

**ULSTER COUNTY ANNUAL SOLID  
WASTE AND RECYCLING REPORT**

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**PLANNING UNIT UPDATE**

*2019*



THE RECYCLING  
PARTNERSHIP

## TABLE OF CONTENTS

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Introduction.....	3
1. Executive Summary .....	4
2. Methodology .....	5
3. Response Rate .....	6
4. Assumptions .....	7
5. Waste Characterization Data .....	8
6. Graphs .....	10
7. Summary... <b>Error! Bookmark not defined.</b>	
Appendix.....	14

## INTRODUCTION

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*The Ulster County Resource Recovery Agency (UCRRA) is a solid waste authority and public benefit corporation. UCRRA is responsible for maintaining and updating a Local Solid Waste Management Plan (LSWMP) for the planning unit Ulster County.*

*UCRRA compiles waste characterization data on an annual basis, per the Ulster County Annual Solid Waste and Recycling Report pursuant to New York State Department of Environmental Conservation regulations and in compliance with the LSWMP.*

*UCRRA surveys large waste generators operating within the planning unit, and/or accepting waste from within the planning unit, and compiles the data to calculate total waste generation, diversion rate, and a recycling rate for Ulster County.*

*Vendors, businesses, and facilities that were surveyed represent various business sectors including but not limited to: grocery stores, home improvement centers, retail outlets, scrap metal recovery facilities, waste and recycling haulers, municipal recycling drop off centers, educational institutions, healthcare facilities, and other recycling related businesses, facilities, or large waste generators.*

*The information presented in this document demonstrates both scale weight data and data from surveys, resulting in the Agency's understanding of waste generation and waste characterization within the planning unit. It should be noted that there are limitations to the methodology, response rate, and accuracy of this data, as discussed in the Assumptions Section of this document.*

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## 1. EXECUTIVE SUMMARY

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***All results presented in this document refer to reporting year  
January 1<sup>st</sup> – December 31<sup>st</sup> 2019.***

Ulster County generated 247,074 tons of solid waste materials, including municipal solid waste, construction and demolition debris, biosolids, regulated recyclable materials, organics, scrap metal, electronics, tires, textiles, hazardous wastes, and other miscellaneous wastes. Of the 247,074 tons of wastes generated, 85,312 tons was diverted from disposal for the purpose of reuse and recycling. Based on the survey results, **Ulster County has a 34% Diversion Rate. It can also be inferred that Ulster County has a 66% Disposal Rate. Note: This includes residential and commercial generators combined.**

Ulster County generated 109,212 tons of municipal solid waste, including residential waste and commercially or institutionally generated waste. Additionally, Ulster County generated 26,366 tons of regulated recyclable materials that was diverted from disposal. Of the 26,366 tons of recyclables, approximately 7,656.15 tons was single stream recyclables and the remaining recyclables were collected using various methods of source separation. Of the 26,366 tons of recyclables, approximately 13,297.29 was source separated corrugated cardboard, making the largest material component of the recycling stream by weight. Based on the survey results, **Ulster County has a 24% Recycling Rate. Note: This includes residential and commercial generators combined.**

Ulster County generated 109,212 tons of municipal solid waste. Additionally, Ulster County generated 17,058 tons of organic materials, including source separated food scraps, yard wastes, fats, oils, greases, leaves, grass clippings, and animal manures. Of the 17,058 tons of organics, approximately 7,907 tons was source separated food scraps, making up the largest material component of the organics recycling stream by weight. Based on the survey results, **Ulster County has a 16% Composting Rate. Note: This does not include residential participation in backyard composting.**

When recycling and composting activities are combined, which is common in solid waste analytics, **Ulster County has a 40% recycling and composting rate based on the survey results.**

**Of the 247,074 tons of waste generated, Ulster County Resource Recovery Agency managed 153,858 tons of materials, or 62% of the total waste stream, including; 99.6% of all municipal solid wastes, 51.7% of construction and demolition debris, 23.4% of regulated recyclable materials and 45% of organics generated within the planning unit.**

## 2. METHODOLOGY

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Waste characterization data was requested from approximately **three hundred and thirty two** large waste generators. The survey was sent electronically via Google Mail Merge, by fax, and through direct mailings to physical addresses where applicable.

Extensive efforts were made to collect accurate data and to complete the requested forms. The Agency Recycling Coordinator was available to offer technical support for questions about the report form or how to complete it. The official memo sent to all recipients included instructions on how to complete the report, as well as volume to weight conversion factors.

As reports were received, the Recycling Coordinator processed the data into an excel database recording the generator name and location, the types of material categories reported, annual tonnage of each material category, and the final disposal/recycling destination of each material category. Data collection was grouped by generator type.

**To eliminate errors in duplicate entries, material types and quantities that were generated by a facility but would ultimately be counted in the final summary submitted by the end recycler of the material was marked as red text.** These entries were later backed out during calculations using simple excel functions. The same methodology was used for any reported wastes that ultimately were transported by the UCRRA. **The data submitted by the end-recycler is typically an actual scale weight rather than a survey estimate and results in a more reliable number.** A master summary compiled the corrected totals, organized by waste generator sector, then further analyzed by material type.

**For the purpose of this report**

**Waste Generation = Total sum of all waste streams reported**

**Diversion rate =**

$$\frac{\text{Total sum of waste that was recovered for the purpose of reuse or recycling}}{\text{Total sum of all waste streams reported}}$$

$$\text{Disposal rate} = \frac{\text{Total sum of waste that required disposal}}{\text{Total sum of all waste streams reported}}$$

$$\text{Recycling rate} = \frac{\text{Sum of all regulated recyclable materials reported}}{\text{Total Municipal Solid Waste stream}}$$

**Recycling & Composting rate =**

$$\frac{\text{Sum of all regulated recyclable materials and organics reuse or recycling reported}}{\text{Total Municipal Solid Waste stream}}$$

## 3. RESPONSE RATE

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The data set presented in this document represents extensive efforts to reach as many waste generators as possible, and include the most accurate information possible. The response rates summarized below should be considered when interpreting the survey results presented in this document. As of **April 10<sup>th</sup> 2020**, the status of Response Rate by Generator Type is summarized below:

<b>Municipal Recycling Drop Off Centers</b>	<b>100%</b>
<b>Permitted Solid Waste &amp; Recycling Haulers</b>	<b>96%</b>
<b>Educational Institutions</b>	<b>94%</b>
<b>Miscellaneous or Recycling-Related Businesses</b>	<b>77%</b>
<b>Hotel/Hospitality</b>	<b>70%</b>
<b>Grocery Stores</b>	<b>68%</b>
<b>Retail Centers</b>	<b>48%</b>
<b>Hospitals/Healthcare Centers</b>	<b>43%</b>
<b>Municipal Buildings, Offices, Etc.</b>	<b>13%</b>

The first notice was sent on **January 1<sup>st</sup> 2020** – with a deadline to respond as soon as possible and **no later than February 28<sup>th</sup> 2020**. Two weeks before the deadline (February 12<sup>th</sup>-14<sup>th</sup>), a reminder memo was sent via email and fax to any recipients who had not yet responded to the survey. One week before the deadline (February 21<sup>st</sup>) a second reminder memo was sent via emails and follow up phone calls were made to any recipients who had not yet responded.

Additional notices were sent via email and direct phone calls were made and documented throughout the month of March 2020 in every effort to collect as much data as possible. The Recycling Coordinator continued to input new data as it was received and continued to send communications to the entities who had not responded through April 10<sup>th</sup> 2020.



### 4. ASSUMPTIONS

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1. The survey responses include accurate information to the greatest extent possible, using the best knowledge available to the persons completing the surveys.
2. The report includes all wastes that were reported on the form, and this represents the total waste characterization of the facilities being surveyed. To the greatest extent possible, the Recycling Coordinator emphasized that all wastes and recyclables should be included in the report.
3. Volume to weight conversion factors were included in the memo sent to all generators in an effort to provide support and convenience to complete the forms. The Recycling Coordinator assumes these conversions are still accurate.
4. Due to low response rates from large Retail Centers, Grocery Stores, Hospitals, and County Buildings, the survey results can not accurately reflect the waste total generation or characterization of the waste stream. Particularly for Retail Centers, much of the waste generated is back-hauled through the distribution chain. Because this material does not enter the flow of waste within the County or managed by UCRRA or permitted haulers, and because these facilities did not respond to the survey, these factors should be in consideration when interpreting survey results.
5. To the greatest extent possible, the Recycling Coordinator also surveyed businesses that were not located within Ulster County but had a role in managing waste or recyclables that were generated in, but was transported out of, Ulster County.
6. The Recycling Coordinator assumes that the data reported represents service areas in the Ulster County planning unit only and does not include material generated outside of the planning unit.
7. The Agency estimates that about 20% of the material processed at its facilities is Construction and Demolition debris, and that 80% of the material processed at its facilities is Municipal Solid Waste. The survey results for UCRRA reflects these assumptions.

## 5. WASTE CHARACTERIZATION DATA

MATERIAL TYPE	TOTAL GENERATION	CATEGORY TOTAL	MATERIALS MANAGEMENT CATEGORY
1. MSW	109,212.42	165,395.70	DISPOSAL
2. C&D DEBRIS	52,550.46		
3. BIOSOLIDS	3,632.82		
4. Single Stream Recyclables	7,656.15	26,366.38	RESIDENTIAL & COMMERCIAL RECYCLING
5. Mixed Paper (all grades)	2,432.32		
6. Corrugated Cardboard	13,297.29		
KC MIX	603.87		
7. Container glass (all colors)	908.39		
8. Dual Stream Recyclables (comingled plastic, glass, metal)	1,189.45		
9. PETE Plastics (#1 beverage containers)	278.90		
11. Freon Appliances	6.11	8,749.77	SCRAP METAL RECYCLING
17. Propane Tanks	0.41		
18. Bulk Metal (residential)	1,869.60		
19. Ferrous metal (iron, steel)	6,347.14		
20. Nonferrous metal	526.51		
23. Food Scraps	7,907.25	17,058.63	ORGANICS RECYCLING
24. Food Donations	275.63		
25. Fats, Oils, Grease	624.30		
26. Brush, Branches, Trees, Stumps	2,653.28		
27. Wood Pallets	855.87		
28. Clean Wood	2,200.23		
29. Leaves/Grass	1,367.57		



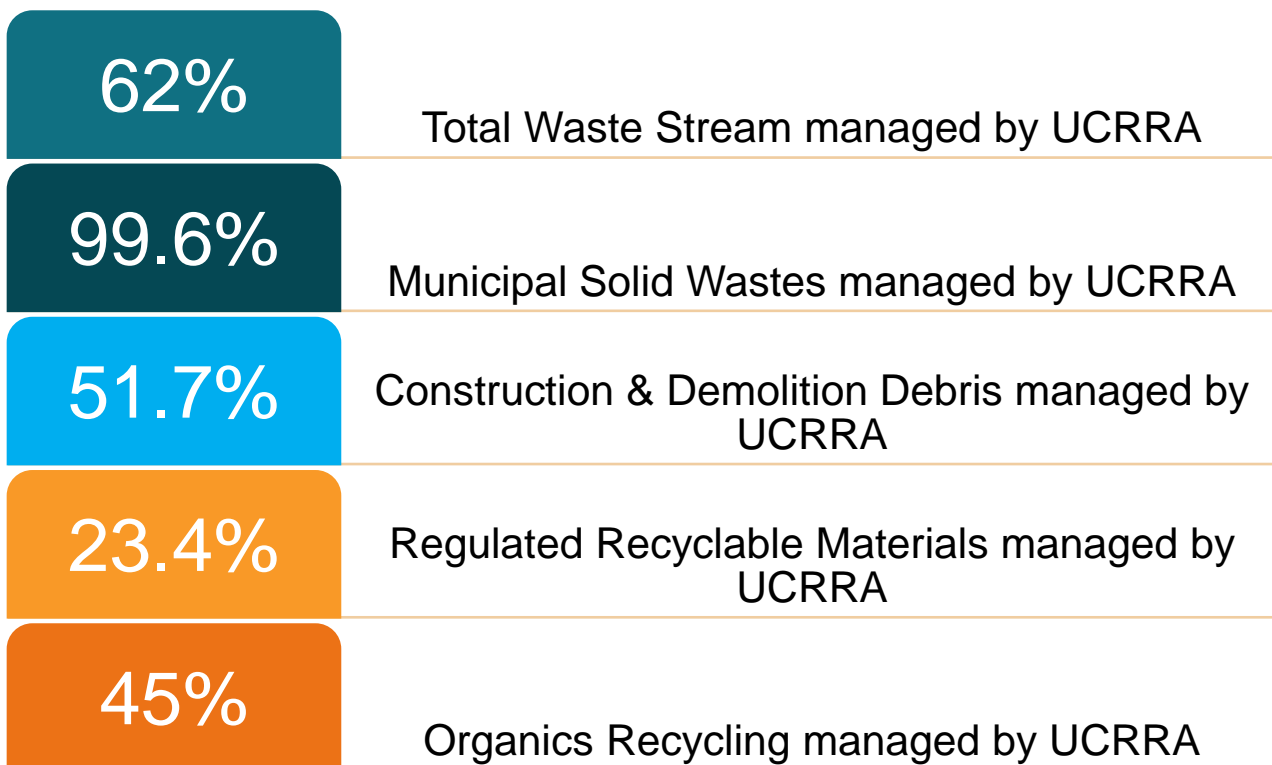
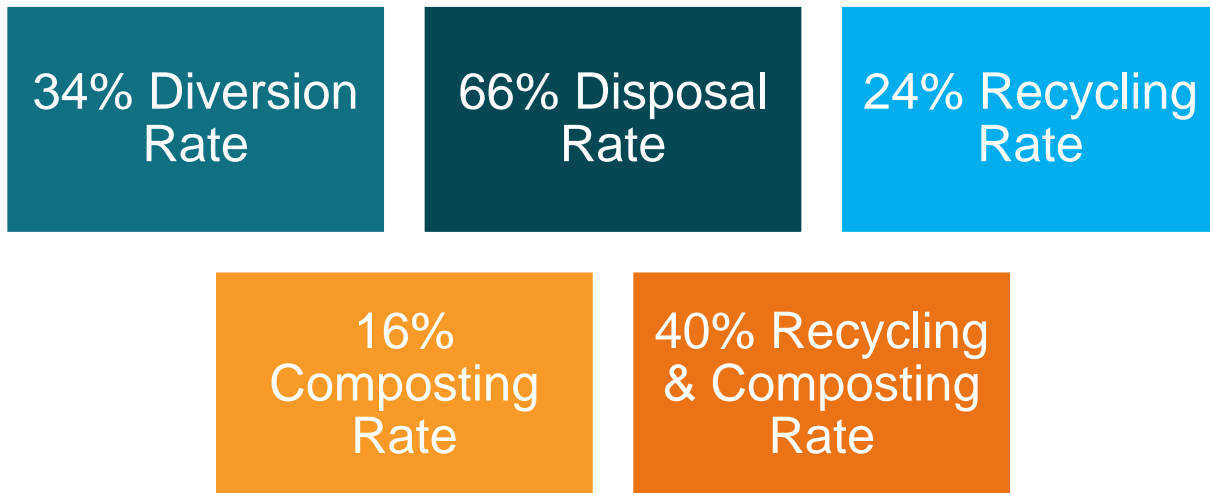
## 2019 Ulster County Annual Recycling Report

### Planning Unit Update

30. Animal Manure	<b>1,174.50</b>		
21. Tires	<b>1,677.45</b>	<b>1,677.45</b>	<b>TIRE RECYCLING</b>
22. Clothing, Textiles	<b>1,091.42</b>	<b>1,091.42</b>	<b>TEXTILE RECYCLING</b>
31. Soil (clean)	<b>1,045.00</b>	26,702.30	<b>C&amp;D REUSE &amp; RECYCLING</b>
33. Rock, Brick, Concrete	<b>25,069.49</b>		
37. Other (OTHER (RECYCLED C&D))	<b>587.81</b>		
10. Film Plastics	<b>105.42</b>	<b>105.42</b>	<b>FILM PLASTIC RECYCLING</b>
12. Electronics (all types)	<b>1,419.58</b>	<b>1,419.58</b>	<b>ELECTRONICS RECYCLING</b>
13. Florescent Lights	<b>10.13</b>	<b>1,875.92</b>	<b>HAZARDOUS WASTE</b>
14. Batteries (specify type)	<b>229.77</b>		
15. Antifreeze	<b>21.21</b>		
16. Motor Oil	<b>572.07</b>		
32. Soil (contaminated)	<b>707.00</b>		
35. Other (HAZARDOUS)	<b>335.74</b>		
36. Other (NON HAZ INDUST WASTE NON SPECIFIED)	<b>74.21</b>	<b>265.42</b>	<b>OTHER</b>
38. Other (REUSE)	<b>32.54</b>		
39. Other (RECYCLED INDUST LIQUIDS)	<b>147.00</b>		
40. Other MISC. PLASTIC OR METAL RECYCLING	<b>11.67</b>		

## 6. GRAPHICS SUMMARY

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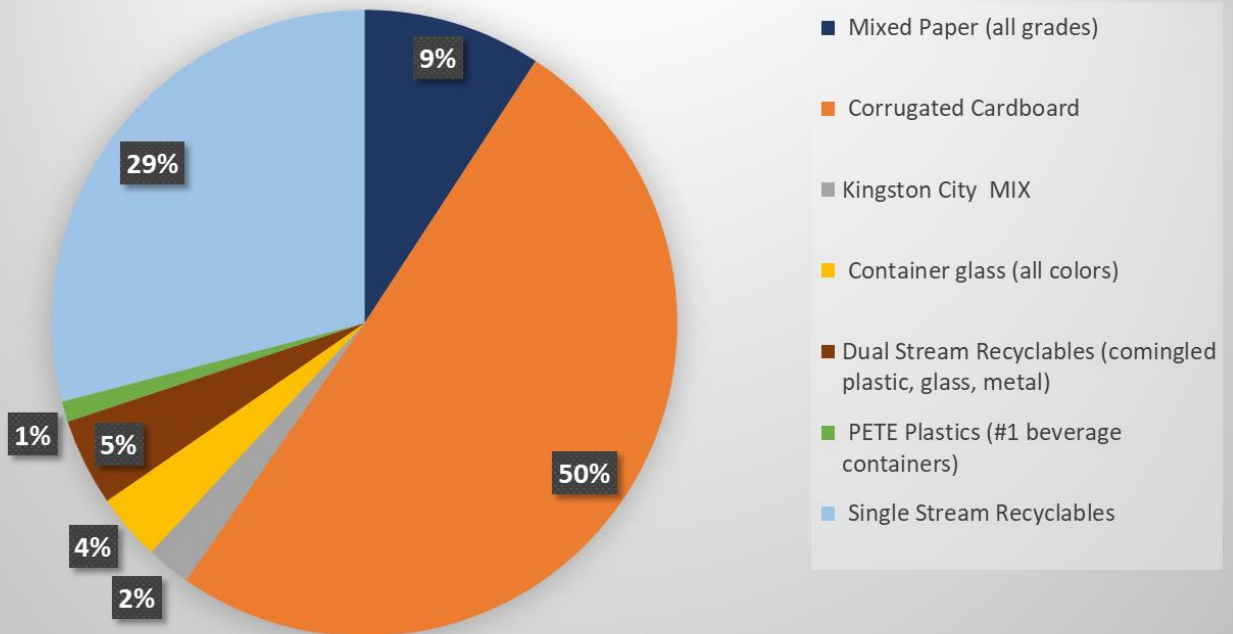


# 2019 Ulster County Annual Recycling Report

## Planning Unit Update

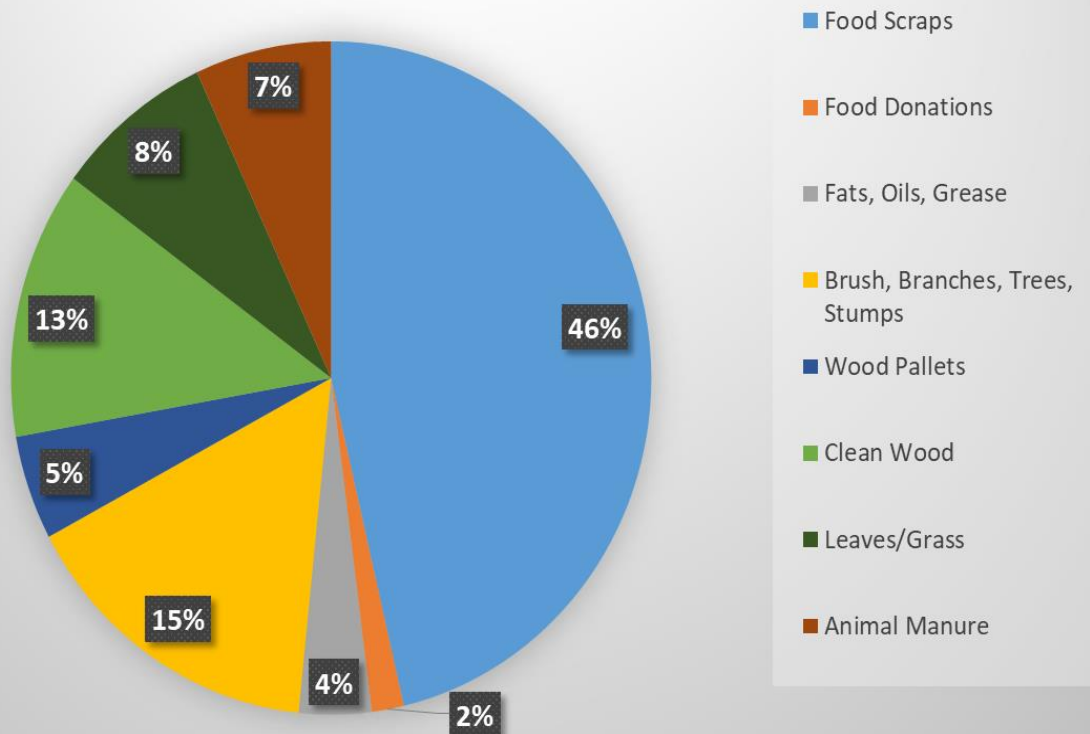
### Regulated Recyclable Materials (26,366 TONS) 2019 Ulster County

\* Results based on survey of 332 large waste generators.



### Organics Reuse & Recycling (17,058 TONS) 2019 Ulster County

\* Results based on survey of 332 large waste generators.

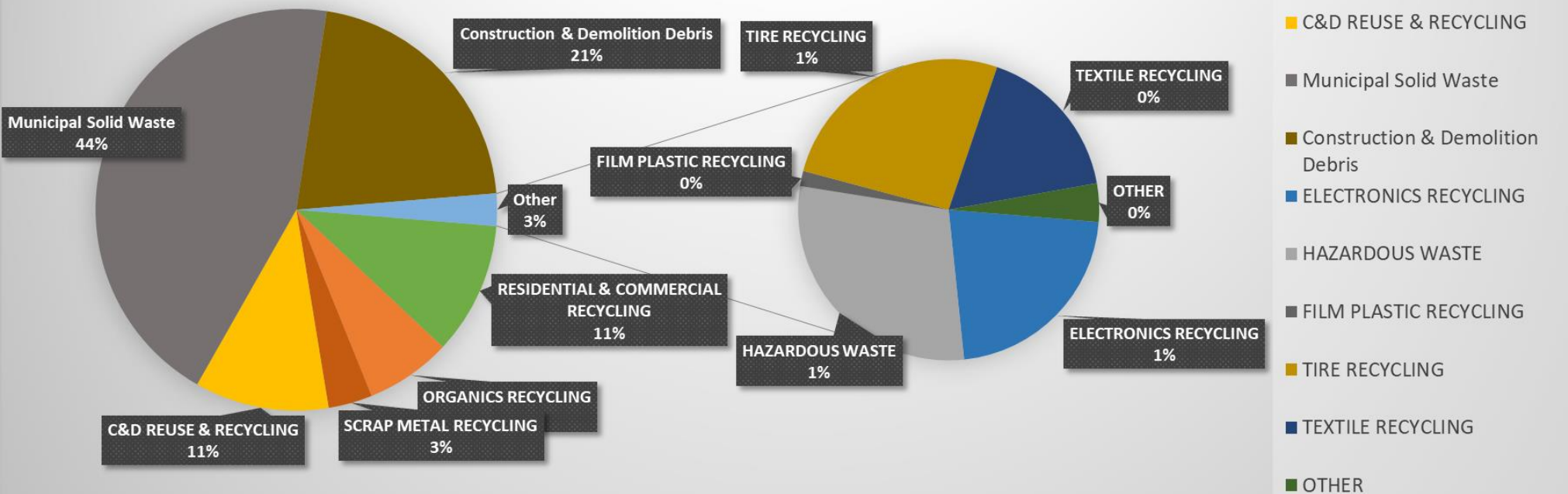


# 2019 Ulster County Annual Recycling Report

Planning Unit Update

## Total Waste Stream Composition (247,074 TONS) 2019 Ulster County

\* Results based on survey of 332 large waste generators.



- RESIDENTIAL & COMMERCIAL RECYCLING
- ORGANICS RECYCLING
- SCRAP METAL RECYCLING
- C&D REUSE & RECYCLING
- Municipal Solid Waste
- Construction & Demolition Debris
- ELECTRONICS RECYCLING
- HAZARDOUS WASTE
- FILM PLASTIC RECYCLING
- TIRE RECYCLING
- TEXTILE RECYCLING
- OTHER

# 2019 Ulster County Annual Recycling Report

Planning Unit Update

