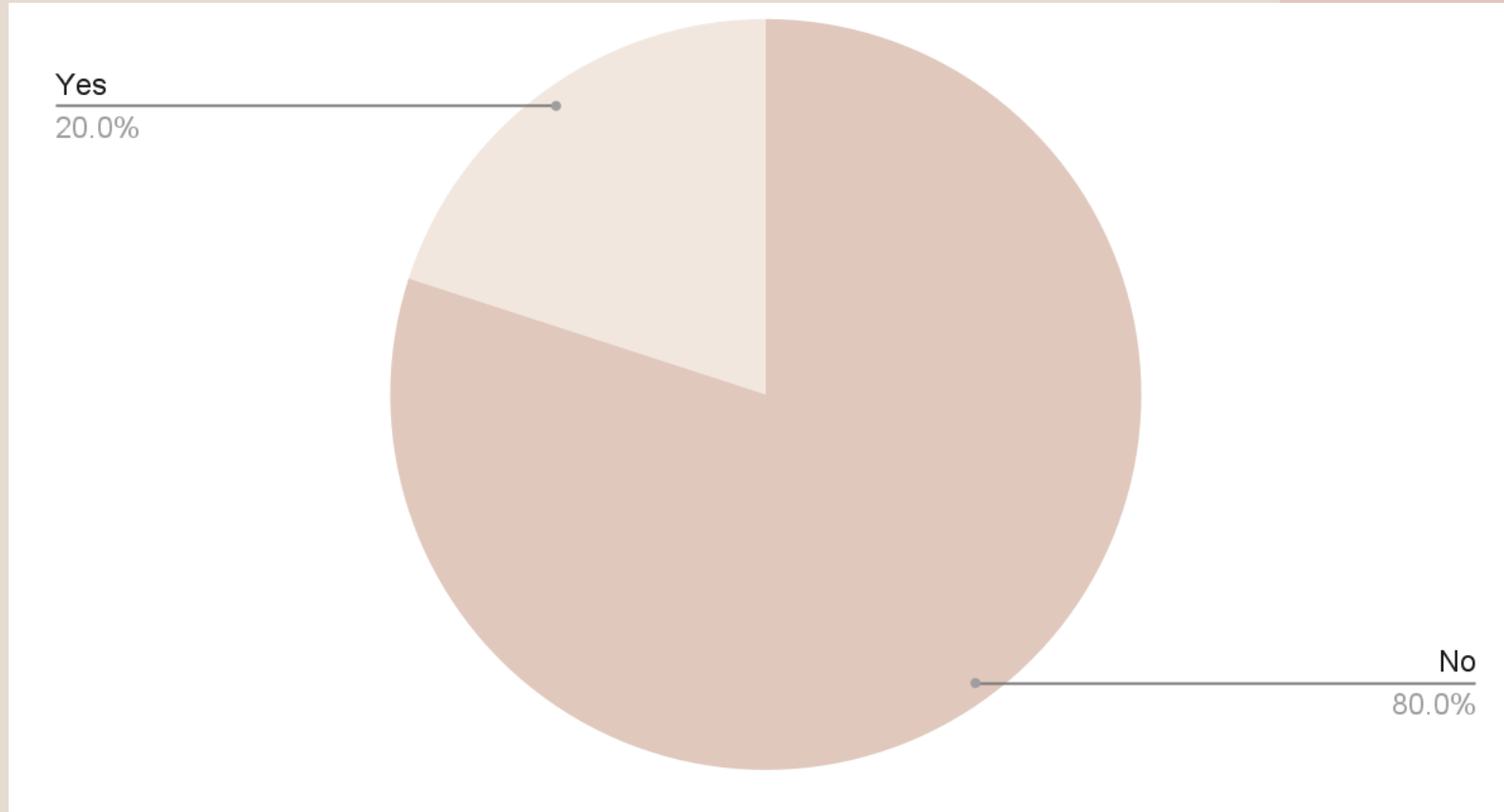
Community Recycling Survey

Residential Recycling Results

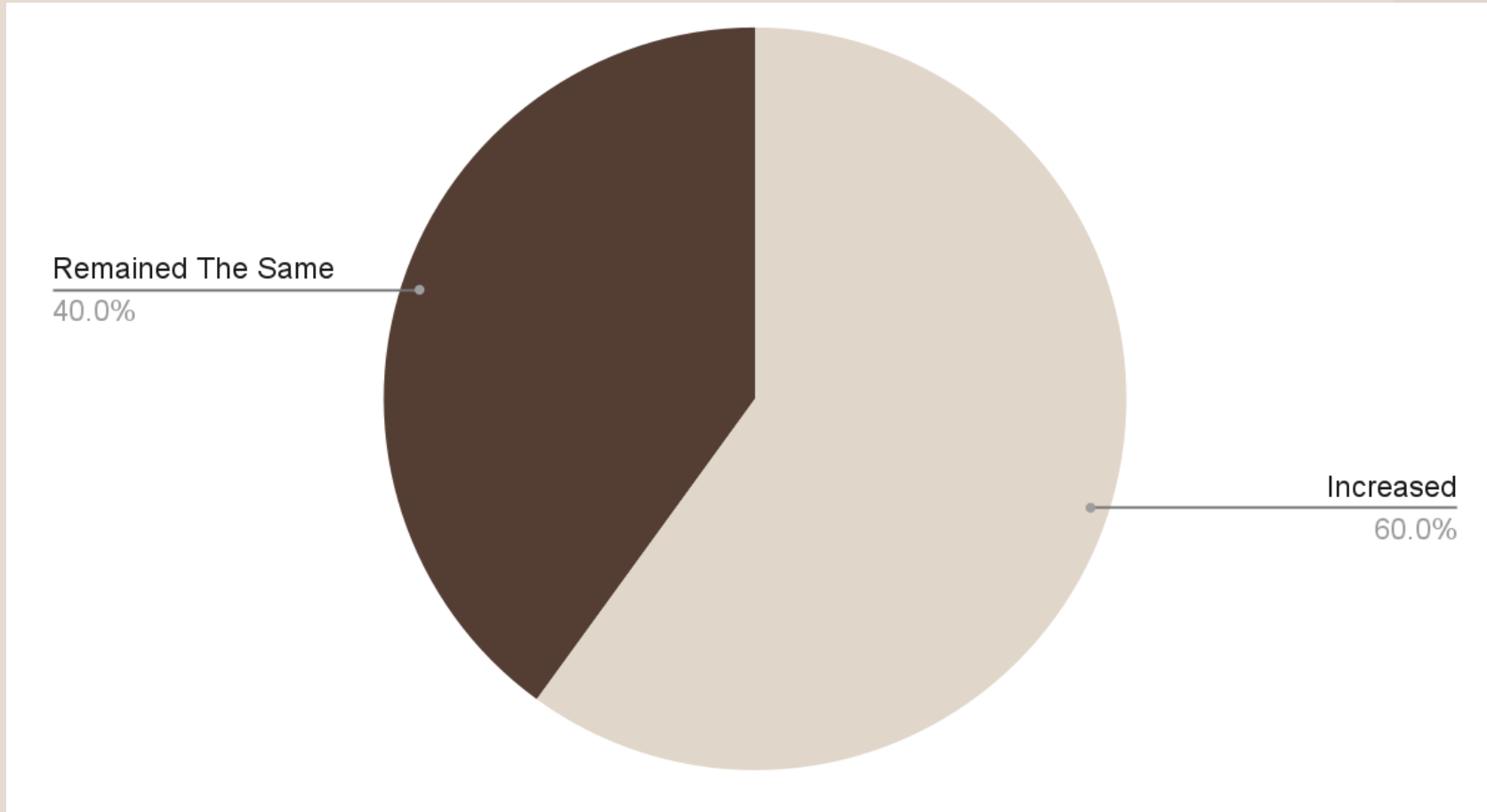
Voluntary curbside recycling represents the majority in Rock Island County.



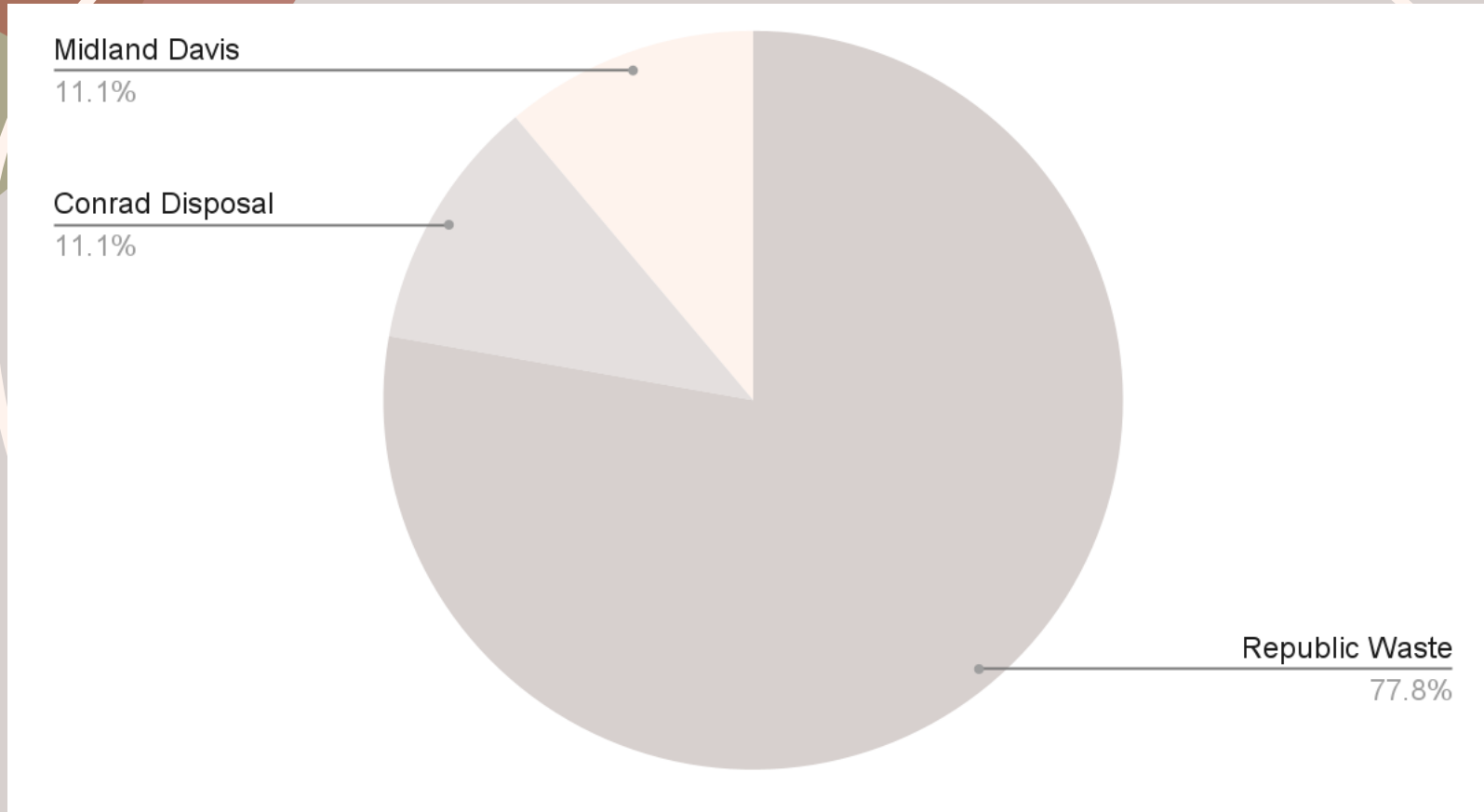
Drop-Off Recycling Offered at the Community Level (20%)



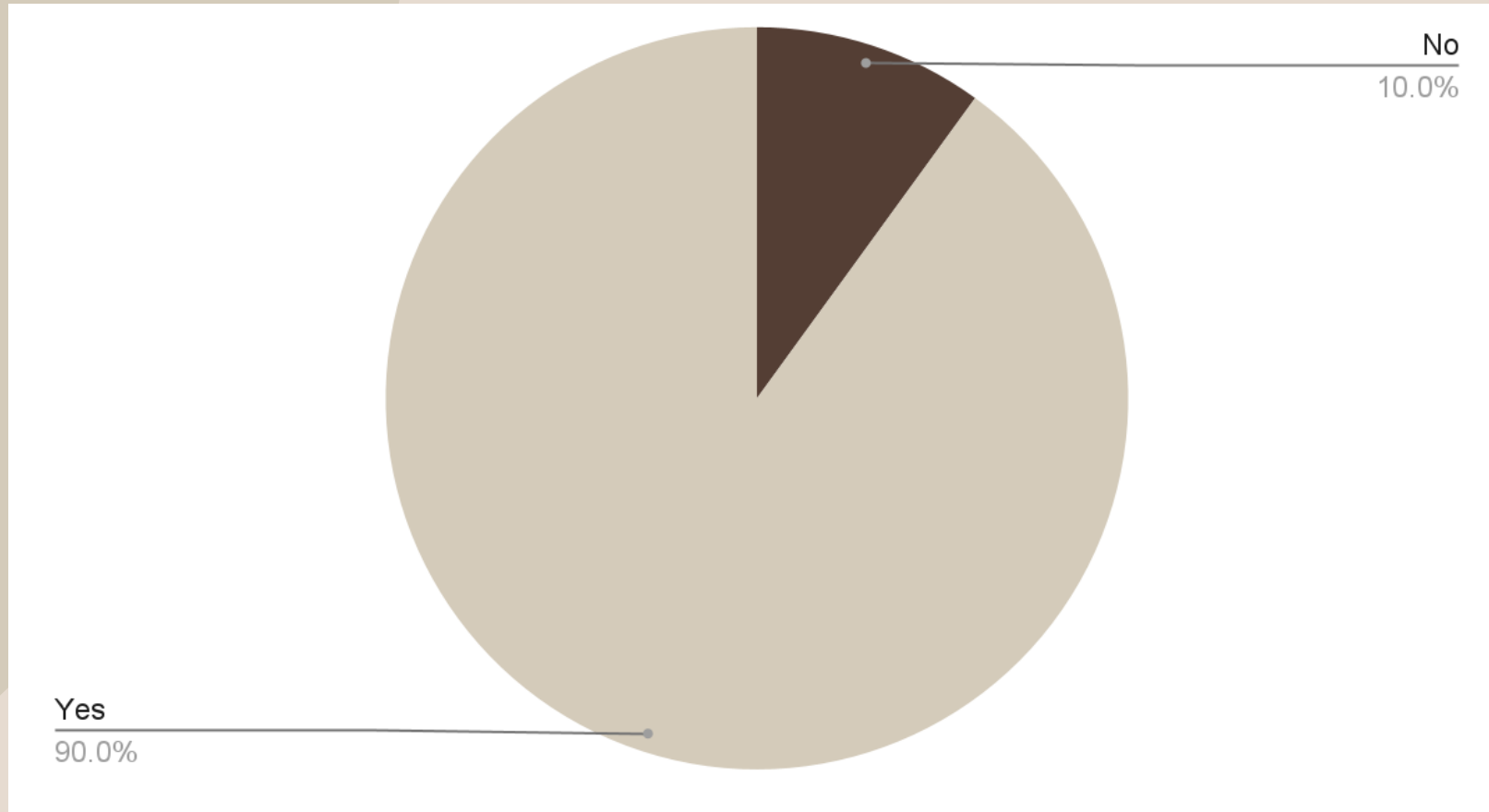
In recent years, curbside recycling in communities has either not changed, or gradually increased.



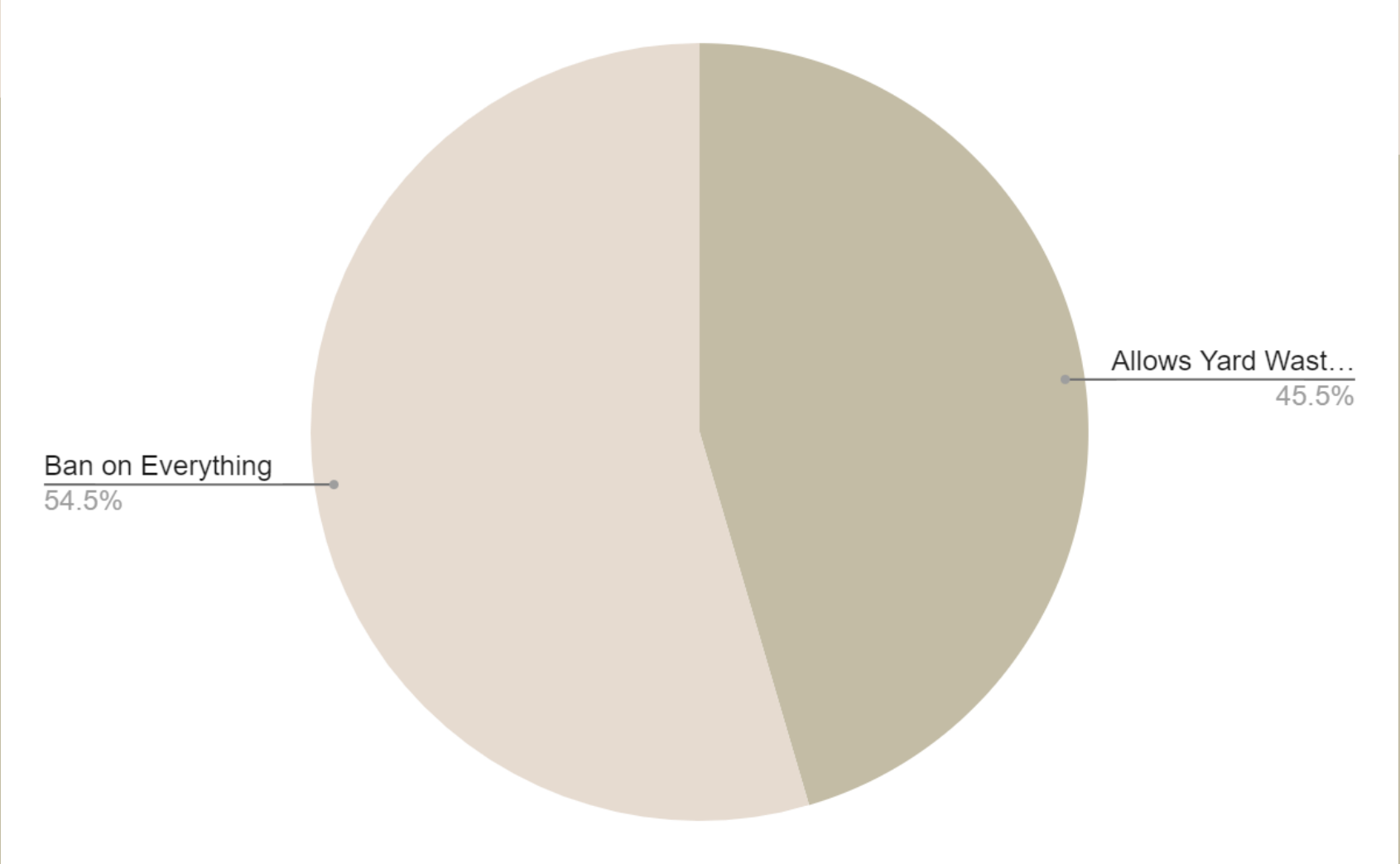
Contractors Serving The Communities for Bulky Waste & Recycling Pickup



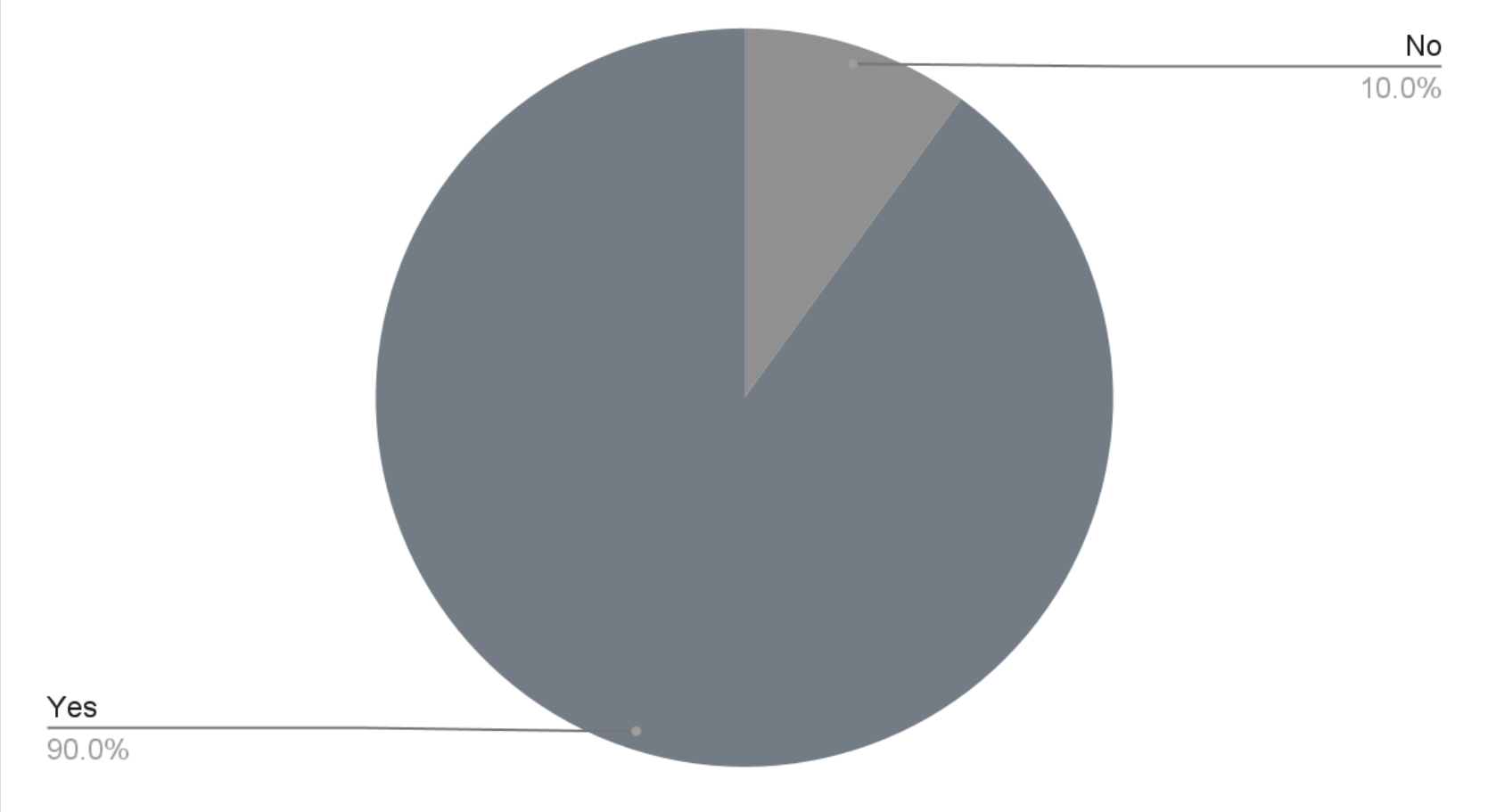
Bulky Waste Community Disposal



Burn Bans within Rock Island County (45.5%)



Community Yard Waste Collection (90%)



Curbside Recycling Availability & Household Participation

- A: 231 (out of 309) Potential: 74%
- B: 306 (out of 409) Potential: 74%
- C: 1,048 (out of 1,398) Potential: 74%
- D: 637 (out of 750) Potential: 84%
- E: 900 (out of 900) Potential: 100%
- F: 14,250 (out of 15,000) Potential: 95%
- G: 2,188 (out of 6,436) Potential: 33%
- H: 1,716 (out of 1716) Potential: 100%
- I: 475 (out of 500) Potential: 95%

- Total Participating Households: 21,751

- Households Served: 30,438

- 79% household participation rate for curbside recycling

- 76.1285 Tons would be collected as recyclables from each household within the county weekly.

- .9% is the percentage of recycling from the total waste accumulated during 2022 in Rock Island County.



Other Data Sources

Residential Contractor Recycling Information

Selected Volumes Within Rock Island County (tons) Residential Recycling as Percentage of Collection

Inconsistency of recycling volumes as a percentage of the materials collected

Community A:
626.38 – trash
98.78 – recycling
Percentage: 13.6%

Community B:
647.09 – trash
56.20 – recycling
Percentage: 7.9%

Community C:
6092.14 – trash
378.55 – recycling
Percentage: 5.8%

Average:
9.11%

Community D:
1469.76 – trash
202.95 – recycling
Percentage: 12.1%

Community E:
521.75 – trash
35.74 – recycling
Percentage: 6.5%

Community F:
7728.19 -- Trash
750.15 –
recycling
Percentage: 8.8%

Sample Community Curbside Recycling Collection

2021-2022

- Oct. 2021: 189.59
- Nov. 2021: 200.34
- Dec. 2021: 211.90
- Jan. 2022: 179.53
- Feb. 2022: 162.23
- Mar. 2022: 205.62
- Apr. 2022: 193.23
- May. 2022: 212.50
- Jun. 2022: 217.72
- Jul. 2022: 200.03
- Aug. 2022: 209.45
- Sep. 2022: 197.80

2022-2023

- Oct. 2022: 188.50
- Nov. 2022: 193.44
- Dec. 2022: 187.91
- Jan. 2023: 220.47
- Feb. 2023: 164.62
- Mar. 2023: 196.96
- Apr. 2023: 184.27
- May. 2023: 216.60
- Jun. 2023: —
- Jul. 2023: —
- Aug. 2023: —
- Sep. 2023: —

2022 Mandatory Curbside Recycling Collected:
2,357 tons or 4,714,000 LBS.

VOLUME PER HOUSEHOLD PER YEAR: 0.165 TONS
OR 330 LBS.

Appliances, Shingles, & Tires in Rock Island County (Tons)

- Town A: 3
- Town B: 3
- Town C: 7
- Town D: 15
- Town E: 21
- Town F: 20
- Town G: 1
- Town H: 13
- Appliances Total: 83
- Average: 10.375

- Total Overall:
373.61

Town A: 14.05
Town B: 34.04
Town C: 72.56
Town D: 7.79
Town E: 5.27
Town F: 81.14
Town G: 6.65
Town H: 20.55
Shingles Total: 242.05
Average: 30.256

Town A: 27.57
Town B: .99
Town C: 12.01
Town D: 2.76
Town E: .06
Town F: 1.08
Town G: .35
Town H: 3.74
Tires Total: 48.56
Average: 6.07

**These rates correlate to towns within the county, names omitted.

Culminated Percentage of Recycling Data

	FY10	FY15	FY19	FY20	FY21	FY22	FY23
Mixed Paper	65.22%	59.05%	47.04%	42.87%	36.77%	37.78%	35.95%
Cardboard	12.17%	15.20%	18.55%	22.01%	23.67%	24.78%	25.92%
HDPE Natural	1.85%	1.81%	1.44%	1.47%	1.32%	1.42%	1.35%
HDPE Colored	1.46%	1.15%	1.18%	1.20%	1.07%	0.93%	1.12%
PET	3.19%	3.65%	4.23%	4.58%	4.61%	4.18%	4.40%
Tin Cans	2.79%	2.80%	2.28%	2.33%	2.27%	2.14%	2.19%
Aluminum	0.34%	0.43%	0.82%	0.97%	1.23%	1.21%	1.28%
Mixed Plastics	0.02%	0.19%	0.39%	0.61%	0.46%	0.41%	0.46%
Glass	5.23%	4.07%	7.62%	8.23%	10.08%	9.00%	9.66%
Scrap Metal	0.00%	0.00%	0.68%	0.86%	0.95%	0.89%	0.86%
Residue	7.73%	11.65%	15.77%	14.87%	17.57%	17.61%	16.81%

Looking Ahead: Business Sample Data

Purpose: Develop both composition and qualification of municipal solid waste. Simply, to compare business waste on a local and national level as well as analyze an increase, decrease, or unchanging level of disposal of recycling material.



Thank you!

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