

2025-2026 Statewide Waste Characterization Study

Minnesota Pollution Control Agency

c/o Cristina Villella and Heidi Ringhofer
520 Lafayette Road North
St. Paul, Minnesota 55155

SCS ENGINEERS

25225201.00 | September 30, 2026

7300 Hudson Boulevard N
Suite 203
Oakdale, MN 55128

Table of Contents

Section	Page
Glossary	v
Acknowledgements	ix
Executive Summary	x
Purpose	x
Study Approach	x
Key Findings	x
Trends and Comparisons	xii
Implications for Planning and Programs	xv
1.0 Introduction	1
2.0 Background	2
2.1 Demographics and Waste Generation and Disposal Rates	2
2.2 2013 vs 2025-2026 Study Plan	5
2.3 Comparisons to Other Studies and Plans	6
3.0 Methods	7
3.1 Host Facilities	7
3.2 Material Categories and Components	9
3.3 Waste Generating Sectors	11
3.4 Fieldwork Methodology	12
3.4.1 Sampling Plan Development	12
3.4.2 Equipment	14
3.4.3 MMSW Sample Gathering	15
3.4.4 MMSW Manual Sorting	16
3.5 Waste Sampling Sort Events	17
3.6 Data Recording	20
3.7 Collected Data Analysis	20
4.0 Results	21
4.1 Overall Statewide MMSW Composition Results	21
4.1.1 Overall MMSW Composition	22
4.1.2 Residential MMSW Composition	23
4.1.3 ICI MMSW Composition	25
4.1.4 Mixed MMSW Composition	27
4.1.5 Overall Statewide Item Counts	29
4.2 Waste Characterization Study Results Comparison	30
4.2.1 MMSW Composition – Generating Sector Comparison	31
4.2.2 MMSW Composition – Host Facility Comparison	34
4.2.3 MMSW Composition – 2000 and 2013 Characterization Studies Comparison ..	38
4.2.4 MMSW Composition – 2019-2022 Food Waste Generation and Composition Study Analysis Comparison	41
4.2.5 MMSW Composition – 2020 Construction and Demolition Materials Composition Study Comparison	44
5.0 Conclusion	46
6.0 References	48

Exhibits

Exhibit 1.	2025-2026 Statewide MMSW Material Composition - Overall.....xi
Exhibit 2.	Composition by Categories – MN 2000, MN 2013 & MN 2025-2026 Studies Comparison xiv
Exhibit 3.	2013 vs 2024 Minnesota MMSW Generation Comparison 4
Exhibit 4.	MMSW Per Capita Generation Rate - 2013 & 2024 Statewide SCORE Report 4
Exhibit 5.	Physical Sort Area Layout.....14
Exhibit 6.	Physical Sort Table.....15
Exhibit 7.	Sample Selection 19
Exhibit 8.	Sorting Process 19
Exhibit 9.	Overall Statewide MMSW Composition by Category.....22
Exhibit 10.	Composition by Categories - Residential MMSW 24
Exhibit 11.	Composition by Categories - ICI MMSW 26
Exhibit 12.	Composition by Categories - Mixed MMSW.....28
Exhibit 13.	Composition by Categories - Generating Sector Comparison 32
Exhibit 14.	Composition by Categories - Host Facility Comparison 35
Exhibit 15.	Composition by Categories - MN 2000, MN 2013, & MN 2025-2026 Studies Comparison.....39
Exhibit 16.	Composition by Waste Components - 2019-2022 Food Waste Generation and Composition Study Analysis & Other Studies Comparison.....43
Exhibit 17.	Composition by Wood Materials - 2020 Construction and Demolition Materials Composition Study & Other Studies Comparison 45

Tables

Table 1.	Top 10 Most Prevalent Components - Statewide Overall MMSW.....xii
Table 2.	Population Density of Host Facility Service Areas.....3
Table 3.	Minnesota 2013 & 2024 Statewide Per Capita MMSW Generation Rate.....5
Table 4.	2013 vs 2025-2026 Study Plan Summary.....6
Table 5.	2025-2026 Study Host Facilities – Facility Type and Ownership.....8
Table 6.	2025-2026 Study Host Facilities – Location and Service Areas.....8
Table 7.	2025-2026 Study Material Categories and Components.....9
Table 8.	Sample Selection by Host Facility Location and Generating Sector.....13
Table 9.	Percentage of MMSW Samples per Generating Sector.....13
Table 10.	2025-2026 Fieldwork Schedule 18
Table 11.	Top 10 Most Prevalent Components - Statewide Overall MMSW.....23
Table 12.	Top 10 Most Prevalent Components - Residential MMSW 25
Table 13.	Top 10 Most Prevalent Components - ICI MMSW.....27
Table 14.	Top 10 Most Prevalent Components - Mixed MMSW 29
Table 15.	Statewide MMSW Specific Item Counts – Bulky Items 30
Table 16.	Statewide MMSW Specific Item Counts – Various Battery Types.....30
Table 17.	Statewide Top 10 Most Prevalent Components – Overall and by Generating Sector 33

Table 18.	Composition by Categories - Host Facility Comparison	36
Table 19.	Top 10 Most Prevalent Components - Host Facility Comparison.....	37
Table 20.	Composition by Categories - MN 2000, MN 2013 & MN 2025-2026 Studies Comparison.....	40
Table 21.	Top 10 Most Prevalent Components – 2013 vs 2025-2026 Comparison.....	41
Table 22.	MMSW 2019-2022 Food Waste Generation and Composition Study Analysis Component Combinations with Other Studies	42
Table 23.	Composition by Components – 2019-2022 Food Waste & Other Studies Comparison	44
Table 24.	2020 Construction and Demolition Materials Composition Study Component Combinations with Other Studies	45
Table 25.	Composition by Material Components – 2020 Construction and Demolition Materials Composition Study & Other Studies Comparison	46

Figures

Figure 1.	Host Facility Location Map
-----------	----------------------------

Appendices

Appendix A	2025-2026 MMSW Category and Component Definitions
Appendix B	Study Sampling Plan Methodology
Appendix C	MMSW Sample Field Form
Appendix D	Detailed MMSW Composition Tables - Overall and by Generating Sector
Appendix E	Detailed MMSW Composition Tables for Each Host Facility
Appendix F	Detailed MMSW Composition Comparison Table by Generating Sector
Appendix G	Detailed MMSW Composition Comparison Table by Host Facility
Appendix H	Detailed MMSW Composition Comparison Table – 2013 vs 2025-2026 Studies
Appendix I	Methodology for Combining 2025-2026 Study Results with the 2013 Study
Appendix J	2025-2026 Study Raw Data
Appendix K	Scale Certification Receipt

[This page left blank intentionally]

GLOSSARY

This glossary defines technical terms used in the 2025–2026 Minnesota Statewide Waste Characterization Study. Definitions are consistent with terminology used in prior Minnesota Pollution Control Agency (MPCA) reports and are written to support both technical and general audiences. All composition values referenced in this report are based on weight (pounds or tons).

95% Confidence Interval: Level of confidence that the true mean for the overall population is within the stated confidence interval.

As-Disposed Condition: State of waste as received at a disposal facility.

BPI Certification: Third-party certification verifying that compostability standards are met.

Bulky Items: Large items such as appliances, tires, mattresses, and construction and demolition materials.

Category: A high-level grouping of materials used for reporting, such as Organics, Paper, or Plastic.

Coated (coating): Coatings are chosen to serve a distinct role in protecting food, preserving quality, and meeting consumer and legal requirements.

Component: A specific material within a category, such as Plastic Film or Food Waste – Unpackaged.

Compostable: A material capable of breaking down under controlled composting conditions.

Compostable Plastic Products: Plastic products designed to decompose under industrial composting conditions.

Composite Materials: Products made of multiple materials bonded together.

Composition by Weight: Material percentages based on measured weight rather than volume.

Consumer Products: Discarded materials generated from the use of goods by individuals and households.

Confidence Interval: The upper and lower limits of the actual mean for all samples based upon the mean and variance of the observed sample data.

Contamination: Materials improperly sent to a recycling or composting facility that cannot be processed there.

Food Waste - Packaged: Food material that has not been consumed or processed; includes material still in the original packaging if it has not been opened or consumed in some capacity and includes food remaining in its original whole state. Example: sauce packets, candy, canned goods, whole produce

Food Waste - Unpackaged: Food material resulting from the processing, storage, preparation, cooking, handling, or consumption of food. Includes food in packages if it has been opened or partially consumed in some capacity. Also includes anything spoiled, moldy, half-eaten, containing liquid, or in a condition that otherwise makes it unfit for consumption.

Greater Minnesota: Minnesota counties that are located outside of the seven county Twin Cities Metropolitan Area.

Hauler: An entity, company, or individual responsible for collecting waste, recyclables, or organic materials and transporting those materials to designated processing centers, landfills, or composting facilities.

Host Facility: Facility where sampling and sorting activities occur.

Household Hazardous Waste: Leftover, unused, or expired consumer products that contain corrosive, toxic, ignitable, or reactive ingredients and require special disposal.

Industrial, Commercial, and Institutional (ICI): Waste generated from businesses, industries, and institutions such as schools and hospitals.

Landfill: A permitted and engineered land disposal facility that accepts mixed municipal solid waste for final disposal and is managed in accordance with MPCA regulatory requirements.

Manual Sorting: Hand separation of waste into defined categories and components.

Mean (Average): The calculated average percentage by weight of a material across all samples.

Meets ASTM Standard: Indicates a product is labeled as meeting ASTM compostability criteria.

Mixed: Waste loads that include both residential and ICI materials where neither source exceeds approximately 75 percent.

Mixed Municipal Solid Waste (MMSW): Garbage, refuse, and other solid waste from residential, commercial, industrial, and community activities that the generator aggregates for collection, excluding materials managed as separate waste streams.

Municipal Solid Waste (MSW): Encompasses both MMSW and materials collected for reuse and recycling.

NOT ASTM Standard: Product does not have a label indicating ASTM compostability criteria.

Overall Waste Stream: Combined dataset representing residential, ICI, and mixed waste.

Per Capita: A phrase that, in this Study, indicates per person per day.

Primary Counties: Counties delivering more than 1,000 tons of MSW per year to a host facility. Primary Counties were provided by MPCA.

Qualitative: Refers to the qualities, characteristics, or nature of something rather than its numerical value or amount.

Quantitative: Relating to, measuring, or expressible in terms of quantity or amount using numerical data, mathematical models, and statistics.

Refuse-Derived Fuel (RDF): The fraction of processed mixed municipal solid waste that is shredded and used as fuel in a boiler, generally consisting of lighter-weight materials such as plastic and paper products after most metals, glass, and other non-combustible materials are removed.

Representative Sample: A sample selected to reflect characteristics of the larger waste stream.

Residential: Waste generated from households, including single-family and small multi-family buildings with four or fewer units.

Resource Recovery Facility: Facility that processes waste to recover energy or materials.

Rounding: Adjustment of numerical values to a consistent number of decimal places for reporting.

Sampling Manager: Personnel responsible for selecting waste samples.

Scale House: The central weigh station located at the entrance of a disposal facility where incoming and outgoing waste-hauling vehicles are weighed.

Service Area: Geographic region that supplies waste to a facility.

Solid Waste Facility: A specialized site designed for the safe collection, management, and disposal of solid waste.

Sorting Event: A systematic waste sort where organizers manually separate and analyze refuse generated at a location.

Sorting Manager: Personnel responsible for overseeing sorting and quality control.

Sorting Table: Surface where materials are separated during sorting.

Standard Deviation: A measure of variability in material composition between samples.

Statewide: An aggregate category that includes the Twin Cities Metropolitan Area and Greater Minnesota counties.

Stratified Sampling: Sampling approach that groups waste by sector or facility to promote representation.

Tare Weight: Weight of an empty container used to determine net weight.

Transfer Station: Facility where waste is consolidated before transport.

Transfer Trailer: A large semi-truck trailer delivering waste from a point of accumulation, such as a transfer station.

Twin Cities Metropolitan Area: The seven counties composing the Solid Waste Management Coordinating Board: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington.

Waste Characterization Study: A study that measures the types and proportions of materials present in a waste stream through physical sampling and sorting.

Waste Composition: The relative proportion of different materials in a waste stream, expressed as a percentage by weight.

Waste Disposed: Waste sent to landfill or waste-to-energy facilities.

Waste Diversion: The redirection of waste from disposal through recycling, composting, or reuse programs.

Waste Generated: All waste produced prior to recycling, composting, or disposal.

Waste-to-Energy (WTE): Combustion of solid waste with energy recovery.

ACKNOWLEDGEMENTS

SCS Engineers (SCS) thanks the Minnesota Pollution Control Agency (MPCA) project team for their guidance, coordination, and timely review throughout development of the 2025-2026 Minnesota Statewide Waste Characterization Study (Study). SCS also extends appreciation to the host facility operators and staff who supported field activities by coordinating access, sharing available waste receipt and operational information, and providing on-site assistance during sampling and sorting events. The collaboration of MPCA staff and host facility personnel was essential to the successful completion of fieldwork and the development of the Study results documented in this report.

SCS acknowledges the following host facility contacts for their support of this Study:

- Jason Steffen, Blue Earth County Ponderosa Landfill
- Keaton Houser and Christine Vaughn, Eden Prairie Transfer Station, Republic Services
- Roger Schroeder, Lyon County Landfill
- Brian Schmidt, Perham Resource Recovery Facility
- Sam Holl and Noah Johnston, Ramsey/Washington Recycling & Energy Center (R&E Center)
- Chase Poppenhagen, Resource Renew Transfer Station (Western Lake Superior Sanitary District)

SCS also acknowledges the haulers, drivers, and scale house attendants who assisted with load identification and supported sampling logistics during field activities.

EXECUTIVE SUMMARY

Purpose

The Minnesota Pollution Control Agency (MPCA) retained SCS Engineers (SCS) to conduct the 2025-2026 Statewide Waste Characterization Study (Study, or 2025-2026 Study) to develop a current, statistical understanding of the composition within the mixed municipal solid waste (MMSW) generated and disposed of across Minnesota. This Study builds on prior statewide waste composition studies (2000 and 2013) and reflects changes in consumption patterns, product design, waste management practices, and policy initiatives over the past 26 years. The Study was not designed to isolate the cause of these changes; however, the results provide a current benchmark for evaluating how Minnesota's waste stream has evolved since prior statewide studies.

Study Approach

The Study evaluated MMSW from residential, industrial/commercial/institutional (ICI), and mixed sources (a combination of residential and ICI) across facilities serving both the Twin Cities metropolitan area and Greater Minnesota. Sampling was conducted during Fall 2025 and Winter 2026 to capture seasonal variability.

A total of 288 samples (over 67,000 pounds of material) were collected and manually sorted at six facilities. The Study recorded weights (not volumes) for sample materials. Results are presented statewide and by generating sector (i.e., residential, ICI, and mixed), with facility-level comparisons used to illustrate regional variability. Data collected is also aligned with prior Minnesota statewide waste characterization studies, along with other relevant studies cited in this report, to support trend analysis over time.

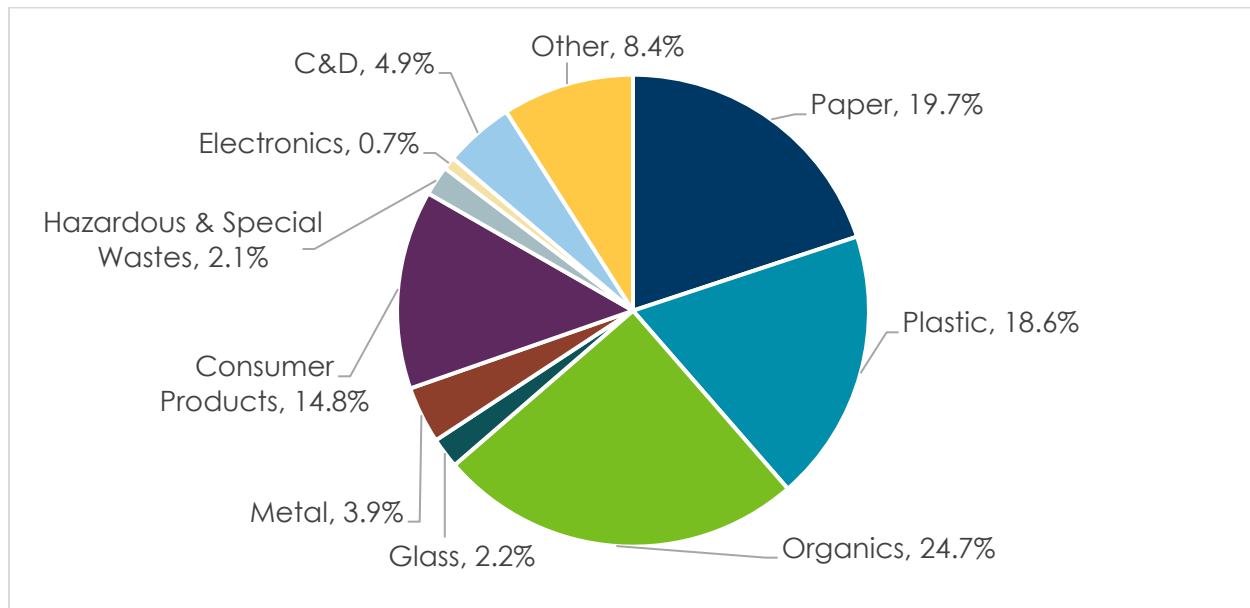
In this Study, a category is the term used for broad/overarching material type, while a component is a material within that category. For example, Corrugated Cardboard is a component of the Paper category. The 2025–2026 Study retains all waste categories and components from the 2013 Study while adding new ones to better capture current waste stream materials, providing deeper insights for future updates to solid waste programs. For a full list of components and categories, please refer to **Section 3.2 (Material Categories and Components)**.

The sampling and sorting approach produced a statewide dataset that supports analysis of overall MMSW composition, comparisons by generating sector and host facility, and evaluation of changes in Minnesota's waste stream over time. The key findings below summarize the primary material categories and components identified through the Study and provide context for the more detailed results presented in **Section 4.0 (Results)**.

Key Findings

Exhibit 1 (next page) summarizes the overall MMSW stream composition for the six host facilities across the 10 material categories included in this Study.

Exhibit 1. 2025-2026 Statewide MMSW Material Composition - Overall



The Study confirms that a small number of material categories continue to dominate Minnesota's waste stream:

- Organics: 24.7%
- Paper: 19.7%
- Plastic: 18.6%

Together, these categories represent approximately two-thirds of the overall MMSW stream and remain the most significant materials for prevention and diversion planning.

Table 1 (next page) lists the top 10 most prevalent material components as calculated for Minnesota's overall MMSW composition. These components accounted for approximately 62 percent of the Minnesota MMSW disposed of at the host facilities.

Table 1. Top 10 Most Prevalent Components - Statewide Overall MMSW

Statewide Overall MMSW		
#	Component	Pct.
1	Food Waste - Unpackaged	17.8%
2	Plastic Film	9.9%
3	Compostable Paper Pkg NOT ASTM	5.5%
4	Food Waste - Packaged	4.8%
5	Diapers & Sanitary Products	4.5%
6	Non-Distinct	4.5%
7	Textiles	4.3%
8	Unclassifiable Fines	3.9%
9	Mixed/Low-Grade Paper Products	3.7%
10	Wood - Treated and Untreated	3.3%
Statewide Overall Cumulative Percent		62.1%

These results show that food waste and packaging materials represent a significant opportunity for diversion.

Trends and Comparisons

Because the 2025–2026 Study used more detailed categories and components than earlier studies, some materials were regrouped to allow comparison over time. As a result, the percentages shown for comparison may differ from the main 2025-2026 Study results. Refer to the *Special Note on Study Comparison Percentages* on the next page for additional information.

Comparisons with prior statewide waste composition studies indicate some notable trends in Minnesota’s waste stream:

- **Paper** has decreased significantly from 2000 to 2025-2026 but remains a major portion of the waste stream (34.3% in 2000, 24.5% in 2013, and 19.7% in 2025-2026).
- **Organics** represents the largest share of the waste stream, increasing from 2000 to 2013 (25.7% to 31.0%), and showing little change since 2013 (32.5% in 2025-2026).
- **Plastics** remain a large contributor to the waste stream, increasing from 2000 to 2013 (11.4% to 17.9%) and showing little change since 2013 (18.6% in 2025-2026).

Organics, Paper, and Plastics remain materials that should be a focus of prevention and recovery efforts because of their prominence in the waste stream. Recycling or composting programs are viable options for all three material categories. However, prevention, especially for single-use items in these categories, generally offers greater environmental benefits than recycling or composting and should be considered a priority.

While overall category shares for materials such as metal, glass, electronics, and household hazardous waste have remained relatively stable, the composition within categories has evolved. Notably, within other categories such as Plastics and Paper, there is increased prevalence of:

- Flexible plastic packaging
- Compostable service ware and packaging

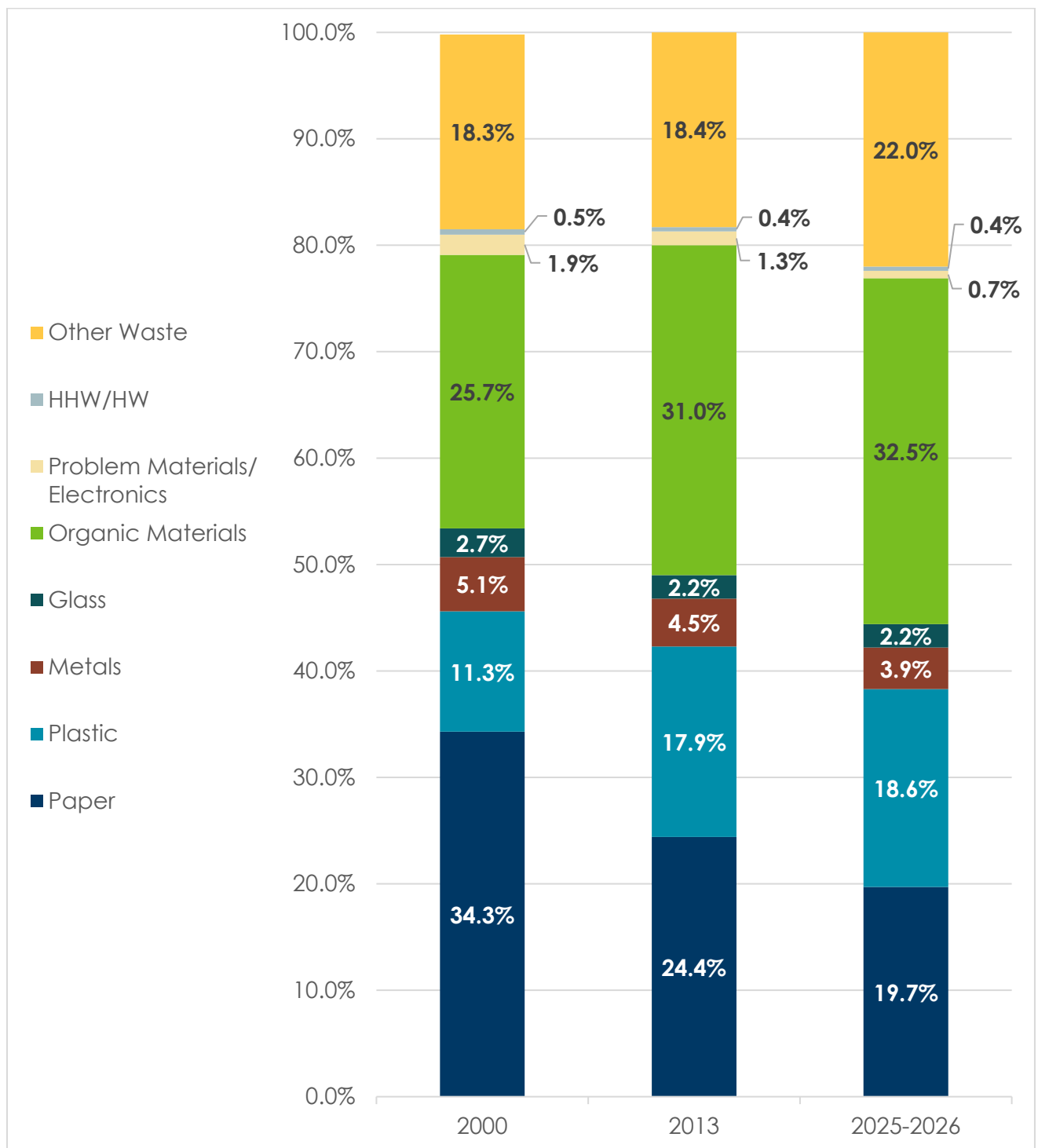
These changes may introduce new challenges for recycling program effectiveness, contamination management, and organics processing.

Exhibit 2 (next page) compares the 2025-2026 Study with the 2013 Study results.

Special Note on Study Comparison Percentages: The 2025-2026 Study percentages shown in **Exhibit 2** and **Section 4.2.3 (MMSW Composition – 2000 and 2013 Characterization Studies Comparison)** may differ from the main 2025-2026 Study results because some materials were grouped differently to match the broader categories used in the 2000 and 2013 studies.

- For example, diapers and wood were included in the Organics category in the 2013 Study but are reported in different categories (Consumer Products and C&D, respectively) in the 2025-2026 Study.
- By moving them into the Organics category for comparison to the 2013 Study, the 2025-2026 percentage listed in **Exhibit 2** and **Section 4.2.3** increases.
- **Appendix I (Methodology for Combining 2025-2026 Study Results with the 2013 Study)** shows how the 2025-2026 Study categories and components were grouped for comparison with the 2013 Study.

Exhibit 2. Composition by Categories – MN 2000, MN 2013 & MN 2025-2026 Studies Comparison*



*Legend is in the same order as the materials within the graph. Refer to the Special Note on Study Comparison Percentages in the Trends and Comparisons section on the previous page.

Implications for Planning and Programs

The Study provides an updated baseline dataset that can be used by MPCA and local partners to:

- Prioritize waste reduction and diversion strategies, particularly for organics and packaging materials.
- Evaluate the effectiveness of existing prevention, reuse, recycling, and organics programs.
- Track progress toward state and local sustainable materials management and solid waste goals over time.

The results highlight opportunities within the existing waste management framework, including:

- Expanding organics diversion
- Addressing plastic film and flexible packaging prevention and diversion challenges
- Managing contamination associated with compostable and multi-material products

Material characterization studies such as this provide a snapshot of current conditions while establishing a basis for future planning, policy development, and performance measurement.

1.0 INTRODUCTION

This report presents the results and supporting documentation for the 2025-2026 Minnesota Statewide Waste Characterization Study (Study, or 2025-2026 Study), conducted by SCS Engineers (SCS) for the Minnesota Pollution Control Agency (MPCA). The Study was designed to develop a current, statistical understanding of the composition of Mixed Municipal Solid Waste (MMSW) disposed in Minnesota and to support statewide planning, program evaluation, and future materials management initiatives.

The MPCA has a long history of tracking the amount and components of municipal solid waste disposed at facilities across the State of Minnesota. These efforts have helped the State of Minnesota develop policies and programs that reduce waste, encourage recycling, and support sustainable materials management. While a significant portion of waste generated in the state is diverted from disposal, the MPCA recognizes there are additional opportunities for continued waste reduction, reuse, and recycling. Over the last three decades, the MPCA has commissioned three waste characterization studies (2000, 2013, 2025-2026) to quantitatively and qualitatively measure waste disposal. Beginning in 2029, [Minnesota Statute 115a.412](#) requires waste facilities to conduct waste composition sorts on a rotating basis, which will provide important, ongoing waste trend data.

Physical waste sampling and manual sorting were completed at six host facilities (waste-to-energy facility, landfills, and transfer stations) that serve both the Twin Cities metropolitan area and Greater Minnesota, with sampling conducted across two seasons to capture seasonal variability. Study results are intended to inform MPCA and local partners as they plan, prioritize, and evaluate recycling, organics management, and other strategies that advance Minnesota's waste reduction and materials management goals.

The primary objectives of the Study are to:

- Quantify the relative composition of materials within the MMSW stream.
- Identify prevalent materials with the greatest potential for waste reduction and diversion.
- Provide a dataset that can be used to track changes in Minnesota's waste stream over time, including comparison to relevant studies as discussed in **Section 2.3 (Comparisons to Other Studies and Plans)**.

The Study results are presented for the residential, industrial/commercial/institutional (ICI), and mixed generating sectors, and are aggregated to develop statewide composition profiles and host-facility profiles.

This report is organized to document the context, methods, and results of the Study.

- **Glossary:** Defines technical terms used in the Study to support both technical and general audiences.
- **Acknowledgements:** SCS acknowledges all the host facility contacts and organizations that supported this project.
- **Executive Summary:** Briefly summarizes the key findings and results of the Study and relevant comparisons to the relevant studies.

- **Section 1.0 Introduction:** Describes the purpose of the Study, project objectives, and outlines how the report is organized.
- **Section 2.0 Background:** Summarizes demographic and SCORE-based waste generation and disposal information used to interpret results and support statewide extrapolation and comparison to prior studies.
- **Section 3.0 Methods:** Describes the sampling and sorting approach, including host facilities, generating sectors, material categories and definitions, quality control procedures, and data analysis methods.
- **Section 4.0 Results:** Presents the Study results in narrative and tabular/graphical form, including statewide and host-facility composition profiles, comparisons among sectors and other historical studies.
- **Section 5.0 Conclusion:** Provides conclusions drawn from the Study.
- **Section 6.0 References:** Provides full study names and hyperlinks used throughout the Study.
- **Appendices:** Provides supporting details, definitions, and data outputs.

2.0 BACKGROUND

2.1 DEMOGRAPHICS AND WASTE GENERATION AND DISPOSAL RATES

This section provides Minnesota demographic context and summarizes historic waste generation and disposal information to support the development of statewide waste composition profiles and provides a consistent basis for comparison to prior statewide studies.

For this Study, statewide population estimates are used alongside annual generation and disposal totals to compute per capita (pounds per person per day) disposal rates and support consistent comparisons between the 2013 Study (Burns & McDonnell, 2013), 2019-2022 Food Waste Generation and Composition Study (Resource Recycling Systems, 2022), 2020 Construction and Demolition Materials Composition Study, and the 2025-2026 Study.

Population trends provide important context for interpreting statewide waste generation and disposal metrics reported on a per capita basis and for comparing results across study periods. Prior to the 2025-2026 Study, the most recent statewide waste characterization study in Minnesota occurred in 2013. Using U.S. Census Bureau annual state population estimates, measured as of July 1 each year, Minnesota's resident population increased from 5,431,187 people in 2013 to 5,793,151 people in 2024, an increase of 361,964 people, or approximately 6.7 percent.

Evaluating waste trends on both a total-tonnage and a per capita basis helps distinguish between increases in total waste caused by population growth and increases associated with changes in consumption or materials management program structure.

Demographic factors such as population density may influence statewide MMSW patterns as well. Population growth has been concentrated in the Twin Cities metropolitan area and select regional

centers, while some Greater Minnesota counties have experienced slower growth, stagnation, or decline.

Table 2 below shows the number of Minnesota residents within the service areas of the six host facilities. Using the Minnesota State Demographic Center 2024 state population estimate of 5,842,388 residents, the six host facilities serve 3,101,608 residents, or approximately 53 percent of the state's total population.

Table 2. Population Density of Host Facility Service Areas

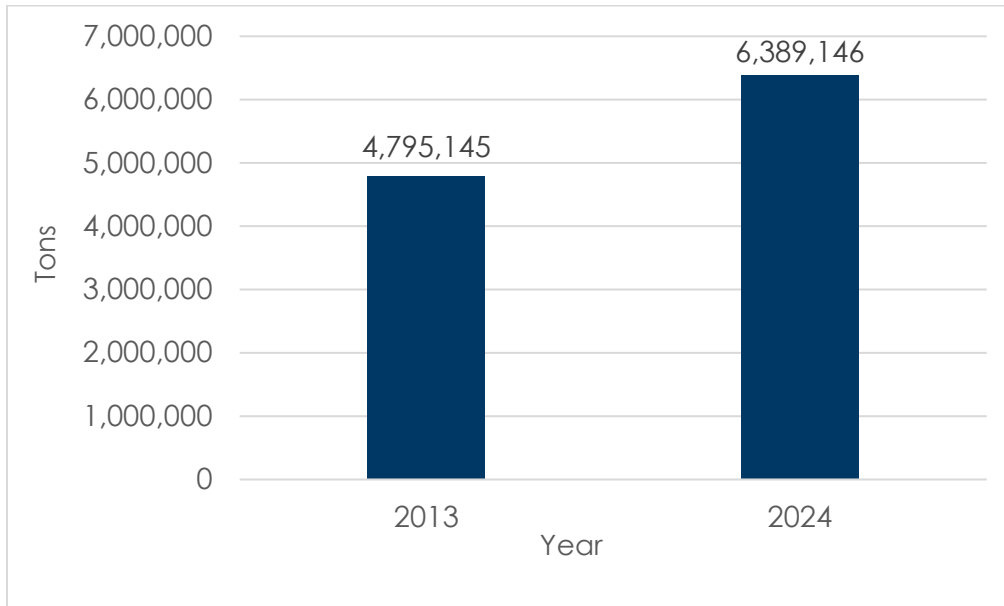
	Minnesota Population in Primary Service Area *	Percentage of Minnesota Population in Primary Service Area
Blue Earth County Ponderosa Landfill	220,557	3.8%
Eden Prairie Transfer Station	1,576,525	27.0%
Lyon County Landfill	95,491	1.6%
Perham Resource Recovery Facility	203,566	3.5%
Ramsey/Washington Recycling & Energy Center (R&E Center)	843,068	14.4%
Resource Renew Transfer Station	162,401	2.8%
Totals	3,101,608	53.1%

2024 Minnesota State Demographic Center county population estimates; populations shown represent primary counties served as listed in **Table 6 (2025-2026 Study Host Facilities – Location and Service Areas, page 8).*

Statewide generation quantities summarized below are drawn from the Minnesota Select Committee on Recycling and the Environment (SCORE) annual reporting program, which is supported by SCORE laws and implemented through reporting by solid waste officers in Minnesota's 87 counties and one solid waste district, Resource Renew. These generation quantities are the total of all waste management methods, including recycling, organics, landfill, waste-to-energy, and onsite management. The following tables and exhibits summarize recent Minnesota MMSW generation trends reported through the SCORE program.

As shown in **Exhibit 3** (next page), the 2013 and 2024 SCORE reports determined that the total MMSW generation in Minnesota was 4,795,145 tons in 2013 and 6,389,146 tons in 2024. Between 2013 and 2024, total MMSW generation in Minnesota increased approximately 33.2 percent. In the same period, the population increased approximately 6.7 percent.

Exhibit 3. 2013 vs 2024 Minnesota MMSW Generation Comparison

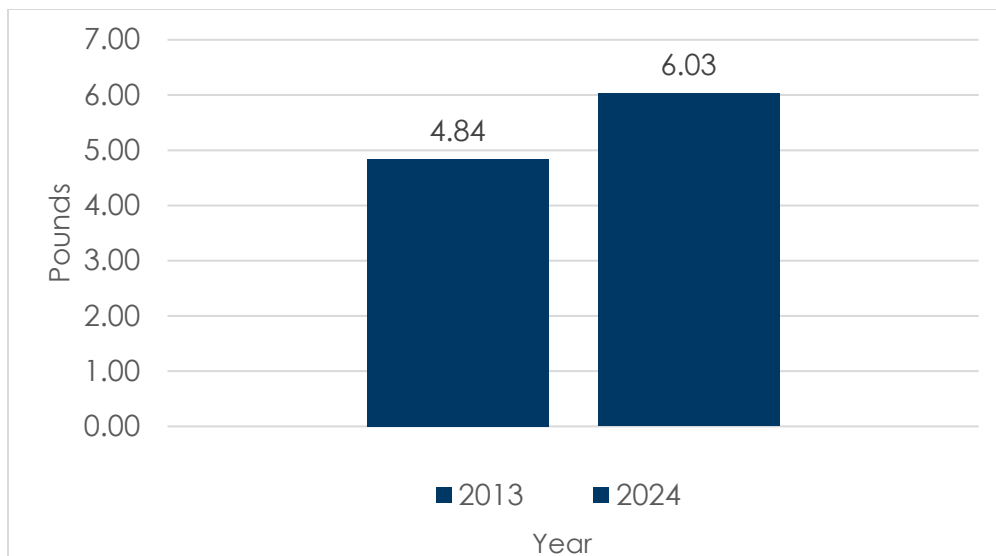


**Sources: 2013 and 2024 Minnesota SCORE Annual Reporting Program and 2013 and 2024 U.S. Census Bureau state population estimates*

Population data and annual MMSW generation data are used to calculate the statewide per capita generation rate, which represents the average amount of solid waste generated per person per day.

Exhibit 4 (below) and **Table 3** (next page) show the Minnesota per capita generation rate in 2013 and 2024.

Exhibit 4. MMSW Per Capita Generation Rate - 2013 & 2024 Statewide SCORE Report



**Sources: 2013 and 2024 Minnesota SCORE Annual Reporting Program and 2013 and 2024 U.S. Census Bureau state population estimates*

Table 3. Minnesota 2013 & 2024 Statewide Per Capita MMSW Generation Rate

	MN 2013	MN 2024
MMSW Generation Per Person Per Day	4.84	6.03
MMSW Generation Per Person Annually	1,765.78	2,205.76

**Sources: 2013 and 2024 Minnesota SCORE Annual Reporting Program and 2013 and 2024 U.S. Census Bureau state population estimates*

The results presented in **Section 4.0 (Results)** describe how waste stream composition has changed in Minnesota by comparing the 2013 Study results and the 2025-2026 Study results. **Section 2.2 (2013 vs 2025-2026 Study Plan)** describes the key similarities and differences between the 2013 Study and 2025-2026 Study.

2.2 2013 VS 2025-2026 STUDY PLAN

Whenever possible, methodology used for the 2013 Study was also used in the 2025-2026 Study methodology. **Table 4** (next page) shows a summary of various aspects for both the 2013 and 2025-2026 Studies.

Table 4. 2013 vs 2025-2026 Study Plan Summary

	2013 Study	2025-2026 Study
Seasons	1 (Summer)	2 (Fall, Winter)
Host Facilities (refer to Section 3.1 (Host Facilities) for additional information)	6 Sites:	6 Sites:
	Lyon County Regional Landfill	Lyon County Landfill
	Western Lake Superior Sanitary District Transfer Station	Resource Renew Transfer Station (formerly known as WLSSD)
	Hubbard County South Transfer Station (Park Rapids)	Ramsey/Washington Recycling & Energy Center (R&E Center)
	Elk River Resource Recovery Facility (Elk River)	Perham Resource Recovery Facility
	Pine Bend Landfill (Inver Grove Heights)	Blue Earth County Ponderosa Landfill
	St. Paul Como Transfer Station (St. Paul)	Eden Prairie Transfer Station
Methodology	Every Nth vehicle, Weighting	Res v ICI Percentage, Largest Customers
Total MMSW Samples Sorted	180 (6 facilities x 30 samples)	288 (6 facilities x 24 samples x 2 sorting events)
Material Categories	7	10
Material Components	50	100
Residential MMSW Samples	NA*	145
ICI MMSW Samples	NA*	132
Mixed MMSW Samples	NA*	11

*The 2013 Study samples were not selected or separated based on waste generating sector.

2.3 COMPARISONS TO OTHER STUDIES AND PLANS

The following five studies and reports were considered for relevant context in developing the 2025-2026 Study methodology and for comparing the Study results against recent Minnesota materials management data, policy priorities, and planning frameworks. The MPCA, counties, and local partners are similarly using these studies and reports to inform or guide statewide planning and future materials management initiatives.

- [2000 Statewide MSW Composition Study: A Study of Discards in the State of Minnesota](https://www.lrl.mn.gov/docs/2013/other/131281.pdf) (https://www.lrl.mn.gov/docs/2013/other/131281.pdf)
- [2019 – 2022 Food Waste Generation and Composition Study Analysis](https://www.pca.state.mn.us/sites/default/files/w-sw1-67.pdf) (https://www.pca.state.mn.us/sites/default/files/w-sw1-67.pdf)
- [2020 Construction and Demolition Materials Composition Study](https://www.pca.state.mn.us/sites/default/files/w-sw5-55.pdf) (https://www.pca.state.mn.us/sites/default/files/w-sw5-55.pdf)

- [2023 Sustainable materials management and solid waste policy report](https://www.pca.state.mn.us/sites/default/files/lrw-sw-1sy23.pdf)
(https://www.pca.state.mn.us/sites/default/files/lrw-sw-1sy23.pdf)
- [2024 Metropolitan Solid Waste Management Policy Plan 2022-2042](https://www.pca.state.mn.us/sites/default/files/w-sw7-22.pdf)
(https://www.pca.state.mn.us/sites/default/files/w-sw7-22.pdf)

Comparisons between the 2019-2022 Food Waste Generation and Composition Study Analysis and 2020 Construction and Demolition Materials Composition Study are discussed in **Section 4.0 (Results)**. As the 2023 Sustainable Materials Management and Solid Waste Policy Report and 2024 Metropolitan Solid Waste Management Policy Plan 2022-2042 are qualitative documents, a direct comparison to the 2025-2026 Study was not possible. These two documents provide the overarching policy framework for materials management in Minnesota, identifying priority materials, system challenges, and strategic actions. The 2025-2026 Waste Characterization Study supports this framework by supplying the empirical data needed to quantify waste streams, identify diversion opportunities, and inform implementation of these priorities.

3.0 METHODS

This section describes the 2025-2026 Study design, including the methods and protocols used to select, collect, and manually sort MMSW samples. The methods were implemented consistently across six host facilities and two sampling seasons (Fall 2025 and Winter 2026). Procedures were designed to produce representative data for the residential, ICI, and (as applicable) mixed generating sectors, and to support aggregation of results to statewide and host-facility composition profiles. Field activities were conducted in accordance with ASTM D5231 (Standard Test Method for Determination of the Composition of Unprocessed Municipal Solid Waste), with project-specific sampling plans developed for each host facility (**Appendix B, Study Sampling Plan Methodology**) based on 2024 annual tonnages of Minnesota-generated MMSW received at the facility.

3.1 HOST FACILITIES

Specific solid waste facilities were identified by the MPCA as host sites prior to initiating the Study. MPCA identified candidate sites that would be representative of the state of Minnesota. **Table 5** and **Table 6** (next page) provide details on the six facilities that agreed to host field sorting events. **Figure 1** (Figures section at end of this report) provides a geographical reference for the host facility locations.

Table 5. 2025-2026 Study Host Facilities – Facility Type and Ownership

Facility Name	Facility Type	Owner	Public/Private
Blue Earth County Ponderosa Landfill	Landfill	Blue Earth County	Public
Eden Prairie Transfer Station	Transfer station	Republic Services	Private
Lyon County Landfill	Landfill	Lyon County	Public
Perham Resource Recovery Facility	Waste-to-energy	Prairie Lakes Municipal Solid Waste Authority	Public
Ramsey/Washington Recycling & Energy Center (R&E Center)	Refuse-derived fuel	Ramsey/Washington Counties	Public
Resource Renew Transfer Station	Transfer station	Resource Renew	Public

Table 6. 2025-2026 Study Host Facilities – Location and Service Areas

Facility Name	MN Region	Facility County	Closest MN City	Primary MN Counties Served
Blue Earth County Ponderosa Landfill	SE	Blue Earth	Mankato	Blue Earth, Steele, Nicollet, Faribault, Le Sueur, Watonwan, Murray, Sibley
Eden Prairie Transfer Station	Metro	Hennepin	Eden Prairie	Hennepin, Carver, Scott
Lyon County Landfill	SW	Lyon	Marshall	Lyon, Redwood, Renville, Rock, Yellow Medicine, Pipestone, Lac Qui Parle, Lincoln
Perham Resource Recovery Facility	NW	Otter Tail	Perham	Clay, Otter Tail, Becker, Todd, Wadena
Ramsey/Washington Recycling & Energy Center (R&E Center)	Metro	Ramsey/Washington	St. Paul	Ramsey, Washington
Resource Renew Transfer Station	NE	St. Louis	Duluth	SE portion of St. Louis, Carlton, Lake, Cook

3.2 MATERIAL CATEGORIES AND COMPONENTS

In this Study, a category is the term used for broad/overarching material type, while a component is a material within that category. For example, Corrugated Cardboard is a component of the Paper category. The waste sort categories and components list for the Study included those that were in the 2013 Study. The 2025-2026 Study also included additional categories to capture more representative data of the materials in the waste stream which may help provide greater information for potential future updates to solid waste programs.

Prior to starting fieldwork, SCS worked closely with MPCA staff to establish the classification of each material category and component. This accounted for changes in product packaging that have introduced new materials into the waste stream. Additionally, the review of materials established an approach on how to sort composite materials and how to classify food or liquids contained in plastic, metal, and glass packaging. A total of 100 unique material components were established for the physical sort. The list of material categories and components is included in **Table 7** below. Detailed descriptions of each material component are provided in **Appendix A (2025-2026 MMSW Category and Component Definitions)**.

Table 7. 2025-2026 Study Material Categories and Components

Material Category: Paper			
Component Number	Material Component	Component Number	Material Component
1	High Grade Office Paper Products	2	Phone Books
3	Mixed/Low-Grade Paper Products	4	Magazines/Catalogs/Glossy
5	Newspaper/Newsprint	6	Boxboard
7	Kraft Paper	8	OCC or Corrugated Cardboard
9	Aseptic, Gable Top, Polycoated	10	Compostable Paper Pkg NOT ASTM Standard*
11	Compostable Paper Pkg Meets ASTM Standard*	12	Remainder/Composite Paper Products
Material Category: Plastic			
Component Number	Material Component	Component Number	Material Component
13	Plastic Deposit Beverage Containers	14	Plastic Non-Deposit Beverage Containers
15	#1 PET Bottles/Jars	16	#1 PET Non-Bottle Rigid Containers & Packaging
17	#2 HDPE Bottles/Jars – Natural	18	#2 HDPE Bottles/Jars – Colored
19	Other HDPE	20	#3 PVC Packaging
21	#3 PVC Other	22	#4 LDPE Hard Packaging
23	#4 LDPE Other	24	#5 PP Bottles
25	#5 PP Packaging	(100)	#6 Polystyrene – Non-Foam
26	#6 Polystyrene	27	#7 Plastic Packaging
28	Agricultural Film	29	Boat Wrap
30	Plastic Film	31	Retail Shopping Bags

Material Category: Plastic			
Component Number	Material Component	Component Number	Material Component
32	Pouches/Flexible Plastic Packaging	33	Compostable Plastic Products NOT ASTM Standard*
34	Compostable Plastic Products Meets ASTM Standard*	35	Other Plastic
Material Category: Organics			
Component Number	Material Component	Component Number	Material Component
36	Food Waste – Unpackaged	37	Food Waste – Packaged
38	Yard Waste	39	Woody Material
Material Category: Glass			
Component Number	Material Component	Component Number	Material Component
40	Glass Deposit Beverage Containers	41	Glass Non-Deposit Beverage Containers
42	Glass Containers	43	Plate Glass
44	Non-Glass Ceramics	45	Remainder/Composite Glass
Material Category: Metal			
Component Number	Material Component	Component Number	Material Component
46	Metal Deposit Beverage Containers	47	Metal Non-Deposit Beverage Containers
48	Aluminum Food Packaging	49	Other Aluminum
50	Pet Food Containers	51	Ferrous Food Cans – Tinned and Not Coated
52	Other Ferrous Metal	53	Other Nonferrous Metal
54	Mixed Metal/Material	55	Aerosol Containers
Material Category: Consumer Products			
Component Number	Material Component	Component Number	Material Component
56	Household Décor	57	Textiles
58	Shoes, Purses, and Belts	59	Carpet
60	Furniture – Metal	61	Furniture – Wood
62	Furniture – Plastic	63	Furniture – Composite
64	Mattresses and Box Springs	65	Large Appliances (White Goods)
66	Small Household Appliances	67	Rubber Products
68	Tires	69	Diapers & Sanitary Products
70	Sports and Recreation Products		
Material Category: Hazardous & Special Wastes			
Component Number	Material Component	Component Number	Material Component
71	All Paints, Stains, Varnish, & Lacquer	72	Flammable Liquids
73	Other HHW	74	Syringes/Needles

Material Category: Hazardous & Special Wastes			
Component Number	Material Component	Component Number	Material Component
75	Healthcare-Associated Waste	76	Single Use Household Batteries
77	Lead-Acid Batteries	78	Items Containing Lithium Batteries
79	Lithium Batteries	80	Other Rechargeable Batteries
81	Fluorescent Lighting and Mercury Bulbs	82	Used Oil Filters
83	Smoke Detectors		
Material Category: Electronics			
Component Number	Material Component	Component Number	Material Component
84	Televisions – CRT	85	Televisions – LCD
86	Computer Monitors – CRT	87	Computer Monitors – LCD
88	Laptops	89	Television Peripherals
90	Computers	91	Cellphones
92	Computer Peripherals	93	Audio Equipment
94	Internet Connection Equipment	95	Electronic Equipment Cables and Wires
Material Category: Construction & Demolition (C&D)			
Component Number	Material Component	Component Number	Material Component
96	C&D Contained in the MMSW Loads	97	Wood – Treated and Untreated
Material Category: Other			
Component Number	Material Component	Component Number	Material Component
98	Non-Distinct	99	Unclassifiable Fines

**Compostable paper and plastic products with the BPI certified logo are listed as meeting ASTM standards.*

3.3 WASTE GENERATING SECTORS

MMSW loads were classified into the following generating sectors for sampling and analysis:

- **Residential** – MMSW generated from single-family and multi-family (four units and under) residential properties.
- **Industrial/Commercial/Institutional (ICI)** – MMSW generated from industrial, commercial, and institutional sources.
- **Mixed** – Loads with an indeterminate amount of residential and ICI MMSW, where neither generating sector represents 75 percent or more of the load. Mixed-sector sampling was primarily used for the Lyon and Perham host facilities.

The term “Overall” is used to describe the aggregated dataset combining residential, ICI, and mixed sectors to represent overall statewide MMSW composition.

Waste samples were selected and sorted based on the generating sectors above. To assign an incoming load to a sector, SCS staff consulted facility records and conducted interviews with facility staff and scale house attendants to stratify incoming loads by hauler and generating sector. Additional detail on the sampling stratification approach and load-selection decision logic is provided in **Appendix B (Study Sampling Plan Methodology)**.

3.4 FIELDWORK METHODOLOGY

Fieldwork methods used to collect data for the Study were implemented consistently across host facility locations and between the two sampling seasons. Site-specific sampling plans were used to identify and select incoming loads for sampling, and standardized procedures were followed for sample gathering, manual sorting, weighing samples, and data recording. The Study recorded weights for sample materials. Volume was not captured as it was not a part of the Study.

3.4.1 Sampling Plan Development

SCS developed a facility-specific sampling plan for each host facility to collect representative MMSW samples for the Study. Sampling plan development included coordination with host facility staff to obtain information on the generating sectors and quantities of waste received for disposal (based on available recent-year facility receipt information), typical delivery methods, and the major haulers serving each facility. Using this information, SCS stratified targeted loads by generating sector and (to the extent practicable) by hauler, with the intent of selecting samples in proportion to the amounts of residential and ICI waste disposed at each host facility. Additional detail on the data obtained from host facilities and associated sampling stratification approach is provided in **Appendix B (Study Sampling Plan Methodology)**.

Sampling events were conducted during two seasons (Fall 2025 and Winter 2026). At each host facility, fieldwork was performed over three days each season, with a target of eight samples sorted per day (24 samples per facility per season). This approach provided a consistent and repeatable field effort across the host facilities while allowing targeted sampling by generating sector and hauler.

SCS avoided sampling mixed loads when practical to maintain clear sector attribution for residential and ICI composition profiles (see **Section 3.3, Waste Generating Sectors**). Scale house staff and facility staff were consulted to identify loads likely to represent a single generating sector. If a load was suspected to be mixed or otherwise unclear, SCS attempted to confirm the generating sector through available facility information, brief interviews with facility staff, and, when possible, the driver.

In some cases, however, the mixed load designations were the only classification that could be supported because facility staff and/or drivers were not able to confidently identify the originating generating sector for the load.

Approximately 10 percent of samples were designated as having a mixed generating sector during the sorting events. In collaborative support with MPCA following field sorting completion, some mixed sample loads were able to be reassigned to either the residential or ICI generating sector. At the conclusion of this further evaluation, only 4 percent or 11 of the 288 samples remain in the mixed waste generation sector.

A portion of waste that arrives at disposal facilities in Minnesota is delivered via transfer trailers. Sampling and physically sorting this waste is challenging and was avoided if possible for the following reasons:

- **Categorization** – Transferred waste is typically a mixture of material from different generating sectors, making categorization difficult.
- **Composition** – Transferred waste typically has been processed in some way to facilitate loading into a transfer trailer. This processing alters the composition of the waste so that it is no longer in an “as-disposed” condition, which is an important criterion for completing this Study.
- **Safety** – The processing of waste that occurs before and during loading into transfer trailers compacts waste significantly. This makes physical separation and sorting difficult and increases the potential for injury for sorting personnel that must apply force to pull materials apart.

However, transfer trailers were sampled at Lyon County Landfill and Perham Resource Recovery Facility in order to obtain the same number of samples from each facility.

Table 8 and **Table 9** below provide a summary of the number and type of samples selected at each host facility, as well as cumulative results for the entire Study.

Table 8. Sample Selection by Host Facility Location and Generating Sector

Host Facility	Residential	ICI	Mixed	Two-Season Cumulative Total Sorts
Blue Earth County Ponderosa Landfill	12	36	0	48
Eden Prairie Transfer Station	14	34	0	48
Lyon County Landfill	37	4	7	48
Perham Resource Recovery Facility	35	9	4	48
Ramsey/Washington Recycling & Energy Center (R&E Center)	26	22	0	48
Resource Renew Transfer Station	21	27	0	48
Statewide (Total)	145	132	11	288

Table 9. Percentage of MMSW Samples per Generating Sector

MMSW Generating Sector	Total Number Sorts	Percentage
Residential	145	50%
ICI	132	46%
Mixed	11	4%
Statewide (Total)	288	100%

3.4.2 Equipment

The equipment used during sampling and sorting included:

- **Containers** - Approximately 100 containers were used to collect samples, sort waste components, and weigh sorted samples. Containers were a mix of 32-gallon trash cans, 18-gallon totes, and 5-gallon buckets. Each container was tare-weighted at the beginning of each sorting event. A waterproof label with the material name and a unique material number was secured onto each container prior to the start of field activities. **Exhibit 5** below depicts the containers used and an example of the typical physical sort layout.

Exhibit 5. Physical Sort Area Layout



- **Sort Table** - The sorting table was a piece of plywood capable of supporting approximately 150 pounds of waste materials. The table was placed on sawhorses. **Exhibit 6** (next page) displays an example of the sorting tables used.

Exhibit 6. Physical Sort Table



- **Scales** – Factory-calibrated scales were used to weigh samples and sorted waste components. Scales recorded weight to the nearest tenth of a pound. Scales were used in accordance with manufacturer instructions and project quality procedures. Where needed to confirm measurement accuracy during fieldwork, scale performance was checked using a known weight and any issues were addressed. See **Appendix K (Scale Certification Receipt)** for scale certification receipts.
- **Personal Protective Equipment (PPE)** – Protecting the health and safety of all project staff was a priority of the project. Field staff were required to wear steel/composite toe shoes or boots, safety glasses, reflective safety vests, and nitrile and puncture-resistant gloves at all times when participating in fieldwork.
- **Data Forms** – SCS completed a separate data collection form for each waste sample sorted during the project. This form contained fields to capture information on the waste sample, including generating sector and hauler information. This form was used to record material component weights.

3.4.3 MMSW Sample Gathering

Selecting appropriate incoming loads and obtaining representative samples for sorting was important to maintain data quality assurance.

SCS appointed a Sampling Manager (from SCS staff) to oversee selection and collection of each waste sample. The Sampling Manager monitored incoming trucks via radios provided by the facility. This individual used the site-specific sampling plan to identify which trucks to divert for further waste screening. Based on the sampling plan, when possible, the Sampling Manager interviewed the driver

to obtain details on the waste contained in the vehicle. The driver was questioned whether the waste contained in the truck was residential or ICI. If the driver indicated that the waste in the truck was a mixed load, follow-up questions were asked to estimate the percentage of waste from residential vs. ICI waste sources. If a mixed load consisted of at least 75 percent from one generating sector, it was attributed to that dominant sector. Loads containing less than 75 percent residential or ICI materials were classified as mixed.

The Sampling Manager directed the driver to the designated sampling area. The Sampling Manager inspected the sample by walking around the pile. If the materials discharged appeared unusual or were not consistent with the experienced Sampling Manager's expectations of what residential or ICI waste should look like, the sample was discarded and another sample was obtained. During the winter sort season, the team worked indoors away from the incoming trucks at four of the six locations. This limited the Sampling Manager's visual inspection opportunity. Instead, the Sampling Manager discussed the contents of the load with the loader operator to decide if the incoming load met sector parameters.

Once a targeted load was accepted for sampling, a host facility heavy equipment operator obtained a sample of waste as directed by the Sampling Manager. To reduce bias, the Sampling Manager visually divided the pile into 6 subsections and chose the sample using a random selection approach. The operator transported the selected sample to the designated sorting area, where the sample could be placed into tared containers. Incoming samples were adjusted to weigh approximately 200–220 pounds. This process was recorded in alignment with ASTM International Standard Test Method for Determination of the Composition of Unprocessed Municipal Solid Waste (ASTM D5231-92, Revised 2024). Each of the waste samples were labeled and organized for unique identification prior to sorting.

Appendix B (Study Sampling Plan Methodology) provides a detailed discussion of the sampling plan methodology.

3.4.4 MMSW Manual Sorting

Manual sorting of MMSW followed a standardized six-step process (summarized on the next page) and was repeated until all targeted samples were characterized. Waste materials were sorted into the 100 material components summarized in **Table 7** (page 9), with material component definitions provided in **Appendix A (2025-2026 MMSW Category and Component Definitions)**. A sample physical sort field form is included in **Appendix C (MMSW Sample Field Form)**.

SCS created a site-specific Health & Safety Plan for each host facility, which contained information and guidance regarding emergency contact information, incident reporting process, PPE requirements, and medical treatment requirements. Safety and work procedures were discussed with the waste sort crew each morning before starting field activities.

Samples were maintained in an as-disposed condition, or as close to this as practical, until sorting began. Field teams took reasonable steps to minimize factors that could affect sample condition (e.g., excessive handling, commingling with other materials, or exposure to precipitation) so that the composition of the sample did not change prior to sorting. Below is an outline of the manual sorting process, described step by step.

Step	Action
1.	Tare weights of the empty containers were recorded at the start of each 3-day sorting session.
2.	A sample of waste was transferred from containers to a sort table and photographed; large or heavy items, such as wood panels or bulky waste, were placed directly into the appropriate container for subsequent weighing.
3.	Plastic bags containing materials were opened and contents were manually sorted according to the agreed-upon list of materials; separated materials were placed in a unique material component container. The SCS Sorting Manager observed operations and provided continual quality control of the sorted waste categories.
4.	Sorting of materials continued until the sample had been characterized down to Small, indistinguishable particle size of approximately 2 inches or less; a photograph of these materials was taken, and materials were removed from the sort table and placed in a separate container for weighing as "unclassifiable fines."
5.	Containers with the sorted materials were individually weighed by the SCS Sorting Manager. The SCS Sorting Manager performed additional quality control measures to confirm the purity of each sorted material category and document the number of containers per material category. The weight of containers with the sorted materials was recorded on a sample data sheet which was unique for every sample; measurements were made to the nearest tenth of a pound. SCS counted and documented the number of single use household batteries, lead-acid batteries, items containing lithium batteries (vapes), items containing lithium batteries (non-vapes), lithium batteries, and other rechargeable batteries. Additionally, if SCS was able to identify bulky items in the waste load, including appliances, tires, mattresses, and C&D materials, they were noted on the sample sheet.
6.	Upon completion of weighing sorted materials and recording the data for each sample, the materials were placed in a container for disposal. Hazardous or dangerous materials (i.e., needles, lithium batteries, etc.) were placed in a separate container for diversion (if provided by a host facility); containers were then emptied as appropriate per the host facility policy.

3.5 WASTE SAMPLING SORT EVENTS

Fieldwork at each facility was conducted over approximately 3 days during each sorting season, amounting to a total of 6 days per facility within regular operating hours. Fieldwork at each facility was scheduled to collect and sort waste during an average operational week, intentionally excluding special events (such as festivals or atypical occasions) and other circumstances that might alter the usual waste received at a facility (e.g., post-storm conditions). Weather conditions during the winter sort season affected the Perham sampling schedule and required additional mobilizations to complete the targeted 24 samples.

Table 10 (next page) summarizes the field schedule for the Study. **Exhibit 7** and **Exhibit 8** (page 19) present example photos illustrating how samples are selected and sorted. **Appendix C (MMSW Sample Field Form)** contains a sample field form.

Table 10. 2025-2026 Fieldwork Schedule

Fall Sort Dates	Sort Locations
September 22-23-24, 2025	Ramsey/Washington Recycling & Energy Center (R&E Center)
September 25-26-29, 2025	Eden Prairie Transfer Station
October 1-2-3, 2025	Perham Resource Recovery Facility
October 6-7-8, 2025	Resource Renew Transfer Station
October 10-13-14, 2025	Lyon County Landfill
October 15-16-17, 2025	Blue Earth County Ponderosa Landfill
Winter Sort Dates	Sort Locations
January 12-13-14, 2026	Ramsey/Washington Recycling & Energy Center (R&E Center)
January 15-16-19, 2026	Eden Prairie Transfer Station
January 21-22, 2026	Perham Resource Recovery Facility
January 26-27-28, 2026	Lyon County Landfill
January 30, 2026*	Ramsey/Washington Recycling & Energy Center (R&E Center)
February 2-3-4, 2026	Blue Earth County Ponderosa Landfill
February 16-17-18-19*, 2026	Resource Renew Transfer Station
February 20, 2026*	Perham Resource Recovery Facility
March 12, 2026*	Perham Resource Recovery Facility

**Additional sorting days were necessary to obtain 24 samples due to extreme winter weather that shortened timeframes at these host facilities.*

Exhibit 7. Sample Selection



Obtaining sample from loader bucket

Exhibit 8. Sorting Process



Beginning of waste sorting process as bags are emptied onto table and sorted



Sample materials are sorted until only unclassifiable fines remain (materials less than 2 inches in size)

3.6 DATA RECORDING

SCS Sampling Managers were responsible for recording field data for this Study. Each waste sample analyzed as part of the Study had its own waste sample form where identifying information and material weight data were recorded during sorting and weighing activities. Following completion of sorting for each sample, the Sampling Manager transmitted the completed field forms to the data management team. The data management team entered the information into the project database and performed daily quality checks. In addition, a waste sample tracker document was maintained by SCS Sampling Managers to serve as an additional check on the number and source of samples obtained and sorted. An example waste sample field form is included in **Appendix C (MMSW Sample Field Form)**, and the compiled raw dataset for the Study is provided in **Appendix J (2025-2026 Study Raw Data)**.

3.7 COLLECTED DATA ANALYSIS

The Study includes 288 MMSW samples, 48 samples from each of the six host facilities. Facilities were not weighted by population served, which results in each sample contributing equally to the mean percentage. Using standard statistical procedures, SCS developed detailed estimates of mean composition and standard deviations for each of the 100 material components evaluated for this Study as measured by weight. The composition was developed for the residential, ICI, and mixed waste generating sectors. Data from generating sectors was aggregated to develop the overall Minnesota Statewide waste composition with a 95 percent confidence interval calculated for each material component.

The gross weights of each material type and its container were entered into a Microsoft Excel (Excel) sheet for each sample. The spreadsheet subtracted the tare weights of the containers that held each sorted material to derive the net weight of each material type in each sample. The composition for each sample was derived by dividing each material type net weight by the total net weight of the sample (summed from the net weights of all the material types). For each material type, the net weight proportions across all samples were then averaged to derive the overall composition. Similarly, the residential composition was derived by averaging each material type proportion across all residential samples; and the ICI composition was derived by averaging each material type proportion across all ICI samples. Host facility compositions were also derived by averaging each material type proportion for all samples from a particular host facility (both residential and ICI).

For each material, the mean was derived using the AVERAGE function in Excel and the standard deviation was derived using the STDEV.S function. These functions utilize the following formulas:

$$\text{Mean}(\bar{X}) = \sum_{i=1}^n x_i * \frac{1}{n};$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{(n \sum x^2) - (\sum x)^2}{n(n-1)}};$$

Where: n = number of samples and x = sample percentage.

The confidence interval limits were established using bootstrapping, a statistical technique that resamples the existing data with replacement to estimate the possible range of values for the sample statistic.

For the overall composition, for each material type, the individual material type proportions derived from each sample were resampled to create 1,000 rounds of sampling – each round consisting of 288 samples (288,000 datapoints for each material type). Each round of 288 samples was averaged. The resulting 1000 averages were then ordered from smallest to largest and the 2.5th and 97.5th percentiles were selected to create the 95% confidence interval for the individual material type.

The bootstrapping method was similar for the residential, ICI, and individual host facility compositions with the number of samples reflecting the original data:

- Residential Stream: There were 145 residential samples; therefore, bootstrapping consisted of 1,000 rounds of 145 samples, or 145,000 datapoints for each material type.
- ICI Stream: There were 132 ICI samples; therefore, bootstrapping consisted of 1,000 rounds of 132 samples, or 132,000 datapoints for each material type.
- Host Facility Streams: There were six host facilities, with 48 samples collected at each host facility; therefore, bootstrapping consisted of 1,000 rounds of 48 samples, or 48,000 datapoints for each material type at each host facility.

4.0 RESULTS

This section provides detailed results of the 2025-2026 Statewide Waste Characterization Study. The results presented in this section include waste composition by generating sectors, host facility, and previous solid waste studies. Detailed data results and raw weights are found in the following appendices:

- **Appendix D** – Detailed MMSW Composition Tables Overall and by Generating Sector
- **Appendix E** – Detailed MMSW Composition Tables for Each Host Facility
- **Appendix F** – Detailed MMSW Composition Comparison Table by Generating Sector
- **Appendix G** – Detailed MMSW Composition Comparison Table by Host Facility
- **Appendix H** – Detailed MMSW Composition Comparison Table – 2013 vs 2025-2026 Studies
- **Appendix I** – Methodology for Combining 2025-2026 Study results with the 2013 Study
- **Appendix J** – 2025-2026 Study Raw Data

Appendix A (2025-2026 MMSW Category and Component Definitions) includes MMSW category and component definitions for the results reported in the above appendices. While the results are shown in percentages throughout this report, weights for each of the 100 material components for each of the 288 samples can be found in **Appendix J (2025-2026 Study Raw Data)**.

Note: Percentages reflect the amount as measured by weight. Due to rounding, aggregated data presented throughout this report may not equal exact total percentages.

4.1 OVERALL STATEWIDE MMSW COMPOSITION RESULTS

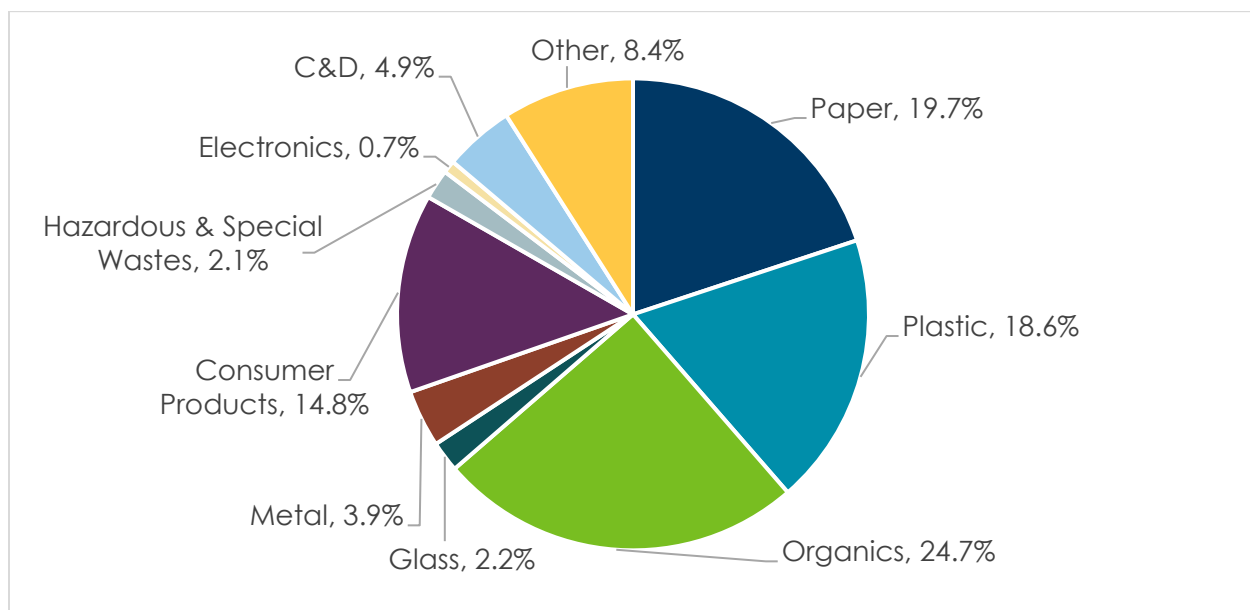
This section presents the overall results (combined results for the six host facilities) and by generating sector (residential, ICI, and mixed).

4.1.1 Overall MMSW Composition

Exhibit 9 (below) summarizes the composition of the overall Minnesota MMSW stream by material category, which includes all 288 samples in the Study. The largest material categories represented in the overall waste stream are as follows:

- **Organics:** This category constitutes 24.7 percent of the overall waste composition. The largest component of this is Food Waste – Unpackaged (17.8 percent). The next largest component is Food Waste – Packaged (4.8 percent).
- **Paper:** This category contains 19.7 percent of the overall waste stream. The components of Compostable Paper Packaging Not ASTM Standard (5.5 percent) and Mixed/Low-Grade Paper Products (3.7 percent) have the highest percentages in this category.
- **Plastics:** The overall percentage of the Plastics category is 18.6 percent. Plastic Film contributes the largest amount to the total (9.9 percent). The next most prevalent plastic component is Other Plastic (2.9 percent).

Exhibit 9. Overall Statewide MMSW Composition by Category



Appendix D (Detailed MMSW Composition Tables Overall and by Generating Sector) provides a detailed profile of the overall MMSW composition that includes the percentage of all 100 material components. For each material component, the mean percent, standard deviation, and 95 percent confidence intervals are included. The sum of the individual components equals the percentage shown for that category.

Table 11 (next page) lists the top 10 most prevalent material components as calculated for Minnesota's overall MMSW composition. These components accounted for approximately 62 percent of Minnesota MMSW disposed of at the host facilities.

Table 11. Top 10 Most Prevalent Components - Statewide Overall MMSW

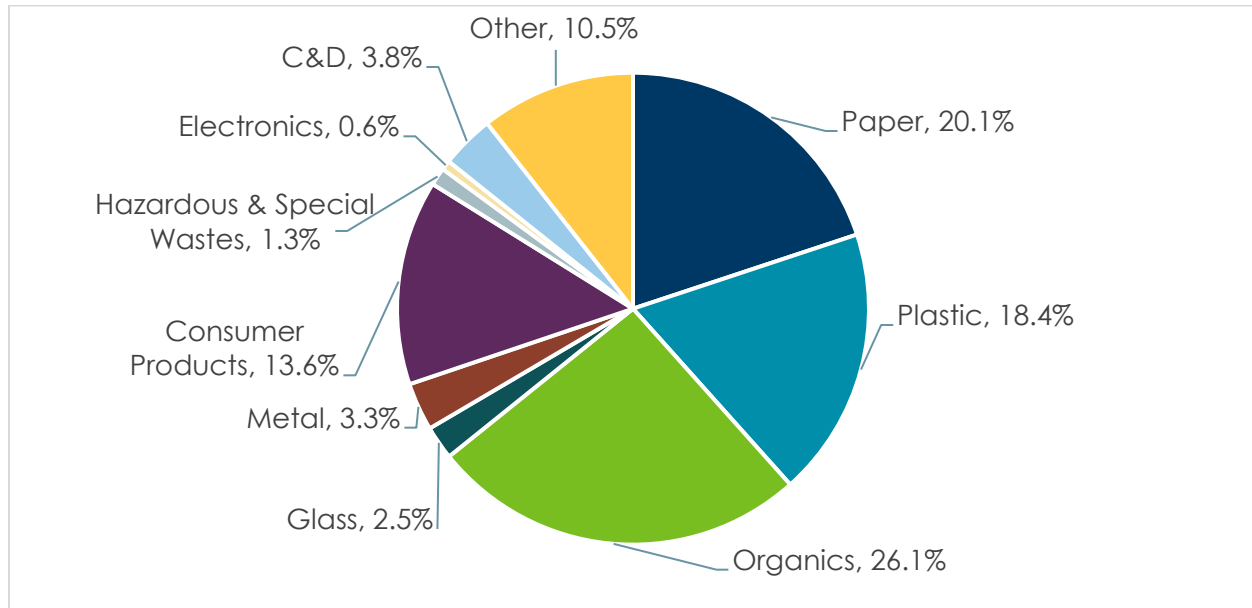
Statewide Overall MMSW		
#	Component	Pct.
1	Food Waste - Unpackaged	17.8%
2	Plastic Film	9.9%
3	Compostable Paper Pkg NOT ASTM	5.5%
4	Food Waste - Packaged	4.8%
5	Diapers & Sanitary Products	4.5%
6	Non-Distinct	4.5%
7	Textiles	4.3%
8	Unclassifiable Fines	3.9%
9	Mixed/Low-Grade Paper Products	3.7%
10	Wood - Treated and Untreated	3.3%
Statewide Overall Cumulative Percent		62.1%

4.1.2 Residential MMSW Composition

Exhibit 10 (next page) provides a summary of the 10 categories that comprise the residential MMSW stream, which includes 145 of the 288 samples (50 percent) in the Study. The largest categories represented in the overall residential waste stream are as follows:

- **Organics:** This category constitutes 26.1 percent of the residential waste composition. The largest component of this is Food Waste – Unpackaged (20.0 percent). The second most prevalent component in the organics category is Food Waste – Packaged (3.6 percent).
- **Paper:** This category contains 20.1 percent of the residential waste stream. The components of Compostable Paper Packaging Not ASTM Standard (6.0 percent) and Mixed/Low-Grade Paper Products (4.0 percent) have the highest percentages in this category.
- **Plastics:** The residential percentage of the Plastics category is 18.4 percent. Plastic Film contributes the largest amount to the total (10.0 percent). The next most prevalent plastic component is Other Plastic (2.0 percent).

Exhibit 10. Composition by Categories - Residential MMSW



Appendix D (Detailed MMSW Composition Tables Overall and by Generating Sector) provides a detailed profile of the residential MMSW composition that includes the percentage of all 100 components. For each component, the mean percent, standard deviation, and 95 percent confidence intervals are included. The sum of the individual material components equals the percentage shown for that category.

Table 12 (next page) provides a listing of the top 10 most prevalent components as calculated for Minnesota's residential MMSW composition. These components accounted for over 66 percent of residential MMSW disposed of at the host facilities.

Table 12. Top 10 Most Prevalent Components - Residential MMSW

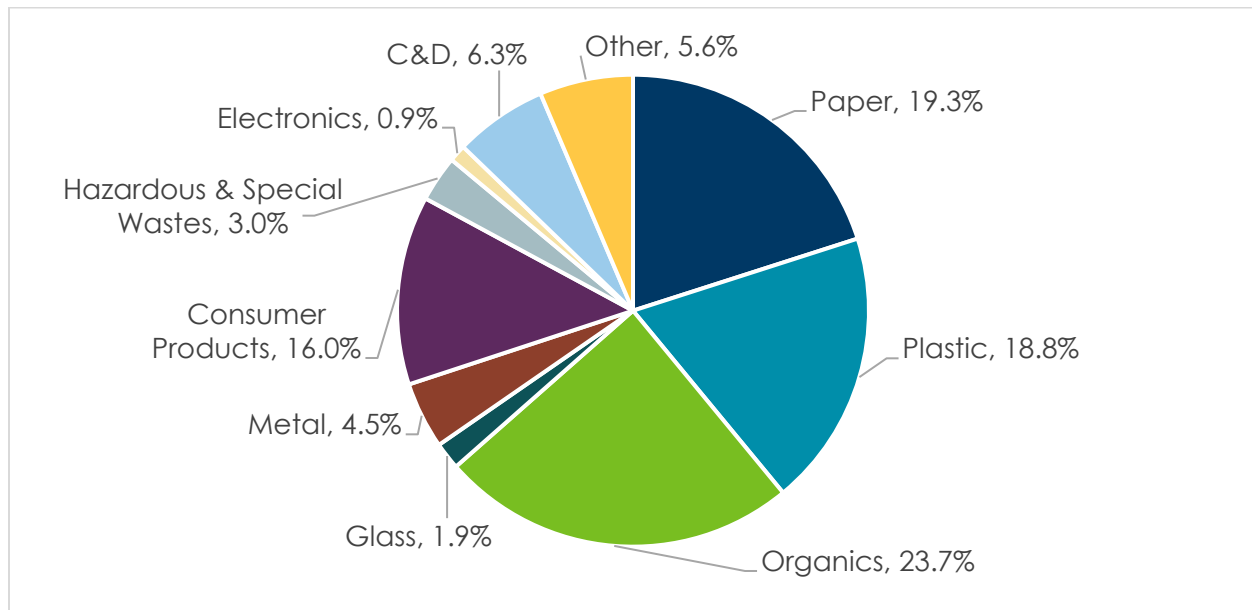
Statewide Residential MMSW		
#	Component	Pct.
1	Food Waste - Unpackaged	20.0%
2	Plastic Film	10.0%
3	Compostable Paper Pkg NOT ASTM	6.0%
4	Non-Distinct	5.7%
5	Diapers & Sanitary Products	5.7%
6	Unclassifiable Fines	4.8%
7	Mixed/Low-Grade Paper Products	4.0%
8	Textiles	3.8%
9	Food Waste - Packaged	3.6%
10	Boxboard	2.8%
Statewide Residential Cumulative Percent		66.4%

4.1.3 ICI MMSW Composition

Exhibit 11 (next page) provides a summary of the 10 categories that comprise the ICI MMSW stream, which includes 132 of the 288 samples (46 percent) in the Study. The largest categories represented in the overall waste stream are as follows:

- **Organics:** This category constitutes 23.7 percent of the ICI waste composition. The two largest components of this category are Food Waste – Unpackaged (15.9 percent) and Food Waste – Packaged (5.9 percent).
- **Paper:** This category contains 19.3 percent of the ICI waste stream. The two most prevalent components are Compostable Paper Packaging Not ASTM Standard (4.9 percent) and Mixed/Low-Grade Paper Products (3.4 percent).
- **Plastics:** The percentage of the Plastics category in ICI MMSW is 18.8 percent. Plastic Film contributes the largest amount to the total (9.8 percent). The next most prevalent plastic component is Other Plastic (3.7 percent).

Exhibit 11. Composition by Categories - ICI MMSW



Appendix D (Detailed MMSW Composition Tables Overall and by Generating Sector) provides a detailed profile of the ICI MMSW composition that includes the percentage of all 100 components. For each component, the mean percent, standard deviation, and 95 percent confidence intervals are included. The sum of the individual components equals the percentage shown for that category.

Table 13 (next page) provides a listing of the top 10 most prevalent components as calculated for Minnesota's ICI MMSW composition. These components accounted for nearly 59 percent of ICI MMSW disposed of at the host facilities.

Table 13. Top 10 Most Prevalent Components - ICI MMSW

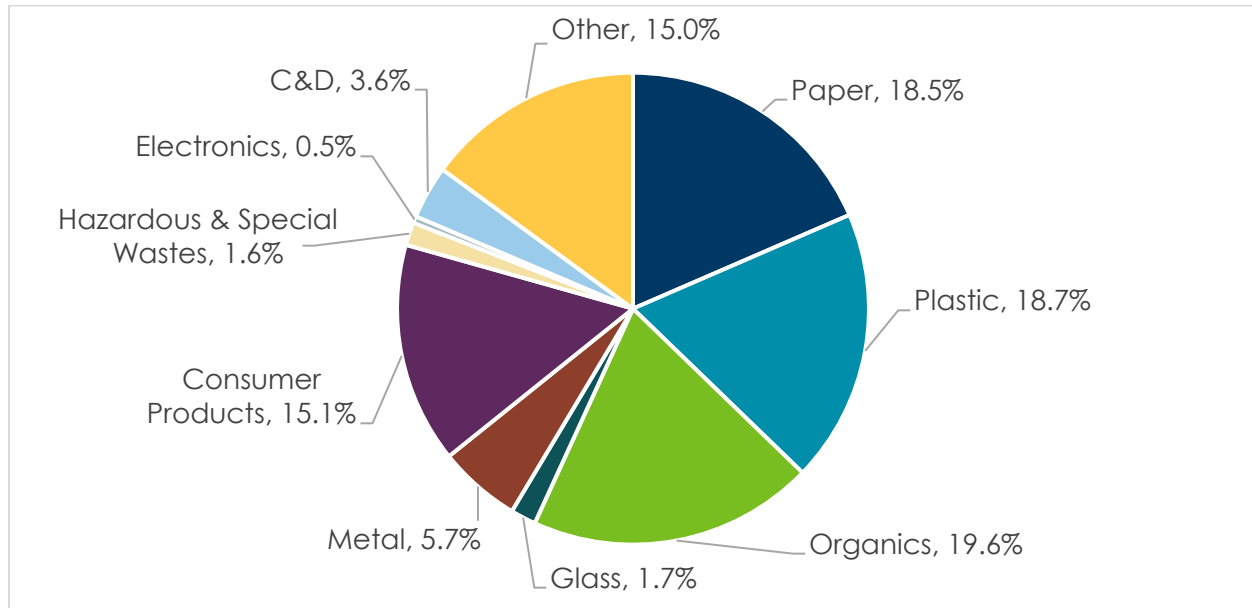
Statewide ICI MMSW		
#	Component	Pct.
1	Food Waste - Unpackaged	15.9%
2	Plastic Film	9.8%
3	Food Waste - Packaged	5.9%
4	Compostable Paper Pkg NOT ASTM	4.9%
5	Textiles	4.6%
6	Wood - Treated and Untreated	4.2%
7	Other Plastic	3.7%
8	Mixed/Low-Grade Paper Products	3.4%
9	Diapers & Sanitary Products	3.2%
10	OCC or Corrugated Cardboard	3.1%
Statewide ICI Cumulative Percent		58.8%

4.1.4 Mixed MMSW Composition

Exhibit 12 (next page) provides a summary of the 10 categories that comprise Minnesota's mixed MMSW stream, which includes 11 of the 288 samples (4 percent) in the Study. Mixed samples were only taken at the Lyon County Landfill and Perham Resource Recovery Facility. The largest categories represented in the overall waste stream are as follows:

- **Organics:** This category constitutes 19.6 percent of the mixed waste composition. The two largest components of this category are Food Waste – Unpackaged (10.7 percent) and Food Waste – Packaged (6.2 percent).
- **Plastics:** The Plastics category is 18.7 percent overall. Plastic Film contributes the largest amount to the total (10.0 percent). The next most prevalent plastic component is Other Plastic (3.8 percent).
- **Paper:** This category contains an overall percentage of 18.5 percent of the mixed waste stream. The two most prevalent components are Compostable Paper Packaging Not ASTM Standard (4.5 percent) and Mixed/Low-Grade Paper Products (3.5 percent).

Exhibit 12. Composition by Categories - Mixed MMSW



Appendix D (Detailed MMSW Composition Tables Overall and by Generating Sector) provides a detailed profile of the mixed MMSW composition that includes the percentage of all 100 components. For each component, the mean percent, standard deviation, and 95 percent confidence intervals are included. The sum of the individual components equals the percentage shown for that category.

Table 14 (next page) provides a listing of the top 10 most prevalent components as calculated for Minnesota's mixed MMSW composition. These components accounted for over 65 percent of mixed MMSW disposed of at the host facilities.

Table 14. Top 10 Most Prevalent Components - Mixed MMSW

Statewide Mixed MMSW		
#	Component	Pct.
1	Food Waste - Unpackaged	10.7%
2	Plastic Film	10.0%
3	Unclassifiable Fines	8.3%
4	Non-Distinct	6.7%
5	Textiles	6.3%
6	Food Waste - Packaged	6.2%
7	Diapers & Sanitary Products	5.4%
8	Compostable Paper Pkg NOT ASTM Standard	4.5%
9	Other Plastic	3.8%
10	Mixed/Low-Grade Paper Products	3.5%
Statewide Mixed Cumulative Percent		65.5%

4.1.5 Overall Statewide Item Counts

During sampling events, specific items were recorded, counted, and/or weighed:

- Bulky Items
- Single-Use Household Batteries
- Lead-Acid Batteries
- Items Containing Lithium Batteries – Vapes
- Items Containing Lithium Batteries – Non-Vapes
- Lithium Batteries
- Other Rechargeable Batteries

When possible, a visual scan was completed of the entire MMSW sample load delivery. Specific bulky items such as appliances, tires, mattresses, and C&D materials were noted, regardless of if that material was within the randomly selected area for the sample. Approximately half of the selected loads for this Study were able to be visually scanned (132 samples). As shown in **Table 15** (next page), of the 132 selected MMSW loads, 25 had bulky materials, which translates into one bulky item for every five loads delivered to the solid waste facility.

Table 15. Statewide MMSW Specific Item Counts – Bulky Items

Item	Total Item Counts
Bulky Items	25
Statewide (Total)	25

Table 16 below shows the quantities of various battery types discovered during sorting events. Batteries were of interest due to their potential to cause fires. Single Use Household Batteries (dry cell batteries such as alkaline and button), which are not classified as hazardous waste, accounted for 85 percent of the items counted (745 out of 874 items). A total of 126 lithium or other rechargeable batteries were found during sorting events. These results indicate that nearly half of MMSW loads delivered to solid waste facilities likely contain a lithium or other rechargeable battery.

One notable change from the 2013 Study was the inclusion of vaping devices containing lithium batteries as a component in the 2025-2026 waste stream. Other products that may contain lithium batteries, such as greeting cards or similar small electronic items, were more difficult to identify consistently because the battery was not visible, could not be confirmed, or may have been removed or fell out before waste sorting activities.

Table 16. Statewide MMSW Specific Item Counts – Various Battery Types

Item	Total Item Counts
Single Use Household Batteries	745
Lead-Acid Batteries	3
Items Containing Lithium Batteries – Vapes	109
Items Containing Lithium Batteries – Non-Vapes	5
Lithium Batteries	9
Other Rechargeable Batteries	3
Statewide (Total)	874

4.2 WASTE CHARACTERIZATION STUDY RESULTS COMPARISON

This section compares the results of the 2025-2026 Statewide Waste Characterization Study by generating sector, by host facility, and to various previous studies, including:

- [2000 Statewide MSW Composition Study: A Study of Discards in the State of Minnesota](https://www.lrl.mn.gov/docs/2013/other/131281.pdf) (R.W. Beck, 2000) (<https://www.lrl.mn.gov/docs/2013/other/131281.pdf>)
- [2013 Statewide Waste Characterization](https://www.pca.state.mn.us/sites/default/files/w-sw1-60.pdf) (Burns & McDonnell, 2013) (<https://www.pca.state.mn.us/sites/default/files/w-sw1-60.pdf>)
- [2019 – 2022 Food Waste Generation and Composition Study Analysis](https://www.pca.state.mn.us/sites/default/files/w-sw1-67.pdf) (Resource Recycling Systems, 2022) (<https://www.pca.state.mn.us/sites/default/files/w-sw1-67.pdf>)

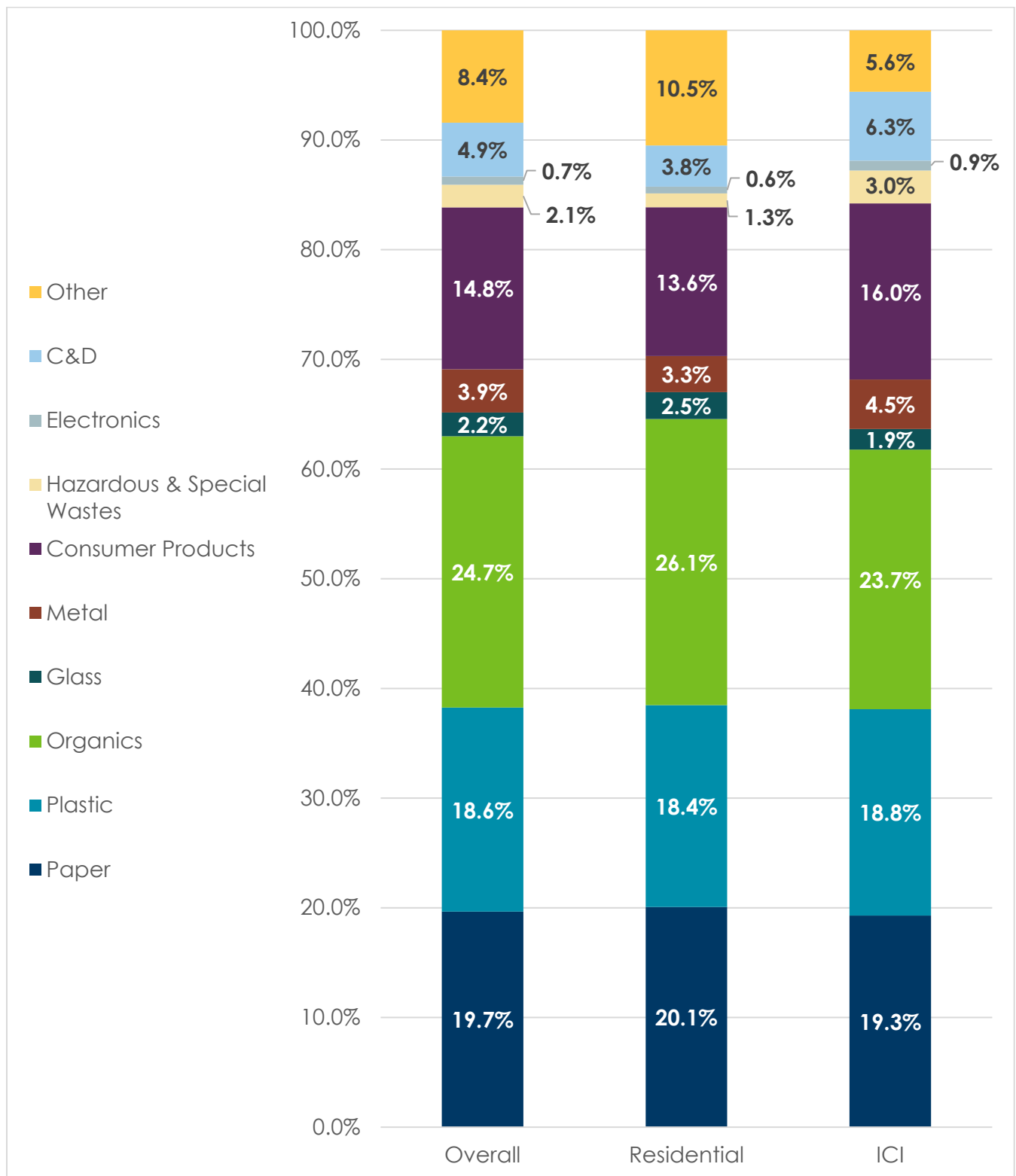
- [2020 Construction and Demolition Materials Composition Study](https://www.pca.state.mn.us/sites/default/files/w-sw5-55.pdf) (Resource Recycling Systems, 2022). (<https://www.pca.state.mn.us/sites/default/files/w-sw5-55.pdf>)

Because the 2025–2026 Study used more detailed categories and components than earlier studies, some materials were regrouped to allow comparison over time. As a result, the percentages shown for comparison may differ from the main 2025-2026 Study results.

4.2.1 MMSW Composition – Generating Sector Comparison

Exhibit 13 (next page) summarizes the composition of the overall MMSW stream and the composition of each generating sector by category. The waste compositions for overall, residential, and ICI samples include combined data from the six host facilities.

Exhibit 13. Composition by Categories - Generating Sector Comparison *



*Legend is in the same order as the materials within the graph.

Appendix F (Detailed MMSW Composition Comparison Table by Generating Sector) provides a detailed overall comparison by generating sector that includes the percentage of the 100 components. For each component, the mean percent, standard deviation, and 95 percent confidence intervals are included. The sum of the individual components equals the percentage shown for that category.

Table 17 below provides a listing of the top 10 most prevalent components as calculated for Minnesota's overall MMSW composition and for each generating sector.

Of the overall top 10 components, 9 are present in the residential list (excluding Wood – Treated and Untreated) and 8 are present in the ICI list (excluding Non-Distinct and Unclassifiable Fines).

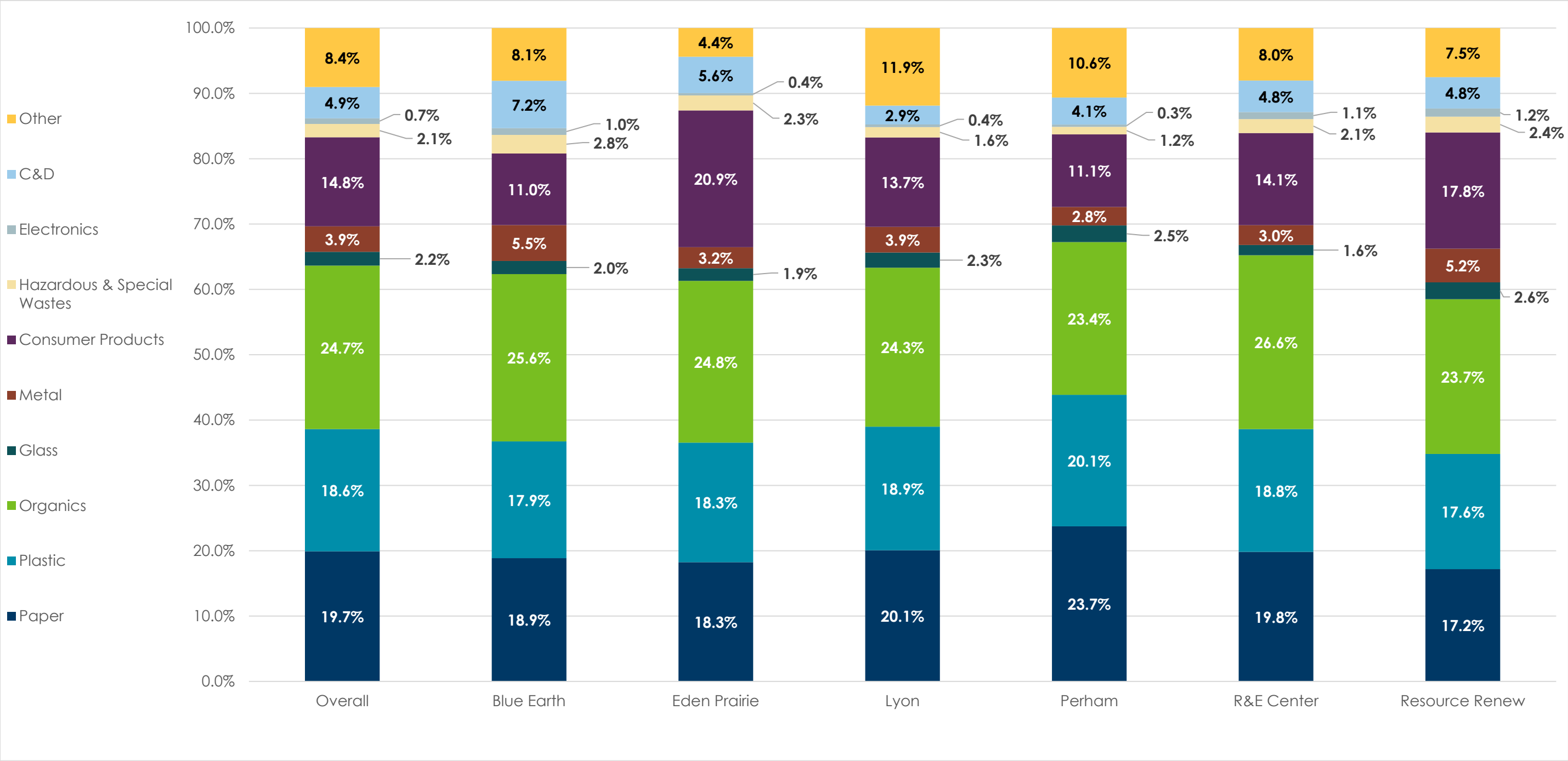
Table 17. Statewide Top 10 Most Prevalent Components – Overall and by Generating Sector

	Minnesota Statewide (Residential, ICI, and Mixed)		Residential		ICI	
	Component	Pct.	Component	Pct.	Component	Pct.
1	Food Waste - Unpackaged	17.8%	Food Waste - Unpackaged	20.0%	Food Waste - Unpackaged	15.9%
2	Plastic Film	9.9%	Plastic Film	10.0%	Plastic Film	9.8%
3	Compostable Paper Pkg NOT ASTM	5.5%	Compostable Paper Pkg NOT ASTM	6.0%	Food Waste - Packaged	5.9%
4	Food Waste - Packaged	4.8%	Non-Distinct	5.7%	Compostable Paper Pkg NOT ASTM	4.9%
5	Diapers & Sanitary Products	4.5%	Diapers & Sanitary Products	5.7%	Textiles	4.6%
6	Non-Distinct	4.5%	Unclassifiable Fines	4.8%	Wood - Treated and Untreated	4.2%
7	Textiles	4.3%	Mixed/Low-Grade Paper Products	4.0%	Other Plastic	3.7%
8	Unclassifiable Fines	3.9%	Textiles	3.8%	Mixed/Low-Grade Paper Products	3.4%
9	Mixed/Low-Grade Paper Products	3.7%	Food Waste - Packaged	3.6%	Diapers & Sanitary Products	3.2%
10	Wood - Treated and Untreated	3.3%	Boxboard	2.8%	OCC or Corrugated Cardboard	3.1%
	Overall Cumulative Percent	62.1%	Residential Cumulative Percent	66.4%	ICI Cumulative Percent	58.8%

4.2.2 MMSW Composition – Host Facility Comparison

Exhibit 14 (next page) summarizes the waste stream composition by the 10 categories for each host facility. The overall statewide composition is also shown for comparison purposes. Results are presented in tabular format in **Table 18** (page 36).

Exhibit 14. Composition by Categories - Host Facility Comparison *



*Legend is in the same order as the materials within the graph.

Table 18. Composition by Categories - Host Facility Comparison

Category	Overall	Blue Earth	Eden Prairie	Lyon	Perham	R&E Center	Resource Renew
Paper	19.7%	18.9%	18.3%	20.1%	23.7%	19.8%	17.2%
Plastic	18.6%	17.9%	18.3%	18.9%	20.1%	18.8%	17.6%
Organics	24.7%	25.6%	24.8%	24.3%	23.4%	26.6%	23.7%
Glass	2.2%	2.0%	1.9%	2.3%	2.5%	1.6%	2.6%
Metal	3.9%	5.5%	3.2%	3.9%	2.8%	3.0%	5.2%
Consumer Products	14.8%	11.0%	20.9%	13.7%	11.1%	14.1%	17.8%
Hazardous & Special Wastes	2.1%	2.8%	2.3%	1.6%	1.2%	2.1%	2.4%
Electronics	0.7%	1.0%	0.4%	0.4%	0.3%	1.1%	1.2%
C&D	4.9%	7.2%	5.6%	2.9%	4.1%	4.8%	4.8%
Other Waste Materials	8.4%	8.1%	4.4%	11.9%	10.6%	8.0%	7.5%
Total	100%	100%	100%	100%	100%	100%	100%

Appendix E (Detailed MMSW Composition Tables for Each Host Facility) provides a detailed profile of the MMSW composition for each host facility that includes the percentage of the 100 components. For each component, the mean percent, standard deviation, and 95 percent confidence intervals are included. The sum of the individual components equals the percentage shown for that category. Detailed comparison results are included in **Appendix G (Detailed MMSW Composition Comparison Table by Host Facility)**.

Table 19 (next page) lists the top 10 most prevalent components for each host facility. The overall top 10 most prevalent components statewide are shown for comparison. Food Waste – Unpackaged and Plastic Film were the most prevalent components at each facility.

Table 19. Top 10 Most Prevalent Components - Host Facility Comparison

	Overall		Blue Earth		Eden Prairie		Lyon		Perham		R&E Center		Resource Renew	
	Component	Pct.	Component	Pct.	Component	Pct.	Component	Pct.	Component	Pct.	Component	Pct.	Component	Pct.
1	Food Waste - Unpackaged	17.8%	Food Waste - Unpackaged	14.9%	Food Waste - Unpackaged	18.4%	Food Waste - Unpackaged	18.8%	Food Waste - Unpackaged	16.2%	Food Waste - Unpackaged	19.2%	Food Waste - Unpackaged	19.1%
2	Plastic Film	9.9%	Plastic Film	9.9%	Plastic Film	8.9%	Plastic Film	9.6%	Plastic Film	11.6%	Plastic Film	9.9%	Plastic Film	9.4%
3	Compostable Paper Pkg NOT ASTM	5.5%	Food Waste - Packaged	8.8%	Textiles	7.4%	Unclassifiable Fines	7.1%	Non-Distinct	6.7%	Compostable Paper Pkg NOT ASTM	6.7%	Non-Distinct	5.6%
4	Food Waste - Packaged	4.8%	Mixed/Low-Grade Paper Products	4.7%	Compostable Paper Pkg NOT ASTM	5.7%	Diapers & Sanitary Products	6.9%	Compostable Paper Pkg NOT ASTM	5.4%	Diapers & Sanitary Products	5.4%	Compostable Paper Pkg NOT ASTM	5.5%
5	Diapers & Sanitary Products	4.5%	OCC or Corrugated Cardboard	4.2%	Diapers & Sanitary Products	5.3%	Compostable Paper Pkg NOT ASTM	5.3%	Food Waste - Packaged	4.9%	Food Waste - Packaged	4.4%	Wood - Treated and Untreated	4.0%
6	Non-Distinct	4.5%	Unclassifiable Fines	4.2%	Other Plastic	4.2%	Non-Distinct	4.8%	Textiles	4.4%	Mixed/Low-Grade Paper Products	4.1%	Textiles	3.8%
7	Textiles	4.3%	Wood - Treated and Untreated	4.1%	Wood - Treated and Untreated	4.0%	Mixed/Low-Grade Paper Products	4.2%	Mixed/Low-Grade Paper Products	4.0%	Unclassifiable Fines	4.1%	Diapers & Sanitary Products	3.8%
8	Unclassifiable Fines	3.9%	Compostable Paper Pkg NOT ASTM	4.1%	Food Waste - Packaged	3.7%	Food Waste - Packaged	4.2%	Unclassifiable Fines	3.9%	Non-Distinct	3.9%	Carpet	2.9%
9	Mixed/Low-Grade Paper Products	3.7%	Non-Distinct	3.9%	Boxboard	2.9%	Textiles	3.9%	Diapers & Sanitary Products	3.8%	Wood - Treated and Untreated	3.5%	Mixed/Low-Grade Paper Products	2.7%
10	Wood - Treated and Untreated	3.3%	Other Plastic	3.4%	Yard Waste	2.6%	Boxboard	3.8%	Boxboard	3.6%	Textiles	3.2%	Other Plastic	2.5%
	Overall Cumulative Percent	62.1%	Blue Earth Cumulative Percent	62.4%	Eden Prairie Cumulative Percent	63.0%	Lyon Cumulative Percent	68.5%	Perham Cumulative Percent	64.5%	R&E Center Cumulative Percent	64.5%	Resource Renew Cumulative Percent	59.4%

4.2.3 MMSW Composition – 2000 and 2013 Characterization Studies Comparison

Because the 2025–2026 Study used more detailed categories and components than earlier studies, some materials were regrouped to allow comparison over time. As a result, the percentages shown for comparison may differ from the main 2025-2026 Study results. Refer to the *Special Note on Study Comparison Percentages* on this page for additional information.

The 2025-2026 Study overall waste stream composition by category was compared to results from the historic studies listed below. The studies were consulted to inform the development of the 2025-2026 Studies. The 2025-2026 Study provided empirical data supporting the goals of the various plans. Refer to the historical studies (see **Section 6.0 References**) for detailed information.

- [2000 Statewide MSW Composition Study: A Study of Discards in the State of Minnesota](https://www.lrl.mn.gov/docs/2013/other/131281.pdf) (R.W. Beck, 2000) (<https://www.lrl.mn.gov/docs/2013/other/131281.pdf>)
- [2013 Statewide Waste Characterization](https://www.pca.state.mn.us/sites/default/files/w-sw1-60.pdf) (Burns & McDonnell, 2013) (<https://www.pca.state.mn.us/sites/default/files/w-sw1-60.pdf>)

As shown in **Exhibit 15** (next page), Organic Materials, Paper, and Plastic have consistently created the majority of MMSW in Minnesota. The percentage of paper materials has fallen dramatically over the years, from 34.3 percent in 2000 to 19.7 percent in 2025-2026. Organic materials have grown from approximately a quarter of the weight in 2000 to constituting one-third of MMSW in 2025-2026. Results are presented in tabular format in **Table 20** (page 40).

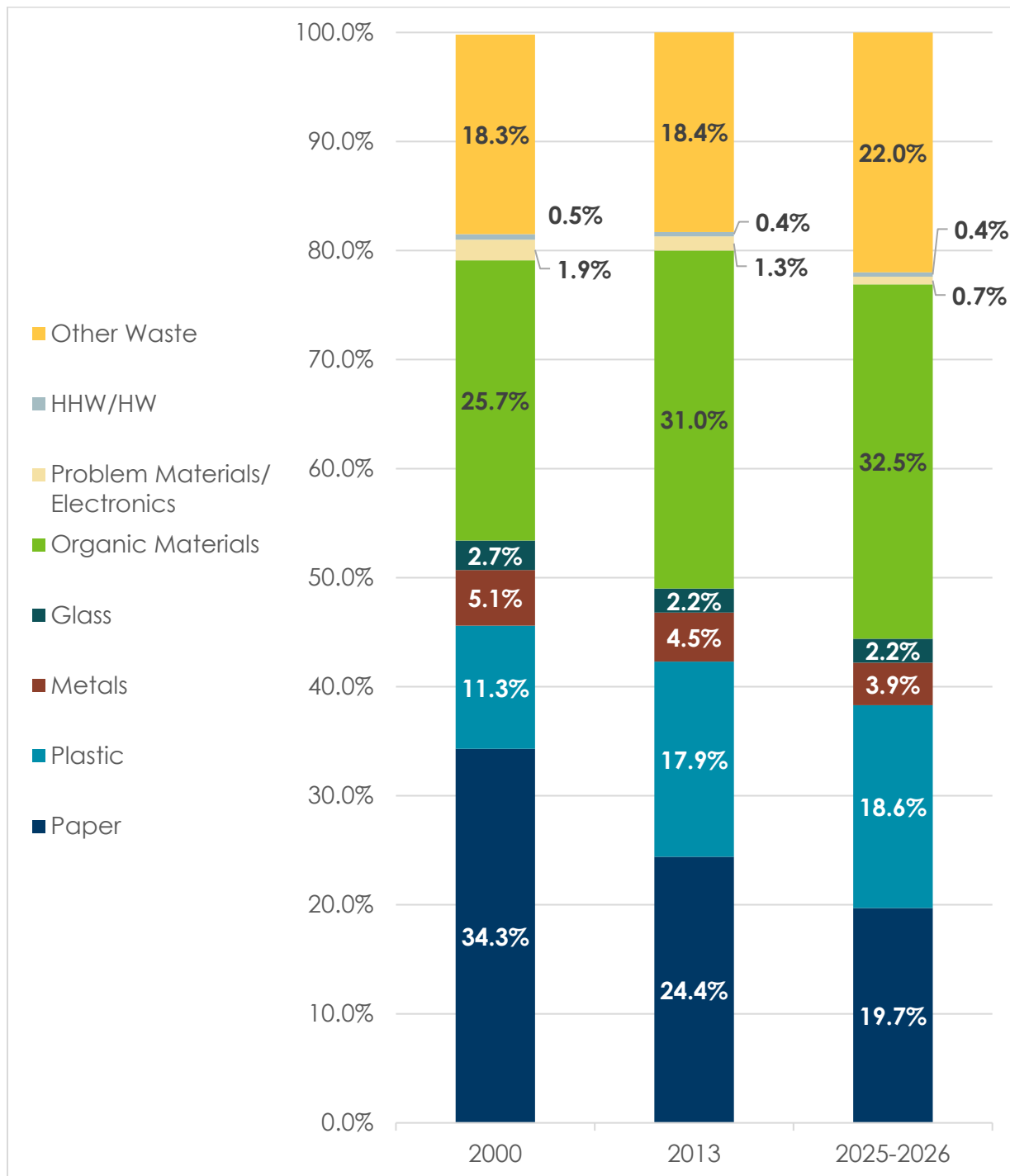
Matching category and component descriptions across the studies was given top priority when combining and comparing results. Parallel comparison inconsistencies were minor and, if unavoidable, were reviewed and approved by MPCA.

Special Note on Study Comparison Percentages: The 2025-2026 percentages in **Exhibit 15** (next page) and **Table 20** (page 40) may differ from the main 2025-2026 Study results because some materials were grouped differently to match the broader categories used in the 2000 and 2013 studies.

- For example, diapers and wood were included in the Organics category in the 2013 Study but are reported in different categories (Consumer Products & C&D, respectively) in the 2025-2026 Study.
- By moving them into the Organics category for comparison to the 2013 Study, the 2025-2026 percentage listed in **Exhibit 15** and **Table 20** increases.
- **Appendix I (Methodology for Combining 2025-2026 Study Results with the 2013 Study)** shows how the 2025-2026 Study categories and components were grouped for comparison with the 2013 Study.

Note: Confidence intervals were 90 percent in the 2013 Study and 95 percent in the 2025-2026 Study.

Exhibit 15. Composition by Categories - MN 2000, MN 2013, & MN 2025-2026 Studies Comparison *



*Legend is in the same order as the materials within the graph. Refer to the Special Note on Study Comparison Percentages on the previous page.

Table 20. Composition by Categories - MN 2000, MN 2013 & MN 2025-2026 Studies Comparison *

Material Category	2000 MN Study	2013 MN Study	2025-2026 MN Study
Paper	34.3%	24.4%	19.7%
Plastic	11.3%	17.9%	18.6%
Metals	5.1%	4.5%	3.9%
Glass	2.7%	2.2%	2.2%
Organic Materials	25.7%	31.0%	32.5%
Problem Materials/Electronics	1.9%	1.3%	0.7%
Household Hazardous Waste/Hazardous Waste	0.5%	0.4%	0.4%
Other Waste	18.3%	18.4%	22.0%
Total	100%	100%	100%

* Refer to the Special Note on Study Comparison Percentages on page 38.

Table 21 (next page) compares the overall top ten most prevalent components for the state of Minnesota for the 2013 Study and the 2025-2026 Study. **Appendix H (Detailed MMSW Composition Comparison Table – 2013 vs 2025-2026 Studies)** provides a side-by-side profile of the MMSW composition in which the 2025-2026 Study categories and components have been combined into the 2013 Study categories and components for easier comparison.

In both studies:

- Food waste was the most prevalent component in the Organic Materials category with 17.8 percent in 2013 and a combined total of 22.5 percent in 2025-2026 (adding Food Waste – Unpackaged, and Food Waste – Packaged).
- Compostable Paper, while the percentage has decreased over time, is still a significant portion of the MMSW that could be combined with Food Waste for composting.
- Plastic Film continues to be among the most prevalent plastic components discovered in MMSW.
- Plastic and compostable paper constituted a major portion of the waste stream as well.

Table 21. Top 10 Most Prevalent Components – 2013 vs 2025-2026 Comparison

	2013 Overall Statewide (All Generating Sectors)		2025-2026 Overall Statewide (Residential, ICI, and Mixed)	
	Component	Pct.	Component	Pct.
1	Food Waste	17.8%	Food Waste - Unpackaged	17.8%
2	Compostable Paper	9.8%	Plastic Film	9.9%
3	Other Not Else Classified	8.0%	Compostable Paper Pkg NOT ASTM	5.5%
4	Other Plastic (Nonpackaging)	7.1%	Food Waste - Packaged	4.8%
5	Bag and Film Plastic	6.6%	Diapers & Sanitary Products	4.5%
6	Wood	5.7%	Non-Distinct	4.5%
7	Other Organic Material	4.7%	Textiles	4.3%
8	Textiles & Leather	4.7%	Unclassifiable Fines	3.9%
9	OCC and Kraft Bags	3.7%	Mixed/Low-Grade Paper Products	3.7%
10	Mixed Recyclable Paper	3.4%	Wood - Treated and Untreated	3.3%
	Overall 2013 Cumulative Percent	71.5%	Overall 2025-2026 Cumulative Percent	62.1%

4.2.4 MMSW Composition – 2019-2022 Food Waste Generation and Composition Study Analysis Comparison

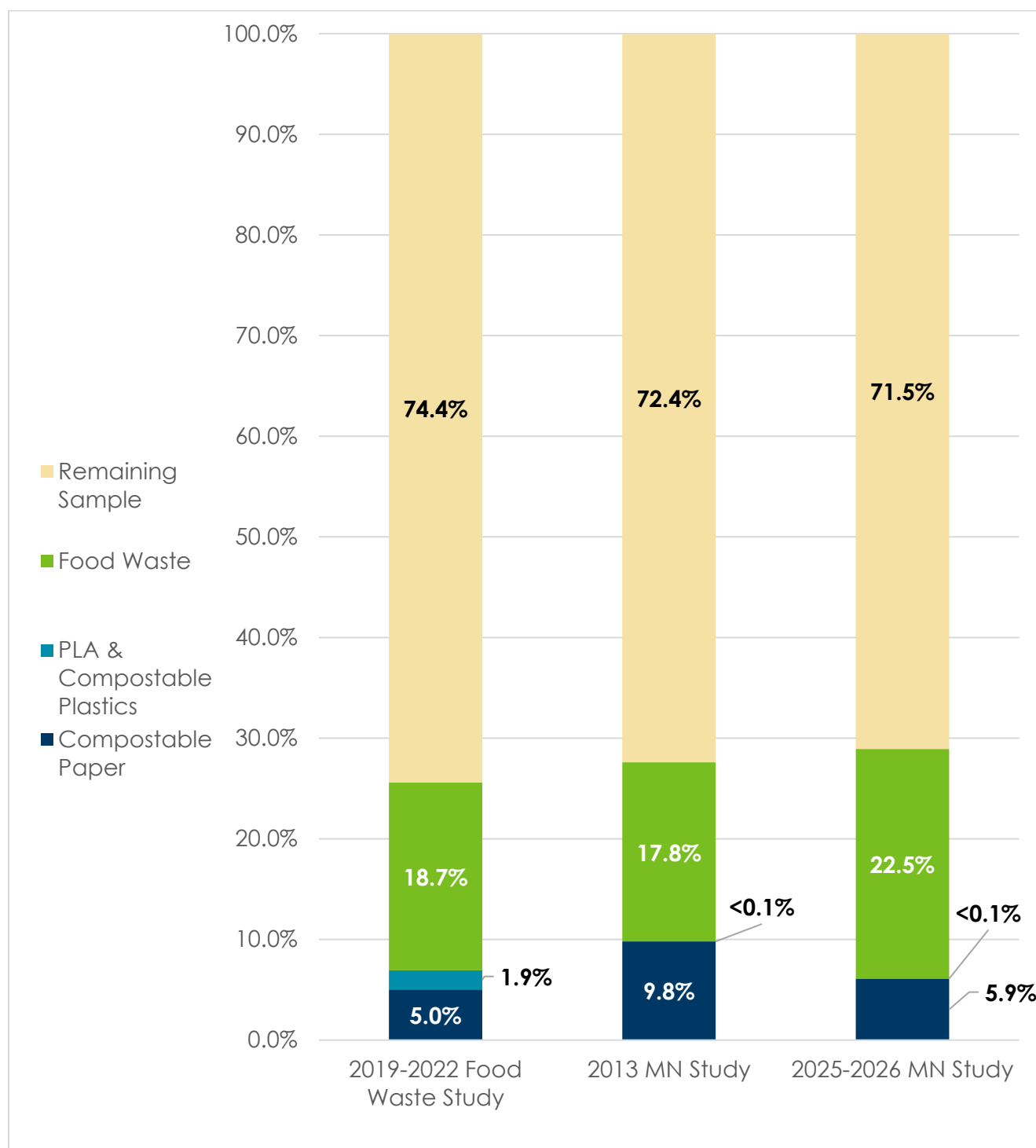
Overall results from the 2025-2026 Study and 2013 Study were compared to the results from the 2019-2022 Food Waste Generation and Composition Study Analysis (Resource Recovery Systems, 2022). Components from the various studies were combined to match the 2019-2022 Food Waste Generation and Composition Study Analysis, as seen in **Table 22** (next page).

Table 22. MMSW 2019-2022 Food Waste Generation and Composition Study Analysis
Component Combinations with Other Studies

2019–2022 Food Waste Generation and Composition Study Analysis Component	Associated 2013 MN Study Components	Associated 2025-2026 MN Study Components
Compostable Paper Products	Compostable Paper	Compostable Paper Packaging and Products NOT ASTM Standard
		Compostable Paper Packaging and Products Meets ASTM Standard
Compostable Food Service Products	PLA & Compostable Plastics	Compostable Plastic Products NOT Confirmed ASTM Standard
		Compostable Plastic Products Meets ASTM Standard
Food Scraps	Food Waste	Food Waste - Unpackaged
Opened or Expired Packaged Food (Prior to the Date of the Sort)		
Food, No Packaging		
Rescuable Whole or Unopened Packaged Food		Food Waste - Packaged
Remaining Sample Material	Remaining Sample Material	Remaining Sample Material (94 components)

Exhibit 16 (next page) compares the results from the overall 2025-2026 Study and 2013 Study report to the 2019-2022 Food Waste Generation and Composition Study Analysis. The sum of the individual components equals the percentage shown for that category.

Exhibit 16. Composition by Waste Components - 2019-2022 Food Waste Generation and Composition Study Analysis & Other Studies Comparison *



*Legend is in the same order as the materials within the graph.

The sum of the individual components equals the percentage shown for that category. **Table 23** below presents the results in tabular form. In the three studies compared:

- “Remaining sample” (i.e., non-food waste) formed approximately 71 to 74 percent of the waste stream, which indicate that food waste, compostable paper, and compostable plastics comprise the remaining 26 to 29 percent of MMSW.
- For the three Minnesota Studies, the 2013 Study reported the highest percentage of compostable paper with 9.8 percent.
- The percentages of compostable plastics were greatest in the 2019-2022 Food Waste Generation Study (1.9 percent).

Table 23. Composition by Components – 2019-2022 Food Waste & Other Studies Comparison

Component	2019-2022 Food Waste Study	2013 MN Study	2025-2026 MN Study
Compostable Paper	5.0%	9.8%	5.9%
PLA & Compostable Plastics	1.9%	<0.1%	<0.1%
Food Waste	18.7%	17.8%	22.5%
Remaining Sample	74.4%	72.4%	71.5%
Total	100%	100%	100%

4.2.5 MMSW Composition – 2020 Construction and Demolition Materials Composition Study Comparison

Overall results from the 2025-2026 Study and 2013 Study were compared to the results from the 2020 Construction and Demolition (C&D) Materials Composition Study (MPCA, 2020). The 2020 C&D Materials Composition Study was conducted at facilities that collect and handle C&D waste separately from MMSW waste. Components from the various studies were combined to match the 2020 Construction and Demolition Materials Composition Study as seen in **Table 24** (next page). Wood was the only study component that was directly comparable between the 2020 C&D Study and the MN MMSW composition studies.

Table 24. 2020 Construction and Demolition Materials Composition Study
Component Combinations with Other Studies

2020 Construction and Demolition Materials Composition Study Component	Associated 2013 MN Study Components	Associated 2025-2026 MN Study Components
Treated/Painted/Processed Wood	Wood	Wood – Treated and Untreated
Clean Wood		

Exhibit 17 below compares the results from the 2025-2026 Study and 2013 Study with the 2020 Construction and Demolition Materials Composition Study. Wood materials are the only shared component between these studies.

Exhibit 17. Composition by Wood Materials - 2020 Construction and Demolition Materials Composition Study & Other Studies Comparison

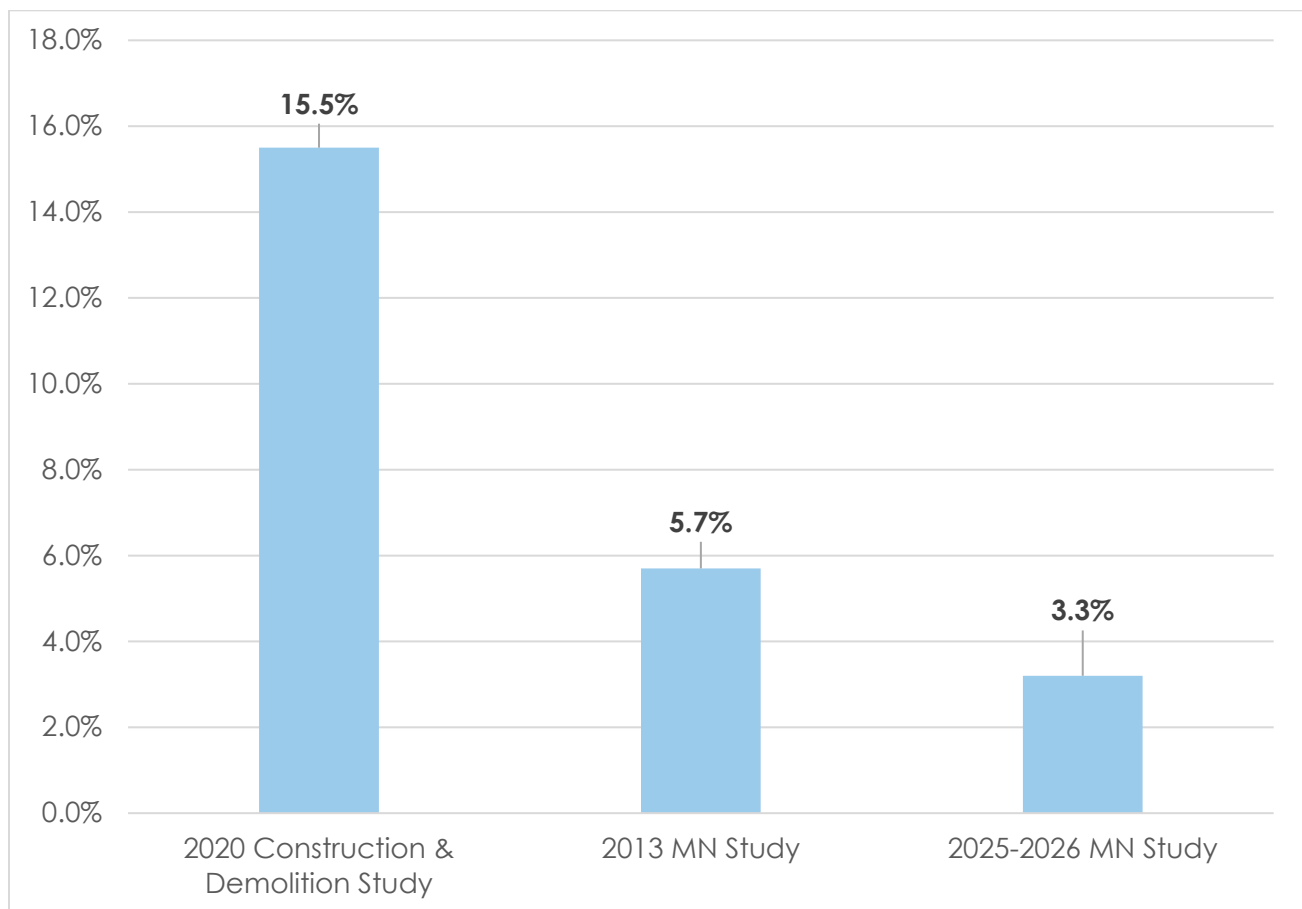


Table 25 below presents the results in tabular form. In the three studies compared:

Table 25. Composition by Material Components – 2020 Construction and Demolition Materials Composition Study & Other Studies Comparison

Material Component	2020 Construction and Demolition Materials Composition Study	2013 MN Study	2025-2026 MN Study
Wood	15.5%	5.7%	3.3%
Total	15.5%	5.7%	3.2%

5.0 CONCLUSION

The 2025-2026 Minnesota Statewide Waste Characterization Study provides an updated, data-driven understanding of the composition of Minnesota's disposed mixed municipal solid waste (MMSW) stream. The Study builds on prior statewide characterization efforts and provides MPCA, counties, and local partners with current information to support solid waste planning, program evaluation, and future materials management initiatives.

The results of the Study show that organics, paper, and plastics continue to represent the largest material categories in Minnesota's disposed MMSW stream. Organics were the largest category by weight at 24.7 percent, followed by Paper at 19.7 percent, and Plastics at 18.6 percent. Together, these three categories comprise approximately two-thirds of the disposed MMSW stream, indicating that food waste reduction, organics diversion, packaging-related strategies, and recycling program improvements remain key opportunities for reducing disposal and improving diversion performance.

Comparison with prior statewide studies indicates that the composition of Minnesota's waste stream has continued to change over time. Since the 2013 Study, organics and plastics represent a larger share of the disposed waste stream, while paper represents a smaller share. These trends are consistent with broader changes in material use, packaging formats, consumer behavior, and waste management practices, including the continued prevalence of flexible plastic packaging, compostable service ware and packaging, and shifts away from some traditional paper materials. The Study was not designed to isolate the cause of these changes; however, the results provide a current benchmark for evaluating how Minnesota's waste stream has evolved since prior statewide studies.

The Study also highlights several material-specific implications for planning and program development. Food waste remains the largest individual component in the disposed MMSW stream, reinforcing the importance of continued waste prevention, food recovery, and organics management strategies. Plastic film and flexible plastic packaging remain prevalent and continue to present challenges for conventional recycling systems. Compostable products and packaging may support organics management goals when properly identified and managed, but they also create potential contamination and sorting challenges when labeling, certification, or end-market acceptance is unclear. In addition, the identification of lithium batteries and battery-containing products in disposed MMSW underscores the need for continued attention to fire-risk prevention, public education, and proper collection pathways for batteries and rechargeable products.

The Study results should be interpreted in the context of the methods and scope described in this report. Sampling was conducted at six host facilities serving both the Twin Cities metropolitan area and Greater Minnesota, across two seasons, and included residential, industrial/commercial/institutional (ICI), and mixed generating sectors. Standardized field procedures, documented material definitions, quality control checks, and data review procedures were used to support consistency and transparency. Known constraints, including limited ability to confirm the generating sector for some mixed or transferred loads and winter sorting conditions at certain facilities, were documented in the Methods section and considered during data review and interpretation.

Overall, the 2025-2026 Study documents both continuity and change in Minnesota's disposed MMSW stream. The results provide a consistent and transparent dataset for tracking trends, evaluating program performance, prioritizing materials for prevention and diversion, and informing future policy implementation. Together with the detailed appendices and raw data, the Study establishes a baseline for future statewide waste characterization and materials management planning.

6.0 REFERENCES

Burns & McDonnell Engineering Company, Inc., 2013, 2013 Statewide Waste Characterization, Link: <https://www.pca.state.mn.us/sites/default/files/w-sw1-60.pdf>

Minnesota Pollution Control Agency, 2015, Report on 2013 SCORE Programs, Link: <https://www.pca.state.mn.us/sites/default/files/w-sw1-09.pdf>

Minnesota Pollution Control Agency, 2020, Construction and Demolition Materials Composition Study, Link: <https://www.pca.state.mn.us/sites/default/files/w-sw5-55.pdf>

Minnesota Pollution Control Agency, 2023, Sustainable materials management and solid waste policy report, Link: <https://www.pca.state.mn.us/sites/default/files/lrw-sw-1sy23.pdf>

Minnesota Pollution Control Agency, 2024, SCORE Report 2024, Link: <https://data.pca.state.mn.us/views/SCOREReport2024/SCOREreport?%3Aembed=y&%3AisGuestRedirectFromVizportal=y&%3Atoolbar=top>. Accessed June 2026.

Minnesota Pollution Control Agency, 2024, Metropolitan Solid Waste Management Policy Plan 2022-2042, Link: <https://www.pca.state.mn.us/sites/default/files/w-sw7-22.pdf>

Minnesota State Demographic Center, 2026, “Historical estimates of Minnesota, its Economic Development Regions, and its counties’ population and households, 1990-2025,” Link: https://mn.gov/admin/assets/mn_county_edr_historical_estimates_sdc_1990-2025_tcm36-760413.xlsx

Resource Recycling Systems, 2022, 2019-2022 Food Waste Generation and Composition Study Analysis, Link: <https://www.pca.state.mn.us/sites/default/files/w-sw1-67.pdf>

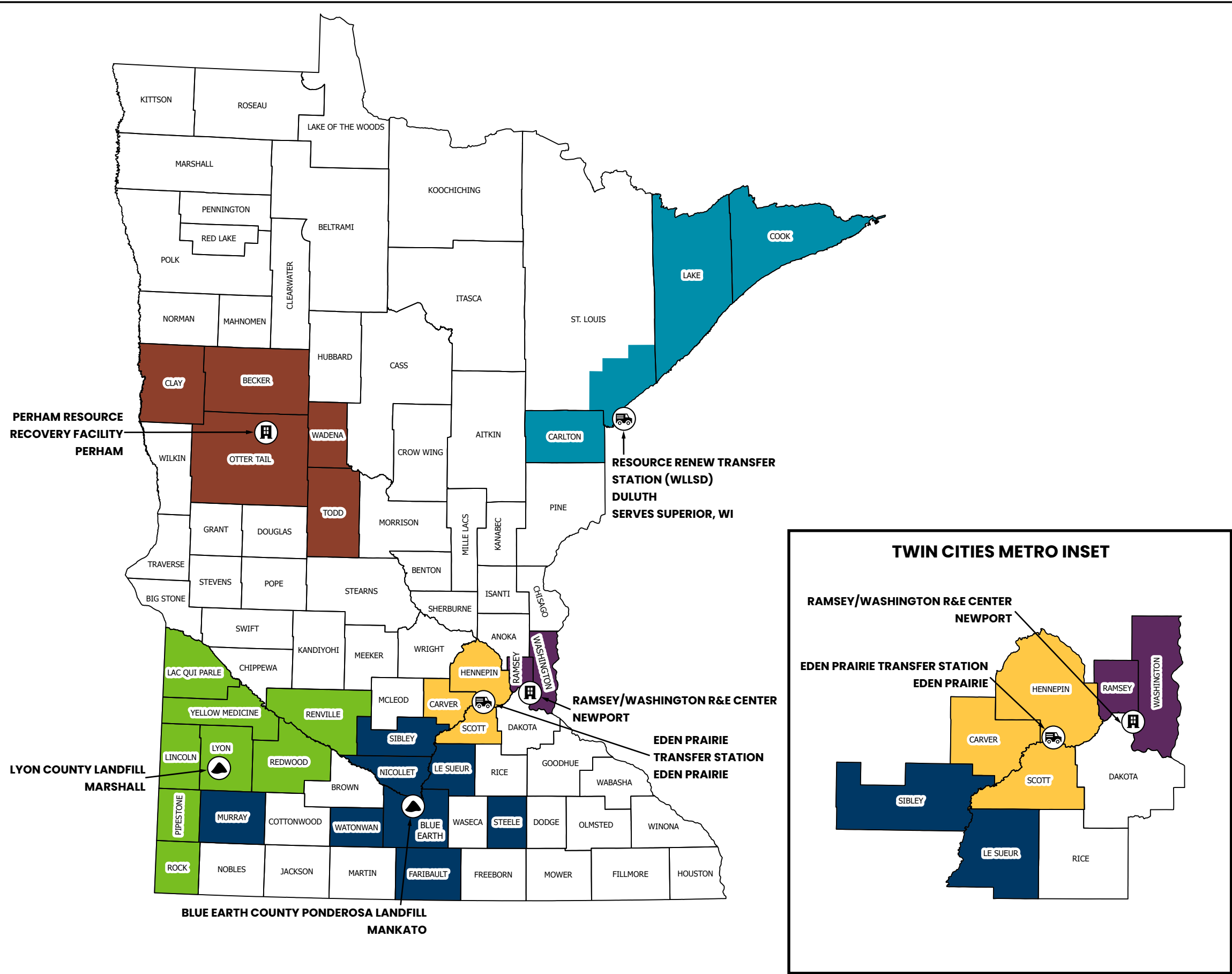
R.W. Beck, 2000, Statewide MMSW Composition Study: A Study of Discards in the State of Minnesota, Link: <https://www.lrl.mn.gov/docs/2013/other/131281.pdf>

U.S. Census Bureau, “Annual Estimates of the Resident Population for the United States, Regions, States, District of Columbia, and Puerto Rico: April 1, 2020, to July 1, 2024,” Link: <https://www2.census.gov/programs-surveys/popest/tables/2020-2024/state/totals/NST-EST2024-POP.xlsx>

U.S. Census Bureau, “Intercensal Estimates of the Resident Population for the United States, Regions, States, District of Columbia, and Puerto Rico: April 1, 2010, to April 1, 2020,” Link: <https://www.census.gov/data/tables/time-series/demo/popest/intercensal-2010-2020-national.html>.

Figure 1
Host Facility Location Map

DOCUMENT PATH: I:\25225201.00\DRAWINGS\GIS\2522520100\2522520100.APRX



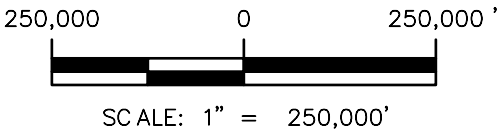
LEGEND

PRIMARY COUNTY SERVICE AREA

- BLUE EARTH COUNTY PONDEROSA LANDFILL
- EDEN PRAIRIE TRANSFER STATION
- LYON COUNTY LANDFILL
- PERHAM RESOURCE RECOVERY FACILITY
- RAMSEY/WASHINGTON R&E CENTER
- RESOURCE RENEW TRANSFER STATION (WLLSD)

FACILITY TYPE

- LANDFILL
- TRANSFER STATION
- WASTE-TO-ENERGY/RESOURCE RECOVERY FACILITY



PROJECT NO.	25225201.00	DRAWN BY:	AA
DRAWN:	07/29/2026	CHECKED BY:	SB/EN
REVISED:	08/26/2026	APPROVED BY:	BLP 9/17/26

ENGINEER

SCS ENGINEERS

2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

CLIENT	MPCA
--------	------

MINNESOTA HOST FACILITIES
AND PRIMARY COUNTIES SERVED

FIGURE
1

Appendix A

2025-2026 MMSW Category and Component Definitions

MMSW Category and Component Definitions 2025-2026 MN Statewide Waste Characterization Study

Material Category	#	Material Component	Definitions
PAPER	1	High Grade Office Paper Products	High-grade white or light-colored bond and copy machine papers and envelopes, continuous-feed computer printouts and forms of all types, except multiple copy carbonless paper.
	2	Phone Books	Telephone directories
	3	Mixed/Low-Grade Paper Products	Low-grade recyclable papers, including colored papers, notebook or other lined paper, envelopes with plastic windows, carbonless copy paper, junk mail, index cards, tablets (yellow and with clear glue binding), manila file folders, white register receipts, calendars, softcover books, and shredded paper.
	4	Magazines/Catalogs/Glossy	Magazines, catalogs, newspaper inserts and similar products with glossy paper.
	5	Newspaper/Newsprint	Newsprint and newspapers
	6	Boxboard	Low-grade recyclable non-corrugated paperboard packaging, for example beverage container boxes, egg cartons, and cereal and cracker boxes. Chipboard boxes not coated with wax, plastic or metal.
	7	Kraft Paper	Brown paper (kraft) bags
	8	OCC or Corrugated Cardboard	Corrugated containers and boxes, no poly- or foil-laminated. Includes clean pizza boxes.
	9	Aseptic Cartons, Gable Top Containers, & Polycoated Packaging	Multi-layer paper packaging designed to keep food and other putrescible contents fresh such as soup cartons, liquid containers, ice cream cartons, frozen food cartons, and juice cartons.
	10	Compostable Paper Packaging and Products NOT ASTM Standard	Paper packaging and food service products that may be compostable but are not confirmed to be compostable by BPI certified labeling or another third-party labeling indicating that it is ASTM certified. This can include material that is labeled as compostable but has no third-party certification labels. It can also include material not labeled but can be composted such as: non-polylined/polycoated packaging or food service paper that may be composted such as food-soiled pizza boxes, waxed cardboard boxes, cups, plates, cartons, boats, clamshells and similar containers, paper towels, paper napkins and tissues.
	11	Compostable Paper Packaging and Products, Meets ASTM Standard	Must have BPI certified labeling or another third-party labeling indicating that is ASTM certified. Could include non-polylined/polycoated packaging or food service paper products such as cups, plates, french-fry cartons, boats, clamshells, and similar items.
	12	Remaining Composite Paper Products	Non-recyclable and non-compostable types of paper products such as carbon paper, hardcover books, and composite materials containing paper mixed with metal or plastic parts.

MMSW Category and Component Definitions 2025-2026 MN Statewide Waste Characterization Study

Material Category	#	Material Component	Definitions
PLASTICS	13	Plastic Deposit Beverage Containers	Plastic beverage containers including soda and alcohol bottles with PET or #1 inscribed on the container.
	14	Plastic Non-Deposit Beverage Containers	Plastic beverage containers that are non-carbonated or non-alcoholic including water, juice, coffee, etc.
	15	#1 PET Bottles/Jars	Includes non-beverage containers and are typically clear or colored bottles, jars and jugs with a narrowing neck. Examples: toiletries, peanut butter, mayonnaise, and cooking oil.
	16	#1 PET Non-Bottle Rigid Containers & Packaging	PET tubs, clamshells, cups, trays that are > 2" and <2 gallons, frozen food trays, retail packaging and other rigid items.
	17	#2 HDPE Bottles/Jars – Natural	Unpigmented high-density polyethylene materials marked with a #2 that may be cloudy white in color, allowing light to pass through and examples include milk jugs, water jugs and vinegar bottles/jugs, uncolored bottles for windshield fluid, antifreeze, bleach, eye drops, rubbing alcohol, soap.
	18	#2 HDPE Bottles/Jars – Colored	HDPE bottles that are a solid color, preventing light from passing through it, examples include detergent bottles, some hair-care bottles, empty motor oil, empty antifreeze, and other empty vehicle fluid containers marked with the number "2", fabric softener, and bleach.
	19	Other HDPE	#2 HDPE items that are not bottles, jars, or film.
	20	#3 PVC Packaging	Includes any plastic bottle or container marked with a # 3.
	21	#3 PVC Other	Includes any non-packaging product bearing the #3 and some toys and PVC piping.
	22	#4 LDPE Hard Packaging	Includes any plastic bottle or container marked with the #4.
	23	#4 LDPE Other	Includes any other non-packaging and non-film products bearing the #4 recycling symbol and may also bear the letters LPDE, examples may include some clothing and furniture.
	24	#5 PP Bottles	Polypropylene that narrows at the neck >2" that bears the number "5" in the triangular recycling symbol and may also bear the letters "PP".
	25	#5 PP Packaging	Packaging bearing the number "5" in the triangular recycling symbol and may also bear the letters "PP", and examples include plastic cups, yogurt tubs, take-out containers. Excludes film materials.
	26	#6 Polystyrene	Included are block styrofoam, styrofoam peanuts, cups and containers, and egg cartons.
	(100)	#6 Polystyrene – Non-Foam	Included are non-foam items such as cups, lids, etc. marked with the #6 Polystyrene.
	27	#7 Plastic Packaging	Includes any plastic labeled #7
	28	Agricultural Film	Plastic film materials intended for use in agricultural applications includes supersacks, hay bags, row covers, etc.

MMSW Category and Component Definitions 2025-2026 MN Statewide Waste Characterization Study

Material Category	#	Material Component	Definitions
PLASTICS	29	Boat Wrap	Plastic film that is used or intended for the purposes of wrapping a boat to protect it against moisture and damage from other potentially harmful elements during storage.
	30	Plastic Film	Film bags, wrapping, shrink wrap, cling wrap, etc. Excludes agricultural films, boat wraps, and retail shopping bags.
	31	Retail Shopping Bags	Single-use plastic bags used to carry purchased products.
	32	Pouches/Flexible Plastic Packaging	Non-numbered Plastic containers that are multilayered (PE or multi-resin) means plastic pouches and tubes made of thicker, multi-layer flexible material. May have a flat bottom so that package would stand up on its own, but not always. May have a plastic screw top, but not always. Material is thicker than potato chip bags and frozen vegetable bags. Includes consumable food/drink containers (plastic coffee bags, juice pouches, animal food pouches, baby food pouches, soup pouches, yogurt tubes, salad dressing pouches, wine pouches, backpacking meals in pouches, pouches with sealable zipper tops, etc.) and nonconsumable consumer products (toothpaste tubes, lotion tubes, soap refill pouches, laundry detergent pouches, etc.). Does not include laundry and dishwasher pods.
	33	Compostable Plastic Products, NOT ASTM Standard	Plastic products labeled as compostable but has no certification labels; may also have #7 plastic recycling label or the triangle with PLA inside it. Can include clamshells, to-go containers, cups, utensils and other food service products.
	34	Compostable Plastic Products Meets ASTM Standard	Must have BPI certified labeling or another third party labeling indicating that it is ASTM certified; may also have #7 plastic recycling label or the triangle with PLA inside it. Can include clamshells, to-go containers, cups, utensils and other food service products.
	35	Other Plastic	Includes all non-numbered plastic packaging and any other plastic packaging product not listed in another category. Examples: Molded toys, clothes hangers, cleaning tools, plastic tarps, plastic hoses, drinking straws, serving utensils, plastic cards, and plastic strapping.
ORGANICS	36	Food Waste - Unpackaged	Food material resulting from the processing, storage, preparation, cooking, handling, or consumption of food; includes material from industrial, commercial, or residential sources; examples include discarded meat scraps, dairy products, eggshells, fruit or vegetable peels, vitamins/supplements, and other food items from homes, stores and restaurants. Includes food in packages if it has been opened or consumed in some capacity. Also includes anything spoiled, moldy, half-eaten, containing liquid, or otherwise makes it unfit for consumption.

MMSW Category and Component Definitions 2025-2026 MN Statewide Waste Characterization Study

Material Category	#	Material Component	Definitions
ORGANICS	37	Food Waste - Packaged	Food material that has not been consumed or processed; includes material still in the original packaging if it has not been opened or consumed in some capacity and includes food remaining in its original whole state; includes material from industrial, commercial, or residential sources. Example: sauce packets, candy, canned goods, whole produce.
	38	Yard Waste	Leaves, grass clippings, brush, prunings from trees or shrubs, branches, hay, straw, potting soil, and garden waste (such as crabapples, vines, pumpkins and tomato).
	39	Woody Material	Tree stumps, trunks, roots or shrubs with intact root balls and clean branches.
GLASS	40	Glass Deposit Beverage Containers	Clear or colored glass beverage containers including soda and alcoholic beverages.
	41	Glass Non-Deposit Beverage Containers	Clear or colored glass beverage containers that are non-carbonated or non-alcoholic including water, juice, coffee, etc.
	42	Glass Containers	Clear and colored glass food containers.
	43	Plate Glass	Flat glass products such as mirrors, shelves, display cabinet panes, and flat products. Auto glass.
	44	Non-Glass Ceramics	Ceramics not composed of true glass and not typically used as building materials. Examples include dishes, crock ware and decorative items.
	45	Remainder/Composite Glass	Other types of glass products and scrap (broken glass) that do not fit into the above materials, including light bulbs, glassware, oven-safe baking dishes such as Pyrex, crystal, and non-C&D fiberglass.
METAL	46	Metal Deposit Beverage Containers	Metal beverage containers including soda and alcoholic beverages.
	47	Metal Non-Deposit Beverage Containers	Non-deposit aluminum beverage cans (UBC) and other non-pressurized bi-metal cans made mostly of aluminum.
	48	Aluminum Food Packaging	Non-beverage container aluminum scrap. Includes foil, pie plates, roasting/baking pans, storage and serving trays, some pet food and other containers etc.
	49	Other Aluminum	All other aluminum materials including siding, aluminum lawn chairs, etc.
	50	Pet Food Containers	Including plastic-lined aluminum pet food containers.
	51	Ferrous Food Cans – Tinned & Not Coated	Including zinc or tin-coated steel food containers. This material includes bi-metal beverage cans but not paint cans or other types of cans.
	52	Other Ferrous Metal	Ferrous and alloyed ferrous metal scrap to which a magnet is attracted (includes household, commercial and industrial materials). Metal clothes hangers, sheet metal products, pipes, steel drums, stainless steel cookware, flashing, and metal scraps.

MMSW Category and Component Definitions 2025-2026 MN Statewide Waste Characterization Study

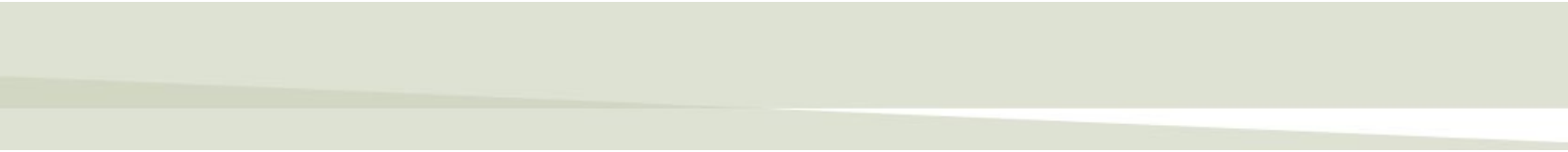
Material Category	#	Material Component	Definitions
METAL	46	Other Non-Ferrous Metal	All other non-magnetic metal, such as brass and copper, that are not recognized as aluminum.
	54	Mixed Metal/Material	Items made of a mixture of ferrous and non-ferrous or a mixture of metal and non-metallic materials (as long as these are primarily metal) including lawnmowers, motors, and insulated wire.
	55	Aerosol Containers	Empty, mixed material/metal aerosol cans. Aerosols that still contain product are sorted according to that material – for instance, solvent-based paint. Includes compressed air containers.
CONSUMER PRODUCTS	56	Household Décor	Picture frames, paintings, knickknacks, baskets, etc.
	57	Textiles	Clothing, shoes, bedding, mattress pads, curtains, blankets, cushions, reusable bags, other cloth material.
	58	Shoes, Purses, & Belts	All shoes and boots, purses, belts, and suitcases/luggage whether made of leather, rubber, other materials, or a combination thereof.
	59	Carpet	Carpet, carpet padding, and rugs
	60	Furniture - Metal	Furniture that is comprised of more than 50% metal by weight. Includes folding and stadium chairs.
	61	Furniture - Wood	Furniture that is comprised of more than 50% wood by weight.
	62	Furniture - Plastic	Furniture that is comprised of more than 50% plastic by weight.
	63	Furniture - Composite	Furniture that is comprised of 2 or more materials equally.
	64	Mattresses & Box Springs	Mattresses made of various materials and in any condition.
	65	Large Appliances (White Goods)	Large household appliances and associated components including refrigerator, dishwasher, stove, oven, freezer, microwave oven, washing machine, clothes dryer, trash compactor, water heater, air conditioner, etc. A count will be taken if any of these are found still containing refrigerant.
	66	Small Household Appliances	Small appliances with an electric cord or battery power source, such as toasters, mixers, power tools, curling irons, hair dryers, glucose meters, blood pressure monitors, fans, clothes irons, etc.
	67	Rubber Products	Rubber and latex products and scrap materials such as bath mats, inner tubes, rubber hoses, and foam rubber pieces. Does not include inflatable mattresses, tires, or latex/rubber gloves.
	68	Tires	All tire types including vehicles, agricultural equipment, bicycles, motorcycles, scooters, wheelbarrows, etc.
	69	Diapers & Sanitary Products	Plastic disposable diapers, pee pads, cloth diapers, and sanitary products.
	70	Sports & Recreation Products	Including sporting goods such as balls, gloves, golf clubs and bag, mitts, cones, rackets, fishing rods, and sports shoes excluding tennis shoes.

MMSW Category and Component Definitions 2025-2026 MN Statewide Waste Characterization Study

Material Category	#	Material Component	Definitions
HAZARDOUS AND SPECIAL WASTES	71	All Paints, Stains, Varnish, & Lacquer	Includes latex and other water-based paints and similar products, alkyd and enamel based paints, aerosol paints, and related products.
	72	Flammable Liquids	Includes solvents, motor oil, degreasers, chlorinated, paint stripper, and any product where the primary ingredient is a solvent or alcohol.
	73	Other HHW	Pesticides/fertilizers, cleaners, antifreeze, acids, bases, etc.
	74	Syringes/Needles	Needles, syringes, and diabetic testing lancets.
	75	Healthcare-Associated Waste	Any “red bag” material; Medical related items that may present an exposure or biohazard (i.e., bloody gowns, latex/rubber gloves, surgical equipment, medicine, plasma, etc.). Medicine includes items such as Tylenol, inhalers, and prescription/non-prescription items. This does not include vitamins or supplements.
	76	Single Use Household Batteries	Single use batteries such as alkaline, dry-cell, button batteries
	77	Lead-Acid Batteries	Automotive, tractor, motorcycle, and boat batteries
	78	Items Containing Lithium Batteries	Rechargeable plastic items or plastic items containing lithium batteries. Includes vaping devices, various plastic toys, or plastic instruments. Does not include electronics. Indicate count of vapes and non-vape items.
	79	Lithium Batteries	Lithium batteries separate from plastic or metal device
	80	Other Rechargeable Batteries	Nickel-Cadmium (NiCd), Nickel-Metal Hydride (NiMH), and other rechargeable batteries. Does not include lithium-ion batteries.
	81	Fluorescent Lighting and Mercury Bulbs	Includes fluorescent light tubes, compact fluorescent light bulbs and others identified as containing mercury. Lights that utilize a ballast and are designed to function with a filament. Does not include lighting fixtures.
	82	Used Oil Filters	Used oil filters, primarily those used in cars but possibly including similar filters from other types of vehicles and other applications. Does not include liquid oil.
	83	Smoke Detectors	A heat-sensitive device to aid in detecting fires, contains radioactive material Americium-241
ELECTRONICS	84	Televisions - CRT	Television sets containing a cathode ray tube (CRT)
	85	Televisions - LCD	LCD or plasma TVs
	86	Computer Monitors - CRT	Computer monitors containing a cathode ray tube (CRT)
	87	Computer Monitors - LCD	LCD/flat screen computer monitors
	88	Laptops	A portable microcomputer having its main components (processor, keyboard, and display screen) integrated into a single unit that is powered by a rechargeable battery (most likely lithium). Indicate count.

MMSW Category and Component Definitions 2025-2026 MN Statewide Waste Characterization Study

Material Category	#	Material Component	Definitions
ELECTRONICS	89	Television Peripherals	Includes DVRs, VCRs, DVD players, Fire Sticks, gaming equipment (Nintendo, PlayStation, Xbox, and controllers), and other devices
	90	Computers	Includes towers, tablets, digital picture frames, home hubs, virtual reality, and other portable computers
	91	Cellphones	Portable cordless telephones powered by a rechargeable battery (most likely lithium). Indicate count.
	92	Computer Peripherals	Keyboard, mice and mouse pads, disk drives, computer printers, including printers combined with scanners, fax machines, or other peripherals, and devices
	93	Audio Equipment	Examples include stereo equipment, receivers, speakers, portable Bluetooth speakers, radios, tape players, CD players, turntables and sound bars.
	94	Internet Connection Equipment	Includes routers, WiFi network systems, doorbell cameras, security cameras
	95	Electronic Equipment Cables & Wires	All cable and wiring not permanently attached to a device. Examples: phone chargers, HDMI and USP cables, Christmas lights and extension cords.
CONSTRUCTION & DEMOLITION	96	C&D Contained in the MSW Loads	Roof shingles, brick, dirt, sand, rock/gravel, concrete, general C&D, gypsum board, and metal
	97	Wood – Treated and Untreated	Refers to all types of wood lumber both treated and untreated. Wood may or may not contain an adhesive, paint, stain, fire retardment, pesticide or preservative. Includes all engineered wood, pallets, skids, spools, packaging materials, bulky wood waste or scraps from newly built wood products; does not include land clearing debris or yard waste pruning and trimmings
OTHER	98	Non-Distinct	Miscellaneous materials, kitty litter, roadkill, wax, soap, hair, sandpaper , etc. and those items made of mixed materials. Indicate material if comprised of 1 large item (ex. solar panel)
	99	Unclassifiable Fines	Un-sortable small fragments (generally less than 1/2 inch in diameter); mainly composed of in-organic material and miscellaneous fines and dirt.



Appendix B

Study Sampling Plan Methodology

Study Sampling Plan Methodology

2025-2026 MN Statewide Waste Characterization Study

Section 3 Methods: SCS developed a facility-specific sampling plan for each host facility to collect representative MMSW samples for the Study. Sampling plan development included coordination with host facility staff to obtain 2024 annual information on the generating sectors and quantities of waste received for disposal (based on available recent-year facility receipt information), typical delivery methods, and the major haulers serving each facility. Using this information, SCS stratified targeted loads by generating sector and (to the extent practicable) by hauler, with the intent of selecting samples in proportion to the amounts of residential and ICI waste disposed at each host facility.

Host Facility Reported MMSW Disposal (in tons)			
Host Facility	MSW		Total
	Res	ICI	
Blue Earth	11,562	42,595	54,157
Eden Prairie	31,520	70,157	101,677
Lyon County	58,048	2,502	60,550
Perham	45,900	8,100	54,000
Ramsey/Washington	218,900	179,100	398,000
Resource Renew	27,161	40,742	67,903
TOTAL TONS	393,091	343,196	736,287
PERCENTAGE	53.4%	46.6%	100%

MMSW Data received from the host facility

Host Facility MMSW Disposal by Generating Sector Representation (%)			
Host Facility	MSW		Total
	Res	ICI	
Blue Earth	21%	79%	100%
Eden Prairie	31%	69%	100%
Lyon County	96%	4%	100%
Perham	85%	15%	100%
Ramsey/Washington	55%	45%	100%
Resource Renew	40%	60%	100%

Host facility reported MMSW per generating sector

Host Facility MMSW Planned Number of Samples by Generating Sector			
Host Facility	MSW		Total
	Res	ICI	
Blue Earth	10	38	48
Eden Prairie	14	34	48
Lyon County	46	2	48
Perham	40	8	48
Ramsey/Washington	24	24	48
Resource Renew	20	28	48
TOTAL SAMPLES	154	134	288
PERCENTAGE	53.5%	46.5%	100%

Planned samples per host facility

Study Sampling Plan Methodology
2025-2026 MN Statewide Waste Characterization Study

Planned v Actual Samples Fall and Winter

Host Facility	MMSW Fall						Fall Total	
	Res		ICI		Mix			
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Blue Earth	5	6	19	18	0	0	24	24
Eden Prairie	7	7	17	17	0	0	24	24
Lyon County	23	15	1	3	0	6	24	24
Perham	20	20	4	4	0	0	24	24
Ramsey/Washington	12	13	12	11	0	0	24	24
Resource Renew	10	9	14	15	0	0	24	24
Totals	77	70	67	68	0	6	144	144

Host Facility	MMSW Winter						Winter Total	Winter Total
	Res		ICI		Mix			
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Blue Earth	5	6	19	18	0	0	24	24
Eden Prairie	7	7	17	17	0	0	24	24
Lyon County	23	22	1	1	0	1	24	24
Perham	20	15	4	5	0	4	24	24
Ramsey/Washington	12	13	12	11	0	0	24	24
Resource Renew	10	12	14	12	0	0	24	24
Totals	77	75	67	64	0	5	144	144

Appendix C

MMSW Sample Field Form

SCS ENGINEERS

SAMPLE SHEET - MMSW Physical Characterization

2025-2026 MINNESOTA STATEWIDE WASTE CHARACTERIZATION STUDY - SCS Project #25225201.00

SAMPLE INFORMATION				SAMPLE WEIGHT:		A	B	C			
FACILITY:				D	E	F	G				
SAMPLE #:				H	I	J	K				
VEHICLE INFORMATION		DATE		TIME		WEATHER:		SUNNY	RAINY	CLOUDY	WINDY
HAULER		TRUCK NUMBER		VEHICLE TYPE		FRONT	REAR	SIDE	ROLL-OFF	COMPACTOR	
WASTE TYPE		RES	ICI	OTHER	APPLIANCES		TIRES	MATTRESSES	C&D MATERIALS		SEGMENT #:
SORT DATA											
WASTE COMPONENTS				GROSS WEIGHTS				COMMENTS			
PAPER											
1 High Grade Office Paper Products											
2 Phone Books											
3 Mixed/Low-Grade Paper Products											
4 Magazines/Catalogs/Glossy											
5 Newspaper/Newsprint											
6 Boxboard											
7 Kraft Paper											
8 OCC or Corrugated Cardboard											
9 Aseptic Cartons, Gable Top Containers & Polycoated Packaging											
10 Compostable Paper Packaging and Products NOT ASTM Standard											
11 Compostable Paper Packaging and Products Meets ASTM Standard											
12 Remainder/Composite Paper Products											
PLASTIC											
13 Plastic Deposit Beverage Containers											
14 Plastic Non-Deposit Beverage Containers											
15 #1 PET Bottles/Jars											
16 #1 PET Non-Bottle Rigid Containers & Packaging											
17 #2 HDPE Bottles/Jars - Natural											
18 #2 HDPE Bottles/Jars - Colored											
19 Other HDPE											
20 #3 PVC Packaging											
21 #3 PVC Other											
22 # 4 LDPE Hard Packaging											
23 #4 LDPE Other											
24 #5 PP Bottles											
25 #5 PP Packaging											
26 #6 Polystyrene											
(100) #6 Polystyrene - Non-Foam											
27 #7 Plastic Packaging											
28 Agricultural Film											
29 Boat Wrap											
30 Plastic Film											

PLASTIC CONTINUED		
31	Retail Shopping Bags	
32	Pouches/Flexible Plastic Packaging	
33	Compostable Plastic Products NOT ASTM Standard	
34	Compostable Plastic Products Meets ASTM Standard	
35	Other Plastic	
ORGANICS		
36	Food Waste - Unpackaged	
37	Food Waste - Packaged	
38	Yard Waste	
39	Woody Material	
GLASS		
40	Glass Deposit Beverage Containers	
41	Glass Non-Deposit Beverage Containers	
42	Glass Containers	
43	Plate Glass	
44	Non-Glass Ceramics	
45	Remainder/Composite Glass	
METALS		
46	Metal Deposit Beverage Containers	
47	Metal Non-Deposit Beverage Containers	
48	Aluminum Food Packaging	
49	Other Aluminum	
50	Pet Food Containers	
51	Ferrous Food Cans - Tinned & Not Coated	
52	Other Ferrous Metal	
53	Other Nonferrous Metal	
54	Mixed Metal/Material	
55	Aerosol Containers	
CONSUMER PRODUCTS		
56	Household Décor	
57	Textiles	
58	Shoes, Purses, & Belts	
59	Carpet	
60	Furniture - Metal	
61	Furniture - Wood	
62	Furniture - Plastic	
63	Furniture - Composite	
64	Mattresses & Box Springs	
65	Large Appliances (White Goods)	

SAMPLE #:

COMMENTS:

CONSUMER PRODUCTS (CONTINUED)		
66	Small Household Appliances	
67	Rubber Products	
68	Tires	
69	Diapers & Sanitary Products	
70	Sports & Recreation Products	
HAZARDOUS AND SPECIAL WASTES		
71	All Paints, Stains, Varnish, & Lacquer	
72	Flammable Liquids	
73	Other HHW	
74	Syringes/Needles	
75	Healthcare-Associated Waste	
76	Single Use Household Batteries	
77	Lead-Acid Batteries	
78	Items Containing Lithium Batteries	Vape # _____ Non-Vape # _____
79	Lithium Batteries	
80	Other Rechargeable Batteries	
81	Fluorescent Lighting & Mercury Bulbs	
82	Used Oil Filters	
83	Smoke Detectors	
ELECTRONICS		
84	Televisions - CRT	
85	Televisions - LCD	
86	Computer Monitors - CRT	
87	Computer Monitors - LCD	
88	Laptops	
89	Television Peripherals	
90	Computers	
91	Cellphones	
92	Computer Peripherals	
93	Audio Equipment	
94	Internet Connection Equipment	
95	Electronic Equipment Cables & Wires	
C&D		
96	C&D Contained in the MSW Loads	
97	Wood - Treated and Untreated	
OTHER		
98	Non-Distinct	1 Item? List: _____
99	Unclassifiable Fines	

SAMPLE #:

COMMENTS:

WEIGH IN: _____ WEIGH OUT: _____

Appendix D

Detailed MMSW Composition Tables - Overall and by Generating Sector

Minnesota Statewide MMSW Material Composition – Detailed Overall

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Paper					
	High Grade Office Paper Products	1.71%	3.02%	1.39%	2.10%
	Phone Books	0.01%	0.08%	0.00%	0.02%
	Mixed/Low-Grade Paper Products	3.70%	3.78%	3.22%	4.04%
	Magazines/Catalogs/Glossy	0.74%	1.59%	0.59%	1.00%
	Newspaper/Newsprint	0.21%	0.48%	0.16%	0.27%
	Boxboard	2.81%	2.95%	2.52%	3.14%
	Kraft Paper	0.66%	0.72%	0.57%	0.72%
	OCC or Corrugated Cardboard	2.71%	3.52%	2.41%	3.07%
	Aseptic, Gable Top, Polycoated	0.54%	1.25%	0.39%	0.72%
	Compostable Paper Packaging and Products NOT ASTM Standard	5.47%	3.43%	5.08%	5.84%
	Compostable Paper Packaging and Products Meets ASTM Standard	0.48%	0.95%	0.38%	0.56%
	Remainder/Composite Paper Products	0.62%	2.69%	0.33%	0.99%
	Total Paper	19.66%	8.93%	18.54%	20.74%
Plastic					
	Plastic Deposit Beverage Containers	0.50%	0.62%	0.43%	0.58%
	Plastic Non-Deposit Beverage Containers	0.42%	0.50%	0.37%	0.47%
	#1 PET Bottles/Jars	0.17%	0.35%	0.14%	0.21%
	#1 PET Non-Bottle Rigid Containers & Packaging	0.70%	0.60%	0.61%	0.75%
	#2 HDPE Bottles/Jars - Natural	0.42%	0.47%	0.37%	0.46%
	#2 HDPE Bottles/Jars - Colored	0.60%	1.06%	0.50%	0.71%
	Other HDPE	0.05%	0.29%	0.02%	0.08%
	#3 PVC Packaging	0.01%	0.09%	0.00%	0.02%
	#3 PVC Other	0.06%	0.64%	0.01%	0.17%
	# 4 LDPE Hard Packaging	0.00%	0.01%	0.00%	0.00%
	#4 LDPE Other	0.00%	0.03%	0.00%	0.01%
	#5 PP Bottles	0.05%	0.38%	0.02%	0.10%

Minnesota Statewide MMSW Material Composition – Detailed Overall (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Plastic (cont.)					
	#5 PP Packaging	1.18%	0.85%	1.07%	1.27%
	#6 Polystyrene	0.68%	0.93%	0.59%	0.78%
	#6 Polystyrene - Non-Foam	0.11%	0.26%	0.09%	0.14%
	#7 Plastic Packaging	0.07%	0.67%	0.01%	0.12%
	Agricultural Film	0.01%	0.00%	0.00%	0.02%
	Boat Wrap	0.00%	0.00%	0.00%	0.00%
	Plastic Film	9.88%	7.48%	9.05%	10.52%
	Retail Shopping Bags	0.76%	1.34%	0.59%	0.88%
	Pouches/Flexible Plastic Packaging	0.03%	0.07%	0.02%	0.04%
	Compostable Plastic Products, NOT ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Compostable Plastic Products, Meets ASTM Standard	0.03%	0.33%	0.00%	0.07%
	Other Plastic	2.88%	4.31%	2.43%	3.33%
	Total Plastic	18.61%	8.99%	17.34%	19.43%
Organics					
	Food Waste - Unpackaged	17.79%	12.07%	16.25%	19.49%
	Food Waste - Packaged	4.76%	11.56%	3.61%	6.87%
	Yard Waste	1.89%	4.62%	1.33%	2.46%
	Woody Material	0.29%	1.90%	0.12%	0.47%
	Total Organics	24.73%	16.00%	23.28%	27.56%
Glass					
	Glass Deposit Beverage Containers	0.87%	2.08%	0.69%	1.11%
	Glass Non-Deposit Beverage Containers	0.20%	0.61%	0.14%	0.27%
	Glass Containers	0.54%	1.41%	0.41%	0.71%
	Plate Glass	0.09%	0.56%	0.04%	0.16%
	Non-Glass Ceramics	0.31%	1.75%	0.16%	0.53%
	Remainder/Composite Glass	0.14%	1.06%	0.06%	0.27%
	Total Glass	2.16%	3.47%	1.79%	2.56%

Minnesota Statewide MMSW Material Composition – Detailed Overall (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Metal					
	Metal Deposit Beverage Containers	0.70%	0.77%	0.62%	0.79%
	Metal Non-Deposit Beverage Containers	0.04%	0.21%	0.02%	0.07%
	Aluminum Food Packaging	0.36%	0.66%	0.29%	0.43%
	Other Aluminum	0.09%	0.60%	0.03%	0.16%
	Pet Food Containers	0.06%	0.17%	0.04%	0.08%
	Ferrous Food Cans - Tinned and Not Coated	0.45%	0.46%	0.40%	0.48%
	Other Ferrous Metal	1.69%	5.91%	1.02%	2.54%
	Other Nonferrous Metal	0.11%	0.66%	0.05%	0.19%
	Mixed Metal/Material	0.29%	1.56%	0.10%	0.54%
	Aerosol Containers	0.15%	0.29%	0.12%	0.19%
	Total Metal	3.94%	6.10%	3.22%	4.80%
Consumer Products					
	Household Décor	0.35%	1.46%	0.22%	0.57%
	Textiles	4.25%	7.59%	3.50%	5.18%
	Shoes, Purses, and Belts	0.55%	1.47%	0.42%	0.74%
	Carpet	1.37%	6.62%	0.82%	2.55%
	Furniture - Metal	0.53%	4.86%	0.19%	1.25%
	Furniture - Wood	1.05%	5.80%	0.51%	1.75%
	Furniture - Plastic	0.11%	0.68%	0.05%	0.18%
	Furniture - Composite	0.45%	4.74%	0.03%	1.13%
	Mattresses and Box Springs	0.12%	1.47%	0.01%	0.30%
	Large Appliances (White Goods)	0.05%	0.60%	0.00%	0.14%
	Small Household Appliances	0.50%	1.64%	0.32%	0.69%
	Rubber Products	0.64%	3.86%	0.31%	1.02%
	Tires	0.06%	0.73%	0.01%	0.14%
	Diapers & Sanitary Products	4.53%	5.43%	3.84%	5.02%
	Sports and Recreation Products	0.21%	1.12%	0.12%	0.35%
	Total Consumer Products	14.76%	14.84%	13.42%	16.74%

Minnesota Statewide MMSW Material Composition – Detailed Overall (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Hazardous & Special Wastes					
	All Paints, Stains, Varnish, & Lacquer	0.19%	0.57%	0.13%	0.25%
	Flammable Liquids	0.02%	0.10%	0.01%	0.03%
	Other HHW	0.06%	0.36%	0.03%	0.10%
	Syringes/Needles	0.02%	0.11%	0.01%	0.04%
	Healthcare-Associated Waste	1.63%	4.98%	1.15%	2.26%
	Single Use Household Batteries	0.06%	0.13%	0.05%	0.08%
	Lead-Acid Batteries	0.03%	0.34%	0.00%	0.08%
	Items Containing Lithium Batteries	0.03%	0.08%	0.02%	0.04%
	Lithium Batteries	0.00%	0.03%	0.00%	0.01%
	Other Rechargeable Batteries	0.01%	0.09%	0.00%	0.02%
	Fluorescent Lighting and Mercury Bulbs	0.01%	0.06%	0.00%	0.02%
	Used Oil Filters	0.01%	0.15%	0.00%	0.02%
	Smoke Detectors	0.00%	0.04%	0.00%	0.01%
	Total Hazardous & Special Wastes	2.07%	5.00%	1.58%	2.71%
Electronics					
	Televisions - CRT	0.06%	0.71%	0.00%	0.15%
	Televisions - LCD	0.03%	0.58%	0.00%	0.10%
	Computer Monitors - CRT	0.01%	0.14%	0.00%	0.02%
	Computer Monitors - LCD	0.04%	0.41%	0.00%	0.09%
	Laptops	0.01%	0.15%	0.00%	0.03%
	Television Peripherals	0.01%	0.10%	0.00%	0.02%
	Computers	0.04%	0.42%	0.00%	0.11%
	Cellphones	0.00%	0.01%	0.00%	0.00%
	Computer Peripherals	0.09%	1.29%	0.01%	0.24%
	Audio Equipment	0.09%	0.93%	0.02%	0.18%
	Internet Connection Equipment	0.02%	0.20%	0.00%	0.04%
	Electronic Equipment Cables and Wires	0.34%	1.19%	0.19%	0.45%
	Total Electronics	0.74%	2.42%	0.46%	1.11%

Minnesota Statewide MMSW Material Composition – Detailed Overall (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
C&D					
	C&D Contained in the MSW Loads	1.65%	6.61%	1.04%	2.64%
	Wood - Treated and Untreated	3.26%	7.88%	2.50%	4.19%
	Total C&D	4.91%	10.74%	4.02%	6.38%
Other					
	Non-Distinct	4.53%	6.17%	3.84%	5.05%
	Unclassifiable Fines	3.89%	3.80%	3.42%	4.20%
	Total Other	8.42%	7.57%	7.60%	9.02%
	Total of Overall Waste	100.00%			

Notes for

- 1 Based on 288 hand-sorted waste samples
- 2 Confidence interval is based off of a normal distribution. The confidence limits are determined by the mean percentage + or - the confidence interval.

Minnesota Statewide MMSW Material Composition – Detailed Residential

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Paper					
	High Grade Office Paper Products	1.69%	1.92%	1.42%	2.04%
	Phone Books	0.01%	0.12%	0.00%	0.04%
	Mixed/Low-Grade Paper Products	3.97%	3.61%	3.41%	4.58%
	Magazines/Catalogs/Glossy	0.70%	1.32%	0.54%	0.94%
	Newspaper/Newsprint	0.24%	0.47%	0.17%	0.32%
	Boxboard	2.77%	1.57%	2.50%	3.01%
	Kraft Paper	0.65%	0.58%	0.56%	0.76%
	OCC or Corrugated Cardboard	2.38%	3.19%	1.87%	2.94%
	Aseptic, Gable Top, Polycoated	0.44%	0.58%	0.36%	0.52%
	Compostable Paper Packaging and Products NOT ASTM Standard	6.04%	2.74%	5.63%	6.46%
	Compostable Paper Packaging and Products Meets ASTM Standard	0.56%	0.65%	0.47%	0.68%
	Remainder/Composite Paper Products	0.60%	2.67%	0.30%	1.26%
	Total Paper	20.07%	7.12%	18.84%	21.28%
Plastic					
	Plastic Deposit Beverage Containers	0.54%	0.52%	0.46%	0.61%
	Plastic Non-Deposit Beverage Containers	0.43%	0.46%	0.36%	0.52%
	#1 PET Bottles/Jars	0.19%	0.28%	0.15%	0.23%
	#1 PET Non-Bottle Rigid Containers & Packaging	0.86%	0.55%	0.78%	0.95%
	#2 HDPE Bottles/Jars - Natural	0.45%	0.53%	0.37%	0.55%
	#2 HDPE Bottles/Jars - Colored	0.56%	0.59%	0.45%	0.66%
	Other HDPE	0.08%	0.41%	0.02%	0.17%
	#3 PVC Packaging	0.01%	0.12%	0.00%	0.03%
	#3 PVC Other	0.01%	0.10%	0.00%	0.03%
	# 4 LDPE Hard Packaging	0.00%	0.01%	0.00%	0.00%
	#4 LDPE Other	0.00%	0.00%	0.00%	0.00%

Minnesota Statewide MMSW Material Composition – Detailed Residential (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Plastic (cont.)					
	#5 PP Bottles	0.07%	0.43%	0.01%	0.16%
	#5 PP Packaging	1.25%	0.82%	1.12%	1.36%
	#6 Polystyrene	0.69%	0.68%	0.59%	0.82%
	#6 Polystyrene - Non-Foam	0.09%	0.18%	0.07%	0.12%
	#7 Plastic Packaging	0.01%	0.07%	0.00%	0.03%
	Agricultural Film	0.00%	0.00%	0.00%	0.00%
	Boat Wrap	0.00%	0.00%	0.00%	0.00%
	Plastic Film	9.99%	4.08%	9.39%	10.63%
	Retail Shopping Bags	1.07%	1.64%	0.83%	1.32%
	Pouches/Flexible Plastic Packaging	0.04%	0.09%	0.03%	0.06%
	Compostable Plastic Products, NOT ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Compostable Plastic Products, Meets ASTM Standard	0.05%	0.46%	0.00%	0.12%
	Other Plastic	2.02%	2.06%	1.65%	2.35%
	Total Plastic	18.41%	5.72%	17.60%	19.14%
Organics					
	Food Waste - Unpackaged	20.00%	10.00%	18.27%	21.82%
	Food Waste - Packaged	3.60%	4.10%	2.90%	4.36%
	Yard Waste	2.23%	4.52%	1.56%	2.98%
	Woody Material	0.26%	1.21%	0.11%	0.45%
	Total Organics	26.08%	10.62%	24.05%	27.86%
Glass					
	Glass Deposit Beverage Containers	1.10%	2.65%	0.77%	1.55%
	Glass Non-Deposit Beverage Containers	0.19%	0.58%	0.11%	0.29%
	Glass Containers	0.69%	0.89%	0.54%	0.84%
	Plate Glass	0.07%	0.29%	0.03%	0.12%
	Non-Glass Ceramics	0.19%	0.59%	0.11%	0.29%
	Remainder/Composite Glass	0.21%	1.47%	0.03%	0.58%
	Total Glass	2.46%	3.33%	1.98%	3.03%

Minnesota Statewide MMSW Material Composition – Detailed Residential (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Metal					
	Metal Deposit Beverage Containers	0.71%	0.74%	0.61%	0.85%
	Metal Non-Deposit Beverage Containers	0.07%	0.28%	0.03%	0.12%
	Aluminum Food Packaging	0.37%	0.40%	0.31%	0.44%
	Other Aluminum	0.15%	0.84%	0.05%	0.33%
	Pet Food Containers	0.09%	0.15%	0.06%	0.11%
	Ferrous Food Cans - Tinned and Not Coated	0.53%	0.46%	0.45%	0.61%
	Other Ferrous Metal	0.93%	1.38%	0.68%	1.19%
	Other Nonferrous Metal	0.06%	0.24%	0.02%	0.10%
	Mixed Metal/Material	0.21%	1.08%	0.07%	0.39%
	Aerosol Containers	0.18%	0.29%	0.14%	0.23%
	Total Metal	3.29%	2.24%	2.95%	3.72%
Consumer Products					
	Household Décor	0.37%	1.73%	0.14%	0.71%
	Textiles	3.82%	3.31%	3.33%	4.34%
	Shoes, Purses, and Belts	0.52%	0.85%	0.38%	0.66%
	Carpet	0.91%	2.90%	0.47%	1.51%
	Furniture - Metal	0.22%	0.94%	0.07%	0.37%
	Furniture - Wood	0.24%	1.22%	0.06%	0.45%
	Furniture - Plastic	0.15%	0.88%	0.03%	0.30%
	Furniture - Composite	0.40%	4.02%	0.02%	1.42%
	Mattresses and Box Springs	0.19%	2.04%	0.00%	0.55%
	Large Appliances (White Goods)	0.00%	0.00%	0.00%	0.00%
	Small Household Appliances	0.52%	1.64%	0.27%	0.75%
	Rubber Products	0.29%	0.94%	0.17%	0.49%
	Tires	0.02%	0.12%	0.00%	0.04%
	Diapers & Sanitary Products	5.71%	4.68%	5.06%	6.60%
	Sports and Recreation Products	0.21%	1.07%	0.10%	0.45%
	Total Consumer Products	13.56%	7.98%	12.49%	15.11%

Minnesota Statewide MMSW Material Composition – Detailed Residential (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Hazardous & Special Wastes					
	All Paints, Stains, Varnish, & Lacquer	0.23%	0.63%	0.14%	0.34%
	Flammable Liquids	0.02%	0.13%	0.00%	0.04%
	Other HHW	0.03%	0.14%	0.01%	0.06%
	Syringes/Needles	0.03%	0.15%	0.02%	0.06%
	Healthcare-Associated Waste	0.76%	1.86%	0.49%	1.05%
	Single Use Household Batteries	0.09%	0.17%	0.07%	0.13%
	Lead-Acid Batteries	0.00%	0.01%	0.00%	0.00%
	Items Containing Lithium Batteries	0.03%	0.09%	0.02%	0.05%
	Lithium Batteries	0.00%	0.04%	0.00%	0.01%
	Other Rechargeable Batteries	0.00%	0.02%	0.00%	0.01%
	Fluorescent Lighting and Mercury Bulbs	0.02%	0.09%	0.01%	0.04%
	Used Oil Filters	0.03%	0.22%	0.00%	0.07%
	Smoke Detectors	0.01%	0.05%	0.00%	0.02%
	Total Hazardous & Special Wastes	1.26%	2.02%	0.95%	1.57%
Electronics					
	Televisions - CRT	0.05%	0.65%	0.00%	0.22%
	Televisions - LCD	0.07%	0.81%	0.00%	0.20%
	Computer Monitors - CRT	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - LCD	0.04%	0.37%	0.00%	0.09%
	Laptops	0.01%	0.16%	0.00%	0.04%
	Television Peripherals	0.01%	0.12%	0.00%	0.04%
	Computers	0.07%	0.59%	0.00%	0.16%
	Cellphones	0.00%	0.01%	0.00%	0.00%
	Computer Peripherals	0.01%	0.07%	0.00%	0.02%
	Audio Equipment	0.02%	0.16%	0.00%	0.06%
	Internet Connection Equipment	0.03%	0.28%	0.00%	0.09%
	Electronic Equipment Cables and Wires	0.29%	0.83%	0.17%	0.44%
	Total Electronics	0.62%	1.58%	0.37%	0.87%

Minnesota Statewide MMSW Material Composition – Detailed Residential (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
C&D					
	C&D Contained in the MSW Loads	1.40%	6.16%	0.47%	2.60%
	Wood - Treated and Untreated	2.36%	5.66%	1.55%	3.55%
	Total C&D	3.76%	8.54%	2.48%	5.34%
Other					
	Non-Distinct	5.72%	5.23%	4.92%	6.74%
	Unclassifiable Fines	4.77%	3.71%	4.21%	5.28%
	Total Other	10.49%	6.55%	9.54%	11.57%
	Total of Overall Waste	100.00%			

Notes for

- 1 Based on 145 hand-sorted waste samples
- 2 Confidence interval is based off of a normal distribution. The confidence limits are determined by the mean percentage + or - the confidence interval.

Minnesota Statewide MMSW Material Composition – Detailed Commercial (ICI)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Paper					
	High Grade Office Paper Products	1.75%	3.98%	1.21%	2.40%
	Phone Books	0.00%	0.02%	0.00%	0.00%
	Mixed/Low-Grade Paper Products	3.42%	4.06%	2.84%	3.95%
	Magazines/Catalogs/Glossy	0.76%	1.88%	0.47%	1.11%
	Newspaper/Newsprint	0.17%	0.50%	0.10%	0.26%
	Boxboard	2.84%	4.01%	2.18%	3.52%
	Kraft Paper	0.63%	0.80%	0.53%	0.76%
	OCC or Corrugated Cardboard	3.11%	3.94%	2.57%	4.00%
	Aseptic, Gable Top, Polycoated	0.63%	1.72%	0.37%	0.90%
	Compostable Paper Packaging and Products NOT ASTM Standard	4.91%	4.07%	4.23%	5.66%
	Compostable Paper Packaging and Products Meets ASTM Standard	0.38%	1.22%	0.22%	0.62%
	Remainder/Composite Paper Products	0.67%	2.82%	0.25%	1.18%
	Total Paper	19.30%	10.81%	17.38%	21.04%
Plastic					
	Plastic Deposit Beverage Containers	0.45%	0.72%	0.33%	0.59%
	Plastic Non-Deposit Beverage Containers	0.42%	0.56%	0.32%	0.51%
	#1 PET Bottles/Jars	0.16%	0.42%	0.11%	0.24%
	#1 PET Non-Bottle Rigid Containers & Packaging	0.53%	0.62%	0.45%	0.64%
	#2 HDPE Bottles/Jars - Natural	0.38%	0.41%	0.31%	0.46%
	#2 HDPE Bottles/Jars - Colored	0.66%	1.44%	0.43%	0.93%
	Other HDPE	0.01%	0.03%	0.00%	0.01%
	#3 PVC Packaging	0.00%	0.00%	0.00%	0.00%
	#3 PVC Other	0.13%	0.94%	0.02%	0.33%
	# 4 LDPE Hard Packaging	0.00%	0.01%	0.00%	0.00%
	#4 LDPE Other	0.00%	0.04%	0.00%	0.01%

Minnesota Statewide MMSW Material Composition – Detailed Commercial (ICI) (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Plastic (cont.)					
	#5 PP Bottles	0.03%	0.34%	0.00%	0.12%
	#5 PP Packaging	1.11%	0.87%	0.98%	1.26%
	#6 Polystyrene	0.70%	1.17%	0.52%	0.90%
	#6 Polystyrene - Non-Foam	0.14%	0.33%	0.09%	0.20%
	#7 Plastic Packaging	0.13%	0.98%	0.01%	0.34%
	Agricultural Film	0.01%	0.00%	0.00%	0.04%
	Boat Wrap	0.00%	0.00%	0.00%	0.00%
	Plastic Film	9.75%	10.17%	8.31%	11.53%
	Retail Shopping Bags	0.43%	0.87%	0.30%	0.58%
	Pouches/Flexible Plastic Packaging	0.02%	0.05%	0.01%	0.03%
	Compostable Plastic Products, NOT ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Compostable Plastic Products, Meets ASTM Standard	0.00%	0.01%	0.00%	0.00%
	Other Plastic	3.74%	5.84%	2.81%	4.71%
	Total Plastic	18.81%	11.82%	17.03%	20.72%
Organics					
	Food Waste - Unpackaged	15.95%	13.71%	13.87%	18.02%
	Food Waste - Packaged	5.92%	16.29%	3.65%	8.20%
	Yard Waste	1.45%	4.73%	0.74%	2.44%
	Woody Material	0.35%	2.51%	0.03%	0.81%
	Total Organics	23.67%	20.62%	20.98%	26.56%
Glass					
	Glass Deposit Beverage Containers	0.63%	1.27%	0.45%	0.90%
	Glass Non-Deposit Beverage Containers	0.21%	0.64%	0.11%	0.33%
	Glass Containers	0.39%	1.85%	0.17%	0.70%
	Plate Glass	0.12%	0.77%	0.01%	0.25%
	Non-Glass Ceramics	0.46%	2.51%	0.11%	1.01%
	Remainder/Composite Glass	0.06%	0.23%	0.02%	0.09%
	Total Glass	1.87%	3.73%	1.34%	2.58%

Minnesota Statewide MMSW Material Composition – Detailed Commercial (ICI) (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Metal					
	Metal Deposit Beverage Containers	0.66%	0.81%	0.53%	0.82%
	Metal Non-Deposit Beverage Containers	0.02%	0.08%	0.00%	0.03%
	Aluminum Food Packaging	0.36%	0.88%	0.23%	0.51%
	Other Aluminum	0.02%	0.10%	0.01%	0.05%
	Pet Food Containers	0.02%	0.06%	0.01%	0.03%
	Ferrous Food Cans - Tinned and Not Coated	0.37%	0.45%	0.30%	0.46%
	Other Ferrous Metal	2.51%	8.51%	1.16%	4.20%
	Other Nonferrous Metal	0.19%	0.94%	0.07%	0.37%
	Mixed Metal/Material	0.26%	1.29%	0.07%	0.60%
	Aerosol Containers	0.11%	0.28%	0.07%	0.15%
	Total Metal	4.52%	8.50%	3.22%	6.21%
Consumer Products					
	Household Décor	0.32%	1.14%	0.16%	0.55%
	Textiles	4.55%	10.55%	3.12%	6.82%
	Shoes, Purses, and Belts	0.59%	1.98%	0.31%	0.88%
	Carpet	1.92%	9.28%	0.69%	3.44%
	Furniture - Metal	0.86%	7.10%	0.08%	2.07%
	Furniture - Wood	2.01%	8.39%	0.77%	3.72%
	Furniture - Plastic	0.07%	0.40%	0.01%	0.13%
	Furniture - Composite	0.54%	5.61%	0.00%	1.51%
	Mattresses and Box Springs	0.05%	0.39%	0.00%	0.12%
	Large Appliances (White Goods)	0.12%	0.89%	0.00%	0.30%
	Small Household Appliances	0.50%	1.71%	0.26%	0.86%
	Rubber Products	1.04%	5.60%	0.33%	2.35%
	Tires	0.10%	1.07%	0.00%	0.37%
	Diapers & Sanitary Products	3.17%	6.01%	2.20%	4.24%
	Sports and Recreation Products	0.21%	1.22%	0.05%	0.45%
	Total Consumer Products	16.05%	20.11%	13.13%	19.28%

Minnesota Statewide MMSW Material Composition – Detailed Commercial (ICI) (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Hazardous & Special Wastes					
	All Paints, Stains, Varnish, & Lacquer	0.14%	0.48%	0.07%	0.23%
	Flammable Liquids	0.01%	0.06%	0.00%	0.02%
	Other HHW	0.09%	0.50%	0.02%	0.18%
	Syringes/Needles	0.01%	0.02%	0.00%	0.01%
	Healthcare-Associated Waste	2.63%	6.96%	1.55%	4.22%
	Single Use Household Batteries	0.03%	0.06%	0.02%	0.03%
	Lead-Acid Batteries	0.06%	0.50%	0.00%	0.16%
	Items Containing Lithium Batteries	0.02%	0.07%	0.01%	0.03%
	Lithium Batteries	0.00%	0.00%	0.00%	0.00%
	Other Rechargeable Batteries	0.01%	0.13%	0.00%	0.04%
	Fluorescent Lighting and Mercury Bulbs	0.00%	0.02%	0.00%	0.01%
	Used Oil Filters	0.00%	0.02%	0.00%	0.01%
	Smoke Detectors	0.00%	0.01%	0.00%	0.00%
	Total Hazardous & Special Wastes	3.00%	6.96%	1.93%	4.63%
Electronics					
	Televisions - CRT	0.07%	0.79%	0.00%	0.21%
	Televisions - LCD	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - CRT	0.02%	0.21%	0.00%	0.05%
	Computer Monitors - LCD	0.04%	0.46%	0.00%	0.12%
	Laptops	0.01%	0.16%	0.00%	0.04%
	Television Peripherals	0.01%	0.08%	0.00%	0.03%
	Computers	0.01%	0.05%	0.00%	0.02%
	Cellphones	0.00%	0.02%	0.00%	0.01%
	Computer Peripherals	0.18%	1.91%	0.00%	0.84%
	Audio Equipment	0.16%	1.34%	0.00%	0.42%
	Internet Connection Equipment	0.00%	0.00%	0.00%	0.00%
	Electronic Equipment Cables and Wires	0.41%	1.53%	0.19%	0.72%
	Total Electronics	0.90%	3.16%	0.45%	1.78%

Minnesota Statewide MMSW Material Composition – Detailed Commercial (ICI) (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
C&D					
	C&D Contained in the MSW Loads	2.04%	7.32%	0.99%	3.56%
	Wood - Treated and Untreated	4.24%	9.90%	2.78%	6.06%
	Total C&D	6.29%	12.96%	4.35%	8.91%
Other					
	Non-Distinct	3.04%	6.87%	1.90%	4.32%
	Unclassifiable Fines	2.56%	3.16%	2.07%	3.07%
	Total Other	5.60%	7.77%	4.39%	6.89%
	Total of Overall Waste	100.00%			

Notes for

- 1 Based on 132 hand-sorted waste samples
- 2 Confidence interval is based off of a normal distribution. The confidence limits are determined by the mean percentage + or - the confidence interval.

Minnesota Statewide MMSW Material Composition – Detailed Mixed

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Paper					
	High Grade Office Paper Products	1.55%	1.21%	0.84%	2.26%
	Phone Books	0.00%	0.00%	0.00%	0.00%
	Mixed/Low-Grade Paper Products	3.46%	1.89%	1.42%	5.51%
	Magazines/Catalogs/Glossy	0.90%	0.94%	0.37%	1.42%
	Newspaper/Newsprint	0.30%	0.31%	0.12%	0.47%
	Boxboard	3.08%	1.75%	1.26%	4.90%
	Kraft Paper	1.01%	1.29%	0.41%	1.61%
	OCC or Corrugated Cardboard	2.35%	1.22%	0.96%	3.74%
	Aseptic, Gable Top, Polycoated	0.66%	1.01%	0.27%	1.06%
	Compostable Paper Packaging and Products NOT ASTM Standard	4.53%	1.73%	1.85%	7.21%
	Compostable Paper Packaging and Products Meets ASTM Standard	0.44%	0.54%	0.18%	0.69%
	Remainder/Composite Paper Products	0.21%	0.38%	0.09%	0.34%
	Total Paper	18.49%	4.74%	7.56%	29.42%
Plastic					
	Plastic Deposit Beverage Containers	0.50%	0.44%	0.24%	0.76%
	Plastic Non-Deposit Beverage Containers	0.32%	0.31%	0.14%	0.50%
	#1 PET Bottles/Jars	0.09%	0.12%	0.02%	0.16%
	#1 PET Non-Bottle Rigid Containers & Packaging	0.56%	0.37%	0.34%	0.77%
	#2 HDPE Bottles/Jars - Natural	0.34%	0.26%	0.18%	0.49%
	#2 HDPE Bottles/Jars - Colored	0.55%	0.42%	0.30%	0.80%
	Other HDPE	0.01%	0.02%	0.00%	0.03%
	#3 PVC Packaging	0.00%	0.00%	0.00%	0.00%
	#3 PVC Other	0.00%	0.00%	0.00%	0.00%
	# 4 LDPE Hard Packaging	0.00%	0.00%	0.00%	0.00%
	#4 LDPE Other	0.00%	0.00%	0.00%	0.00%
	#5 PP Bottles	0.00%	0.00%	0.00%	0.00%

Minnesota Statewide MMSW Material Composition – Detailed Mixed (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Plastic (cont.)					
	#5 PP Packaging	1.18%	1.04%	0.56%	1.79%
	#6 Polystyrene	0.12%	0.18%	0.01%	0.22%
	#6 Polystyrene - Non-Foam	0.47%	0.31%	0.29%	0.66%
	#7 Plastic Packaging	0.00%	0.00%	0.00%	0.00%
	Agricultural Film	0.00%	0.00%	0.00%	0.00%
	Boat Wrap	0.00%	0.00%	0.00%	0.00%
	Plastic Film	10.04%	3.43%	8.02%	12.07%
	Retail Shopping Bags	0.71%	0.34%	0.51%	0.91%
	Pouches/Flexible Plastic Packaging	0.02%	0.04%	0.00%	0.05%
	Compostable Plastic Products, NOT ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Compostable Plastic Products, Meets ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Other Plastic	3.83%	1.79%	2.77%	4.89%
	Total Plastic	18.74%	4.06%	16.34%	21.14%
Organics					
	Food Waste - Unpackaged	10.75%	10.45%	4.57%	16.92%
	Food Waste - Packaged	6.18%	8.74%	1.02%	11.35%
	Yard Waste	2.68%	4.41%	0.07%	5.28%
	Woody Material	0.00%	0.00%	0.00%	0.00%
	Total Organics	19.60%	9.03%	14.27%	24.94%
Glass					
	Glass Deposit Beverage Containers	0.74%	0.79%	0.27%	1.20%
	Glass Non-Deposit Beverage Containers	0.19%	0.64%	-0.18%	0.57%
	Glass Containers	0.31%	0.56%	-0.02%	0.64%
	Plate Glass	0.02%	0.08%	-0.02%	0.07%
	Non-Glass Ceramics	0.20%	0.37%	-0.02%	0.42%
	Remainder/Composite Glass	0.28%	0.42%	0.04%	0.53%
	Total Glass	1.74%	1.04%	1.13%	2.36%

Minnesota Statewide MMSW Material Composition – Detailed Mixed (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Metal					
	Metal Deposit Beverage Containers	0.99%	0.77%	0.53%	1.45%
	Metal Non-Deposit Beverage Containers	0.00%	0.00%	0.00%	0.00%
	Aluminum Food Packaging	0.26%	0.29%	0.09%	0.44%
	Other Aluminum	0.00%	0.00%	0.00%	0.00%
	Pet Food Containers	0.20%	0.63%	-0.17%	0.57%
	Ferrous Food Cans - Tinned and Not Coated	0.41%	0.33%	0.22%	0.61%
	Other Ferrous Metal	1.89%	3.13%	0.04%	3.73%
	Other Nonferrous Metal	0.02%	0.04%	-0.01%	0.05%
	Mixed Metal/Material	1.72%	5.38%	-1.46%	4.90%
	Aerosol Containers	0.17%	0.14%	0.09%	0.25%
	Total Metal	5.66%	6.13%	2.04%	9.29%
Consumer Products				0.00%	0.00%
	Household Décor	0.38%	0.71%	-0.05%	0.80%
	Textiles	6.29%	5.44%	3.08%	9.51%
	Shoes, Purses, and Belts	0.50%	0.59%	0.15%	0.84%
	Carpet	0.87%	1.29%	0.10%	1.63%
	Furniture - Metal	0.53%	1.39%	-0.30%	1.35%
	Furniture - Wood	0.21%	0.68%	-0.20%	0.61%
	Furniture - Plastic	0.00%	0.00%	0.00%	0.00%
	Furniture - Composite	0.00%	0.00%	0.00%	0.00%
	Mattresses and Box Springs	0.04%	0.13%	-0.04%	0.12%
	Large Appliances (White Goods)	0.00%	0.00%	0.00%	0.00%
	Small Household Appliances	0.22%	0.56%	-0.11%	0.55%
	Rubber Products	0.43%	0.77%	-0.03%	0.89%
	Tires	0.00%	0.00%	0.00%	0.00%
	Diapers & Sanitary Products	5.44%	3.57%	3.33%	7.55%
	Sports and Recreation Products	0.23%	0.61%	-0.13%	0.58%
	Total Consumer Products	15.12%	7.78%	10.53%	19.72%

Minnesota Statewide MMSW Material Composition – Detailed Mixed (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Hazardous & Special Wastes					
	All Paints, Stains, Varnish, & Lacquer	0.29%	0.59%	-0.06%	0.64%
	Flammable Liquids	0.02%	0.08%	-0.02%	0.07%
	Other HHW	0.08%	0.25%	-0.07%	0.22%
	Syringes/Needles	0.01%	0.02%	0.00%	0.02%
	Healthcare-Associated Waste	1.12%	1.90%	0.00%	2.25%
	Single Use Household Batteries	0.04%	0.08%	0.00%	0.09%
	Lead-Acid Batteries	0.00%	0.00%	0.00%	0.00%
	Items Containing Lithium Batteries	0.01%	0.02%	-0.01%	0.02%
	Lithium Batteries	0.00%	0.00%	0.00%	0.00%
	Other Rechargeable Batteries	0.00%	0.00%	0.00%	0.00%
	Fluorescent Lighting and Mercury Bulbs	0.00%	0.00%	0.00%	0.00%
	Used Oil Filters	0.00%	0.00%	0.00%	0.00%
	Smoke Detectors	0.00%	0.00%	0.00%	0.00%
	Total Hazardous & Special Wastes	1.57%	1.84%	0.48%	2.66%
Electronics					
	Televisions - CRT	0.00%	0.00%	0.00%	0.00%
	Televisions - LCD	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - CRT	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - LCD	0.00%	0.00%	0.00%	0.00%
	Laptops	0.00%	0.00%	0.00%	0.00%
	Television Peripherals	0.00%	0.00%	0.00%	0.00%
	Computers	0.01%	0.03%	-0.01%	0.03%
	Cellphones	0.00%	0.00%	0.00%	0.00%
	Computer Peripherals	0.00%	0.00%	0.00%	0.00%
	Audio Equipment	0.28%	0.81%	-0.20%	0.76%
	Internet Connection Equipment	0.01%	0.02%	-0.01%	0.02%
	Electronic Equipment Cables and Wires	0.17%	0.27%	0.01%	0.33%
	Total Electronics	0.47%	0.79%	0.00%	0.93%

Minnesota Statewide MMSW Material Composition – Detailed Mixed (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
C&D					
	C&D Contained in the MSW Loads	0.43%	1.12%	-0.23%	1.10%
	Wood - Treated and Untreated	3.21%	3.37%	1.22%	5.20%
	Total C&D	3.65%	3.53%	1.56%	5.73%
Other					
	Non-Distinct	6.65%	5.11%	3.63%	9.67%
	Unclassifiable Fines	8.30%	5.31%	5.16%	11.44%
	Total Other	14.95%	4.63%	12.22%	17.69%
	Total of Overall Waste	100.00%			

Notes for

- 1 Based on 11 hand-sorted waste samples
- 2 Confidence interval is based off of a normal distribution. The confidence limits are determined by the mean percentage + or - the confidence interval.

Appendix E

Detailed MMSW Composition Tables for Each Host Facility

Minnesota Statewide MMSW Material Composition – Detailed Blue Earth County Ponderosa Landfill

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Paper					
	High Grade Office Paper Products	1.24%	2.20%	0.71%	1.96%
	Phone Books	0.00%	0.00%	0.00%	0.00%
	Mixed/Low-Grade Paper Products	4.75%	7.94%	2.89%	7.05%
	Magazines/Catalogs/Glossy	0.76%	1.65%	0.34%	1.23%
	Newspaper/Newsprint	0.20%	0.66%	0.07%	0.38%
	Boxboard	2.46%	2.99%	1.72%	3.54%
	Kraft Paper	0.61%	1.02%	0.36%	0.96%
	OCC or Corrugated Cardboard	4.24%	5.27%	2.95%	5.74%
	Aseptic, Gable Top, Polycoated	0.23%	0.40%	0.13%	0.36%
	Compostable Paper Packaging and Products NOT ASTM Standard	4.08%	4.12%	3.04%	5.14%
	Compostable Paper Packaging and Products Meets ASTM Standard	0.16%	0.29%	0.09%	0.25%
	Remainder/Composite Paper Products	0.13%	0.21%	0.07%	0.19%
	Total Paper	18.86%	11.28%	15.77%	21.83%
Plastic					
	Plastic Deposit Beverage Containers	0.32%	0.39%	0.22%	0.43%
	Plastic Non-Deposit Beverage Containers	0.50%	0.70%	0.31%	0.72%
	#1 PET Bottles/Jars	0.12%	0.22%	0.06%	0.18%
	#1 PET Non-Bottle Rigid Containers & Packaging	0.38%	0.63%	0.22%	0.57%
	#2 HDPE Bottles/Jars - Natural	0.40%	0.38%	0.28%	0.50%
	#2 HDPE Bottles/Jars - Colored	0.48%	1.07%	0.24%	0.83%
	Other HDPE	0.00%	0.02%	0.00%	0.01%
	#3 PVC Packaging	0.00%	0.00%	0.00%	0.00%
	#3 PVC Other	0.12%	0.51%	0.00%	0.30%
	# 4 LDPE Hard Packaging	0.00%	0.00%	0.00%	0.00%
	#4 LDPE Other	0.01%	0.07%	0.00%	0.03%

Minnesota Statewide MMSW Material Composition – Detailed Blue Earth County Ponderosa Landfill (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Plastic (cont.)					
	#5 PP Bottles	0.00%	0.00%	0.00%	0.00%
	#5 PP Packaging	1.01%	0.87%	0.75%	1.24%
	#6 Polystyrene	0.60%	0.97%	0.38%	0.90%
	#6 Polystyrene - Non-Foam	0.14%	0.43%	0.03%	0.27%
	#7 Plastic Packaging	0.17%	0.91%	0.01%	0.43%
	Agricultural Film	0.00%	0.00%	0.00%	0.00%
	Boat Wrap	0.00%	0.00%	0.00%	0.00%
	Plastic Film	9.92%	14.43%	6.92%	14.29%
	Retail Shopping Bags	0.26%	0.30%	0.17%	0.35%
	Pouches/Flexible Plastic Packaging	0.02%	0.07%	0.00%	0.04%
	Compostable Plastic Products, NOT ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Compostable Plastic Products, Meets ASTM Standard	0.01%	0.04%	0.00%	0.02%
	Other Plastic	3.42%	5.47%	2.01%	5.01%
	Total Plastic	17.88%	15.39%	14.35%	22.64%
Organics					
	Food Waste - Unpackaged	14.94%	15.86%	10.75%	19.39%
	Food Waste - Packaged	8.84%	24.44%	3.46%	16.85%
	Yard Waste	1.41%	3.46%	0.52%	2.51%
	Woody Material	0.41%	2.78%	0.00%	1.21%
	Total Organics	25.60%	24.95%	19.54%	32.77%
Glass					
	Glass Deposit Beverage Containers	0.53%	1.11%	0.27%	0.87%
	Glass Non-Deposit Beverage Containers	0.28%	0.79%	0.09%	0.52%
	Glass Containers	0.26%	0.46%	0.15%	0.40%
	Plate Glass	0.06%	0.33%	0.00%	0.17%
	Non-Glass Ceramics	0.50%	2.24%	0.07%	1.24%
	Remainder/Composite Glass	0.38%	2.26%	0.00%	1.03%
	Total Glass	2.02%	3.85%	1.17%	3.19%

Minnesota Statewide MMSW Material Composition – Detailed Blue Earth County Ponderosa Landfill (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Metal					
	Metal Deposit Beverage Containers	0.66%	0.82%	0.44%	0.89%
	Metal Non-Deposit Beverage Containers	0.00%	0.00%	0.00%	0.00%
	Aluminum Food Packaging	0.35%	0.64%	0.20%	0.54%
	Other Aluminum	0.11%	0.60%	0.01%	0.29%
	Pet Food Containers	0.02%	0.06%	0.00%	0.04%
	Ferrous Food Cans - Tinned and Not Coated	0.37%	0.40%	0.25%	0.49%
	Other Ferrous Metal	3.25%	11.82%	0.69%	7.75%
	Other Nonferrous Metal	0.16%	0.86%	0.01%	0.43%
	Mixed Metal/Material	0.44%	1.50%	0.08%	0.99%
	Aerosol Containers	0.14%	0.39%	0.06%	0.27%
	Total Metal	5.49%	11.71%	2.85%	9.80%
Consumer Products					
	Household Décor	0.08%	0.35%	0.00%	0.20%
	Textiles	2.86%	3.65%	1.81%	4.00%
	Shoes, Purses, and Belts	0.34%	0.59%	0.20%	0.48%
	Carpet	1.28%	4.29%	0.22%	2.63%
	Furniture - Metal	0.06%	0.38%	0.00%	0.17%
	Furniture - Wood	1.51%	5.71%	0.20%	3.28%
	Furniture - Plastic	0.09%	0.49%	0.00%	0.25%
	Furniture - Composite	0.00%	0.00%	0.00%	0.00%
	Mattresses and Box Springs	0.51%	3.53%	0.00%	1.53%
	Large Appliances (White Goods)	0.11%	0.77%	0.00%	0.33%
	Small Household Appliances	0.59%	1.57%	0.20%	1.01%
	Rubber Products	1.08%	3.55%	0.33%	2.29%
	Tires	0.02%	0.17%	0.00%	0.07%
	Diapers & Sanitary Products	2.17%	3.19%	1.22%	3.12%
	Sports and Recreation Products	0.26%	1.75%	0.00%	0.77%
	Total Consumer Products	10.96%	11.64%	7.85%	14.45%

Minnesota Statewide MMSW Material Composition – Detailed Blue Earth County Ponderosa Landfill (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Hazardous & Special Wastes					
	All Paints, Stains, Varnish, & Lacquer	0.11%	0.50%	0.01%	0.27%
	Flammable Liquids	0.00%	0.01%	0.00%	0.01%
	Other HHW	0.03%	0.18%	0.00%	0.10%
	Syringes/Needles	0.01%	0.03%	0.00%	0.02%
	Healthcare-Associated Waste	2.51%	9.12%	0.73%	5.32%
	Single Use Household Batteries	0.04%	0.10%	0.02%	0.07%
	Lead-Acid Batteries	0.07%	0.51%	0.00%	0.22%
	Items Containing Lithium Batteries	0.03%	0.07%	0.02%	0.06%
	Lithium Batteries	0.01%	0.08%	0.00%	0.03%
	Other Rechargeable Batteries	0.00%	0.03%	0.00%	0.01%
	Fluorescent Lighting and Mercury Bulbs	0.02%	0.12%	0.00%	0.05%
	Used Oil Filters	0.00%	0.00%	0.00%	0.00%
	Smoke Detectors	0.00%	0.00%	0.00%	0.00%
	Total Hazardous & Special Wastes	2.84%	9.10%	1.06%	5.68%
Electronics					
	Televisions - CRT	0.16%	1.13%	0.00%	0.49%
	Televisions - LCD	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - CRT	0.05%	0.34%	0.00%	0.15%
	Computer Monitors - LCD	0.07%	0.45%	0.00%	0.20%
	Laptops	0.04%	0.27%	0.00%	0.12%
	Television Peripherals	0.03%	0.21%	0.00%	0.10%
	Computers	0.01%	0.07%	0.00%	0.03%
	Cellphones	0.00%	0.00%	0.00%	0.00%
	Computer Peripherals	0.46%	3.16%	0.00%	1.37%
	Audio Equipment	0.01%	0.04%	0.00%	0.02%
	Internet Connection Equipment	0.00%	0.00%	0.00%	0.00%
	Electronic Equipment Cables and Wires	0.20%	0.94%	0.00%	0.53%
	Total Electronics	1.03%	3.49%	0.28%	2.03%

Minnesota Statewide MMSW Material Composition – Detailed Blue Earth County Ponderosa Landfill (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
C&D					
	C&D Contained in the MSW Loads	3.10%	9.52%	0.98%	5.78%
	Wood - Treated and Untreated	4.15%	9.74%	1.93%	7.16%
	Total C&D	7.25%	14.06%	3.90%	11.10%
Other					
	Non-Distinct	3.92%	5.82%	2.39%	5.55%
	Unclassifiable Fines	4.15%	5.12%	2.75%	5.50%
	Total Other	8.07%	8.11%	5.77%	10.28%
	Total of Overall Waste	100.00%			

Notes for

- 1 Based on 48 hand-sorted waste samples
- 2 Confidence interval is based off of a normal distribution. The confidence limits are determined by the mean percentage + or - the confidence interval.

Minnesota Statewide MMSW Material Composition – Detailed Eden Prairie Transfer Station,
Republic Services

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Paper					
	High Grade Office Paper Products	2.22%	4.14%	1.26%	3.48%
	Phone Books	0.00%	0.00%	0.00%	0.00%
	Mixed/Low-Grade Paper Products	2.41%	1.32%	2.01%	2.80%
	Magazines/Catalogs/Glossy	0.58%	1.06%	0.30%	0.94%
	Newspaper/Newsprint	0.11%	0.24%	0.05%	0.19%
	Boxboard	2.85%	4.29%	1.91%	4.18%
	Kraft Paper	0.86%	0.67%	0.66%	1.05%
	OCC or Corrugated Cardboard	2.04%	1.49%	1.64%	2.51%
	Aseptic, Gable Top, Polycoated	0.34%	0.48%	0.21%	0.48%
	Compostable Paper Packaging and Products NOT ASTM Standard	5.74%	3.70%	4.70%	6.81%
	Compostable Paper Packaging and Products Meets ASTM Standard	0.66%	1.78%	0.29%	1.23%
	Remainder/Composite Paper Products	0.45%	1.21%	0.17%	0.78%
	Total Paper	18.25%	8.92%	15.63%	20.75%
Plastic					
	Plastic Deposit Beverage Containers	0.43%	0.49%	0.31%	0.57%
	Plastic Non-Deposit Beverage Containers	0.29%	0.39%	0.20%	0.42%
	#1 PET Bottles/Jars	0.08%	0.14%	0.05%	0.12%
	#1 PET Non-Bottle Rigid Containers & Packaging	0.65%	0.60%	0.46%	0.82%
	#2 HDPE Bottles/Jars - Natural	0.41%	0.45%	0.30%	0.56%
	#2 HDPE Bottles/Jars - Colored	0.61%	1.57%	0.29%	1.20%
	Other HDPE	0.01%	0.04%	0.00%	0.02%
	#3 PVC Packaging	0.00%	0.00%	0.00%	0.00%
	#3 PVC Other	0.22%	1.48%	0.00%	0.64%
	# 4 LDPE Hard Packaging	0.00%	0.00%	0.00%	0.00%
	#4 LDPE Other	0.00%	0.00%	0.00%	0.00%

Minnesota Statewide MMSW Material Composition – Detailed Eden Prairie Transfer Station,
Republic Services (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Plastic (cont.)					
	#5 PP Bottles	0.00%	0.00%	0.00%	0.00%
	#5 PP Packaging	1.34%	0.83%	1.07%	1.56%
	#6 Polystyrene	0.46%	0.40%	0.36%	0.58%
	#6 Polystyrene - Non-Foam	0.13%	0.30%	0.05%	0.22%
	#7 Plastic Packaging	0.00%	0.02%	0.00%	0.01%
	Agricultural Film	0.04%	0.00%	0.00%	0.11%
	Boat Wrap	0.00%	0.00%	0.00%	0.00%
	Plastic Film	8.89%	4.99%	7.31%	10.19%
	Retail Shopping Bags	0.53%	0.61%	0.36%	0.71%
	Pouches/Flexible Plastic Packaging	0.03%	0.09%	0.01%	0.06%
	Compostable Plastic Products, NOT ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Compostable Plastic Products, Meets ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Other Plastic	4.17%	6.85%	2.44%	6.70%
	Total Plastic	18.29%	8.96%	16.04%	20.85%
Organics					
	Food Waste - Unpackaged	18.43%	13.01%	14.53%	21.62%
	Food Waste - Packaged	3.71%	6.14%	2.13%	5.52%
	Yard Waste	2.56%	6.69%	0.88%	4.57%
	Woody Material	0.07%	0.46%	0.00%	0.23%
	Total Organics	24.76%	16.95%	19.35%	28.84%
Glass					
	Glass Deposit Beverage Containers	0.68%	1.30%	15.63%	20.75%
	Glass Non-Deposit Beverage Containers	0.22%	0.77%	0.06%	0.49%
	Glass Containers	0.39%	0.73%	0.19%	0.59%
	Plate Glass	0.39%	1.27%	0.09%	0.86%
	Non-Glass Ceramics	0.23%	0.66%	0.08%	0.41%
	Remainder/Composite Glass	0.05%	0.16%	0.01%	0.10%
	Total Glass	1.94%	2.25%	1.36%	2.64%

Minnesota Statewide MMSW Material Composition – Detailed Eden Prairie Transfer Station,
Republic Services (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Metal					
	Metal Deposit Beverage Containers	0.49%	0.65%	0.33%	0.69%
	Metal Non-Deposit Beverage Containers	0.03%	0.11%	0.01%	0.07%
	Aluminum Food Packaging	0.38%	1.01%	0.20%	0.71%
	Other Aluminum	0.05%	0.16%	0.01%	0.10%
	Pet Food Containers	0.04%	0.09%	0.01%	0.06%
	Ferrous Food Cans - Tinned and Not Coated	0.29%	0.43%	0.19%	0.41%
	Other Ferrous Metal	1.55%	3.19%	0.81%	2.50%
	Other Nonferrous Metal	0.16%	0.65%	0.02%	0.38%
	Mixed Metal/Material	0.12%	0.55%	0.01%	0.31%
	Aerosol Containers	0.11%	0.19%	0.06%	0.17%
	Total Metal	3.22%	3.33%	2.45%	4.15%
Consumer Products					
	Household Décor	0.61%	1.71%	0.21%	1.24%
	Textiles	7.35%	16.52%	3.19%	12.98%
	Shoes, Purses, and Belts	0.60%	1.36%	0.30%	1.08%
	Carpet	1.30%	3.03%	0.59%	2.21%
	Furniture - Metal	0.57%	2.91%	0.02%	1.50%
	Furniture - Wood	2.13%	9.76%	0.27%	5.28%
	Furniture - Plastic	0.09%	0.38%	0.00%	0.22%
	Furniture - Composite	0.15%	1.02%	0.00%	0.44%
	Mattresses and Box Springs	0.02%	0.17%	0.00%	0.07%
	Large Appliances (White Goods)	0.00%	0.00%	0.00%	0.00%
	Small Household Appliances	0.40%	1.22%	0.12%	0.81%
	Rubber Products	1.79%	8.64%	0.17%	4.66%
	Tires	0.26%	1.78%	0.00%	0.77%
	Diapers & Sanitary Products	5.29%	7.88%	3.51%	7.46%
	Sports and Recreation Products	0.37%	1.80%	0.03%	0.90%
	Total Consumer Products	20.92%	23.27%	15.23%	28.27%

Minnesota Statewide MMSW Material Composition – Detailed Eden Prairie Transfer Station,
Republic Services (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Hazardous & Special Wastes					
	All Paints, Stains, Varnish, & Lacquer	0.34%	0.81%	0.14%	0.57%
	Flammable Liquids	0.01%	0.03%	0.00%	0.02%
	Other HHW	0.06%	0.32%	0.00%	0.18%
	Syringes/Needles	0.00%	0.02%	0.00%	0.01%
	Healthcare-Associated Waste	1.80%	4.74%	0.73%	3.52%
	Single Use Household Batteries	0.03%	0.07%	0.01%	0.04%
	Lead-Acid Batteries	0.00%	0.01%	0.00%	0.00%
	Items Containing Lithium Batteries	0.01%	0.03%	0.00%	0.02%
	Lithium Batteries	0.00%	0.00%	0.00%	0.00%
	Other Rechargeable Batteries	0.03%	0.21%	0.00%	0.10%
	Fluorescent Lighting and Mercury Bulbs	0.01%	0.04%	0.00%	0.03%
	Used Oil Filters	0.01%	0.06%	0.00%	0.02%
	Smoke Detectors	0.00%	0.00%	0.00%	0.00%
	Total Hazardous & Special Wastes	2.30%	4.76%	1.19%	3.95%
Electronics					
	Televisions - CRT	0.00%	0.00%	0.00%	0.00%
	Televisions - LCD	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - CRT	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - LCD	0.00%	0.00%	0.00%	0.00%
	Laptops	0.00%	0.00%	0.00%	0.00%
	Television Peripherals	0.00%	0.01%	0.00%	0.01%
	Computers	0.01%	0.04%	0.00%	0.02%
	Cellphones	0.00%	0.00%	0.00%	0.00%
	Computer Peripherals	0.04%	0.16%	0.00%	0.09%
	Audio Equipment	0.00%	0.02%	0.00%	0.01%
	Internet Connection Equipment	0.00%	0.00%	0.00%	0.00%
	Electronic Equipment Cables and Wires	0.31%	0.83%	0.13%	0.60%
	Total Electronics	0.36%	0.86%	0.16%	0.63%

Minnesota Statewide MMSW Material Composition – Detailed Eden Prairie Transfer Station,
Republic Services (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
C&D					
	C&D Contained in the MSW Loads	1.55%	4.95%	0.34%	2.80%
	Wood - Treated and Untreated	4.03%	9.55%	1.65%	6.48%
	Total C&D	5.57%	12.81%	2.57%	9.09%
Other					
	Non-Distinct	2.19%	4.07%	1.17%	3.42%
	Unclassifiable Fines	2.20%	1.56%	1.71%	2.64%
	Total Other	4.39%	4.78%	3.08%	5.76%
	Total of Overall Waste	100.00%			

Notes for

- 1 Based on 48 hand-sorted waste samples
- 2 Confidence interval is based off of a normal distribution. The confidence limits are determined by the mean percentage + or - the confidence interval.

Minnesota Statewide MMSW Material Composition – Detailed Lyon County Landfill

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Paper					
	High Grade Office Paper Products	1.92%	1.83%	1.46%	2.42%
	Phone Books	0.00%	0.00%	0.00%	0.00%
	Mixed/Low-Grade Paper Products	4.22%	1.91%	3.65%	4.80%
	Magazines/Catalogs/Glossy	0.58%	0.95%	0.36%	0.87%
	Newspaper/Newsprint	0.40%	0.55%	0.26%	0.57%
	Boxboard	3.82%	1.66%	3.42%	4.27%
	Kraft Paper	0.63%	0.42%	0.52%	0.75%
	OCC or Corrugated Cardboard	2.04%	1.72%	1.57%	2.61%
	Aseptic, Gable Top, Polycoated	0.48%	0.45%	0.36%	0.61%
	Compostable Paper Packaging and Products NOT ASTM Standard	5.28%	2.21%	4.73%	5.90%
	Compostable Paper Packaging and Products Meets ASTM Standard	0.51%	0.53%	0.36%	0.68%
	Remainder/Composite Paper Products	0.18%	0.36%	0.09%	0.28%
	Total Paper	20.07%	4.64%	18.88%	21.36%
Plastic					
	Plastic Deposit Beverage Containers	0.83%	0.62%	0.66%	1.00%
	Plastic Non-Deposit Beverage Containers	0.52%	0.47%	0.42%	0.66%
	#1 PET Bottles/Jars	0.20%	0.34%	0.11%	0.32%
	#1 PET Non-Bottle Rigid Containers & Packaging	0.65%	0.36%	0.56%	0.75%
	#2 HDPE Bottles/Jars - Natural	0.55%	0.72%	0.37%	0.75%
	#2 HDPE Bottles/Jars - Colored	0.74%	0.63%	0.57%	0.90%
	Other HDPE	0.07%	0.39%	0.01%	0.24%
	#3 PVC Packaging	0.03%	0.21%	0.00%	0.11%
	#3 PVC Other	0.01%	0.06%	0.00%	0.03%
	# 4 LDPE Hard Packaging	0.00%	0.00%	0.00%	0.00%
	#4 LDPE Other	0.00%	0.00%	0.00%	0.00%
	#5 PP Bottles	0.06%	0.40%	0.00%	0.18%

Minnesota Statewide MMSW Material Composition – Detailed Lyon County Landfill (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Plastic (cont.)					
	#5 PP Packaging	1.17%	0.68%	1.02%	1.34%
	#6 Polystyrene	0.63%	0.43%	0.51%	0.75%
	#6 Polystyrene - Non-Foam	0.08%	0.12%	0.05%	0.11%
	#7 Plastic Packaging	0.00%	0.00%	0.00%	0.00%
	Agricultural Film	0.00%	0.00%	0.00%	0.00%
	Boat Wrap	0.00%	0.00%	0.00%	0.00%
	Plastic Film	9.56%	2.43%	8.93%	10.25%
	Retail Shopping Bags	1.11%	1.03%	0.87%	1.46%
	Pouches/Flexible Plastic Packaging	0.04%	0.11%	0.01%	0.07%
	Compostable Plastic Products, NOT ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Compostable Plastic Products, Meets ASTM Standard	0.05%	0.31%	0.00%	0.16%
	Other Plastic	2.63%	2.40%	2.03%	3.32%
	Total Plastic	18.92%	4.31%	17.78%	20.16%
Organics					
	Food Waste - Unpackaged	18.81%	8.71%	16.60%	21.11%
	Food Waste - Packaged	4.16%	6.65%	2.64%	6.38%
	Yard Waste	1.27%	2.70%	0.61%	2.06%
	Woody Material	0.09%	0.44%	0.00%	0.18%
	Total Organics	24.33%	10.22%	21.64%	27.15%
Glass					
	Glass Deposit Beverage Containers	0.97%	1.67%	0.55%	1.42%
	Glass Non-Deposit Beverage Containers	0.34%	0.70%	0.17%	0.56%
	Glass Containers	0.54%	0.75%	0.35%	0.74%
	Plate Glass	0.01%	0.04%	0.00%	0.02%
	Non-Glass Ceramics	0.18%	0.41%	0.08%	0.31%
	Remainder/Composite Glass	0.28%	1.20%	0.05%	0.64%
	Total Glass	2.32%	1.97%	1.82%	2.84%

Minnesota Statewide MMSW Material Composition – Detailed Lyon County Landfill (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Metal					
	Metal Deposit Beverage Containers	0.90%	0.52%	0.77%	1.07%
	Metal Non-Deposit Beverage Containers	0.04%	0.28%	0.00%	0.12%
	Aluminum Food Packaging	0.33%	0.36%	0.23%	0.43%
	Other Aluminum	0.05%	0.15%	0.01%	0.10%
	Pet Food Containers	0.06%	0.13%	0.03%	0.10%
	Ferrous Food Cans - Tinned and Not Coated	0.62%	0.41%	0.52%	0.73%
	Other Ferrous Metal	1.26%	1.96%	0.76%	1.86%
	Other Nonferrous Metal	0.04%	0.12%	0.01%	0.07%
	Mixed Metal/Material	0.39%	2.58%	0.01%	1.33%
	Aerosol Containers	0.23%	0.44%	0.14%	0.36%
	Total Metal	3.93%	3.24%	3.21%	4.87%
Consumer Products					
	Household Décor	0.35%	1.36%	0.07%	0.87%
	Textiles	3.89%	3.40%	3.05%	4.98%
	Shoes, Purses, and Belts	0.39%	0.70%	0.21%	0.64%
	Carpet	0.93%	2.19%	0.30%	1.65%
	Furniture - Metal	0.10%	0.67%	0.00%	0.35%
	Furniture - Wood	0.07%	0.35%	0.00%	0.18%
	Furniture - Plastic	0.12%	0.85%	0.00%	0.37%
	Furniture - Composite	0.21%	0.82%	0.00%	0.46%
	Mattresses and Box Springs	0.01%	0.06%	0.00%	0.03%
	Large Appliances (White Goods)	0.00%	0.00%	0.00%	0.00%
	Small Household Appliances	0.30%	0.95%	0.09%	0.58%
	Rubber Products	0.20%	0.52%	0.08%	0.36%
	Tires	0.03%	0.17%	0.00%	0.09%
	Diapers & Sanitary Products	6.88%	5.18%	5.43%	8.45%
	Sports and Recreation Products	0.21%	0.61%	0.06%	0.38%
	Total Consumer Products	13.69%	7.57%	11.47%	15.89%

Minnesota Statewide MMSW Material Composition – Detailed Lyon County Landfill (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Hazardous & Special Wastes					
	All Paints, Stains, Varnish, & Lacquer	0.22%	0.49%	0.08%	0.35%
	Flammable Liquids	0.01%	0.04%	0.00%	0.02%
	Other HHW	0.09%	0.25%	0.04%	0.18%
	Syringes/Needles	0.02%	0.04%	0.01%	0.03%
	Healthcare-Associated Waste	1.12%	2.69%	0.50%	2.03%
	Single Use Household Batteries	0.08%	0.08%	0.06%	0.10%
	Lead-Acid Batteries	0.00%	0.00%	0.00%	0.00%
	Items Containing Lithium Batteries	0.03%	0.08%	0.01%	0.06%
	Lithium Batteries	0.00%	0.00%	0.00%	0.00%
	Other Rechargeable Batteries	0.00%	0.00%	0.00%	0.00%
	Fluorescent Lighting and Mercury Bulbs	0.00%	0.02%	0.00%	0.01%
	Used Oil Filters	0.00%	0.00%	0.00%	0.00%
	Smoke Detectors	0.00%	0.01%	0.00%	0.01%
	Total Hazardous & Special Wastes	1.58%	2.70%	0.96%	2.50%
Electronics					
	Televisions - CRT	0.00%	0.00%	0.00%	0.00%
	Televisions - LCD	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - CRT	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - LCD	0.00%	0.00%	0.00%	0.00%
	Laptops	0.00%	0.00%	0.00%	0.00%
	Television Peripherals	0.00%	0.00%	0.00%	0.00%
	Computers	0.00%	0.02%	0.00%	0.01%
	Cellphones	0.00%	0.02%	0.00%	0.01%
	Computer Peripherals	0.01%	0.03%	0.00%	0.01%
	Audio Equipment	0.06%	0.39%	0.00%	0.18%
	Internet Connection Equipment	0.00%	0.01%	0.00%	0.00%
	Electronic Equipment Cables and Wires	0.33%	1.11%	0.07%	0.65%
	Total Electronics	0.40%	1.16%	0.12%	0.74%

Minnesota Statewide MMSW Material Composition – Detailed Lyon County Landfill (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
C&D					
	C&D Contained in the MSW Loads	0.57%	1.77%	0.17%	1.10%
	Wood - Treated and Untreated	2.32%	2.91%	1.54%	3.21%
	Total C&D	2.88%	3.28%	2.02%	3.91%
Other					
	Non-Distinct	4.80%	4.20%	3.64%	6.05%
	Unclassifiable Fines	7.07%	4.47%	5.81%	8.20%
	Total Other	11.87%	6.80%	10.06%	13.62%
Total of Overall Waste		100.00%			

Notes for

- 1 Based on 48 hand-sorted waste samples
- 2 Confidence interval is based off of a normal distribution. The confidence limits are determined by the mean percentage + or - the confidence interval.

Minnesota Statewide MMSW Material Composition – Detailed Perham Resource Recovery Facility

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Paper					
	High Grade Office Paper Products	1.71%	1.69%	1.28%	2.21%
	Phone Books	0.05%	0.21%	0.00%	0.12%
	Mixed/Low-Grade Paper Products	4.00%	2.56%	3.27%	4.70%
	Magazines/Catalogs/Glossy	1.16%	2.35%	0.66%	1.88%
	Newspaper/Newsprint	0.36%	0.62%	0.20%	0.54%
	Boxboard	3.56%	4.13%	2.54%	4.83%
	Kraft Paper	0.72%	0.94%	0.47%	0.98%
	OCC or Corrugated Cardboard	3.34%	3.70%	2.40%	4.29%
	Aseptic, Gable Top, Polycoated	0.65%	0.95%	0.42%	0.90%
	Compostable Paper Packaging and Products NOT ASTM Standard	5.43%	3.17%	4.61%	6.26%
	Compostable Paper Packaging and Products Meets ASTM Standard	0.56%	0.77%	0.36%	0.77%
	Remainder/Composite Paper Products	2.21%	6.16%	0.75%	4.24%
	Total Paper	23.74%	9.62%	21.08%	26.61%
Plastic					
	Plastic Deposit Beverage Containers	0.56%	0.46%	0.44%	0.70%
	Plastic Non-Deposit Beverage Containers	0.49%	0.49%	0.36%	0.63%
	#1 PET Bottles/Jars	0.26%	0.47%	0.15%	0.40%
	#1 PET Non-Bottle Rigid Containers & Packaging	0.70%	0.46%	0.58%	0.82%
	#2 HDPE Bottles/Jars - Natural	0.49%	0.44%	0.36%	0.61%
	#2 HDPE Bottles/Jars - Colored	0.49%	0.52%	0.36%	0.64%
	Other HDPE	0.09%	0.47%	0.01%	0.23%
	#3 PVC Packaging	0.00%	0.00%	0.00%	0.00%
	#3 PVC Other	0.00%	0.00%	0.00%	0.00%
	# 4 LDPE Hard Packaging	0.00%	0.00%	0.00%	0.00%
	# 4 LDPE Other	0.00%	0.00%	0.00%	0.00%

Minnesota Statewide MMSW Material Composition – Detailed Perham Resource Recovery Facility (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Plastic (cont.)					
	#5 PP Bottles	0.12%	0.58%	0.00%	0.30%
	#5 PP Packaging	1.08%	0.94%	0.83%	1.35%
	#6 Polystyrene	0.75%	0.92%	0.55%	1.05%
	#6 Polystyrene - Non-Foam	0.09%	0.13%	0.06%	0.13%
	#7 Plastic Packaging	0.02%	0.08%	0.00%	0.05%
	Agricultural Film	0.00%	0.00%	0.00%	0.00%
	Boat Wrap	0.00%	0.00%	0.00%	0.00%
	Plastic Film	11.61%	5.72%	10.04%	13.26%
	Retail Shopping Bags	0.88%	2.24%	0.42%	1.52%
	Pouches/Flexible Plastic Packaging	0.03%	0.05%	0.02%	0.05%
	Compostable Plastic Products, NOT ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Compostable Plastic Products, Meets ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Other Plastic	2.45%	2.76%	1.84%	3.37%
	Total Plastic	20.13%	7.71%	18.12%	22.04%
Organics					
	Food Waste - Unpackaged	16.24%	10.16%	13.45%	19.13%
	Food Waste - Packaged	4.94%	9.28%	2.57%	8.07%
	Yard Waste	2.20%	5.41%	0.89%	4.14%
	Woody Material	0.00%	0.00%	0.00%	0.00%
	Total Organics	23.37%	14.17%	19.69%	28.26%
Glass					
	Glass Deposit Beverage Containers	1.40%	4.16%	0.64%	2.59%
	Glass Non-Deposit Beverage Containers	0.13%	0.43%	0.03%	0.25%
	Glass Containers	0.83%	1.01%	0.56%	1.18%
	Plate Glass	0.04%	0.15%	0.00%	0.08%
	Non-Glass Ceramics	0.11%	0.25%	0.05%	0.19%
	Remainder/Composite Glass	0.03%	0.21%	0.00%	0.10%
	Total Glass	2.54%	4.44%	1.63%	3.80%

Minnesota Statewide MMSW Material Composition – Detailed Perham Resource Recovery Facility (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Metal					
	Metal Deposit Beverage Containers	0.90%	1.09%	0.65%	1.24%
	Metal Non-Deposit Beverage Containers	0.05%	0.26%	0.00%	0.14%
	Aluminum Food Packaging	0.28%	0.40%	0.18%	0.40%
	Other Aluminum	0.02%	0.05%	0.00%	0.03%
	Pet Food Containers	0.10%	0.32%	0.03%	0.20%
	Ferrous Food Cans - Tinned and Not Coated	0.58%	0.51%	0.45%	0.73%
	Other Ferrous Metal	0.59%	1.00%	0.36%	0.92%
	Other Nonferrous Metal	0.04%	0.13%	0.00%	0.07%
	Mixed Metal/Material	0.14%	0.33%	0.05%	0.24%
	Aerosol Containers	0.14%	0.15%	0.10%	0.19%
	Total Metal	2.84%	2.06%	2.31%	3.41%
Consumer Products					
	Household Décor	0.16%	0.43%	0.06%	0.29%
	Textiles	4.39%	4.28%	3.34%	5.66%
	Shoes, Purses, and Belts	0.66%	1.05%	0.39%	0.97%
	Carpet	0.84%	3.66%	0.16%	2.06%
	Furniture - Metal	0.17%	0.93%	0.01%	0.56%
	Furniture - Wood	0.26%	1.22%	0.00%	0.62%
	Furniture - Plastic	0.19%	1.12%	0.00%	0.51%
	Furniture - Composite	0.00%	0.00%	0.00%	0.00%
	Mattresses and Box Springs	0.04%	0.31%	0.00%	0.13%
	Large Appliances (White Goods)	0.00%	0.00%	0.00%	0.00%
	Small Household Appliances	0.38%	1.16%	0.12%	0.74%
	Rubber Products	0.15%	0.42%	0.05%	0.28%
	Tires	0.00%	0.00%	0.00%	0.00%
	Diapers & Sanitary Products	3.76%	3.26%	2.80%	4.57%
	Sports and Recreation Products	0.11%	0.43%	0.02%	0.26%
	Total Consumer Products	11.11%	6.43%	9.34%	12.85%

Minnesota Statewide MMSW Material Composition – Detailed Perham Resource Recovery Facility (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Hazardous & Special Wastes					
	All Paints, Stains, Varnish, & Lacquer	0.25%	0.68%	0.09%	0.44%
	Flammable Liquids	0.01%	0.05%	0.00%	0.03%
	Other HHW	0.01%	0.03%	0.00%	0.02%
	Syringes/Needles	0.05%	0.25%	0.01%	0.13%
	Healthcare-Associated Waste	0.69%	1.59%	0.37%	1.25%
	Single Use Household Batteries	0.09%	0.22%	0.04%	0.18%
	Lead-Acid Batteries	0.00%	0.00%	0.00%	0.00%
	Items Containing Lithium Batteries	0.05%	0.14%	0.02%	0.09%
	Lithium Batteries	0.00%	0.00%	0.00%	0.00%
	Other Rechargeable Batteries	0.00%	0.00%	0.00%	0.00%
	Fluorescent Lighting and Mercury Bulbs	0.00%	0.01%	0.00%	0.00%
	Used Oil Filters	0.01%	0.05%	0.00%	0.02%
	Smoke Detectors	0.00%	0.02%	0.00%	0.01%
	Total Hazardous & Special Wastes	1.16%	1.75%	0.73%	1.75%
Electronics					
	Televisions - CRT	0.00%	0.00%	0.00%	0.00%
	Televisions - LCD	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - CRT	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - LCD	0.00%	0.00%	0.00%	0.00%
	Laptops	0.00%	0.00%	0.00%	0.00%
	Television Peripherals	0.00%	0.00%	0.00%	0.00%
	Computers	0.07%	0.52%	0.00%	0.22%
	Cellphones	0.00%	0.00%	0.00%	0.00%
	Computer Peripherals	0.00%	0.01%	0.00%	0.00%
	Audio Equipment	0.01%	0.06%	0.00%	0.03%
	Internet Connection Equipment	0.00%	0.01%	0.00%	0.00%
	Electronic Equipment Cables and Wires	0.25%	0.64%	0.11%	0.48%
	Total Electronics	0.34%	0.91%	0.13%	0.64%

Minnesota Statewide MMSW Material Composition – Detailed Perham Resource Recovery Facility (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
C&D					
	C&D Contained in the MSW Loads	2.61%	10.19%	0.13%	5.90%
	Wood - Treated and Untreated	1.54%	3.94%	0.73%	2.69%
	Total C&D	4.14%	10.62%	1.62%	7.44%
Other					
	Non-Distinct	6.72%	9.62%	4.55%	9.72%
	Unclassifiable Fines	3.91%	3.24%	3.03%	4.90%
	Total Other	10.63%	10.07%	8.14%	13.84%
Total of Overall Waste		100.00%			

Notes for

- 1 Based on 48 hand-sorted waste samples
- 2 Confidence interval is based off of a normal distribution. The confidence limits are determined by the mean percentage + or - the confidence interval.

Minnesota Statewide MMSW Material Composition – Detailed Ramsey/Washington Recycling & Energy Center (R&E Center)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Paper					
	High Grade Office Paper Products	1.42%	2.52%	0.84%	2.26%
	Phone Books	0.00%	0.00%	0.00%	0.00%
	Mixed/Low-Grade Paper Products	4.13%	1.82%	3.66%	4.60%
	Magazines/Catalogs/Glossy	0.84%	2.01%	0.38%	1.43%
	Newspaper/Newsprint	0.08%	0.12%	0.04%	0.11%
	Boxboard	2.28%	1.22%	1.93%	2.60%
	Kraft Paper	0.48%	0.50%	0.35%	0.62%
	OCC or Corrugated Cardboard	2.54%	3.64%	1.66%	3.51%
	Aseptic, Gable Top, Polycoated	0.53%	1.85%	0.20%	1.09%
	Compostable Paper Packaging and Products NOT ASTM Standard	6.73%	2.70%	6.02%	7.51%
	Compostable Paper Packaging and Products Meets ASTM Standard	0.51%	0.69%	0.32%	0.72%
	Remainder/Composite Paper Products	0.29%	0.52%	0.15%	0.44%
	Total Paper	19.83%	7.88%	17.62%	21.75%
Plastic					
	Plastic Deposit Beverage Containers	0.67%	0.99%	0.43%	0.97%
	Plastic Non-Deposit Beverage Containers	0.41%	0.44%	0.29%	0.53%
	#1 PET Bottles/Jars	0.19%	0.47%	0.09%	0.34%
	#1 PET Non-Bottle Rigid Containers & Packaging	0.86%	0.61%	0.67%	1.02%
	#2 HDPE Bottles/Jars - Natural	0.32%	0.31%	0.24%	0.41%
	#2 HDPE Bottles/Jars - Colored	0.48%	0.63%	0.33%	0.67%
	Other HDPE	0.07%	0.37%	0.01%	0.18%
	#3 PVC Packaging	0.00%	0.00%	0.00%	0.00%
	#3 PVC Other	0.03%	0.18%	0.00%	0.08%
	# 4 LDPE Hard Packaging	0.00%	0.02%	0.00%	0.01%

Minnesota Statewide MMSW Material Composition – Detailed Ramsey/Washington Recycling
& Energy Center (R&E Center) (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Plastic (cont.)					
	#4 LDPE Other	0.00%	0.00%	0.00%	0.00%
	#5 PP Bottles	0.12%	0.61%	0.00%	0.34%
	#5 PP Packaging	1.38%	1.00%	1.13%	1.66%
	#6 Polystyrene	0.83%	0.70%	0.66%	1.01%
	#6 Polystyrene - Non-Foam	0.06%	0.11%	0.03%	0.09%
	#7 Plastic Packaging	0.01%	0.05%	0.00%	0.03%
	Agricultural Film	0.00%	0.00%	0.00%	0.00%
	Boat Wrap	0.00%	0.00%	0.00%	0.00%
	Plastic Film	9.90%	5.83%	8.36%	11.82%
	Retail Shopping Bags	1.29%	1.82%	0.85%	1.86%
	Pouches/Flexible Plastic Packaging	0.03%	0.05%	0.02%	0.04%
	Compostable Plastic Products, NOT ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Compostable Plastic Products, Meets ASTM Standard	0.11%	0.73%	0.00%	0.32%
	Other Plastic	2.04%	2.10%	1.53%	2.69%
	Total Plastic	18.79%	6.55%	17.10%	20.76%
Organics					
	Food Waste - Unpackaged	19.24%	10.03%	16.79%	22.10%
	Food Waste - Packaged	4.44%	3.98%	3.40%	5.73%
	Yard Waste	2.51%	4.53%	1.34%	4.03%
	Woody Material	0.43%	1.64%	0.06%	0.98%
	Total Organics	26.61%	11.11%	23.74%	29.61%
Glass					
	Glass Deposit Beverage Containers	0.97%	1.40%	0.63%	1.34%
	Glass Non-Deposit Beverage Containers	0.11%	0.34%	0.02%	0.20%
	Glass Containers	0.33%	0.60%	0.18%	0.50%
	Plate Glass	0.04%	0.20%	0.00%	0.10%
	Non-Glass Ceramics	0.09%	0.22%	0.03%	0.16%
	Remainder/Composite Glass	0.04%	0.14%	0.00%	0.08%
	Total Glass	1.57%	1.43%	1.21%	1.93%

Minnesota Statewide MMSW Material Composition – Detailed Ramsey/Washington Recycling
& Energy Center (R&E Center) (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Metal					
	Metal Deposit Beverage Containers	0.49%	0.44%	0.36%	0.62%
	Metal Non-Deposit Beverage Containers	0.10%	0.26%	0.03%	0.18%
	Aluminum Food Packaging	0.45%	0.49%	0.33%	0.57%
	Other Aluminum	0.07%	0.18%	0.02%	0.12%
	Pet Food Containers	0.07%	0.14%	0.03%	0.11%
	Ferrous Food Cans - Tinned and Not Coated	0.37%	0.42%	0.26%	0.49%
	Other Ferrous Metal	1.02%	1.58%	0.61%	1.45%
	Other Nonferrous Metal	0.28%	1.19%	0.04%	0.69%
	Mixed Metal/Material	0.05%	0.22%	0.00%	0.13%
	Aerosol Containers	0.14%	0.16%	0.10%	0.18%
	Total Metal	3.03%	2.16%	2.36%	3.64%
Consumer Products					
	Household Décor	0.73%	2.66%	0.20%	1.54%
	Textiles	3.18%	2.85%	2.35%	3.98%
	Shoes, Purses, and Belts	0.43%	0.69%	0.24%	0.66%
	Carpet	1.01%	2.88%	0.34%	1.88%
	Furniture - Metal	0.08%	0.59%	0.00%	0.25%
	Furniture - Wood	0.16%	0.82%	0.00%	0.43%
	Furniture - Plastic	0.12%	0.63%	0.00%	0.33%
	Furniture - Composite	1.34%	9.26%	0.00%	4.71%
	Mattresses and Box Springs	0.00%	0.00%	0.00%	0.00%
	Large Appliances (White Goods)	0.22%	1.26%	0.00%	0.65%
	Small Household Appliances	0.72%	2.27%	0.21%	1.37%
	Rubber Products	0.49%	0.94%	0.27%	0.79%
	Tires	0.02%	0.13%	0.00%	0.06%
	Diapers & Sanitary Products	5.35%	5.37%	3.80%	6.90%
	Sports and Recreation Products	0.24%	0.83%	0.07%	0.51%
	Total Consumer Products	14.10%	10.82%	11.05%	17.26%

Minnesota Statewide MMSW Material Composition – Detailed Ramsey/Washington Recycling
& Energy Center (R&E Center) (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Hazardous & Special Wastes					
	All Paints, Stains, Varnish, & Lacquer	0.12%	0.44%	0.03%	0.27%
	Flammable Liquids	0.05%	0.22%	0.00%	0.12%
	Other HHW	0.03%	0.08%	0.01%	0.05%
	Syringes/Needles	0.03%	0.04%	0.02%	0.04%
	Healthcare-Associated Waste	1.65%	4.17%	0.71%	2.98%
	Single Use Household Batteries	0.05%	0.10%	0.03%	0.08%
	Lead-Acid Batteries	0.09%	0.66%	0.00%	0.28%
	Items Containing Lithium Batteries	0.02%	0.06%	0.01%	0.04%
	Lithium Batteries	0.00%	0.00%	0.00%	0.00%
	Other Rechargeable Batteries	0.00%	0.00%	0.00%	0.00%
	Fluorescent Lighting and Mercury Bulbs	0.01%	0.02%	0.00%	0.01%
	Used Oil Filters	0.07%	0.37%	0.00%	0.21%
	Smoke Detectors	0.01%	0.04%	0.00%	0.02%
	Total Hazardous & Special Wastes	2.12%	4.18%	1.13%	3.40%
Electronics					
	Televisions - CRT	0.00%	0.00%	0.00%	0.00%
	Televisions - LCD	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - CRT	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - LCD	0.18%	0.89%	0.00%	0.46%
	Laptops	0.00%	0.00%	0.00%	0.00%
	Television Peripherals	0.02%	0.13%	0.00%	0.07%
	Computers	0.00%	0.00%	0.00%	0.00%
	Cellphones	0.00%	0.00%	0.00%	0.00%
	Computer Peripherals	0.02%	0.11%	0.00%	0.06%
	Audio Equipment	0.36%	2.10%	0.01%	0.97%
	Internet Connection Equipment	0.06%	0.44%	0.00%	0.19%
	Electronic Equipment Cables and Wires	0.43%	1.29%	0.15%	0.82%
	Total Electronics	1.08%	3.04%	0.39%	1.96%

Minnesota Statewide MMSW Material Composition – Detailed Ramsey/Washington Recycling
& Energy Center (R&E Center) (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
C&D					
	C&D Contained in the MSW Loads	1.32%	5.97%	0.20%	3.13%
	Wood - Treated and Untreated	3.51%	10.46%	1.33%	7.36%
	Total C&D	4.83%	11.88%	2.14%	9.32%
Other					
	Non-Distinct	3.91%	4.93%	2.64%	5.38%
	Unclassifiable Fines	4.13%	2.75%	3.42%	5.06%
	Total Other	8.03%	6.16%	6.50%	9.80%
	Total of Overall Waste	100.00%			

Notes for

- 1 Based on 48 hand-sorted waste samples
- 2 Confidence interval is based off of a normal distribution. The confidence limits are determined by the mean percentage + or - the confidence interval.

Minnesota Statewide MMSW Material Composition – Detailed Resource Renew Transfer Station
(Formerly known as Western Lake Superior Sanitary District)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Paper					
	High Grade Office Paper Products	1.77%	4.54%	0.86%	3.21%
	Phone Books	0.00%	0.00%	0.00%	0.00%
	Mixed/Low-Grade Paper Products	2.71%	2.09%	2.17%	3.31%
	Magazines/Catalogs/Glossy	0.50%	0.88%	0.25%	0.73%
	Newspaper/Newsprint	0.14%	0.31%	0.07%	0.23%
	Boxboard	1.91%	1.23%	1.58%	2.25%
	Kraft Paper	0.65%	0.57%	0.50%	0.81%
	OCC or Corrugated Cardboard	2.09%	3.42%	1.32%	3.29%
	Aseptic, Gable Top, Polycoated	0.98%	2.07%	0.52%	1.74%
	Compostable Paper Packaging and Products NOT ASTM Standard	5.55%	3.91%	4.51%	6.68%
	Compostable Paper Packaging and Products Meets ASTM Standard	0.46%	0.91%	0.25%	0.77%
	Remainder/Composite Paper Products	0.43%	1.02%	0.20%	0.78%
	Total Paper	17.18%	8.83%	14.85%	19.56%
Plastic					
	Plastic Deposit Beverage Containers	0.18%	0.26%	0.12%	0.26%
	Plastic Non-Deposit Beverage Containers	0.30%	0.43%	0.21%	0.43%
	#1 PET Bottles/Jars	0.19%	0.30%	0.12%	0.29%
	#1 PET Non-Bottle Rigid Containers & Packaging	0.94%	0.73%	0.73%	1.14%
	#2 HDPE Bottles/Jars - Natural	0.32%	0.38%	0.22%	0.44%
	#2 HDPE Bottles/Jars - Colored	0.82%	1.47%	0.50%	1.29%
	Other HDPE	0.03%	0.08%	0.01%	0.06%
	#3 PVC Packaging	0.00%	0.00%	0.00%	0.00%
	#3 PVC Other	0.00%	0.00%	0.00%	0.00%
	# 4 LDPE Hard Packaging	0.00%	0.01%	0.00%	0.00%
	#4 LDPE Other	0.00%	0.00%	0.00%	0.00%

Minnesota Statewide MMSW Material Composition – Detailed Resource Renew Transfer Station
(Formerly known as Western Lake Superior Sanitary District) (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Plastic (cont.)					
	#5 PP Bottles	0.00%	0.00%	0.00%	0.00%
	#5 PP Packaging	1.11%	0.75%	0.90%	1.34%
	#6 Polystyrene	0.83%	1.60%	0.47%	1.32%
	#6 Polystyrene - Non-Foam	0.18%	0.28%	0.12%	0.27%
	#7 Plastic Packaging	0.21%	1.36%	0.00%	0.60%
	Agricultural Film	0.00%	0.00%	0.00%	0.00%
	Boat Wrap	0.00%	0.00%	0.00%	0.00%
	Plastic Film	9.43%	5.62%	8.03%	11.09%
	Retail Shopping Bags	0.50%	0.56%	0.35%	0.64%
	Pouches/Flexible Plastic Packaging	0.03%	0.06%	0.01%	0.05%
	Compostable Plastic Products, NOT ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Compostable Plastic Products, Meets ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Other Plastic	2.55%	3.93%	1.48%	3.67%
	Total Plastic	17.63%	7.14%	15.43%	19.85%
Organics					
	Food Waste - Unpackaged	19.07%	13.14%	16.04%	23.48%
	Food Waste - Packaged	2.47%	3.32%	1.63%	3.42%
	Yard Waste	1.39%	3.81%	0.55%	2.50%
	Woody Material	0.75%	3.29%	0.08%	1.86%
	Total Organics	23.69%	14.72%	20.23%	28.55%
Glass					
	Glass Deposit Beverage Containers	0.69%	1.02%	0.44%	1.01%
	Glass Non-Deposit Beverage Containers	0.13%	0.45%	0.02%	0.25%
	Glass Containers	0.89%	3.02%	0.32%	1.97%
	Plate Glass	0.01%	0.06%	0.00%	0.03%
	Non-Glass Ceramics	0.77%	3.56%	0.06%	2.00%
	Remainder/Composite Glass	0.08%	0.31%	0.01%	0.17%
	Total Glass	2.58%	5.22%	1.38%	4.25%

Minnesota Statewide MMSW Material Composition – Detailed Resource Renew Transfer Station
(Formerly known as Western Lake Superior Sanitary District) (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Metal					
	Metal Deposit Beverage Containers	0.75%	0.85%	0.54%	1.01%
	Metal Non-Deposit Beverage Containers	0.04%	0.17%	0.01%	0.09%
	Aluminum Food Packaging	0.36%	0.84%	0.19%	0.61%
	Other Aluminum	0.22%	1.32%	0.01%	0.62%
	Pet Food Containers	0.08%	0.14%	0.04%	0.11%
	Ferrous Food Cans - Tinned and Not Coated	0.47%	0.50%	0.35%	0.60%
	Other Ferrous Metal	2.47%	7.17%	0.91%	5.12%
	Other Nonferrous Metal	0.02%	0.06%	0.00%	0.03%
	Mixed Metal/Material	0.61%	2.29%	0.05%	1.36%
	Aerosol Containers	0.14%	0.24%	0.08%	0.20%
	Total Metal	5.15%	7.29%	3.50%	7.82%
Consumer Products					
	Household Décor	0.16%	0.65%	0.02%	0.38%
	Textiles	3.83%	3.84%	2.82%	4.97%
	Shoes, Purses, and Belts	0.87%	2.96%	0.24%	1.81%
	Carpet	2.88%	14.52%	0.39%	7.35%
	Furniture - Metal	2.18%	11.42%	0.25%	5.66%
	Furniture - Wood	2.18%	8.40%	0.28%	4.76%
	Furniture - Plastic	0.04%	0.27%	0.00%	0.12%
	Furniture - Composite	1.00%	6.95%	0.00%	3.54%
	Mattresses and Box Springs	0.13%	0.64%	0.00%	0.34%
	Large Appliances (White Goods)	0.00%	0.00%	0.00%	0.00%
	Small Household Appliances	0.61%	2.24%	0.13%	1.33%
	Rubber Products	0.10%	0.45%	0.02%	0.24%
	Tires	0.00%	0.00%	0.00%	0.00%
	Diapers & Sanitary Products	3.76%	5.25%	2.45%	5.36%
	Sports and Recreation Products	0.05%	0.21%	0.01%	0.12%
	Total Consumer Products	17.79%	19.34%	13.07%	23.59%

Minnesota Statewide MMSW Material Composition – Detailed Resource Renew Transfer Station
(Formerly known as Western Lake Superior Sanitary District) (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
Hazardous & Special Wastes					
	All Paints, Stains, Varnish, & Lacquer	0.10%	0.29%	0.03%	0.19%
	Flammable Liquids	0.02%	0.08%	0.00%	0.05%
	Other HHW	0.15%	0.75%	0.01%	0.40%
	Syringes/Needles	0.02%	0.04%	0.01%	0.03%
	Healthcare-Associated Waste	2.01%	4.09%	0.94%	3.30%
	Single Use Household Batteries	0.07%	0.13%	0.04%	0.11%
	Lead-Acid Batteries	0.00%	0.00%	0.00%	0.00%
	Items Containing Lithium Batteries	0.01%	0.04%	0.00%	0.03%
	Lithium Batteries	0.00%	0.01%	0.00%	0.00%
	Other Rechargeable Batteries	0.00%	0.00%	0.00%	0.00%
	Fluorescent Lighting and Mercury Bulbs	0.02%	0.08%	0.00%	0.04%
	Used Oil Filters	0.00%	0.01%	0.00%	0.01%
	Smoke Detectors	0.02%	0.07%	0.00%	0.04%
	Total Hazardous & Special Wastes	2.42%	4.18%	1.33%	3.69%
Electronics					
	Televisions - CRT	0.19%	1.32%	0.00%	0.57%
	Televisions - LCD	0.20%	1.41%	0.00%	0.61%
	Computer Monitors - CRT	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - LCD	0.00%	0.00%	0.00%	0.00%
	Laptops	0.04%	0.26%	0.00%	0.15%
	Television Peripherals	0.00%	0.02%	0.00%	0.01%
	Computers	0.14%	0.88%	0.00%	0.41%
	Cellphones	0.01%	0.03%	0.00%	0.02%
	Computer Peripherals	0.00%	0.00%	0.00%	0.00%
	Audio Equipment	0.12%	0.78%	0.00%	0.35%
	Internet Connection Equipment	0.03%	0.20%	0.00%	0.09%
	Electronic Equipment Cables and Wires	0.50%	1.94%	0.07%	1.16%
	Total Electronics	1.24%	3.26%	0.38%	2.25%

Minnesota Statewide MMSW Material Composition – Detailed Resource Renew Transfer Station
(Formerly known as Western Lake Superior Sanitary District) (Continued)

Material Categories	Material Components	Mean Composition (%) ¹	Standard Deviation (%)	95% Confidence Limits	
				Lower ²	Upper ²
C&D					
	C&D Contained in the MSW Loads	0.79%	1.93%	0.31%	1.31%
	Wood - Treated and Untreated	4.00%	7.33%	2.12%	6.40%
	Total C&D	4.80%	8.17%	2.73%	7.28%
Other					
	Non-Distinct	5.62%	5.93%	3.96%	7.33%
	Unclassifiable Fines	1.90%	1.97%	1.40%	2.50%
	Total Other	7.52%	6.41%	5.62%	9.26%
	Total of Overall Waste	100.00%			

Notes for

- 1 Based on 48 hand-sorted waste samples
- 2 Confidence interval is based off of a normal distribution. The confidence limits are determined by the mean percentage + or - the confidence interval.

Appendix F

Detailed MMSW Composition Comparison Table by Generating Sector

Minnesota Statewide MMSW Material Composition – Overall and by Generating Sector
Comparison

Material Categories	Material Components	Overall	Residential	ICI	Mixed
Paper					
	High Grade Office Paper Products	1.71%	1.69%	1.75%	1.55%
	Phone Books	0.01%	0.01%	0.00%	0.00%
	Mixed/Low-Grade Paper Products	3.70%	3.97%	3.42%	3.46%
	Magazines/Catalogs/Glossy	0.74%	0.70%	0.76%	0.90%
	Newspaper/Newsprint	0.21%	0.24%	0.17%	0.30%
	Boxboard	2.81%	2.77%	2.84%	3.08%
	Kraft Paper	0.66%	0.65%	0.63%	1.01%
	OCC or Corrugated Cardboard	2.71%	2.38%	3.11%	2.35%
	Aseptic, Gable Top, Polycoated	0.54%	0.44%	0.63%	0.66%
	Compostable Paper Packaging and Products NOT ASTM Standard	5.47%	6.04%	4.91%	4.53%
	Compostable Paper Packaging and Products Meets ASTM Standard	0.48%	0.56%	0.38%	0.44%
	Remainder/Composite Paper Products	0.62%	0.60%	0.67%	0.21%
	Total Paper	19.66%	20.07%	19.30%	18.49%
Plastic					
	Plastic Deposit Beverage Containers	0.50%	0.54%	0.45%	0.50%
	Plastic Non-Deposit Beverage Containers	0.42%	0.43%	0.42%	0.32%
	#1 PET Bottles/Jars	0.17%	0.19%	0.16%	0.09%
	#1 PET Non-Bottle Rigid Containers & Packaging	0.70%	0.86%	0.53%	0.56%
	#2 HDPE Bottles/Jars - Natural	0.42%	0.45%	0.38%	0.34%
	#2 HDPE Bottles/Jars - Colored	0.60%	0.56%	0.66%	0.55%
	Other HDPE	0.05%	0.08%	0.01%	0.01%
	#3 PVC Packaging	0.01%	0.01%	0.00%	0.00%
	#3 PVC Other	0.06%	0.01%	0.13%	0.00%
	# 4 LDPE Hard Packaging	0.00%	0.00%	0.00%	0.00%
	#4 LDPE Other	0.00%	0.00%	0.00%	0.00%

Minnesota Statewide MMSW Material Composition – Overall and by Generating Sector
Comparison (Continued)

Material Categories	Material Components	Overall	Residential	ICI	Mixed
Plastic (cont.)					
	#5 PP Bottles	0.05%	0.07%	0.03%	0.00%
	#5 PP Packaging	1.18%	1.25%	1.11%	1.18%
	#6 Polystyrene	0.68%	0.69%	0.70%	0.47%
	#6 Polystyrene - Non-Foam	0.11%	0.09%	0.14%	0.12%
	#7 Plastic Packaging	0.07%	0.01%	0.13%	0.00%
	Agricultural Film	0.01%	0.00%	0.01%	0.00%
	Boat Wrap	0.00%	0.00%	0.00%	0.00%
	Plastic Film	9.88%	9.99%	9.75%	10.04%
	Retail Shopping Bags	0.76%	1.07%	0.43%	0.71%
	Pouches/Flexible Plastic Packaging	0.03%	0.04%	0.02%	0.02%
	Compostable Plastic Products, NOT ASTM Standard	0.00%	0.00%	0.00%	0.00%
	Compostable Plastic Products, Meets ASTM Standard	0.03%	0.05%	0.00%	0.00%
	Other Plastic	2.88%	2.02%	3.74%	3.83%
	Total Plastic	18.61%	18.41%	18.81%	18.74%
Organics					
	Food Waste - Unpackaged	17.79%	20.00%	15.95%	10.75%
	Food Waste - Packaged	4.76%	3.60%	5.92%	6.18%
	Yard Waste	1.89%	2.23%	1.45%	2.68%
	Woody Material	0.29%	0.26%	0.35%	0.00%
	Total Organics	24.73%	26.08%	23.67%	19.60%
Glass					
	Glass Deposit Beverage Containers	0.87%	1.10%	0.63%	0.74%
	Glass Non-Deposit Beverage Containers	0.20%	0.19%	0.21%	0.19%
	Glass Containers	0.54%	0.69%	0.39%	0.31%
	Plate Glass	0.09%	0.07%	0.12%	0.02%
	Non-Glass Ceramics	0.31%	0.19%	0.46%	0.20%
	Remainder/Composite Glass	0.14%	0.21%	0.06%	0.28%
	Total Glass	2.16%	2.46%	1.87%	1.74%

Minnesota Statewide MMSW Material Composition – Overall and by Generating Sector
Comparison (Continued)

Material Categories	Material Components	Overall	Residential	ICI	Mixed
Metal					
	Metal Deposit Beverage Containers	0.70%	0.71%	0.66%	0.99%
	Metal Non-Deposit Beverage Containers	0.04%	0.07%	0.02%	0.00%
	Aluminum Food Packaging	0.36%	0.37%	0.36%	0.26%
	Other Aluminum	0.09%	0.15%	0.02%	0.00%
	Pet Food Containers	0.06%	0.09%	0.02%	0.20%
	Ferrous Food Cans - Tinned and Not Coated	0.45%	0.53%	0.37%	0.41%
	Other Ferrous Metal	1.69%	0.93%	2.51%	1.89%
	Other Nonferrous Metal	0.11%	0.06%	0.19%	0.02%
	Mixed Metal/Material	0.29%	0.21%	0.26%	1.72%
	Aerosol Containers	0.15%	0.18%	0.11%	0.17%
	Total Metal	3.94%	3.29%	4.52%	5.66%
Consumer Products					
	Household Décor	0.35%	0.37%	0.32%	0.38%
	Textiles	4.25%	3.82%	4.55%	6.29%
	Shoes, Purses, and Belts	0.55%	0.52%	0.59%	0.50%
	Carpet	1.37%	0.91%	1.92%	0.87%
	Furniture - Metal	0.53%	0.22%	0.86%	0.53%
	Furniture - Wood	1.05%	0.24%	2.01%	0.21%
	Furniture - Plastic	0.11%	0.15%	0.07%	0.00%
	Furniture - Composite	0.45%	0.40%	0.54%	0.00%
	Mattresses and Box Springs	0.12%	0.19%	0.05%	0.04%
	Large Appliances (White Goods)	0.05%	0.00%	0.12%	0.00%
	Small Household Appliances	0.50%	0.52%	0.50%	0.22%
	Rubber Products	0.64%	0.29%	1.04%	0.43%
	Tires	0.06%	0.02%	0.10%	0.00%
	Diapers & Sanitary Products	4.53%	5.71%	3.17%	5.44%
	Sports and Recreation Products	0.21%	0.21%	0.21%	0.23%
	Total Consumer Products	14.76%	13.56%	16.05%	15.12%

Minnesota Statewide MMSW Material Composition – Overall and by Generating Sector
Comparison (Continued)

Material Categories	Material Components	Overall	Residential	ICI	Mixed
Hazardous & Special Wastes					
	All Paints, Stains, Varnish, & Lacquer	0.19%	0.23%	0.14%	0.29%
	Flammable Liquids	0.02%	0.02%	0.01%	0.02%
	Other HHW	0.06%	0.03%	0.09%	0.08%
	Syringes/Needles	0.02%	0.03%	0.01%	0.01%
	Healthcare-Associated Waste	1.63%	0.76%	2.63%	1.12%
	Single Use Household Batteries	0.06%	0.09%	0.03%	0.04%
	Lead-Acid Batteries	0.03%	0.00%	0.06%	0.00%
	Items Containing Lithium Batteries	0.03%	0.03%	0.02%	0.01%
	Lithium Batteries	0.00%	0.00%	0.00%	0.00%
	Other Rechargeable Batteries	0.01%	0.00%	0.01%	0.00%
	Fluorescent Lighting and Mercury Bulbs	0.01%	0.02%	0.00%	0.00%
	Used Oil Filters	0.01%	0.03%	0.00%	0.00%
	Smoke Detectors	0.00%	0.01%	0.00%	0.00%
	Total Hazardous & Special Wastes	2.07%	1.26%	3.00%	1.57%
Electronics					
	Televisions - CRT	0.06%	0.05%	0.07%	0.00%
	Televisions - LCD	0.03%	0.07%	0.00%	0.00%
	Computer Monitors - CRT	0.01%	0.00%	0.02%	0.00%
	Computer Monitors - LCD	0.04%	0.04%	0.04%	0.00%
	Laptops	0.01%	0.01%	0.01%	0.00%
	Television Peripherals	0.01%	0.01%	0.01%	0.00%
	Computers	0.04%	0.07%	0.01%	0.01%
	Cellphones	0.00%	0.00%	0.00%	0.00%
	Computer Peripherals	0.09%	0.01%	0.18%	0.00%
	Audio Equipment	0.09%	0.02%	0.16%	0.28%
	Internet Connection Equipment	0.02%	0.03%	0.00%	0.01%
	Electronic Equipment Cables and Wires	0.34%	0.29%	0.41%	0.17%
	Total Electronics	0.74%	0.62%	0.90%	0.47%

Minnesota Statewide MMSW Material Composition – Overall and by Generating Sector
Comparison (Continued)

Material Categories	Material Components	Overall	Residential	ICI	Mixed
C&D					
	C&D Contained in the MSW Loads	1.65%	1.40%	2.04%	0.43%
	Wood - Treated and Untreated	3.26%	2.36%	4.24%	3.21%
	Total C&D	4.91%	3.76%	6.29%	3.65%
Other					
	Non-Distinct	4.53%	5.72%	3.04%	6.65%
	Unclassifiable Fines	3.89%	4.77%	2.56%	8.30%
	Total Other	8.42%	10.49%	5.60%	14.95%
	Total of Overall Waste	100.00%			

Appendix G

Detailed MMSW Composition Comparison Table by Host Facility

Minnesota Statewide MMSW Material Composition – Detailed Comparison by Host Facility

Material Categories	Material Components	Overall	Blue Earth	Eden Prairie	Lyon	Perham	R&E Center	Resource Renew
Paper								
	High Grade Office Paper Products	1.71%	1.24%	2.22%	1.92%	1.71%	1.42%	1.77%
	Phone Books	0.01%	0.00%	0.00%	0.00%	0.05%	0.00%	0.00%
	Mixed/Low-Grade Paper Products	3.70%	4.75%	2.41%	4.22%	4.00%	4.13%	2.71%
	Magazines/Catalogs/Glossy	0.74%	0.76%	0.58%	0.58%	1.16%	0.84%	0.50%
	Newspaper/Newsprint	0.21%	0.20%	0.11%	0.40%	0.36%	0.08%	0.14%
	Boxboard	2.81%	2.46%	2.85%	3.82%	3.56%	2.28%	1.91%
	Kraft Paper	0.66%	0.61%	0.86%	0.63%	0.72%	0.48%	0.65%
	OCC or Corrugated Cardboard	2.71%	4.24%	2.04%	2.04%	3.34%	2.54%	2.09%
	Aseptic, Gable Top, Polycoated	0.54%	0.23%	0.34%	0.48%	0.65%	0.53%	0.98%
	Compostable Paper Packaging and Products NOT ASTM Standard	5.47%	4.08%	5.74%	5.28%	5.43%	6.73%	5.55%
	Compostable Paper Packaging and Products Meets ASTM Standard	0.48%	0.16%	0.66%	0.51%	0.56%	0.51%	0.46%
	Remainder/Composite Paper Products	0.62%	0.13%	0.45%	0.18%	2.21%	0.29%	0.43%
	Total Paper	19.66%	18.86%	18.25%	20.07%	23.74%	19.83%	17.18%
Plastic								
	Plastic Deposit Beverage Containers	0.50%	0.32%	0.43%	0.83%	0.56%	0.67%	0.18%
	Plastic Non-Deposit Beverage Containers	0.42%	0.50%	0.29%	0.52%	0.49%	0.41%	0.30%
	#1 PET Bottles/Jars	0.17%	0.12%	0.08%	0.20%	0.26%	0.19%	0.19%
	#1 PET Non-Bottle Rigid Containers & Packaging	0.70%	0.38%	0.65%	0.65%	0.70%	0.86%	0.94%
	#2 HDPE Bottles/Jars - Natural	0.42%	0.40%	0.41%	0.55%	0.49%	0.32%	0.32%
	#2 HDPE Bottles/Jars - Colored	0.60%	0.48%	0.61%	0.74%	0.49%	0.48%	0.82%

Minnesota Statewide MMSW Material Composition – Detailed Comparison by Host Facility (Continued)

Material Categories	Material Components	Overall	Blue Earth	Eden Prairie	Lyon	Perham	R&E Center	Resource Renew
Plastic (cont.)								
	Other HDPE	0.05%	0.00%	0.01%	0.07%	0.09%	0.07%	0.03%
	#3 PVC Packaging	0.01%	0.00%	0.00%	0.03%	0.00%	0.00%	0.00%
	#3 PVC Other	0.06%	0.12%	0.22%	0.01%	0.00%	0.03%	0.00%
	# 4 LDPE Hard Packaging	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	#4 LDPE Other	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%
	#5 PP Bottles	0.05%	0.00%	0.00%	0.06%	0.12%	0.12%	0.00%
	#5 PP Packaging	1.18%	1.01%	1.34%	1.17%	1.08%	1.38%	1.11%
	#6 Polystyrene	0.68%	0.60%	0.46%	0.63%	0.75%	0.83%	0.83%
	#6 Polystyrene - Non-Foam	0.11%	0.14%	0.13%	0.08%	0.09%	0.06%	0.18%
	#7 Plastic Packaging	0.07%	0.17%	0.00%	0.00%	0.02%	0.01%	0.21%
	Agricultural Film	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Boat Wrap	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Plastic Film	9.88%	9.92%	8.89%	9.56%	11.61%	9.90%	9.43%
	Retail Shopping Bags	0.76%	0.26%	0.53%	1.11%	0.88%	1.29%	0.50%
	Pouches/Flexible Plastic Packaging	0.03%	0.02%	0.03%	0.04%	0.03%	0.03%	0.03%
	Compostable Plastic Products, NOT ASTM Standard	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Compostable Plastic Products, Meets ASTM Standard	0.03%	0.01%	0.00%	0.05%	0.00%	0.11%	0.00%
	Other Plastic	2.88%	3.42%	4.17%	2.63%	2.45%	2.04%	2.55%
	Total Plastic	18.61%	17.88%	18.29%	18.92%	20.13%	18.79%	17.63%

Minnesota Statewide MMSW Material Composition – Detailed Comparison by Host Facility (Continued)

Material Categories	Material Components	Overall	Blue Earth	Eden Prairie	Lyon	Perham	R&E Center	Resource Renew
Organics								
	Food Waste - Unpackaged	17.79%	14.94%	18.43%	18.81%	16.24%	19.24%	19.07%
	Food Waste - Packaged	4.76%	8.84%	3.71%	4.16%	4.94%	4.44%	2.47%
	Yard Waste	1.89%	1.41%	2.56%	1.27%	2.20%	2.51%	1.39%
	Woody Material	0.29%	0.41%	0.07%	0.09%	0.00%	0.43%	0.75%
	Total Organics	24.73%	25.60%	24.76%	24.33%	23.37%	26.61%	23.69%
Glass								
	Glass Deposit Beverage Containers	0.87%	0.53%	0.68%	0.97%	1.40%	0.97%	0.69%
	Glass Non-Deposit Beverage Containers	0.20%	0.28%	0.22%	0.34%	0.13%	0.11%	0.13%
	Glass Containers	0.54%	0.26%	0.39%	0.54%	0.83%	0.33%	0.89%
	Plate Glass	0.09%	0.06%	0.39%	0.01%	0.04%	0.04%	0.01%
	Non-Glass Ceramics	0.31%	0.50%	0.23%	0.18%	0.11%	0.09%	0.77%
	Remainder/Composite Glass	0.14%	0.38%	0.05%	0.28%	0.03%	0.04%	0.08%
	Total Glass	2.16%	2.02%	1.94%	2.32%	2.54%	1.57%	2.58%

Minnesota Statewide MMSW Material Composition – Detailed Comparison by Host Facility (Continued)

Material Categories	Material Components	Overall	Blue Earth	Eden Prairie	Lyon	Perham	R&E Center	Resource Renew
Metal								
	Metal Deposit Beverage Containers	0.70%	0.66%	0.49%	0.90%	0.90%	0.49%	0.75%
	Metal Non-Deposit Beverage Containers	0.04%	0.00%	0.03%	0.04%	0.05%	0.10%	0.04%
	Aluminum Food Packaging	0.36%	0.35%	0.38%	0.33%	0.28%	0.45%	0.36%
	Other Aluminum	0.09%	0.11%	0.05%	0.05%	0.02%	0.07%	0.22%
	Pet Food Containers	0.06%	0.02%	0.04%	0.06%	0.10%	0.07%	0.08%
	Ferrous Food Cans - Tinned and Not Coated	0.45%	0.37%	0.29%	0.62%	0.58%	0.37%	0.47%
	Other Ferrous Metal	1.69%	3.25%	1.55%	1.26%	0.59%	1.02%	2.47%
	Other Nonferrous Metal	0.11%	0.16%	0.16%	0.04%	0.04%	0.28%	0.02%
	Mixed Metal/Material	0.29%	0.44%	0.12%	0.39%	0.14%	0.05%	0.61%
	Aerosol Containers	0.15%	0.14%	0.11%	0.23%	0.14%	0.14%	0.14%
	Total Metal	3.94%	5.49%	3.22%	3.93%	2.84%	3.03%	5.15%
Consumer Products								
	Household Décor	0.35%	0.08%	0.61%	0.35%	0.16%	0.73%	0.16%
	Textiles	4.25%	2.86%	7.35%	3.89%	4.39%	3.18%	3.83%
	Shoes, Purses, and Belts	0.55%	0.34%	0.60%	0.39%	0.66%	0.43%	0.87%
	Carpet	1.37%	1.28%	1.30%	0.93%	0.84%	1.01%	2.88%
	Furniture - Metal	0.53%	0.06%	0.57%	0.10%	0.17%	0.08%	2.18%
	Furniture - Wood	1.05%	1.51%	2.13%	0.07%	0.26%	0.16%	2.18%
	Furniture - Plastic	0.11%	0.09%	0.09%	0.12%	0.19%	0.12%	0.04%
	Furniture - Composite	0.45%	0.00%	0.15%	0.21%	0.00%	1.34%	1.00%
	Mattresses and Box Springs	0.12%	0.51%	0.02%	0.01%	0.04%	0.00%	0.13%
	Large Appliances (White Goods)	0.05%	0.11%	0.00%	0.00%	0.00%	0.22%	0.00%
	Small Household Appliances	0.50%	0.59%	0.40%	0.30%	0.38%	0.72%	0.61%

Minnesota Statewide MMSW Material Composition – Detailed Comparison by Host Facility (Continued)

Material Categories	Material Components	Overall	Blue Earth	Eden Prairie	Lyon	Perham	R&E Center	Resource Renew
Consumer Products (cont.)								
	Rubber Products	0.64%	1.08%	1.79%	0.20%	0.15%	0.49%	0.10%
	Tires	0.06%	0.02%	0.26%	0.03%	0.00%	0.02%	0.00%
	Diapers & Sanitary Products	4.53%	2.17%	5.29%	6.88%	3.76%	5.35%	3.76%
	Sports and Recreation Products	0.21%	0.26%	0.37%	0.21%	0.11%	0.24%	0.05%
	Total Consumer Products	14.76%	10.96%	20.92%	13.69%	11.11%	14.10%	17.79%
Hazardous & Special Wastes								
	All Paints, Stains, Varnish, & Lacquer	0.19%	0.11%	0.34%	0.22%	0.25%	0.12%	0.10%
	Flammable Liquids	0.02%	0.00%	0.01%	0.01%	0.01%	0.05%	0.02%
	Other HHW	0.06%	0.03%	0.06%	0.09%	0.01%	0.03%	0.15%
	Syringes/Needles	0.02%	0.01%	0.00%	0.02%	0.05%	0.03%	0.02%
	Healthcare-Associated Waste	1.63%	2.51%	1.80%	1.12%	0.69%	1.65%	2.01%
	Single Use Household Batteries	0.06%	0.04%	0.03%	0.08%	0.09%	0.05%	0.07%
	Lead-Acid Batteries	0.03%	0.07%	0.00%	0.00%	0.00%	0.09%	0.00%
	Items Containing Lithium Batteries	0.03%	0.03%	0.01%	0.03%	0.05%	0.02%	0.01%
	Lithium Batteries	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%
	Other Rechargeable Batteries	0.01%	0.00%	0.03%	0.00%	0.00%	0.00%	0.00%
	Fluorescent Lighting and Mercury Bulbs	0.01%	0.02%	0.01%	0.00%	0.00%	0.01%	0.02%
	Used Oil Filters	0.01%	0.00%	0.01%	0.00%	0.01%	0.07%	0.00%
	Smoke Detectors	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.02%
	Total Hazardous & Special Wastes	2.07%	2.84%	2.30%	1.58%	1.16%	2.12%	2.42%

Minnesota Statewide MMSW Material Composition – Detailed Comparison by Host Facility (Continued)

Material Categories	Material Components	Overall	Blue Earth	Eden Prairie	Lyon	Perham	R&E Center	Resource Renew
Electronics								
	Televisions - CRT	0.06%	0.16%	0.00%	0.00%	0.00%	0.00%	0.19%
	Televisions - LCD	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%	0.20%
	Computer Monitors - CRT	0.01%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%
	Computer Monitors - LCD	0.04%	0.07%	0.00%	0.00%	0.00%	0.18%	0.00%
	Laptops	0.01%	0.04%	0.00%	0.00%	0.00%	0.00%	0.04%
	Television Peripherals	0.01%	0.03%	0.00%	0.00%	0.00%	0.02%	0.00%
	Computers	0.04%	0.01%	0.01%	0.00%	0.07%	0.00%	0.14%
	Cellphones	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%
	Computer Peripherals	0.09%	0.46%	0.04%	0.01%	0.00%	0.02%	0.00%
	Audio Equipment	0.09%	0.01%	0.00%	0.06%	0.01%	0.36%	0.12%
	Internet Connection Equipment	0.02%	0.00%	0.00%	0.00%	0.00%	0.06%	0.03%
	Electronic Equipment Cables and Wires	0.34%	0.20%	0.31%	0.33%	0.25%	0.43%	0.50%
	Total Electronics	0.74%	1.03%	0.36%	0.40%	0.34%	1.08%	1.24%
C&D								
	C&D Contained in the MSW Loads	1.65%	3.10%	1.55%	0.57%	2.61%	1.32%	0.79%
	Wood - Treated and Untreated	3.26%	4.15%	4.03%	2.32%	1.54%	3.51%	4.00%
	Total C&D	4.91%	7.25%	5.57%	2.88%	4.14%	4.83%	4.80%
Other								
	Non-Distinct	4.53%	3.92%	2.19%	4.80%	6.72%	3.91%	5.62%
	Unclassifiable Fines	3.89%	4.15%	2.20%	7.07%	3.91%	4.13%	1.90%
	Total Other	8.42%	8.07%	4.39%	11.87%	10.63%	8.03%	7.52%
	Total of Overall Waste	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Appendix H

Detailed MMSW Composition Comparison Table – 2013 vs 2025-2026 Studies

**Minnesota Statewide MMSW Material Composition – Detailed MMSW Composition Comparison –
2013 vs 2025-2026 Studies**

Material Categories	Material Components	2013 Study	2025-2026 Study
Paper			
	Newsprint (ONP)	1.40%	0.21%
	High Grade Office Paper	1.10%	1.71%
	Magazines/Catalogs	0.70%	0.74%
	Phone Books	0.10%	0.01%
	Gable Top/ Aseptic Containers/ Cartons	0.30%	0.54%
	OCC and Kraft Bags	3.70%	3.37%
	Boxboard	1.60%	2.81%
	Compostable Paper	9.80%	5.94%
	Mixed Recyclable Paper	3.40%	3.70%
	Non-Recyclable Paper	2.30%	0.62%
	Total Paper	24.40%	19.66%
Plastic			
	#1 PET Beverage Containers	0.80%	0.92%
	Other PET (e.g. Jars and Clamshells)	0.50%	0.87%
	HDPE Bottles/Jars	0.50%	1.02%
	Other HDPE	0.60%	0.05%
	PVC - #3	0.00%	0.07%
	Polystyrene - #6	1.00%	0.80%
	LDPE (Rigids) - #4	0.10%	0.00%
	Polypropylene - #5	0.60%	1.23%
	Other #7 Plastics	0.10%	0.07%
	PLA & Compostable Plastics	0.00%	0.03%
	Bags and Film Plastic	6.60%	10.65%
	Other Plastic (Nonpackaging)	7.10%	2.88%
	Pouches/Flexible Plastic Packaging (2025 Category Only)		0.03%
	Total Plastic	17.90%	18.58%
HHW			
	Batteries	0.10%	0.12%
	Mercury Containing Lamps	0.00%	0.01%
	Paint, Oil, and Other HHW	0.40%	0.28%
	Smoke Detectors	0.00%	0.00%
	Total HHW	0.50%	0.42%

**Minnesota Statewide MMSW Material Composition – Detailed MMSW Composition Comparison –
2013 vs 2025-2026 Studies (Continued)**

Material Categories	Material Components	2013 Study	2025-2026 Study
Metal			
	Aluminum Beverage Containers	0.40%	0.74%
	Other Aluminum	0.70%	0.51%
	Steel/Tin (Ferrous) Containers	0.70%	2.14%
	Other Metal	2.70%	0.56%
	Total Metal	4.50%	3.94%
Glass			
	Beverage Container Glass	1.30%	1.08%
	Glass Containers	0.50%	0.54%
	Other (Non-Container Glass)	0.40%	0.55%
	Total Metal	2.20%	2.16%
Electronics			
	Laptops	0.00%	0.01%
	Computer Monitors	NA	0.05%
	Televisions	0.00%	0.09%
	All Other Electronic Items	1.2%	0.59%
	Printers		
	Total Electronics	1.20%	0.74%
Organics			
	Yard Waste	2.80%	2.18%
	Food Waste	17.80%	22.54%
	Wood	5.70%	3.26%
	Other Organic Material (Diapers & Sanitary Products)	4.70%	4.53%
	Total Organics	31.00%	32.52%
Other Wastes			
	Mattresses/Box Springs	0.40%	0.12%
	Appliances & Furniture	3.00%	2.69%
	Textiles & Leather	4.70%	4.80%
	Carpet	2.30%	1.37%
	Sharps and Infectious Waste	0.00%	1.65%
	Other Not Elsewhere Classified	8.00%	11.32%
	Total Other Wastes	18.40%	21.96%
	Total of Overall Waste	100.00%	100.00%

Appendix I

Methodology for Combining 2025-2026 Study Results with the 2013 Study

2013 Study vs. 2025-2026 Study Material Category Comparison List

2013 Material Category	2013 Component	2025-2026 Component	2025-2026 Component #	2025-2026 Material Category
Paper	Newsprint (ONP)	Newspaper/Newsprint	5	Paper
Paper	High Grade Office Paper	High Grade Office Paper Products	1	Paper
Paper	Magazines/Catalogs	Magazines/Catalogs/Glossy	4	Paper
Paper	Phone Books	Phone Books	2	Paper
Paper	Gable Top/Aseptic Containers/Cartons	Aseptic Cartons, Gable Top Containers, & Polycoated Packaging	9	Paper
Paper	OCC and Kraft Bags	OCC or Corrugated Cardboard	8	Paper
		Kraft Paper	7	Paper
Paper	Boxboard	Boxboard	6	Paper
Paper	Compostable Paper	Compostable Paper Packaging and Products NOT ASTM Standard	10	Paper
		Compostable Paper Packaging and Products Meets ASTM Standard	11	Paper
Paper	Mixed Recyclable Paper	Mixed/Low-Grade Paper Products	3	Paper
Paper	Non-Recyclable Paper	Remainder Composite Paper Products	12	Paper
Plastics	#1 PET Beverage Containers	Plastic Deposit Beverage Containers	13	Plastic
		Plastic Non-Deposit Beverage Containers	14	Plastic

2013 Study vs. 2025-2026 Study Material Category Comparison List

2013 Material Category	2013 Component	2025-2026 Component	2025-2026 Component #	2025-2026 Material Category
Plastics	Other PET (e.g. jars and clamshells)	#1 PET Bottles/Jars	15	Plastic
		#1 PET Non-Bottle Rigid Containers & Packaging	16	Plastic
Plastics	HDPE Bottles/Jars	#2 HDPE Bottles/Jars - Natural	17	Plastic
		#2 HDPE Bottles/Jars - Colored	18	Plastic
Plastics	Other HDPE	Other HDPE	19	Plastic
Plastics	PVC - #3	#3 PVC Packaging	20	Plastic
		#3 PVC Other	21	Plastic
Plastics	Polystyrene - #6	#6 Polystyrene	26	Plastic
		#6 Polystyrene - Non-Foam	100	Plastic
Plastics	LDPE (Rigids) - #4	#4 LDPE Hard Packaging	22	Plastic
		#4 LDPE Other	23	Plastic
Plastics	Polypropylene - #5	#5 PP Bottles	24	Plastic
		#5 PP Packaging	25	Plastic
Plastics	Other #7 Plastics	#7 Plastic Packaging	27	Plastic
Plastics	PLA & Compostable Plastics	Compostable Plastic Products NOT ASTM Standard	33	Plastic
		Compostable Plastic Products Meets ASTM Standard	34	Plastic
Plastics	Bag and Film Plastic	Plastic Film	30	Plastic
		Retail Shopping Bags	31	Plastic

2013 Study vs. 2025-2026 Study Material Category Comparison List

2013 Material Category	2013 Component	2025-2026 Component	2025-2026 Component #	2025-2026 Material Category
Plastics	Other Plastic (nonpackaging)*	Other Plastic	35	Plastic
		Agricultural Film	28	Plastic
		Boat Wrap	29	Plastic
Plastics		Pouches/Flexible Plastic Packaging**	32	Plastic
HHW	Batteries	Single Use Household Batteries	76	Hazardous and Special Waste
		Lead-Acid Batteries	77	Hazardous and Special Waste
		Items Containing Lithium Batteries	78	Hazardous and Special Waste
		Lithium Batteries	79	Hazardous and Special Waste
		Other Rechargeable Batteries	80	Hazardous and Special Waste
HHW	Mercury Containing Lamps	Fluorescent Lighting and Mercury Bulbs	81	Hazardous and Special Waste
HHW	Paint, Oil, and Other HHW (Paint Containers, Oil Containers & Filters, and Other HHW)***	All Paints, Stains, Varnish, & Lacquer	71	Hazardous and Special Waste
		Used Oil Filters	82	Hazardous and Special Waste
		Flammable Liquids	72	Hazardous and Special Waste
		Other HHW	73	Hazardous and Special Waste
HHW	Smoke Detectors	Smoke Detectors	83	Hazardous and Special Waste
Metal	Aluminum Beverage Containers	Metal Deposit Beverage Containers	46	Metal
		Metal Non-Deposit Beverage Containers	47	Metal

2013 Study vs. 2025-2026 Study Material Category Comparison List

2013 Material Category	2013 Component	2025-2026 Component	2025-2026 Component #	2025-2026 Material Category
Metal	Other Aluminum	Other Aluminum	49	Metal
		Aluminum Food Packaging	48	Metal
		Pet Food Containers	50	Metal
Metal	Steel/Tin (Ferrous) Containers	Ferrous Food Cans - Tinned & Not Coated	51	Metal
Metal	Other Metal	Other Ferrous Metal	52	Metal
		Other Non-Ferrous Metal	53	Metal
		Mixed Metal/Material	54	Metal
		Aerosol Containers	55	Metal
Glass	Beverage Container Glass	Glass Deposit Beverage Containers	40	Glass
		Glass Non-Deposit Beverage Containers	41	Glass
Glass	Glass Containers	Glass Containers	42	Glass
Glass	Other (Non-Container) Glass	Plate Glass	43	Glass
		Non-Glass Ceramics	44	Glass
		Remainder/Composite Glass	45	Glass
Problem Materials/Electronics	Laptops	Laptops	88	Electronics
Problem Materials/Electronics	Computer Monitors	Computer Monitors - CRT	86	Electronics
		Computer Monitors - LCD	87	Electronics

2013 Study vs. 2025-2026 Study Material Category Comparison List

2013 Material Category	2013 Component	2025-2026 Component	2025-2026 Component #	2025-2026 Material Category
Problem Materials/Electronics	Televisions	Televisions - CRT	84	Electronics
		Televisions - LCD	85	Electronics
Problem Materials/Electronics	All Other Electronic Items	Television Peripherals	89	Electronics
		Computers	90	Electronics
		Cellphones	91	Electronics
		Computer Peripherals	92	Electronics
	Printers	Audio Equipment	93	Electronics
		Internet Connection Equipment	94	Electronics
		Electronic Equipment Cables and Wires	95	Electronics
Organics	Yard Waste	Yard Waste	38	Organics
		Woody Material	39	Organics
Organics	Food Waste	Food Waste - Unpackaged	36	Organics
		Food Waste - Packaged	37	Organics
Organics	Wood	Wood - Treated and Untreated	97	C&D
Organics	Other Organic Material	Diapers & Sanitary Products	69	Consumer Products

2013 Study vs. 2025-2026 Study Material Category Comparison List

2013 Material Category	2013 Component	2025-2026 Component	2025-2026 Component #	2025-2026 Material Category
Other Wastes	Mattresses/ Box Springs	Mattresses & Box Springs	64	Consumer Products
Other Wastes	Appliances & Furniture	Large Appliances (White Goods)	65	Consumer Products
		Small Household Appliances	66	Consumer Products
		Furniture - Metal	60	Consumer Products
		Furniture - Wood	61	Consumer Products
		Furniture - Plastic	62	Consumer Products
		Furniture - Composite	63	Consumer Products
Other Wastes	Textiles & Leather	Textiles	57	Consumer Products
		Shoes, Purses, & Belts	58	Consumer Products
Other Wastes	Carpet	Carpet	59	Consumer Products
Other Wastes	Sharps and Infectious Waste	Syringes/Needles	74	Hazardous and Special Waste
		Healthcare-Associated Waste	75	Hazardous and Special Waste

2013 Study vs. 2025-2026 Study Material Category Comparison List

2013 Material Category	2013 Component	2025-2026 Component	2025-2026 Component #	2025-2026 Material Category
Other Wastes	Other Not Elsewhere Classified	Household Décor	56	Consumer Products
		Rubber Products	67	Consumer Products
		Tires	68	Consumer Products
		Sports & Recreation Products	70	Consumer Products
		C&D Contained in MSW Loads	96	C&D
		Non-Distinct	98	Other
		Unclassifiable Fines	99	Other

*Agricultural Film and Boat Wrap plastics were not listed as separate components for the 2013 Study. Neither component was discovered during the 2025 Study (not found).

**Pouches/Flexible Plastic Packaging was not a separate component for the 2013 Study. For this comparison, the component was kept separate from the 2013 Other Plastic (Nonpackaging) component since it is plastic packaging.

***Due to overlapping definitions, this comparison line includes the 2013 Components (Paint Containers, Oil Containers & Filters, and Other HHW) and the 2025 components (All Paints, Stains, Varnish & Lacquer, Used Oil Containers, Flammable Liquids, and other HHW).

Appendix J

2025-2026 Study Raw Data

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
		Facility	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	
		Date	9/22/25	9/22/25	9/22/25	9/22/25	9/22/25	9/22/25	9/22/25	9/22/25	9/22/25	9/23/25	9/23/25	9/23/25	9/23/25	9/23/25	9/23/25	9/23/25	9/23/25	9/23/25	9/23/25	
		Time	9:03	9:58	10:34	11:16	13:12	13:36	14:05	14:39	8:50	9:15	9:52	10:30	11:00	11:42	12:52	13:18	13:45	14:12	15:01	
		Weather	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Sunny	Sunny	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Sunny	Sunny	Sunny	Sunny	Sunny
		Hauler	Aspen	Tennis	Tennis	Tennis	WM	Allied	FCC	Walter's	Republic	Tennis	Republic	Tennis	Republic	WM	Allied/Republic	City of N St. Paul (Tennis)	Nitti	Maroney's	Highland	
		Truck Number	6766	68	86	5204	6617	6264	6753	6703	6528	6593	6673	655	6534	6672	6530	6625	10851	2	109	
		Vehicle Type	Front	Side	0	Rear	Front	Front	Side	Front	Front	Side	0	Side	Front	Compactor	Side	Side	0	0	Side	
		Waste Type	ICI	Res	ICI	Res	ICI	ICI	Res	ICI	ICI	Res	Res	Res	ICI	Res	Res	Res	Res	Res	Res	Res
		Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)		
Paper	1	High Grade Office Paper Products	1.40	1.00	2.05	1.15	0.75	6.35	1.45	0.85	7.05	2.10	0.20	0.35	0.50	3.00	1.65	1.80	0.95	2.15	1.50	
Paper	2	Phone Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paper	3	Mixed/Low-Grade Paper Products	15.45	9.40	4.40	10.40	12.85	8.10	9.30	7.00	10.80	13.20	7.80	6.95	6.15	8.80	11.80	7.65	5.15	4.75	4.55	
Paper	4	Magazines/Catalogs/Glossy	0.00	1.95	0.45	0.55	2.30	1.00	0.30	0.50	0.60	1.35	0.00	1.45	1.05	3.60	0.25	0.55	1.10	0.15	4.55	
Paper	5	Newspaper/Newsprint	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	1.15	0.00	0.15	0.00	0.20	0.60	0.10	
Paper	6	Boxboard	3.45	4.20	2.25	4.45	9.50	5.70	7.45	7.80	2.00	5.20	4.50	2.45	2.35	2.00	4.65	4.10	4.05	5.45	5.95	
Paper	7	Kraft Paper	0.10	1.85	0.10	1.30	0.35	0.10	0.80	3.40	0.05	0.55	1.35	1.15	1.10	0.45	0.85	0.50	0.40	3.00	1.45	
Paper	8	OCC or Corrugated Cardboard	2.35	2.30	2.75	5.00	4.15	18.15	1.65	13.60	14.00	4.00	1.05	1.70	3.55	32.95	3.30	1.30	2.65	1.90	3.45	
Paper	9	Aseptic, Gable Top, Polycoated	0.40	1.00	0.65	0.70	0.40	1.10	0.80	1.05	3.30	0.55	0.20	0.00	0.00	0.35	3.05	0.25	0.00	0.55	0.25	
Paper	10	Compostable Paper Pkg NOT ASTM	27.85	23.40	14.35	14.40	13.80	15.70	27.70	14.70	26.10	18.35	15.65	18.45	12.35	12.55	22.50	18.95	13.30	22.55	20.80	
Paper	11	Compostable Paper Pkg ASTM	0.00	0.00	4.85	5.75	0.35	0.30	0.00	0.30	0.50	7.10	2.20	0.35	0.00	1.55	0.85	1.15	0.00	0.15	1.30	
Paper	12	Remainder/Composite Paper Products	0.30	0.15	0.00	0.00	0.00	0.15	0.00	0.00	0.30	3.95	0.00	0.00	0.90	0.00	0.05	0.00	0.00	0.00	6.55	
Plastic	13	Plastic Deposit Beverage Containers	0.45	0.05	0.40	0.00	0.60	0.90	1.05	1.05	0.30	0.25	0.15	0.10	1.00	0.30	0.25	0.20	0.50	0.35	0.25	
Plastic	14	Plastic Non-Deposit Beverage Containers	2.80	1.00	1.20	1.10	3.45	2.80	0.25	2.40	0.90	3.85	0.65	1.20	1.60	2.90	1.15	0.70	1.20	1.60	0.75	
Plastic	15	#1 PET Bottles/Jars	0.20	0.00	0.00	0.00	0.00	0.80	0.65	0.30	0.50	0.80	0.40	0.10	0.25	0.50	1.15	0.80	1.05	0.20	0.55	
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging	1.85	4.15	1.40	4.80	3.25	2.65	3.15	1.65	3.40	2.60	3.80	4.70	2.40	1.40	3.10	3.95	1.25	2.65	3.05	
Plastic	17	#2 HDPE Bottles/Jars - Natural	2.90	0.35	1.25	0.65	1.25	1.95	0.00	1.05	1.40	0.55	0.35	0.70	0.70	0.65	0.45	0.75	1.15	0.55	1.00	
Plastic	18	#2 HDPE Bottles/Jars - Colored	0.25	7.70	5.35	0.55	0.55	3.25	1.10	0.60	1.30	0.90	0.80	0.00	0.80	0.35	0.50	0.85	0.95	1.95	2.10	
Plastic	19	Other HDPE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.10	0.00	0.40	0.30	0.10	
Plastic	20	#3 PVC Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	21	#3 PVC Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	22	# 4 LDPE Hard Packaging	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	23	#4 LDPE Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	24	#5 PP Bottles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.95	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	25	#5 PP Packaging	4.10	3.60	6.55	3.75	2.90	3.95	2.45	2.65	2.90	2.55	1.25	1.70	0.00	1.40	3.35	3.85	3.30	4.05	13.05	
Plastic	26	#6 Polystyrene	0.80	1.45	0.15	2.05	2.15	2.85	1.65	2.65	5.30	2.05	2.35	1.45	2.95	4.90	6.60	1.70	1.40	1.70	1.90	
Plastic	27	#7 Plastic Packaging	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	28	Agricultural Film	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	29	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	30	Plastic Film	23.50	19.65	17.50	21.55	22.10	26.35	26.50	16.65	29.95	23.90	20.05	15.80	21.35	18.25	26.30	27.75	23.60	18.70	17.00	
Plastic	31	Retail Shopping Bags	0.80	2.00	0.30	3.90	3.95	1.30	1.60	4.30	0.35	2.45	4.80	2.10	1.15	2.85	2.05	3.85	1.70	1.85	2.95	
Plastic	32	Pouches/Flexible Plastic Packaging	0.05	0.10	0.05	0.15	0.05	0.00	0.00	0.45	0.05	0.10	0.00	0.05	0.00	0.15	0.25	0.40	0.00	0.15	0.35	
Plastic	33	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	34	Compostable Plastic Prod ASTM	0.15	0.05	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	35	Other Plastic	2.10	5.75	4.25	4.50																

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		Facility	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
Metal	51	Ferrous Food Cans - Tinned and Not Coated	1.20	0.30	3.20	1.40	1.50	3.35	0.20	1.55	1.00	1.40	0.25	1.75	3.20	1.40	1.25	1.00	2.85	0.75	0.80
Metal	52	Other Ferrous Metal	0.00	4.35	6.95	17.55	0.90	1.60	0.25	0.00	0.00	0.00	0.30	1.80	6.90	0.20	6.10	0.15	0.00	1.60	4.55
Metal	53	Other Nonferrous Metal	0.00	0.00	0.00	0.00	0.05	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.35	0.20	0.00	0.00	0.00	0.00	0.40
Metal	54	Mixed Metal/Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	55	Aerosol Containers	0.15	0.75	1.20	0.55	0.00	0.25	0.30	0.25	0.00	0.50	0.50	1.40	0.25	0.80	0.20	0.70	0.15	0.55	0.20
Consumer Products	56	Household Décor	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.10	0.00	3.95	0.00	0.00
Consumer Products	57	Textiles	2.00	5.45	0.00	4.90	3.00	6.00	1.95	16.75	1.25	10.30	15.65	21.10	3.90	12.60	3.85	14.75	12.60	5.30	5.40
Consumer Products	58	Shoes, Purses, and Belts	0.15	2.05	0.00	0.00	6.60	0.00	0.00	0.00	0.00	0.00	0.00	2.10	0.35	0.00	0.00	3.05	1.85	0.00	1.10
Consumer Products	59	Carpet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.30	0.00	0.00	3.55	0.00	0.00	0.00	29.70
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.75	0.00	0.00	0.00
Consumer Products	62	Furniture - Plastic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.80	1.65	0.00	0.00	20.35	0.00	0.00	27.15	0.00	5.75
Consumer Products	67	Rubber Products	5.00	0.35	1.70	0.30	1.20	7.45	0.45	0.50	1.35	4.00	0.25	2.00	1.55	0.85	2.10	0.50	0.10	4.80	0.50
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	2.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	0.00	15.90	43.55	14.55	5.25	13.75	37.35	5.35	0.00	23.55	8.40	0.00	52.55	9.65	6.90	14.40	11.95	7.10	15.75
Consumer Products	70	Sports and Recreation Products	0.00	0.00	0.00	0.00	12.20	0.00	0.00	0.00	0.00	0.00	2.40	0.00	0.00	6.45	0.00	2.10	0.00	1.80	2.00
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.00	0.00	0.00	0.00	0.00	0.00	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.00	0.25	0.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.35	0.05	0.00
Hazardous & Special Wastes	73	Other HHW	0.00	0.05	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.30	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.00	0.15	0.15	0.10	0.00	0.00	0.00	0.10	0.00	0.00	0.10	0.30	0.00	0.00	0.10	0.00	0.15	0.00	0.10
Hazardous & Special Wastes	75	Healthcare-Associated Waste	17.60	0.00	16.70	2.65	0.15	2.20	0.20	0.00	0.30	0.00	0.10	0.00	9.65	0.70	1.75	0.00	0.00	0.25	1.70
Hazardous & Special Wastes	76	Single Use Household Batteries	0.00	0.20	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.10	0.30	0.15	0.00	0.15	0.00	0.00	0.00	0.10	0.15
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.15	0.00	0.00	0.35	0.60	0.40	0.00	0.00	0.05
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.10	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.05	0.00	0.00	0.00	0.00	7.35	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.00	0.20	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.45	0.30	0.00	0.00	0.00	0.00	4.35	0.00	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.30	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	22.30	0.00	0.00	0.00	1.50	0.00	0.10	3.10	0.00	0.45	0.45
C&D	96	C&D Contained in the MSW Loads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.75	1.60	10.80	0.00	0.00	0.30	14.35	0.00	0.70	0.10
C&D	97	Wood - Treated and Untreated	0.35	0.30	0.00	0.15	2.50	3.25	1.45	0.00	11.20	0.95	3.55	4.60	0.00	0.70	0.00	0.00	0.20	16.65	0.50
Other	98	Non-Distinct	0.00	3.60	0.70	42.85	24.35	3.50	11.35	0.00	0.00	4.10	50.20	30.55	5.35	0.15	13.85	0.00	10.15	3.65	8.75
Other	99	Unclassifiable Fines	1.85	5.05	8.95	25.60	20.35	6.40	26.30	0.00	6.10	6.30	6.75	6.95	2.95	15.35	10.90	0.00	12.00	19.60	6.55
Plastic	100	#6 Polystyrene - Non-Foam	1.25	0.25	0.75	0.25	0.30	0.15	0.05	0.05	0.20	0.40	0.10	0.00	0.40	0.00	0.15	0.05	0.15	0.05	0.15
Total	Total	Total (Final Sample Weight)	207.20	218.30	215.50	312.25	249.40	217.00	247.80	204.15	264.50	255.80	226.70	237.25	227.70	227.55	214.55	238.25	228.45	249.80	230.85

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	20	21	22	23	24	1	2	3	4	5	6	7	8	9	10	11	12
		Facility	R&E	R&E	R&E	R&E	R&E	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
		Date	9/24/25	9/24/25	9/24/25	9/24/25	9/24/25	9/25/25	9/25/25	9/25/25	9/25/25	9/25/25	9/25/25	9/25/25	9/25/25	9/25/25	9/25/25	9/25/25	9/25/25
		Time	8:34	9:57	10:56	12:01	12:58	8:05	8:34	8:54	9:45	11:12	11:30	11:50	12:18	13:20	13:49	14:09	15:15
		Weather	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny
		Hauler	Nitti	WM	FCC	Republic	Republic	Republic Svcs	Republic	Republic Svcs	Republic Svcs	Republic Svcs	Republic Svcs	Republic Svcs	Republic Svcs	Republic	Republic Svcs	Republic Svcs	Republic Svcs
		Truck Number	6536	6630	6795	6271	6434	3447	3435	1312	0	1352	1301	1373	2583	1351	2570	2580	2562
		Vehicle Type	Front	0	Side	Roll-off	Rolloff	Rolloff	0	0	Rolloff	Front	Front	Front	0	Front	Front	Front	Rear
		Waste Type	ICI	ICI	Res	ICI	ICI	ICI	ICI	ICI	ICI	ICI	ICI	ICI	Res	ICI	Res	Res	Res
			Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)
Paper	1	High Grade Office Paper Products	5.30	0.45	1.25	0.00	0.75	2.65	0.00	2.30	0.00	1.70	0.20	14.10	1.85	1.50	15.35	5.70	1.20
Paper	2	Phone Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3	Mixed/Low-Grade Paper Products	7.05	20.85	4.60	0.00	11.90	2.75	2.60	5.45	1.00	5.10	4.50	4.90	9.30	7.20	3.50	7.75	8.30
Paper	4	Magazines/Catalogs/Glossy	0.00	0.00	0.30	0.00	0.00	0.00	0.30	0.00	0.00	2.45	0.15	5.10	0.20	1.45	0.00	5.90	0.00
Paper	5	Newspaper/Newsprint	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.70	2.95	0.00	0.10	0.00
Paper	6	Boxboard	4.20	8.90	2.55	0.00	4.65	0.85	30.05	2.75	0.20	7.70	5.00	5.15	3.25	3.95	4.00	3.55	6.85
Paper	7	Kraft Paper	0.90	2.50	1.60	0.00	0.10	0.30	2.10	1.40	0.00	4.25	0.30	3.80	3.85	3.15	2.95	1.75	3.55
Paper	8	OCC or Corrugated Cardboard	2.75	2.70	2.35	0.00	0.45	3.60	19.05	3.70	10.70	4.40	5.85	5.90	3.60	3.90	3.75	2.80	3.50
Paper	9	Aseptic, Gable Top, Polycoated	1.95	1.20	0.85	0.00	0.00	0.00	0.00	0.30	0.00	2.20	0.00	0.70	0.45	0.30	0.30	0.70	0.15
Paper	10	Compostable Paper Pkg NOT ASTM	32.40	19.85	15.20	0.00	4.80	6.85	0.00	21.30	0.00	44.20	14.05	10.55	17.20	14.30	16.35	16.00	18.00
Paper	11	Compostable Paper Pkg ASTM	0.70	0.00	0.65	0.00	0.05	0.00	0.00	0.30	0.00	2.85	0.25	0.00	0.05	0.00	1.70	0.80	3.35
Paper	12	Remainder/Composite Paper Products	0.25	1.60	0.00	0.00	0.20	0.00	2.70	0.00	19.60	0.00	0.00	0.00	2.55	0.00	0.00	4.35	0.00
Plastic	13	Plastic Deposit Beverage Containers	0.70	0.55	0.70	0.00	0.30	0.05	0.00	0.20	0.15	2.65	0.25	0.55	0.35	0.05	0.15	0.30	0.15
Plastic	14	Plastic Non-Deposit Beverage Containers	1.10	2.20	2.10	0.00	0.25	0.35	0.00	2.60	0.25	1.55	1.25	1.90	0.90	0.60	1.10	0.75	1.55
Plastic	15	#1 PET Bottles/Jars	7.50	0.70	1.40	0.00	0.00	0.00	0.00	0.35	0.00	0.65	0.30	0.30	0.85	0.00	0.55	0.35	0.50
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging	0.00	4.40	2.75	0.00	0.45	0.30	0.00	2.15	0.00	1.20	1.40	1.30	4.25	1.40	2.20	2.20	2.65
Plastic	17	#2 HDPE Bottles/Jars - Natural	2.10	2.20	0.45	0.00	0.00	0.00	1.95	1.80	0.00	0.60	2.70	1.20	0.75	1.15	0.00	0.35	0.55
Plastic	18	#2 HDPE Bottles/Jars - Colored	0.85	1.40	1.25	0.00	0.00	0.00	0.35	0.75	0.00	0.35	0.90	1.20	0.85	0.00	1.10	0.65	0.80
Plastic	19	Other HDPE	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
Plastic	20	#3 PVC Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21	#3 PVC Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	23.35	0.00	0.00	0.00
Plastic	22	# 4 LDPE Hard Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	23	#4 LDPE Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	24	#5 PP Bottles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	25	#5 PP Packaging	4.50	9.50	2.60	0.00	0.70	0.40	6.00	3.40	0.00	6.05	3.35	1.75	3.40	2.25	2.85	2.95	4.60
Plastic	26	#6 Polystyrene	1.45	2.65	2.90	0.00	0.25	0.00	0.10	2.65	0.30	0.40	1.40	2.15	2.40	1.35	0.60	0.60	1.25
Plastic	27	#7 Plastic Packaging	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	28	Agricultural Film	0.00	0.00	0.00	0.00	0.00	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30	Plastic Film	30.40	59.50	21.75	0.00	23.75	6.70	2.75	17.85	6.60	37.40	8.35	18.00	19.85	16.95	13.90	14.20	24.55
Plastic	31	Retail Shopping Bags	0.65	1.85	1.65	0.00	0.00	0.20	0.40	0.95	0.15	1.70	0.50	2.45	1.00	0.55	0.95	1.80	3.35
Plastic	32	Pouches/Flexible Plastic Packaging	0.10	0.20	0.10	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.15	0.00	0.05	0.05	1.10
Plastic	33	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34	Compostable Plastic Prod ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	35	Other Plastic	20.35	7.25	2.95	32.80	3.45	84.75	42.00	29.00	0.20	4.35	10.25	6.35	3.15	4.90	3.60	3.35	5.80
Organics	36	Food Waste - Unpackaged	27.45	54.85	55.15	0.00	1.55	0.00	0.00	54.25	0.00	27.15	17.55	32.70	51.05	30.75	22.95	24.40	33.05
Organics	37	Food Waste - Packaged	11.75	5.95	5.45	0.00	0.00	0.25	0.00	0.75	0.00	1.10	0.70	1.55	12.55	1.90	3.65	10.20	2.95
Organics	38	Yard Waste	31.70	0.25	12.85	0.00	0.00	0.00	0.75	0.00	0.00	0.00	104.85	0.80	0.95	7.55	29.85	6.95	30.90
Organics	39	Woody Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	40	Glass Deposit Beverage Containers	0.00	2.70	0.00	0.00	0.00	0.00	0.00	2.40	0.00	0.50	0.00	1.50	0.40	4.55	0.00	3.65	0.95
Glass	41	Glass Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.40	1.25	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00
Glass	42	Glass Containers	0.75	0.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.00	0.35	1.75	1.05	7.10	0.00	0.75
Glass	43	Plate Glass	0.00	1.80	0.00	0.00	0.00	0.00	0.30	0.55	0.00	0.00	0.00	0.00	4.05	0.00	0.00	1.55	0.00
Glass	44	Non-Glass Ceramics	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.25	0.45
Glass	45	Remainder/Composite Glass	0.00	2.60	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	46	Metal Deposit Beverage Containers	2.75	2.35	1.75	0.00	0.60	0.50	0.00	1.25	0.25	1.30	1.00	2.10	0.80	1.20	1.10	0.20	1.00
Metal	47	Metal Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00
Metal	48	Aluminum Food Packaging	0.50	1.00	1.30	0.00	0.00	0.00	0.00	0.30	0.00	0.95	1.05	1.70	1.10	0.85	1.60	0.90	1.00
Metal	49	Other Aluminum	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Metal	50	Pet Food Containers	0.30	0.95	0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.25	0.25

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	20	21	22	23	24	1	2	3	4	5	6	7	8	9	10	11	12
		Facility	R&E	R&E	R&E	R&E	R&E	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
Metal	51	Ferrous Food Cans - Tinned and Not Coated	2.75	0.70	0.70	0.00	0.00	0.00	0.00	2.10	0.00	0.00	0.70	0.70	1.30	4.95	0.60	0.20	1.20
Metal	52	Other Ferrous Metal	0.00	0.30	0.75	0.00	0.00	3.00	1.35	0.00	18.25	5.75	0.00	7.15	6.70	4.85	7.25	6.45	0.35
Metal	53	Other Nonferrous Metal	0.00	0.95	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.65	0.00	1.75	0.00	0.00
Metal	54	Mixed Metal/Material	0.20	0.00	0.00	0.00	0.00	0.25	0.00	3.25	0.00	0.00	0.00	0.00	0.00	0.30	0.55	0.00	0.00
Metal	55	Aerosol Containers	0.30	0.00	1.05	0.00	0.00	0.30	0.00	1.00	0.00	0.30	0.00	0.90	2.35	0.00	0.20	0.80	0.00
Consumer Products	56	Household Décor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.80	0.00	0.00	0.00	2.00	0.00	1.45	0.40	0.75	0.00
Consumer Products	57	Textiles	12.50	19.15	13.00	0.00	0.00	3.35	109.65	5.25	4.40	1.55	4.30	19.75	9.75	0.40	19.25	3.85	7.75
Consumer Products	58	Shoes, Purses, and Belts	0.00	3.00	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.00	1.30	0.00	0.60	0.00
Consumer Products	59	Carpet	0.00	5.40	11.70	0.00	0.00	0.00	13.20	0.00	0.00	2.45	0.00	0.00	1.75	0.00	0.00	0.00	0.00
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.65	0.00	0.00	9.85	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.25	7.35	14.05	0.00	0.95	0.00	0.00	0.00
Consumer Products	62	Furniture - Plastic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	209.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.75	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	4.35	28.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.65	0.00	0.00	4.05	0.00
Consumer Products	67	Rubber Products	0.45	0.00	0.00	0.00	0.00	173.15	3.35	0.15	0.00	0.10	0.00	0.45	0.00	0.00	10.65	0.00	0.25
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.30	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	0.30	4.65	31.95	0.00	0.00	0.15	0.00	29.35	0.00	20.50	11.90	30.20	5.10	1.55	11.70	11.50	7.20
Consumer Products	70	Sports and Recreation Products	0.00	0.30	0.00	0.00	0.00	0.00	2.50	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	1.25	0.00
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.00	0.00	2.30	0.00	0.00	0.00	0.00	7.60	0.00	2.75	0.00	1.10	0.75	0.55	1.85	0.00	4.70
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.20
Hazardous & Special Wastes	73	Other HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70
Hazardous & Special Wastes	74	Syringes/Needles	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.10	0.00
Hazardous & Special Wastes	75	Healthcare-Associated Waste	6.10	2.80	0.45	0.00	1.75	1.55	0.20	0.80	0.00	16.55	6.35	2.35	1.40	2.55	1.95	0.90	0.00
Hazardous & Special Wastes	76	Single Use Household Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.05	0.05	0.00
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.10	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.05
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.45	0.00	0.00	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.00	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	3.85	0.25	0.00	0.00	0.00	0.00	3.45	0.55	0.00	0.00	0.00	0.75	0.05	10.55	0.00	0.00	0.10
C&D	96	C&D Contained in the MSW Loads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.10	1.45	0.00	0.00	0.00	0.00	43.50	0.00	23.35	1.50
C&D	97	Wood - Treated and Untreated	2.10	2.75	0.00	84.30	150.50	3.65	4.80	7.00	132.45	0.00	0.00	0.00	11.00	8.30	0.00	17.55	0.15
Other	98	Non-Distinct	1.05	13.35	10.50	0.00	16.40	0.00	0.00	1.65	0.00	0.80	1.50	7.80	12.85	3.50	14.00	2.30	4.80
Other	99	Unclassifiable Fines	3.05	21.70	10.20	0.00	0.00	0.00	0.95	7.55	0.75	6.95	2.05	10.15	6.20	3.75	5.95	14.75	14.35
Plastic	100	#6 Polystyrene - Non-Foam	0.20	0.10	0.20	0.00	0.00	0.05	0.00	0.10	0.00	0.50	0.05	0.15	0.00	0.05	0.00	0.15	0.05
Total	Total	Total (Final Sample Weight)	238.80	328.70	234.70	326.50	222.90	301.05	251.25	240.10	259.60	234.40	254.45	231.40	229.95	228.20	217.35	224.40	207.30

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	13	14	15	16	17	18	19	20	21	22	23	24	1	2	3	4
		Facility	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Perham	Perham	Perham	Perham
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
		Date	9/26/25	9/26/25	9/26/25	9/26/25	9/26/25	9/26/25	9/26/25	9/26/25	9/29/25	9/29/25	9/29/25	9/29/25	10/1/25	10/1/25	10/1/25	10/1/25
		Time	8:08	9:02	9:30	11:00	12:06	12:20	13:19	14:40	8:00	8:40	8:44	11:40	7:35	9:00	9:10	10:41
		Weather	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny
		Hauler	Republic Svcs	Republic Svcs	Republic Svcs	Republic Svcs	Republic Svcs	Republic Svcs	Republic Svcs	Republic Svcs	Republic Svcs	Republic	Republic	Becker	Steves Sanitation	Steves Sanitation	Clay County	
		Truck Number	3447	1361 & 1375	3441	2583	1356	1363	2578	1375	1373	1366	3451	2580	0	3065	Otter Tail	S2
		Vehicle Type	Front	Front	Rolloff	Front	Front	Front	Side	Front	Front	Front	Roll-off	Side	Semi-trailer	Rear	Rear	Rear
		Waste Type	ICI	ICI	ICI	Res	ICI	ICI	Res	ICI	ICI	ICI	ICI	Res	Res	ICI	ICI	Res
			Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)
Paper	1	High Grade Office Paper Products	0.00	0.00	0.00	0.60	0.25	50.85	1.30	8.45	4.90	4.60	0.00	31.75	1.25	0.05	9.50	2.95
Paper	2	Phone Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3	Mixed/Low-Grade Paper Products	3.35	2.80	9.00	6.85	4.20	3.70	7.85	4.70	9.35	1.90	0.35	4.60	3.20	7.65	13.15	7.85
Paper	4	Magazines/Catalogs/Glossy	0.00	2.75	0.00	1.65	0.00	0.00	1.00	0.85	0.85	0.15	0.00	3.50	0.20	0.00	1.00	6.30
Paper	5	Newspaper/Newsprint	0.70	0.20	0.10	0.00	0.50	0.00	1.05	0.30	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.45
Paper	6	Boxboard	3.25	3.40	0.00	7.20	2.90	6.60	3.00	4.20	8.05	70.75	2.85	1.80	1.20	0.35	50.95	7.35
Paper	7	Kraft Paper	2.15	2.30	0.70	6.40	1.80	4.45	0.90	2.55	0.85	0.55	0.20	0.10	1.10	0.15	1.65	2.90
Paper	8	OCC or Corrugated Cardboard	7.80	7.10	1.10	5.95	2.30	6.45	0.65	12.45	11.40	8.50	4.75	3.25	6.55	16.45	2.25	5.05
Paper	9	Aseptic, Gable Top, Polycoated	1.30	0.00	0.00	1.55	0.50	1.50	0.95	0.45	0.40	1.05	0.00	0.15	0.35	0.00	0.55	0.75
Paper	10	Compostable Paper Pkg NOT ASTM	9.05	11.70	0.20	26.55	12.85	12.95	26.40	8.10	25.95	8.10	0.00	8.40	12.05	1.85	9.35	14.75
Paper	11	Compostable Paper Pkg ASTM	2.75	0.60	0.00	0.85	0.75	0.45	1.75	0.30	1.40	30.25	0.00	0.55	3.90	0.05	1.15	0.00
Paper	12	Remainder/Composite Paper Products	0.00	0.05	0.00	0.10	0.00	0.00	0.00	0.30	0.00	0.40	0.00	3.90	0.00	0.00	0.05	4.50
Plastic	13	Plastic Deposit Beverage Containers	0.10	0.65	0.00	0.25	2.60	0.35	0.20	0.40	0.70	0.95	0.00	0.10	0.40	0.05	3.75	0.70
Plastic	14	Plastic Non-Deposit Beverage Containers	1.60	3.10	0.00	1.40	0.55	2.35	0.50	0.80	5.60	1.05	0.00	0.45	0.90	0.45	1.70	2.80
Plastic	15	#1 PET Bottles/Jars	0.00	0.85	0.00	0.35	1.10	0.45	1.20	0.35	0.55	0.00	0.00	0.35	1.90	0.00	0.40	1.20
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging	2.70	1.15	0.00	5.35	0.55	2.90	5.80	0.70	5.65	1.00	0.00	2.15	1.45	0.15	1.30	1.85
Plastic	17	#2 HDPE Bottles/Jars - Natural	1.80	1.20	0.00	1.05	0.60	0.35	0.25	0.35	1.05	0.00	0.00	0.00	1.10	0.00	3.10	0.70
Plastic	18	#2 HDPE Bottles/Jars - Colored	0.30	2.25	0.00	1.85	5.45	1.35	0.50	1.50	4.90	0.00	0.00	0.00	0.65	0.00	0.85	0.50
Plastic	19	Other HDPE	0.00	0.00	0.00	0.10	0.00	0.15	0.05	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	20	#3 PVC Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21	#3 PVC Other	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	22	# 4 LDPE Hard Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	23	#4 LDPE Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	24	#5 PP Bottles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.45	0.00	0.00	0.00
Plastic	25	#5 PP Packaging	3.65	1.40	0.00	3.90	1.15	4.20	3.20	1.65	5.10	1.75	0.00	2.40	0.00	0.00	3.00	3.00
Plastic	26	#6 Polystyrene	2.75	1.05	0.00	1.25	0.50	1.60	1.35	2.20	3.25	1.30	0.10	0.90	1.90	0.85	0.95	2.90
Plastic	27	#7 Plastic Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00
Plastic	28	Agricultural Film	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30	Plastic Film	25.25	38.15	1.10	29.55	10.35	16.60	24.35	20.05	54.45	30.20	0.15	12.20	26.65	11.00	11.10	21.25
Plastic	31	Retail Shopping Bags	0.35	2.15	0.10	2.00	0.50	1.65	0.60	0.80	1.05	0.70	0.00	0.40	0.35	0.00	0.55	1.75
Plastic	32	Pouches/Flexible Plastic Packaging	0.10	0.05	0.00	0.20	0.00	0.00	0.05	0.00	0.10	0.00	0.00	0.05	0.10	0.00	0.00	0.00
Plastic	33	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34	Compostable Plastic Prod ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	35	Other Plastic	1.05	90.15	6.40	4.75	1.55	2.05	1.70	1.25	2.25	10.40	1.80	2.80	1.95	2.05	37.05	11.60
Organics	36	Food Waste - Unpackaged	71.10	53.25	0.00	56.85	9.95	23.25	46.60	26.40	72.65	37.10	0.00	22.00	71.40	107.80	19.15	26.95
Organics	37	Food Waste - Packaged	56.75	0.75	0.00	6.45	2.30	0.45	6.65	4.10	0.00	0.05	0.00	5.55	36.65	145.70	3.80	1.00
Organics	38	Yard Waste	1.25	0.00	0.00	10.30	8.55	0.45	11.65	0.00	0.00	3.45	0.00	16.00	10.65	0.00	3.00	5.85
Organics	39	Woody Material	0.00	9.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	40	Glass Deposit Beverage Containers	0.60	1.35	0.00	0.00	0.00	0.45	0.45	0.00	3.85	0.00	0.65	0.00	3.35	0.00	0.00	1.95
Glass	41	Glass Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10	1.15	0.00	1.80	0.00	0.00	0.00	0.00
Glass	42	Glass Containers	0.00	0.35	0.00	4.45	0.00	6.70	0.95	0.00	1.70	0.00	0.00	0.00	3.85	0.00	3.25	3.95
Glass	43	Plate Glass	0.00	0.75	1.40	0.00	0.00	0.00	2.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	44	Non-Glass Ceramics	0.00	0.00	3.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	45	Remainder/Composite Glass	0.00	0.00	0.00	0.55	0.35	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	46	Metal Deposit Beverage Containers	0.80	0.00	0.00	0.40	0.80	2.35	0.40	0.70	5.85	1.60	0.00	0.50	1.40	0.15	0.40	1.30
Metal	47	Metal Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	48	Aluminum Food Packaging	0.45	0.80	0.00	0.00	0.55	0.10	0.65	0.35	1.85	17.95	0.00	0.55	0.10	0.00	0.00	0.15
Metal	49	Other Aluminum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	50	Pet Food Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	13	14	15	16	17	18	19	20	21	22	23	24	1	2	3	4
		Facility	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Perham	Perham	Perham	Perham
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
Metal	51	Ferrous Food Cans - Tinned and Not Coated	0.00	0.60	0.00	0.75	0.60	1.45	0.35	0.50	0.25	0.00	0.00	0.05	2.50	0.00	1.90	1.50
Metal	52	Other Ferrous Metal	0.20	0.60	3.55	5.45	0.00	1.70	1.30	0.00	1.25	1.15	0.00	0.55	0.00	0.00	1.10	5.50
Metal	53	Other Nonferrous Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	54	Mixed Metal/Material	0.00	0.00	8.60	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	55	Aerosol Containers	0.00	0.55	0.00	0.80	0.00	0.50	0.35	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	1.10
Consumer Products	56	Household Décor	0.00	0.00	15.75	0.00	0.00	0.00	0.05	0.80	0.00	0.95	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	57	Textiles	0.35	9.05	146.15	7.05	19.85	2.40	3.50	4.20	19.90	1.00	209.55	3.15	4.30	1.60	10.10	24.65
Consumer Products	58	Shoes, Purses, and Belts	0.00	0.00	16.00	3.30	2.65	2.20	1.40	0.35	9.30	0.00	2.05	0.00	0.00	0.00	0.00	0.00
Consumer Products	59	Carpet	0.00	19.85	0.00	0.00	0.00	0.00	0.00	36.25	0.00	0.00	4.65	5.65	0.00	0.00	0.00	0.00
Consumer Products	60	Furniture - Metal	0.00	0.00	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	6.15	0.00	0.75	0.00	0.00	2.85	0.00	0.00	1.20	3.00	0.00	0.00	7.25	0.00
Consumer Products	62	Furniture - Plastic	0.00	0.00	3.65	0.00	4.30	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.00	0.00	0.00	0.00	0.00	1.55	0.00	2.80	0.00	0.00	16.90	0.00	0.00	0.00	0.00	2.80
Consumer Products	67	Rubber Products	0.00	0.50	0.00	0.80	0.00	0.40	2.75	43.75	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.30
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	0.00	6.60	0.00	10.25	104.85	8.35	18.70	37.90	14.15	0.00	0.00	30.55	5.55	0.00	1.15	12.95
Consumer Products	70	Sports and Recreation Products	0.00	0.00	9.95	0.25	0.00	0.00	27.05	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.00	2.00	0.00	0.30	0.00	0.00	0.60	0.00	0.00	0.05	0.00	0.00	2.60	0.00	1.30	0.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	73	Other HHW	0.00	6.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	75	Healthcare-Associated Waste	1.75	0.60	0.00	1.55	5.45	0.40	0.30	0.20	4.60	9.10	0.00	0.00	8.35	6.35	0.20	0.00
Hazardous & Special Wastes	76	Single Use Household Batteries	0.00	0.25	0.10	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.15	3.25
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.50	0.00	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	0.00	0.00	4.80	2.05	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.45	0.00	0.15	8.95
C&D	96	C&D Contained in the MSW Loads	0.00	0.00	0.00	16.30	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C&D	97	Wood - Treated and Untreated	0.55	1.95	1.35	10.25	4.85	33.40	0.00	0.00	0.65	0.00	0.10	45.00	0.00	0.00	2.40	2.80
Other	98	Non-Distinct	0.00	1.60	0.00	2.35	2.05	4.60	3.20	1.90	0.95	0.95	0.00	0.95	0.00	0.00	4.00	10.20
Other	99	Unclassifiable Fines	3.05	4.55	0.00	5.20	0.00	4.35	8.80	4.40	6.85	0.20	0.00	3.95	2.75	0.00	4.75	10.15
Plastic	100	#6 Polystyrene - Non-Foam	2.20	0.15	0.00	0.30	0.95	0.10	3.40	0.05	0.00	2.40	0.00	0.00	0.00	0.00	0.15	0.20
Total	Total	Total (Final Sample Weight)	209.05	294.85	240.50	256.65	219.75	217.15	227.85	241.70	295.25	252.45	245.30	219.05	228.10	302.70	217.60	227.15

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		Facility	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
		Date	10/1/25	10/1/25	10/1/25	10/1/25	10/1/25	10/1/25	10/1/25	10/2/25	10/2/25	10/2/25	10/2/25	10/2/25	10/2/25	10/2/25	10/3/25
		Time	11:00	11:30	12:00	1:14	3:00	3:00	3:00	9:30	10:13	12:55	1:04	1:07	1:35	1:58	8:27
		Weather	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny, Windy	Sunny, Windy	Sunny	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny
		Hauler	Steve's Sanitation	Long Jake	G&T	Steves Sanitation	T&G	Steves Sanitation	Steves Sanitation	Steves Sanitation	Steves Sanitation	Steves Sanitation	Steves Sanitation	Steves Sanitation	Steve's Sanitation	Steve's Sanitation	Steve's Sanitation
		Truck Number	Becker	Wadena	Wadena	Ottertail	Wadena	Ottertail	Ottertail	Ottertail	Ottertail	Ottertail	Ottertail	Ottertail	Ottertail	Ottertail	Ottertail
		Vehicle Type	Rear	Side	Rear	Rear	Rear	Rear	Side	Side	Rear	Rear	Rear	Rear	Rear	Rear	Rear
		Waste Type	Res	Res	Res	Res	Res	Res	Res	Res	Res	Res	Res	Res	Res	Res	Res
			Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)
Paper	1	High Grade Office Paper Products	2.10	6.05	4.45	7.30	1.45	3.20	0.50	1.40	7.25	5.30	1.40	3.65	5.65	3.50	4.00
Paper	2	Phone Books	1.95	0.00	0.00	0.00	0.00	2.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3	Mixed/Low-Grade Paper Products	16.45	16.05	6.15	9.65	15.45	7.65	4.70	9.35	11.15	12.40	3.45	9.70	10.70	13.50	7.85
Paper	4	Magazines/Catalogs/Glossy	28.00	0.40	0.05	2.30	5.25	2.65	0.00	3.25	5.55	2.65	2.50	0.70	0.20	0.75	1.10
Paper	5	Newspaper/Newsprint	2.40	0.05	0.00	0.10	3.30	0.00	2.25	0.00	8.15	1.75	0.25	0.00	1.50	0.45	0.00
Paper	6	Boxboard	2.20	4.20	7.90	9.60	11.10	5.65	10.75	7.35	11.05	12.35	3.75	3.70	4.70	9.95	10.10
Paper	7	Kraft Paper	0.60	0.60	0.15	1.05	0.75	0.95	0.75	0.45	0.75	0.60	0.00	0.20	0.45	2.70	0.60
Paper	8	OCC or Corrugated Cardboard	3.85	9.20	6.35	15.20	8.30	3.25	9.75	5.95	4.35	1.45	1.25	13.90	3.60	9.00	1.25
Paper	9	Aseptic, Gable Top, Polyc coated	0.15	0.00	5.10	2.65	1.35	0.25	1.30	0.60	1.65	2.55	1.45	1.10	8.85	1.30	1.05
Paper	10	Compostable Paper Pkg NOT ASTM	4.50	7.40	17.85	9.80	12.45	15.95	14.05	12.90	18.15	15.85	8.85	16.05	38.10	19.80	12.90
Paper	11	Compostable Paper Pkg ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	1.50
Paper	12	Remainder/Composite Paper Products	71.75	3.15	1.60	4.70	3.60	3.95	0.10	2.05	9.20	1.30	0.95	3.00	1.00	3.25	0.75
Plastic	13	Plastic Deposit Beverage Containers	1.55	1.75	0.30	1.25	1.30	2.05	0.65	1.25	0.25	1.10	1.10	0.95	3.00	0.50	0.75
Plastic	14	Plastic Non-Deposit Beverage Containers	0.60	2.05	1.00	2.55	1.45	2.85	1.60	1.95	3.00	2.50	2.00	1.10	3.30	2.95	1.00
Plastic	15	#1 PET Bottles/Jars	0.60	0.45	0.45	1.00	1.05	2.20	0.00	0.45	0.60	0.30	1.40	0.25	0.45	0.95	0.55
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging	0.60	3.55	1.50	1.45	3.30	1.90	1.10	2.05	3.10	2.30	1.75	2.35	1.70	3.50	1.80
Plastic	17	#2 HDPE Bottles/Jars - Natural	0.00	1.80	0.50	2.20	2.60	1.55	0.10	0.25	0.00	3.05	0.80	0.90	0.70	1.25	0.25
Plastic	18	#2 HDPE Bottles/Jars - Colored	0.05	2.90	0.30	1.35	3.15	1.75	1.05	3.40	2.95	0.25	2.70	0.10	0.00	4.00	0.80
Plastic	19	Other HDPE	0.00	0.00	0.80	0.05	0.00	0.30	0.00	0.25	0.10	0.00	0.35	0.00	0.10	0.00	0.00
Plastic	20	#3 PVC Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21	#3 PVC Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	22	# 4 LDPE Hard Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	23	#4 LDPE Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	24	#5 PP Bottles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.65	0.00	0.00	0.00
Plastic	25	#5 PP Packaging	0.10	2.05	3.45	4.70	1.70	2.85	0.85	1.50	2.50	1.90	0.55	0.00	2.55	1.85	1.35
Plastic	26	#6 Polystyrene	9.30	2.55	3.50	1.00	1.10	1.85	3.05	1.30	1.20	1.30	0.55	1.65	1.30	3.00	2.35
Plastic	27	#7 Plastic Packaging	0.00	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	28	Agricultural Film	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30	Plastic Film	8.85	37.70	36.90	36.05	26.15	25.60	7.30	36.55	27.70	18.85	17.90	20.05	42.40	18.20	40.35
Plastic	31	Retail Shopping Bags	0.55	1.30	0.10	0.90	1.30	1.20	0.00	1.75	1.30	1.05	0.15	0.50	0.30	0.90	0.95
Plastic	32	Pouches/Flexible Plastic Packaging	0.25	0.00	0.00	0.15	0.10	0.15	0.00	0.25	0.10	0.00	0.00	0.15	0.35	0.00	0.10
Plastic	33	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34	Compostable Plastic Prod ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	35	Other Plastic	0.20	9.75	6.75	7.20	4.00	2.20	5.80	4.15	4.00	2.70	1.70	3.20	8.35	1.45	2.65
Organics	36	Food Waste - Unpackaged	32.40	8.85	28.30	27.25	37.55	31.40	7.25	33.85	42.70	45.80	58.20	57.00	63.55	35.60	41.10
Organics	37	Food Waste - Packaged	1.60	0.00	2.75	4.45	9.30	2.00	0.00	1.30	5.65	22.85	5.20	4.20	8.65	4.20	9.20
Organics	38	Yard Waste	0.00	9.00	0.00	0.00	0.80	0.20	21.25	5.50	21.35	0.00	67.40	0.00	0.00	0.05	0.00
Organics	39	Woody Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	40	Glass Deposit Beverage Containers	1.10	0.00	0.40	0.05	3.00	3.50	5.30	0.00	1.85	0.90	0.00	1.40	0.00	4.50	0.75
Glass	41	Glass Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	42	Glass Containers	0.00	0.85	3.20	3.15	0.00	4.80	0.80	1.50	3.35	6.55	8.40	4.15	2.75	5.50	1.75
Glass	43	Plate Glass	0.00	0.00	0.00	0.00	0.00	0.65	1.15	0.10	0.00	0.00	0.00	0.00	0.15	0.00	0.00
Glass	44	Non-Glass Ceramics	0.00	0.00	0.00	0.95	0.50	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.70
Glass	45	Remainder/Composite Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	46	Metal Deposit Beverage Containers	0.70	2.10	2.00	2.00	3.75	2.40	2.40	4.00	3.75	2.10	2.65	2.45	1.05	2.35	1.95
Metal	47	Metal Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	48	Aluminum Food Packaging	0.35	0.20	0.05	0.20	1.25	1.15	0.35	0.15	1.10	0.90	0.70	0.55	1.40	0.90	0.90
Metal	49	Other Aluminum	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	50	Pet Food Containers	0.00	0.10	0.00	0.00	0.10	1.20	0.00	0.35	0.00	0.00	0.25	0.80	0.00	1.00	0.10

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		Facility	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
Metal	51	Ferrous Food Cans - Tinned and Not Coated	0.60	0.60	0.75	1.10	4.10	2.95	0.05	1.10	1.95	1.95	0.55	1.20	0.55	5.40	1.10
Metal	52	Other Ferrous Metal	0.00	1.10	10.75	0.55	3.30	0.65	0.00	0.15	1.75	3.40	0.40	1.65	7.80	2.50	0.45
Metal	53	Other Nonferrous Metal	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00
Metal	54	Mixed Metal/Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	55	Aerosol Containers	0.00	0.25	0.40	0.65	1.40	0.70	0.20	0.00	0.70	0.45	0.85	0.00	0.00	0.20	0.35
Consumer Products	56	Household Décor	0.00	0.45	3.75	0.00	2.40	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	57	Textiles	26.60	17.50	13.20	7.60	6.00	14.25	2.75	23.15	1.15	13.50	1.60	20.95	0.85	0.30	16.15
Consumer Products	58	Shoes, Purses, and Belts	0.85	2.20	0.70	0.00	4.35	0.00	0.00	0.65	2.30	5.20	0.80	0.00	4.10	3.85	1.40
Consumer Products	59	Carpet	0.00	0.00	0.00	0.00	9.15	0.00	0.00	5.90	3.30	0.00	0.00	0.00	0.00	0.00	1.80
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.45	0.00	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	0.00	0.00	0.00	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.65
Consumer Products	62	Furniture - Plastic	0.00	16.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	3.55	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.20	1.75	0.00	2.70	1.15	0.00	16.00
Consumer Products	67	Rubber Products	0.00	0.20	4.20	0.50	0.05	0.00	2.40	0.00	0.00	2.80	0.00	0.00	5.45	0.00	0.00
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	1.35	9.55	8.75	25.05	5.60	6.05	0.85	13.45	4.20	0.40	3.40	2.20	7.70	12.85	11.65
Consumer Products	70	Sports and Recreation Products	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	1.85	0.00	1.50	0.00	0.00	0.00
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.65	0.05	2.35	0.00	0.10	5.75	0.15	0.00	0.00	0.55	1.10	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00
Hazardous & Special Wastes	73	Other HHW	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Hazardous & Special Wastes	74	Syringes/Needles	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.10	0.00	0.35	0.20	0.00	0.05	3.95
Hazardous & Special Wastes	75	Healthcare-Associated Waste	0.00	0.00	1.85	0.55	1.25	1.30	0.40	0.10	0.00	1.55	1.45	0.35	0.80	0.30	0.00
Hazardous & Special Wastes	76	Single Use Household Batteries	0.00	0.00	0.20	0.55	0.45	0.55	0.20	0.00	0.05	0.65	0.15	0.85	0.05	0.05	0.00
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.45	0.00	0.00	0.00	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.30
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.00	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	0.00	0.00	0.55	4.45	1.35	0.25	0.05	0.15	0.00	0.05	0.00	1.75	0.00	0.00	0.20
C&D	96	C&D Contained in the MSW Loads	0.00	0.00	0.00	0.00	0.00	0.00	98.70	0.00	0.00	3.85	1.60	0.00	0.00	0.00	0.00
C&D	97	Wood - Treated and Untreated	0.00	1.70	75.65	0.00	3.15	0.85	1.50	2.80	1.35	0.00	1.55	6.50	1.80	0.50	0.20
Other	98	Non-Distinct	0.40	17.65	13.05	17.60	7.30	20.75	1.85	17.60	6.85	2.75	4.65	24.45	1.95	19.40	5.25
Other	99	Unclassifiable Fines	3.55	9.40	4.85	10.20	7.35	8.80	7.95	12.95	9.60	2.75	4.40	5.55	0.00	1.40	16.35
Plastic	100	#6 Polystyrene - Non-Foam	0.00	0.00	0.85	1.10	0.10	0.10	0.70	0.35	0.00	0.15	0.25	0.00	0.45	0.10	0.10
Total	Total	Total (Final Sample Weight)	227.20	210.95	284.35	230.25	234.25	205.20	240.50	223.95	241.00	214.30	221.25	230.25	272.25	204.90	229.55

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	20	21	22	23	24	1	2	3	4	5	6	7	8	9	10	11	12
		Facility	Perham	Perham	Perham	Perham	Perham	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
		Date	10/3/25	10/3/25	10/3/25	10/3/25	10/3/25	10/5/25	10/6/25	10/6/25	10/6/25	10/6/25	10/6/25	10/6/25	10/7/25	10/7/25	10/7/25	10/7/25	10/7/25
		Time	9:00	9:55	10:10	11:45	11:45	9:05	9:26	9:58	10:28	11:33	11:46	1:07	2:44	8:37	9:02	9:50	10:22
		Weather	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Cloudy	Sunny	Sunny, Windy	Sunny/Windy	Sunny/Windy	Sunny/Windy
		Hauler	Steve's Sanitation	Steve's Sanitation	Steve's Sanitation	Clay County	Clay County	Hartel's Disposal	Hartel's Disposal	WM	Hartel's Disposal	Hartel's Disposal	WM	WM	Hartel's Disposal	WM	Hartel's Disposal	WM	Hartel's Disposal
		Truck Number	Ottertail	Wadena	Ottertail	0	0	29C2	297	217737	29B2	29L	313268	108548	29G	214862	29T2	213041	292
		Vehicle Type	Rear	Rear	Rear	Rear	0	Side	Front	Front	Side	Front	Rear	Side	Rear	Front	Side	Front	Front
		Waste Type	ICI	ICI	Res	Res	Res	Res	ICI	ICI	Res	ICI	ICI	Res	ICI	ICI	Res	ICI	ICI
			Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)
Paper	1	High Grade Office Paper Products	1.55	0.65	21.30	2.55	5.40	3.15	1.45	1.05	1.55	1.35	22.40	1.65	0.45	7.60	3.10	0.40	0.55
Paper	2	Phone Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3	Mixed/Low-Grade Paper Products	22.60	18.10	12.50	11.60	10.35	6.35	5.80	9.25	3.35	13.70	8.25	6.15	2.20	7.30	6.35	8.05	8.95
Paper	4	Magazines/Catalogs/Glossy	5.80	22.95	0.00	0.20	0.50	0.00	1.10	0.50	1.55	0.40	3.70	1.10	0.60	0.00	1.00	0.00	1.05
Paper	5	Newspaper/Newsprint	0.00	0.00	0.00	0.00	0.80	0.25	0.70	0.25	0.80	0.00	0.00	0.35	0.15	0.05	1.05	0.15	0.20
Paper	6	Boxboard	4.60	10.55	12.00	6.40	6.70	5.35	2.60	14.85	4.15	5.95	7.00	5.55	9.35	8.40	3.50	5.95	6.35
Paper	7	Kraft Paper	0.20	1.80	1.30	2.70	1.45	1.80	0.35	0.65	0.65	1.60	1.25	0.80	0.65	0.70	1.00	1.80	1.30
Paper	8	OCC or Corrugated Cardboard	8.85	8.10	9.95	2.90	4.05	2.50	1.55	7.75	2.25	6.35	5.25	2.15	12.15	4.20	2.15	1.90	1.35
Paper	9	Aseptic, Gable Top, Polyc coated	0.30	1.95	4.00	0.90	1.00	1.25	0.55	16.30	1.00	3.70	2.00	0.40	8.60	5.45	1.35	1.65	1.05
Paper	10	Compostable Paper Pkg NOT ASTM	9.55	28.90	20.15	12.25	12.75	19.25	10.50	38.50	29.50	19.05	21.30	20.60	13.20	23.80	17.50	11.55	8.55
Paper	11	Compostable Paper Pkg ASTM	0.00	0.00	0.55	0.70	2.50	0.25	0.80	0.80	2.60	0.60	1.45	0.35	0.05	1.90	0.25	1.85	0.30
Paper	12	Remainder/Composite Paper Products	18.20	0.50	1.20	1.20	3.30	2.40	0.00	0.00	0.00	0.00	3.10	0.00	0.00	0.00	0.00	1.95	0.00
Plastic	13	Plastic Deposit Beverage Containers	0.35	1.85	2.25	0.55	0.50	0.60	0.40	1.30	0.10	0.70	1.45	0.65	0.25	0.90	0.05	0.05	2.45
Plastic	14	Plastic Non-Deposit Beverage Containers	0.65	3.00	2.30	1.90	1.50	0.60	0.90	1.85	0.70	2.40	0.65	0.75	2.75	0.75	1.55	0.95	1.20
Plastic	15	#1 PET Bottles/Jars	0.45	6.10	0.00	0.50	0.80	1.20	0.15	0.25	1.10	1.10	0.85	0.80	0.40	0.10	0.85	0.80	0.30
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging	0.80	0.90	2.00	2.40	3.35	1.95	1.15	2.25	2.20	1.80	2.55	2.70	0.65	6.35	1.85	3.30	5.20
Plastic	17	#2 HDPE Bottles/Jars - Natural	2.50	2.35	1.35	0.70	0.55	0.45	1.05	0.95	0.80	0.55	2.10	0.60	1.00	0.15	0.15	1.45	1.20
Plastic	18	#2 HDPE Bottles/Jars - Colored	0.00	2.25	0.05	1.00	0.35	3.70	6.20	1.10	1.90	1.50	3.75	2.80	1.80	1.45	1.40	0.75	1.75
Plastic	19	Other HDPE	0.00	0.00	0.00	0.00	0.10	0.55	0.00	0.15	0.30	0.25	0.00	0.15	0.00	0.00	1.00	0.00	0.00
Plastic	20	#3 PVC Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21	#3 PVC Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	22	# 4 LDPE Hard Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	23	#4 LDPE Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	24	#5 PP Bottles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	25	#5 PP Packaging	1.35	2.55	5.40	0.85	1.70	2.70	1.85	7.15	1.65	4.10	1.95	1.65	3.15	1.55	1.65	2.95	2.70
Plastic	26	#6 Polystyrene	1.25	0.95	0.70	1.40	2.05	2.45	0.65	1.80	1.25	0.85	0.80	1.95	1.55	0.65	2.85	1.90	7.05
Plastic	27	#7 Plastic Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
Plastic	28	Agricultural Film	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30	Plastic Film	16.60	33.95	45.40	48.85	25.20	22.90	13.65	42.60	22.30	21.50	30.50	25.85	16.85	17.90	25.40	25.85	36.00
Plastic	31	Retail Shopping Bags	0.10	1.25	0.00	1.00	1.30	2.75	0.20	0.50	1.15	0.50	0.95	1.15	0.65	0.20	0.70	0.30	0.25
Plastic	32	Pouches/Flexible Plastic Packaging	0.00	0.00	0.25	0.05	0.30	0.00	0.00	0.00	0.15	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.25
Plastic	33	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34	Compostable Plastic Prod ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	35	Other Plastic	6.40	1.70	12.90	5.50	10.00	8.70	0.30	2.10	5.00	3.80	6.60	3.40	3.15	5.45	14.45	0.80	1.45
Organics	36	Food Waste - Unpackaged	28.35	26.90	31.20	39.15	32.95	36.35	87.10	80.15	54.25	37.10	49.85	47.35	17.20	64.60	91.65	91.15	42.80
Organics	37	Food Waste - Packaged	0.00	3.75	5.45	5.65	4.05	10.75	1.35	4.10	11.85	0.40	1.90	16.30	2.40	2.40	3.25	36.65	5.75
Organics	38	Yard Waste	0.00	0.00	16.75	0.95	15.50	4.45	0.00	0.00	1.80	0.00	3.95	0.20	42.95	0.00	4.20	15.65	0.65
Organics	39	Woody Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	40	Glass Deposit Beverage Containers	0.85	1.00	0.00	1.25	0.00	0.00	0.00	1.40	3.15	0.00	0.00	0.95	0.00	0.00	0.00	0.00	1.00
Glass	41	Glass Non-Deposit Beverage Containers	0.00	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	1.20	0.00	0.00	0.00
Glass	42	Glass Containers	0.65	0.00	0.30	6.40	1.90	2.55	2.10	1.60	7.15	4.40	0.35	3.70	2.95	0.00	2.85	0.00	5.10
Glass	43	Plate Glass	0.00	0.00	0.00	0.05	1.90	0.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00
Glass	44	Non-Glass Ceramics	0.00	0.00	0.00	0.25	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00
Glass	45	Remainder/Composite Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.40	4.15	0.00	0.75	0.00	0.00	0.00	0.00
Metal	46	Metal Deposit Beverage Containers	1.60	3.05	2.00	0.65	1.20	0.75	0.85	4.05	1.35	5.70	2.85	0.50	2.75	2.75	1.05	1.50	4.70
Metal	47	Metal Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	48	Aluminum Food Packaging	0.15	1.55	0.75	0.35	0.55	1.30	0.95	1.25	0.60	0.95	0.70	0.60	1.30	1.30	2.35	0.35	12.55
Metal	49	Other Aluminum	0.00	0.00	0.00	0.00	0.10	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.75	0.00
Metal	50	Pet Food Containers	0.00	0.00	0.00	0.05	0.05	0.10	0.00	0.00	0.60	0.00	0.00	1.15	0.00	0.30	0.20	0.00	0.00

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	20	21	22	23	24	1	2	3	4	5	6	7	8	9	10	11	12
		Facility	Perham	Perham	Perham	Perham	Perham	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
Metal	51	Ferrous Food Cans - Tinned and Not Coated	0.65	0.65	2.65	1.85	0.60	2.20	3.85	1.75	1.25	0.65	2.85	0.70	2.20	0.00	0.75	0.95	1.50
Metal	52	Other Ferrous Metal	5.95	1.35	0.10	6.70	0.00	0.50	0.15	1.75	2.90	2.45	0.60	9.30	2.90	28.70	5.10	0.00	0.40
Metal	53	Other Nonferrous Metal	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.20	0.00	0.45	0.00	0.00	0.00	0.65	0.05	0.00	0.00
Metal	54	Mixed Metal/Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	55	Aerosol Containers	0.00	0.35	0.00	0.30	0.70	0.30	0.00	0.20	0.00	0.70	1.45	2.45	1.30	0.00	0.15	0.30	0.25
Consumer Products	56	Household Décor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.00
Consumer Products	57	Textiles	13.85	0.00	4.40	2.65	1.95	23.55	0.45	3.50	5.10	8.25	10.70	11.10	3.80	1.40	3.00	1.20	1.25
Consumer Products	58	Shoes, Purses, and Belts	2.50	1.20	0.00	1.70	11.00	1.40	0.00	2.20	0.60	0.90	2.00	0.25	0.00	0.00	0.15	0.00	0.00
Consumer Products	59	Carpet	0.00	0.00	0.00	9.50	0.00	8.45	0.00	0.00	0.00	12.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	0.00	0.00	1.70	0.00	0.00	12.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.20	12.55	20.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	62	Furniture - Plastic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.55	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	67	Rubber Products	0.00	0.00	0.00	0.05	0.15	0.95	0.00	0.25	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	3.50	3.65	0.35	9.40	6.20	17.05	24.65	4.10	17.50	11.95	3.30	1.90	9.90	0.90	4.65	8.90	6.25
Consumer Products	70	Sports and Recreation Products	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.00	0.70	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	2.10	0.00	0.00	0.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	73	Other HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.15	11.95	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.00	0.00	0.00	0.00	0.00	0.50	0.10	0.00	0.20	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	75	Healthcare-Associated Waste	0.00	4.25	1.50	0.35	0.40	1.30	45.50	2.80	0.25	1.35	16.25	0.60	1.00	5.65	1.20	5.60	1.10
Hazardous & Special Wastes	76	Single Use Household Batteries	0.10	0.00	0.00	0.45	0.00	0.45	0.00	0.10	1.40	0.00	0.05	0.90	0.00	0.00	0.00	0.15	0.65
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.90
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	0.50	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	7.10	12.65	0.10	0.00	0.00	0.00
C&D	96	C&D Contained in the MSW Loads	48.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.65	6.60	0.50	2.65	7.00	0.00	0.00	0.00	0.00
C&D	97	Wood - Treated and Untreated	0.80	0.00	0.30	5.15	9.70	1.60	0.00	0.05	11.20	18.05	1.35	0.30	21.90	0.35	10.75	0.00	0.00
Other	98	Non-Distinct	6.25	2.15	0.45	23.75	22.30	55.15	15.40	1.70	12.30	5.65	2.15	7.65	0.70	9.35	17.80	22.30	19.75
Other	99	Unclassifiable Fines	0.00	5.25	2.70	5.50	7.30	0.25	0.00	0.85	2.35	2.40	2.50	1.40	2.95	0.60	1.90	1.05	3.05
Plastic	100	#6 Polystyrene - Non-Foam	0.15	0.05	0.55	0.00	0.10	1.35	0.85	2.90	1.30	1.80	1.15	0.00	0.00	1.85	1.15	1.00	1.85
Total	Total	Total (Final Sample Weight)	216.70	209.60	225.55	229.00	219.00	264.90	235.20	267.20	241.25	219.65	251.45	219.70	238.00	219.80	242.55	262.50	217.95

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	13	14	15	16	17	18	19	20	21	22	23	24	1	2	3	4	5
		Facility	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Lyon	Lyon	Lyon	Lyon	Lyon
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
		Date	10/7/25	10/7/25	10/7/25	10/7/25	10/7/25	10/8/25	10/8/25	10/8/25	10/8/25	10/8/25	10/8/25	10/8/25	10/10/25	10/10/25	10/10/25	10/10/25	10/10/25
		Time	11:17	11:47	1:49	2:22	3:07	8:21	8:47	9:03	9:41	10:09	11:41	13:40	8:30	9:56	10:58	13:00	13:46
		Weather	Sunny, Windy	Sunny, Windy	Sunny/Windy	Sunny/Windy	Sunny/Windy	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny, Windy
		Hauler	WM	Hartel	Hartel's Disposal	WM	WM	Hartel's Disposal	Hartel's Disposal	Hartel	WM	Hartel	WM	Cloquet	Olsen	Redwood	Olsen	Southwest	Redwood
		Truck Number	416476	29L	297	107076	106550	29C2	29L	29T2	26442	29B	214088	7	7	0	17	0	TR21
		Vehicle Type	Compactor	Front	Front	Side	Side	Side	Front	Side	Front	Side	Front	Side	Rear	Compactor	Side	0	Compactor
		Waste Type	ICI	ICI	ICI	ICI	Res	Res	ICI	Res	ICI	Res	ICI	Res	Res	TS	Res	ICI	TS
			Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)
Paper	1.00	High Grade Office Paper Products	1.00	2.15	1.50	5.55	3.60	3.85	0.40	1.60	0.65	1.75	5.65	7.40	4.90	1.55	2.30	0.00	2.35
Paper	2.00	Phone Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3.00	Mixed/Low-Grade Paper Products	2.00	9.05	9.65	6.85	9.55	12.55	7.20	6.20	7.10	6.90	26.80	12.85	8.30	9.10	9.30	4.55	7.45
Paper	4.00	Magazines/Catalogs/Glossy	8.05	0.00	0.55	7.70	0.65	0.00	8.90	3.55	0.95	1.05	0.45	0.00	4.00	5.85	3.00	0.00	0.25
Paper	5.00	Newspaper/Newsprint	0.00	0.00	0.65	0.55	0.05	0.35	0.15	0.35	1.05	0.15	2.30	0.20	0.15	1.20	0.35	0.95	0.00
Paper	6.00	Boxboard	3.55	6.30	3.75	8.00	9.20	8.00	5.70	7.85	5.20	5.60	7.25	4.75	12.20	5.45	6.50	2.20	6.10
Paper	7.00	Kraft Paper	0.25	1.45	0.25	0.75	0.70	2.45	0.40	2.00	1.60	1.60	3.90	0.70	0.85	0.35	1.55	0.50	1.05
Paper	8.00	OCC or Corrugated Cardboard	1.30	2.65	1.15	5.80	1.70	3.10	3.95	8.45	3.35	2.75	10.20	2.20	11.25	6.35	6.95	6.40	7.90
Paper	9.00	Aseptic, Gable Top, Polycoated	0.20	2.00	2.55	2.60	1.30	0.75	0.35	0.55	4.00	0.90	2.40	1.05	2.55	1.05	2.05	1.45	0.55
Paper	10.00	Compostable Paper Pkg NOT ASTM	0.30	13.70	15.10	10.15	12.80	16.20	8.45	20.00	15.60	6.55	14.85	19.95	8.90	13.60	15.95	30.20	13.10
Paper	11.00	Compostable Paper Pkg ASTM	0.00	1.45	1.10	1.85	2.55	0.80	0.65	1.00	0.00	0.65	0.05	0.25	3.00	0.75	4.50	0.00	0.05
Paper	12.00	Remainder/Composite Paper Products	0.00	0.00	0.00	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	2.75
Plastic	13.00	Plastic Deposit Beverage Containers	0.10	0.65	0.30	1.20	0.30	0.25	0.60	1.90	0.80	1.45	0.10	0.25	5.15	0.90	1.80	1.30	2.80
Plastic	14.00	Plastic Non-Deposit Beverage Containers	0.20	2.60	2.40	2.15	1.40	1.60	0.45	1.25	1.10	4.30	0.95	1.05	2.50	1.75	1.05	1.75	1.00
Plastic	15.00	#1 PET Bottles/Jars	0.00	3.20	0.50	1.40	0.75	1.60	1.45	0.50	0.30	1.70	0.65	1.65	1.50	0.85	1.60	0.00	0.25
Plastic	16.00	#1 PET Non-Bottle Rigid Containers & Packaging	0.10	1.15	0.30	2.30	2.70	3.65	0.95	0.85	0.85	2.05	2.20	1.30	2.45	1.70	1.90	1.25	1.10
Plastic	17.00	#2 HDPE Bottles/Jars - Natural	0.00	0.60	0.60	2.35	0.95	0.30	0.70	0.55	0.90	4.65	0.25	0.45	5.40	0.20	1.25	0.10	1.75
Plastic	18.00	#2 HDPE Bottles/Jars - Colored	0.50	0.70	0.90	3.15	2.10	0.85	1.95	1.40	11.60	1.45	0.30	0.20	1.55	1.20	1.30	0.10	1.85
Plastic	19.00	Other HDPE	0.10	0.00	0.00	0.05	0.20	0.15	0.50	0.15	0.00	0.40	0.00	0.00	0.15	0.15	0.15	0.00	0.10
Plastic	20.00	#3 PVC Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21.00	#3 PVC Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	22.00	# 4 LDPE Hard Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	23.00	#4 LDPE Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	24.00	#5 PP Bottles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	25.00	#5 PP Packaging	0.80	2.45	0.65	1.95	1.60	2.00	1.90	1.60	5.25	1.85	4.20	1.50	2.15	1.60	2.45	0.90	2.45
Plastic	26.00	#6 Polystyrene	0.00	2.85	1.00	3.00	1.10	1.75	5.45	0.70	28.40	1.05	1.95	1.05	1.45	2.35	5.15	0.45	1.05
Plastic	27.00	#7 Plastic Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.90	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	28.00	Agricultural Film	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29.00	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30.00	Plastic Film	3.40	26.25	29.35	21.30	17.85	22.00	12.15	14.80	1.00	13.90	27.55	23.70	21.85	19.85	20.35	13.65	28.60
Plastic	31.00	Retail Shopping Bags	0.10	0.20	0.25	0.80	2.00	1.25	0.45	1.95	0.65	2.20	1.00	2.05	4.15	2.10	2.55	2.30	1.70
Plastic	32.00	Pouches/Flexible Plastic Packaging	0.00	0.00	0.20	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.30	0.00	0.00
Plastic	33.00	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34.00	Compostable Plastic Prod ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	35.00	Other Plastic	29.35	3.50	3.90	10.50	10.25	3.95	33.00	2.35	5.00	4.30	10.10	2.30	11.85	8.25	2.85	0.50	9.85
Organics	36.00	Food Waste - Unpackaged	4.50	43.05	43.75	27.25	77.10	72.75	20.65	32.65	88.90	55.50	38.30	67.35	32.20	31.25	67.40	32.65	14.40
Organics	37.00	Food Waste - Packaged	0.00	4.50	11.25	38.60	6.60	6.80	3.10	9.85	4.50	9.65	1.45	5.75	2.45	11.75	10.05	104.40	6.65
Organics	38.00	Yard Waste	1.25	4.25	0.05	1.00	0.00	4.20	0.00	2.15	52.80	2.60	4.45	3.30	1.85	0.25	0.00	0.00	0.65
Organics	39.00	Woody Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	40.00	Glass Deposit Beverage Containers	0.00	3.05	0.00	1.40	0.50	1.00	0.45	0.00	0.00	0.00	2.20	0.00	2.15	0.00	0.00	0.00	0.00
Glass	41.00	Glass Non-Deposit Beverage Containers	0.00	0.00	2.05	0.00	0.00	0.00	0.00	0.00	2.70	0.00	6.50	1.05	0.00	0.00	0.45	4.60	0.00
Glass	42.00	Glass Containers	51.90	2.15	0.40	0.00	3.00	3.10	0.55	4.70	0.00	5.00	0.00	0.00	5.20	1.55	2.25	0.00	1.85
Glass	43.00	Plate Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	44.00	Non-Glass Ceramics	20.55	1.60	5.60	0.00	0.00	1.05	0.00	0.90	0.45	0.00	0.00	0.00	0.15	1.85	0.00	0.00	0.80
Glass	45.00	Remainder/Composite Glass	0.00	0.00	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.10	0.00	0.90
Metal	46.00	Metal Deposit Beverage Containers	0.15	3.60	3.45	1.85	0.80	3.45	1.90	2.60	1.20	1.60	1.75	0.50	0.00	2.20	0.95	1.65	2.25
Metal	47.00	Metal Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.30	0.00	0.00	0.00	0.00
Metal	48.00	Aluminum Food Packaging	0.00	0.20	0.50	0.25	0.05	0.65	0.40	0.20	0.15	0.20	0.35	0.65	0.20	1.85	2.20	0.00	0.35
Metal	49.00	Other Aluminum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00
Metal	50.00	Pet Food Containers	0.00	0.50	0.20	0.20	0.15	0.00	0.35	0.05	0.00	0.95	0.15	0.15	0.20	0.00	0.00	0.00	0.05

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	13	14	15	16	17	18	19	20	21	22	23	24	1	2	3	4	5
		Facility	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Lyon	Lyon	Lyon	Lyon	Lyon
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
Metal	51.00	Ferrous Food Cans - Tinned and Not Coated	0.10	0.85	1.05	0.85	2.60	1.45	0.70	2.55	0.60	0.95	0.25	1.20	2.80	1.20	1.80	0.05	0.40
Metal	52.00	Other Ferrous Metal	10.65	10.45	2.25	5.90	1.30	6.90	0.65	3.00	1.50	8.85	12.20	0.00	1.85	3.25	9.45	0.00	1.00
Metal	53.00	Other Nonferrous Metal	0.40	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00
Metal	54.00	Mixed Metal/Material	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	55.00	Aerosol Containers	0.00	1.30	0.00	0.00	0.25	0.70	0.00	0.60	0.00	1.85	0.00	0.30	0.15	0.60	0.00	0.00	0.00
Consumer Products	56.00	Household Décor	4.10	9.05	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.20	0.70	0.00	0.00	0.00
Consumer Products	57.00	Textiles	24.00	11.50	15.25	20.00	3.45	6.40	6.60	27.65	16.75	5.40	4.30	12.95	3.45	18.50	4.30	5.25	6.40
Consumer Products	58.00	Shoes, Purses, and Belts	45.50	0.00	2.95	2.65	0.55	5.05	0.00	3.50	0.00	0.95	0.00	0.00	1.80	1.60	0.50	0.00	1.95
Consumer Products	59.00	Carpet	8.85	7.85	0.00	0.00	0.00	0.00	4.20	0.00	0.00	0.00	0.00	2.75	0.00	7.15	6.40	0.00	0.00
Consumer Products	60.00	Furniture - Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	61.00	Furniture - Wood	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.35	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	5.05
Consumer Products	62.00	Furniture - Plastic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63.00	Furniture - Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64.00	Mattresses and Box Springs	0.00	0.00	5.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65.00	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66.00	Small Household Appliances	6.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.60	0.00	2.30	4.45	0.00	0.50	0.00	0.00
Consumer Products	67.00	Rubber Products	0.40	0.00	0.25	0.00	0.25	0.80	0.00	0.00	0.00	0.00	0.25	0.20	0.00	5.30	0.00	0.00	2.40
Consumer Products	68.00	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69.00	Diapers & Sanitary Products	0.35	1.25	4.70	2.55	25.85	24.30	1.65	2.60	2.00	5.00	1.25	5.40	21.70	21.90	25.10	1.45	23.85
Consumer Products	70.00	Sports and Recreation Products	0.00	0.00	1.70	0.00	0.00	0.00	2.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	71.00	All Paints, Stains, Varnish, & Lacquer	0.00	0.00	2.85	0.00	0.95	0.00	0.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.15
Hazardous & Special Wastes	72.00	Flammable Liquids	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.30	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	73.00	Other HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.00	0.00
Hazardous & Special Wastes	74.00	Syringes/Needles	0.00	0.00	0.00	0.05	0.00	0.10	0.00	0.05	0.00	0.10	0.00	0.00	0.10	0.15	0.00	0.00	0.00
Hazardous & Special Wastes	75.00	Healthcare-Associated Waste	4.55	1.15	8.15	0.25	0.50	1.20	2.20	32.85	2.85	0.10	2.20	0.35	0.95	0.10	2.85	12.95	14.00
Hazardous & Special Wastes	76.00	Single Use Household Batteries	0.35	0.00	0.10	0.90	0.05	1.00	0.20	0.05	0.00	0.20	0.00	0.50	0.20	0.20	0.45	0.00	0.00
Hazardous & Special Wastes	77.00	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78.00	Items Containing Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.40	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.15
Hazardous & Special Wastes	79.00	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80.00	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81.00	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.00	0.00	0.10	0.00	0.00	1.30	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.30	0.00
Hazardous & Special Wastes	82.00	Used Oil Filters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83.00	Smoke Detectors	0.00	0.00	0.00	0.40	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84.00	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85.00	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86.00	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87.00	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88.00	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89.00	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90.00	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	91.00	Cellphones	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92.00	Computer Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	93.00	Audio Equipment	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	6.65	0.00	0.00	0.00
Electronics	94.00	Internet Connection Equipment	0.00	0.00	0.00	0.00	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00
Electronics	95.00	Electronic Equipment Cables and Wires	0.00	0.00	0.30	0.00	0.00	4.05	0.00	0.30	0.05	1.55	0.00	0.00	1.45	0.00	0.00	0.00	1.95
C&D	96.00	C&D Contained in the MSW Loads	0.00	0.00	0.85	12.90	0.00	0.00	22.80	0.00	0.00	2.75	0.00	0.00	0.00	0.00	1.25	0.00	0.00
C&D	97.00	Wood - Treated and Untreated	10.95	2.50	49.45	1.35	0.00	1.70	56.85	7.60	0.05	11.20	0.00	0.00	0.00	11.15	0.05	0.60	2.05
Other	98.00	Non-Distinct	2.95	23.95	1.75	11.40	36.60	5.00	1.50	0.75	1.40	32.00	4.40	29.85	5.50	15.85	5.60	2.50	11.35
Other	99.00	Unclassifiable Fines	0.85	2.35	3.20	2.70	2.70	4.05	3.95	1.60	2.55	4.15	6.35	5.50	8.20	12.50	3.55	4.20	28.50
Plastic	100.00	#6 Polystyrene - Non-Foam	0.00	0.90	1.05	1.10	0.05	0.05	0.00	0.00	0.15	0.05	0.00	0.15	0.30	0.05	0.25	0.05	1.40
Total	Total	Total (Final Sample Weight)	250.60	218.90	248.10	238.30	250.75	244.15	227.95	234.85	274.40	221.75	232.15	226.00	218.05	246.30	242.35	239.75	222.55

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
		Facility	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
		Date	10/10/25	10/13/25	10/13/25	10/13/25	10/13/25	10/13/25	10/13/25	10/13/25	10/13/25	10/13/25	10/14/25	10/14/25	10/14/25	10/14/25	10/14/25	10/14/25	10/14/25
		Time	13:46	6:00	8:00	9:34	9:25	10:02	10:01	12:30	13:05	13:30	5:58	6:35	8:25	9:13	10:00	11:49	12:18
		Weather	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Rainy	Rainy	Rainy	Rainy	Rainy, Cloudy	Rainy	Rainy
		Hauler	Redwood	Southwest	Sweetman	Rock County	Sweetman	Southwest	Redwood	Redwood	City of Tyler	Southwest	Southwest	Redwood	Rock County	Olson	Southwest	Van Dyke	Southwest
		Truck Number	TR21	16	15	403959	403956	403966	403965	0	0	0	404004	404006	404012	404017	404025	404038	0
		Vehicle Type	Compactor	Side	Front	Side	Rear	Side	Compactor	Compactor	Side	Side	0	Compactor	Compactor	0	Side	Side	0
		Waste Type	TS	Res	Res	ICI	ICI	Res	TS	TS	Res	Res	Res	TS	Res	Res	Res	Res	Res
			Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)
Paper	1.00	High Grade Office Paper Products	0.65	3.40	1.35	2.25	3.50	3.30	5.05	7.20	2.75	3.15	3.40	0.25	4.50	4.50	2.25	4.10	5.05
Paper	2.00	Phone Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3.00	Mixed/Low-Grade Paper Products	6.45	10.60	10.45	12.35	6.05	11.60	12.25	9.95	8.50	10.90	9.10	4.25	8.05	14.85	7.75	14.10	19.00
Paper	4.00	Magazines/Catalogs/Glossy	0.55	0.55	0.70	0.55	0.00	12.95	4.15	3.70	2.20	2.20	0.95	1.50	1.30	0.00	2.15	0.00	0.00
Paper	5.00	Newspaper/Newsprint	0.10	0.00	0.00	2.05	0.75	0.00	0.80	0.35	0.70	0.25	0.15	0.05	1.05	4.40	0.75	1.05	0.65
Paper	6.00	Boxboard	6.05	12.50	13.75	11.70	14.40	8.30	14.95	9.55	13.75	11.85	9.05	8.15	9.55	12.75	11.50	4.20	7.35
Paper	7.00	Kraft Paper	1.15	2.10	2.50	1.70	1.15	2.05	1.25	2.15	1.90	1.70	3.05	0.95	5.15	0.15	0.35	1.50	2.20
Paper	8.00	OCC or Corrugated Cardboard	7.45	3.20	1.50	7.40	12.10	1.30	4.10	3.55	7.00	0.15	1.00	8.60	10.05	4.05	1.85	3.65	4.75
Paper	9.00	Aseptic, Gable Top, Polycoated	0.90	1.35	1.25	0.85	2.10	0.60	0.85	1.10	1.45	1.80	1.35	0.75	2.30	1.30	0.95	0.55	0.70
Paper	10.00	Compostable Paper Pkg NOT ASTM	5.35	22.60	16.30	11.15	9.20	15.55	7.80	11.65	17.30	17.55	14.45	6.15	7.10	4.70	11.95	10.70	7.45
Paper	11.00	Compostable Paper Pkg ASTM	0.00	2.15	2.40	1.65	0.00	1.90	0.20	0.00	0.75	0.00	3.20	0.25	0.00	0.95	0.00	1.85	0.00
Paper	12.00	Remainder/Composite Paper Products	0.00	0.00	0.00	0.00	0.00	0.30	0.65	0.00	0.40	0.05	0.00	0.00	0.25	0.00	0.00	0.00	0.00
Plastic	13.00	Plastic Deposit Beverage Containers	0.50	0.75	0.65	0.05	1.25	0.25	0.85	0.45	1.00	0.50	0.35	0.85	0.70	0.70	1.60	0.35	0.95
Plastic	14.00	Plastic Non-Deposit Beverage Containers	0.95	2.80	1.85	1.70	2.20	0.70	1.35	1.40	1.15	1.95	1.75	1.40	2.70	2.75	1.50	0.75	2.00
Plastic	15.00	#1 PET Bottles/Jars	0.60	1.85	1.30	1.15	1.10	0.50	0.20	0.15	1.35	0.60	0.25	0.25	0.00	0.00	0.00	1.30	1.15
Plastic	16.00	#1 PET Non-Bottle Rigid Containers & Packaging	0.60	2.55	1.50	1.70	1.75	2.30	0.50	1.40	1.80	1.40	1.60	0.75	1.15	1.35	2.75	1.50	2.65
Plastic	17.00	#2 HDPE Bottles/Jars - Natural	0.55	0.55	0.60	0.10	2.40	0.00	1.10	0.55	1.55	1.25	0.25	0.15	0.70	2.55	1.20	0.55	0.95
Plastic	18.00	#2 HDPE Bottles/Jars - Colored	0.60	3.70	1.50	1.85	0.95	0.15	2.70	2.25	1.55	0.80	1.25	0.30	8.20	2.00	2.50	1.55	2.30
Plastic	19.00	Other HDPE	0.00	0.05	0.10	0.00	0.15	0.10	0.10	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.05	0.30	0.00
Plastic	20.00	#3 PVC Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21.00	#3 PVC Other	0.00	0.00	0.00	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	22.00	# 4 LDPE Hard Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	23.00	#4 LDPE Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	24.00	#5 PP Bottles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	25.00	#5 PP Packaging	1.50	4.05	2.60	1.10	4.10	4.85	1.50	0.85	3.05	3.45	2.80	1.40	2.00	0.95	1.30	1.35	2.10
Plastic	26.00	#6 Polystyrene	1.55	1.90	1.45	2.75	2.95	0.75	1.80	1.30	0.85	0.25	0.85	0.00	2.05	1.65	1.70	1.45	0.40
Plastic	27.00	#7 Plastic Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	28.00	Agricultural Film	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29.00	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30.00	Plastic Film	16.00	18.60	18.25	26.60	14.45	19.90	15.40	19.50	16.20	19.40	15.55	21.20	11.90	25.85	20.60	19.05	24.85
Plastic	31.00	Retail Shopping Bags	1.75	2.35	1.70	1.95	4.95	2.60	0.60	1.50	2.05	3.10	2.00	0.90	1.40	1.40	2.15	0.80	1.35
Plastic	32.00	Pouches/Flexible Plastic Packaging	0.00	0.25	0.00	0.05	0.15	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.15	0.00
Plastic	33.00	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34.00	Compostable Plastic Prod ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	35.00	Other Plastic	4.30	0.75	2.30	11.15	8.60	4.75	10.05	10.80	5.30	20.50	9.25	4.00	26.55	7.75	9.90	2.85	3.35
Organics	36.00	Food Waste - Unpackaged	13.20	82.40	33.80	21.95	29.40	70.00	11.45	18.70	51.95	59.00	38.00	6.70	7.10	17.05	40.20	27.35	33.30
Organics	37.00	Food Waste - Packaged	6.95	12.45	15.65	2.80	4.90	2.50	0.00	0.45	5.45	8.75	19.65	3.00	0.00	1.30	8.70	0.90	2.15
Organics	38.00	Yard Waste	4.15	0.20	0.00	1.00	0.40	5.25	22.30	28.90	0.40	0.35	16.85	0.00	0.00	1.95	17.00	2.50	0.40
Organics	39.00	Woody Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	40.00	Glass Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	1.80	0.60	0.00	0.70	0.00	0.00	1.05	0.00	2.65	0.00	0.00
Glass	41.00	Glass Non-Deposit Beverage Containers	0.00	3.10	4.75	0.00	5.25	2.05	4.75	0.00	5.10	1.95	0.00	0.00	0.00	1.05	0.00	0.25	1.45
Glass	42.00	Glass Containers	0.00	0.00	0.00	2.70	0.00	0.00	0.00	3.90	0.00	0.00	3.90	0.45	0.80	0.00	5.00	0.00	0.00
Glass	43.00	Plate Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.55	0.00	0.00	0.00	0.00	0.00
Glass	44.00	Non-Glass Ceramics	0.00	0.00	0.30	2.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00	0.45	5.20	0.00	0.00	0.05
Glass	45.00	Remainder/Composite Glass	2.05	0.00	0.00	0.00	1.35	0.00	0.00	1.90	0.00	0.45	1.75	0.00	0.00	0.00	0.90	0.00	0.00
Metal	46.00	Metal Deposit Beverage Containers	1.00	0.60	1.60	1.80	1.75	1.60	6.90	0.85	2.00	1.10	1.40	2.30	2.20	4.45	1.85	1.25	3.25
Metal	47.00	Metal Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	48.00	Aluminum Food Packaging	0.20	0.65	0.35	0.25	1.20	2.95	0.25	0.10	0.55	0.35	0.45	0.25	0.50	0.40	1.15	1.00	0.55
Metal	49.00	Other Aluminum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00
Metal	50.00	Pet Food Containers	0.00	0.70	0.00	0.00	0.00	0.45	0.00	0.05	0.35	0.00	0.55	0.00	0.00	0.05	1.40	0.00	0.25

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
		Facility	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
Metal	51	Ferrous Food Cans - Tinned and Not Coated	1.80	2.85	0.80	0.90	1.70	2.20	0.50	0.80	1.50	1.75	0.95	2.05	2.75	2.70	1.05	0.70	0.60
Metal	52	Other Ferrous Metal	13.85	0.00	0.70	1.05	0.00	0.30	21.20	2.30	0.85	1.05	7.05	1.35	0.00	3.25	3.40	1.75	0.45
Metal	53	Other Nonferrous Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00
Metal	54	Mixed Metal/Material	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	39.35	0.00	0.00	0.00	0.00	0.00
Metal	55	Aerosol Containers	0.00	0.00	0.80	2.05	1.80	0.70	0.00	0.95	0.85	0.80	0.10	0.35	0.00	0.60	0.90	0.75	0.55
Consumer Products	56	Household Décor	0.00	0.00	3.20	1.20	1.70	0.00	0.00	1.70	0.15	0.00	20.35	0.00	0.00	0.95	0.25	0.00	6.05
Consumer Products	57	Textiles	21.10	9.85	7.05	20.95	16.65	7.65	20.60	23.90	4.75	4.35	2.20	13.35	0.75	23.25	4.10	28.60	6.20
Consumer Products	58	Shoes, Purses, and Belts	0.00	0.00	0.15	7.20	0.00	4.80	0.00	2.85	0.05	1.65	1.05	0.00	0.00	2.80	0.20	0.10	0.40
Consumer Products	59	Carpet	1.30	0.00	4.60	14.35	0.00	0.00	0.00	0.00	0.00	0.00	4.40	8.30	0.00	26.60	0.00	0.00	0.00
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.25	0.00	0.00	0.70	0.00	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10	0.00	0.00
Consumer Products	62	Furniture - Plastic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.45	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	3.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	67	Rubber Products	0.00	0.00	0.00	1.60	0.10	0.00	3.35	0.00	5.30	0.00	0.25	0.00	0.00	0.55	0.15	0.30	0.00
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	23.65	8.10	27.30	7.15	0.00	16.65	5.40	7.55	25.75	8.35	9.70	4.10	57.55	10.25	22.90	48.65	18.05
Consumer Products	70	Sports and Recreation Products	4.30	0.00	0.95	0.00	0.00	0.00	0.80	0.00	0.00	5.90	0.00	0.20	0.00	0.00	0.00	0.00	5.15
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.50	0.00	1.05	0.00	0.00	0.00	0.00	3.95	0.95	1.95	0.30	2.45	0.00	0.95	0.10	3.50	0.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.25	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	73	Other HHW	0.00	0.75	0.25	0.00	0.00	0.00	1.85	0.10	1.75	0.00	0.00	0.00	0.00	0.00	0.90	2.65	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.00	0.05	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.05	0.00	0.00	0.00
Hazardous & Special Wastes	75	Healthcare-Associated Waste	1.65	0.10	2.10	0.30	37.55	0.95	0.45	0.20	0.00	0.25	0.50	0.95	2.15	0.65	0.30	0.40	0.00
Hazardous & Special Wastes	76	Single Use Household Batteries	0.00	0.00	0.40	0.25	0.30	0.05	0.05	0.00	0.55	0.00	0.10	0.60	0.00	0.10	0.15	0.10	0.00
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.00	0.00	0.90	0.00	0.05	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00
Electronics	93	Audio Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.30	0.70	0.00	0.00	0.50	0.00
C&D	96	C&D Contained in the MSW Loads	0.10	0.00	0.00	0.00	0.00	0.00	2.40	8.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.45	0.00
C&D	97	Wood - Treated and Untreated	16.75	2.95	7.30	4.75	5.65	0.00	14.35	4.65	0.10	22.30	3.90	20.05	19.80	4.30	5.70	6.85	0.75
Other	98	Non-Distinct	3.00	12.65	15.15	4.90	5.80	7.90	6.30	3.50	7.85	2.40	5.30	17.25	1.80	6.75	7.80	6.75	29.65
Other	99	Unclassifiable Fines	34.40	4.40	4.80	10.65	7.35	3.85	11.80	15.95	10.80	2.00	4.80	22.40	7.45	13.10	13.05	15.95	18.15
Plastic	100	#6 Polystyrene - Non-Foam	0.30	0.05	0.00	0.10	0.10	0.00	0.15	0.20	0.00	0.25	0.45	0.00	0.15	0.00	0.30	0.05	0.00
Total	Total	Total (Final Sample Weight)	211.65	240.65	218.70	212.85	217.90	224.65	225.05	225.10	223.35	229.00	225.60	219.65	220.55	223.10	229.30	228.95	216.60

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	23	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
		Facility	Lyon	Lyon	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	fall	fall	fall	fall
		Date	10/14/25	10/14/25	10/15/25	10/15/25	10/15/25	10/15/25	10/15/25	10/15/25	10/15/25	10/15/25	10/15/25	10/15/25	10/15/25	10/16/25	10/16/25	10/16/25	10/16/25
		Time	12:17	1:00	9:00	9:15	9:35	10:15	10:50	11:00	11:30	11:45	13:45	14:45	15:15	8:31	9:34	10:18	11:49
		Weather	Rainy	Rainy	Cloudy	Cloudy, Windy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	cloudy	cloudy	cloudy
		Hauler	Pipestone	Sweetman	Gen Pub	WM	LJP	Skjeveland	Steward	WM	LJP	Gen Pop	Madelia	LJP	Hanson	LJP	L+P	Borneke	Stewart
		Truck Number	404041	0	183	0	NA	124	RL7	0	2946	183	0	NA	5	4119	2819	NA	ASL-8
		Vehicle Type	Side	0	Roll-Off	Front	Front	Roll-Off	Rear	Front	Front	Roll-Off	Roll-off	Rear	Roll-Off	Roll-off	front	roll-off	side
		Waste Type	Res	Res	Res	ICI	ICI	ICI	ICI	ICI	ICI	Res	ICI	ICI	ICI	ICI	ICI	ICI	Res
			Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)
Paper	1.00	High Grade Office Paper Products	4.45	2.00	0.00	0.00	4.25	1.35	0.05	0.75	1.95	0.00	0.00	0.35	0.00	0.25	11.55	0.80	1.90
Paper	2.00	Phone Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3.00	Mixed/Low-Grade Paper Products	18.35	12.15	0.00	5.20	2.45	0.90	4.15	12.55	4.55	0.95	0.00	6.45	1.55	51.75	0.00	5.35	8.65
Paper	4.00	Magazines/Catalogs/Glossy	1.00	0.00	1.40	0.00	0.00	0.00	0.15	16.40	2.70	3.50	0.00	0.00	0.00	0.00	1.10	0.00	0.15
Paper	5.00	Newspaper/Newsprint	0.00	0.70	0.00	0.00	0.00	0.00	0.45	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	6.00	Boxboard	10.10	7.20	0.00	5.25	0.80	5.10	6.15	1.80	13.65	1.70	0.00	3.95	0.00	0.65	7.60	0.85	10.10
Paper	7.00	Kraft Paper	2.05	1.95	0.00	1.40	0.65	0.10	0.10	0.55	1.70	0.00	0.00	7.55	0.00	14.85	0.20	0.25	1.70
Paper	8.00	OCC or Corrugated Cardboard	8.65	8.95	1.55	32.20	4.35	5.75	44.15	8.50	9.70	4.25	0.00	25.60	11.75	2.80	5.75	1.05	15.95
Paper	9.00	Aseptic, Gable Top, Polycoated	0.85	1.10	0.00	0.00	3.05	0.30	0.45	3.65	0.80	0.00	0.00	0.55	0.00	0.00	0.65	0.15	1.50
Paper	10.00	Compostable Paper Pkg NOT ASTM	20.20	9.10	0.05	5.00	14.60	0.80	3.40	8.50	10.75	0.75	0.00	14.35	0.00	1.20	19.95	13.95	12.10
Paper	11.00	Compostable Paper Pkg ASTM	1.80	1.25	0.00	0.00	0.70	0.00	0.05	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.35	0.00	2.30
Paper	12.00	Remainder/Composite Paper Products	0.35	0.20	0.00	0.00	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	13.00	Plastic Deposit Beverage Containers	0.65	1.00	0.00	0.50	0.25	0.00	0.75	0.15	1.00	0.05	0.00	0.10	0.00	0.00	0.40	1.80	1.35
Plastic	14.00	Plastic Non-Deposit Beverage Containers	1.40	2.85	0.00	1.05	1.20	0.15	0.80	0.30	2.40	0.20	0.00	1.55	0.00	0.00	1.85	0.95	4.10
Plastic	15.00	#1 PET Bottles/Jars	0.50	1.20	0.00	0.35	0.00	0.00	0.75	0.30	2.70	0.00	0.00	0.10	0.00	0.00	0.60	0.45	1.35
Plastic	16.00	#1 PET Non-Bottle Rigid Containers & Packaging	3.00	2.95	0.00	1.10	0.40	0.00	0.50	0.50	1.45	0.40	0.00	0.00	0.10	0.00	0.85	0.55	3.55
Plastic	17.00	#2 HDPE Bottles/Jars - Natural	1.30	2.00	0.00	0.00	0.00	0.00	1.10	0.85	1.50	0.60	0.00	0.85	0.00	0.35	1.15	0.95	1.60
Plastic	18.00	#2 HDPE Bottles/Jars - Colored	1.95	0.90	0.00	1.25	0.20	0.00	0.05	1.05	1.30	3.00	0.00	0.80	0.00	15.75	0.80	1.90	1.15
Plastic	19.00	Other HDPE	0.15	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
Plastic	20.00	#3 PVC Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21.00	#3 PVC Other	0.00	0.00	0.00	0.00	0.00	0.00	4.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.15	0.00	0.00
Plastic	22.00	# 4 LDPE Hard Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	23.00	#4 LDPE Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	24.00	#5 PP Bottles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	25.00	#5 PP Packaging	1.65	3.20	0.00	2.20	3.05	0.00	1.10	4.10	4.75	0.25	0.00	0.55	0.65	0.00	4.25	1.75	3.60
Plastic	26.00	#6 Polystyrene	2.85	2.40	0.00	0.35	0.85	0.00	0.00	0.55	3.80	0.25	0.00	4.35	0.00	0.35	0.45	1.00	2.60
Plastic	27.00	#7 Plastic Packaging	0.00	0.00	0.00	0.00	4.70	0.00	0.00	4.05	2.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.60
Plastic	28.00	Agricultural Film	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29.00	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30.00	Plastic Film	26.70	22.40	0.00	22.35	20.30	3.15	3.40	24.05	17.70	8.15	0.00	30.10	0.10	31.10	20.25	5.45	26.40
Plastic	31.00	Retail Shopping Bags	3.90	2.50	0.00	0.60	0.20	0.10	0.40	0.25	1.50	0.05	0.00	0.10	0.00	0.00	2.10	0.60	1.55
Plastic	32.00	Pouches/Flexible Plastic Packaging	1.40	0.50	0.00	0.00	0.00	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
Plastic	33.00	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34.00	Compostable Plastic Prod ASTM	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	35.00	Other Plastic	3.10	4.50	5.70	4.15	13.30	0.05	3.10	1.10	6.90	5.65	0.00	7.25	0.00	20.85	8.20	22.15	5.65
Organics	36.00	Food Waste - Unpackaged	45.15	41.20	0.00	66.75	63.75	3.10	14.20	103.90	37.75	1.85	0.00	16.60	0.00	0.85	45.95	6.60	81.30
Organics	37.00	Food Waste - Packaged	6.00	7.20	0.00	0.30	2.70	0.45	0.80	0.10	0.30	0.00	207.90	1.35	311.40	0.00	6.70	0.00	2.30
Organics	38.00	Yard Waste	5.95	4.80	0.00	33.30	1.65	1.05	0.00	0.00	0.00	24.10	0.00	1.90	0.00	0.00	0.00	0.00	8.45
Organics	39.00	Woody Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	40.00	Glass Deposit Beverage Containers	1.50	1.65	0.00	6.00	0.85	0.00	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.70	2.70
Glass	41.00	Glass Non-Deposit Beverage Containers	0.00	0.00	0.00	3.80	0.00	0.00	0.00	0.00	5.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	42.00	Glass Containers	2.95	1.25	0.00	0.00	0.40	0.00	2.45	0.00	0.00	0.00	0.00	3.05	0.00	0.00	1.50	0.00	5.65
Glass	43.00	Plate Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	44.00	Non-Glass Ceramics	0.90	0.00	10.95	0.00	2.35	33.00	0.55	0.75	0.00	0.00	0.00	1.90	0.00	0.00	0.00	0.00	0.00
Glass	45.00	Remainder/Composite Glass	0.00	0.00	34.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	46.00	Metal Deposit Beverage Containers	1.30	1.65	0.00	4.40	1.15	0.00	0.85	0.85	1.55	0.20	0.00	0.20	0.00	0.00	2.45	0.95	5.65
Metal	47.00	Metal Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	48.00	Aluminum Food Packaging	1.70	1.00	0.00	0.35	0.00	0.00	0.00	0.35	1.10	0.25	0.00	0.50	0.00	6.45	0.70	0.35	0.45
Metal	49.00	Other Aluminum	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	50.00	Pet Food Containers	0.05	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.05	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	23	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
		Facility	Lyon	Lyon	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	fall	fall	fall
Metal	51	Ferrous Food Cans - Tinned and Not Coated	2.05	1.60	0.00	3.10	3.10	0.00	1.30	0.00	2.25	0.00	0.00	0.30	0.00	0.00	1.35	0.00	2.45
Metal	52	Other Ferrous Metal	0.05	0.90	0.00	1.85	8.35	0.00	4.45	0.00	0.00	0.00	0.00	2.55	0.00	0.80	1.45	2.80	1.60
Metal	53	Other Nonferrous Metal	1.50	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
Metal	54	Mixed Metal/Material	0.00	0.00	0.00	0.00	20.45	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	7.95	0.00	0.00
Metal	55	Aerosol Containers	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	5.50	0.60
Consumer Products	56	Household Décor	0.05	0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.35	0.00
Consumer Products	57	Textiles	5.10	17.10	0.85	2.95	6.70	22.40	1.25	2.60	8.05	1.10	0.00	13.10	0.00	1.55	2.20	9.20	3.80
Consumer Products	58	Shoes, Purses, and Belts	0.00	1.80	0.00	0.00	0.00	0.10	1.90	0.00	0.50	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.50
Consumer Products	59	Carpet	0.00	0.00	47.40	0.00	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.40	0.00
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	62	Furniture - Plastic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.20	0.00	0.00	0.00	0.00	0.00	5.15	0.00	2.20	16.80	0.00	0.00	0.00	0.00	5.75	0.30	0.00
Consumer Products	67	Rubber Products	0.80	1.30	0.00	0.00	16.45	0.00	1.30	0.00	0.00	17.55	0.00	48.00	0.00	0.00	5.85	1.60	1.20
Consumer Products	68	Tires	0.00	0.00	0.00	2.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	11.45	22.90	0.00	0.00	0.45	0.40	2.80	0.00	16.00	0.00	0.00	9.65	0.00	0.00	4.85	0.00	14.05
Consumer Products	70	Sports and Recreation Products	3.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.45	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.00	0.00	0.45	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.85	0.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.10
Hazardous & Special Wastes	73	Other HHW	0.00	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.70	0.00	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Hazardous & Special Wastes	75	Healthcare-Associated Waste	2.20	0.50	0.00	0.00	0.65	0.00	0.10	1.45	0.40	0.00	0.00	4.35	0.00	16.45	0.50	0.10	0.20
Hazardous & Special Wastes	76	Single Use Household Batteries	0.25	0.25	0.00	0.05	0.00	0.00	0.00	0.20	0.10	0.00	0.00	0.25	0.00	0.00	0.05	0.10	0.40
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.00	0.15	0.00	0.15	0.00	0.00	0.10	0.00	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.05
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.00	0.15	0.00	49.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
C&D	96	C&D Contained in the MSW Loads	0.00	0.60	97.60	0.00	0.70	81.25	57.35	0.00	0.00	117.15	0.00	9.55	0.00	0.00	0.00	0.00	6.60
C&D	97	Wood - Treated and Untreated	1.15	4.50	19.65	0.00	0.00	18.75	0.00	0.10	1.50	0.10	0.00	0.00	0.00	78.60	8.45	37.55	6.35
Other	98	Non-Distinct	8.35	16.25	0.00	0.45	24.90	0.00	3.10	7.30	10.60	0.00	0.00	4.85	0.00	4.35	8.15	59.75	10.50
Other	99	Unclassifiable Fines	6.55	9.90	0.00	2.05	1.35	1.10	0.00	2.05	1.05	0.00	0.00	0.60	0.00	0.00	16.05	5.30	13.95
Plastic	100	#6 Polystyrene - Non-Foam	0.40	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00
Total	Total	Total (Final Sample Weight)	226.45	228.95	219.70	211.20	234.15	219.50	227.10	209.60	209.35	219.25	207.90	225.00	325.55	248.95	217.70	211.85	280.65

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	16	17	18	19	20	21	22	23	24
		Facility	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
		Date	10/16/25	10/16/25	10/16/25	10/16/25	10/16/25	10/17/25	10/17/25	10/17/25	10/17/25
		Time	12:21	12:32	13:00	14:15	14:45	8:36	9:10	9:29	10:06
		Weather	Cloudy	Sunny, Windy	Cloudy	Sunny	Sunny	Cloudy, Windy	Cloudy, Windy	Cloudy, Windy	Cloudy, Windy
		Hauler	LJP	LJP	LJP	WM	Madelia	LJP	Private - Doherty	LJP	LJP
		Truck Number	9373	0	2145	217119	0	4160	NA	5680	0
		Vehicle Type	Rear	Front	Front	Front	Roll-Off	Roll-off	Roll-off	Trailer	0
		Waste Type	Res	ICI	ICI	ICI	ICI	ICI	ICI	ICI	Res
			Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)
Paper	1	High Grade Office Paper Products	1.30	1.20	4.70	0.60	0.40	0.10	0.00	1.65	0.80
Paper	2	Phone Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3	Mixed/Low-Grade Paper Products	2.05	4.00	7.30	15.25	1.15	2.40	9.60	9.15	10.80
Paper	4	Magazines/Catalogs/Glossy	0.25	0.70	0.00	1.35	0.00	0.85	0.00	0.00	0.00
Paper	5	Newspaper/Newsprint	0.85	0.00	0.00	10.35	0.00	0.00	0.00	0.95	0.00
Paper	6	Boxboard	2.55	3.45	7.90	13.55	0.50	5.50	4.70	4.90	5.05
Paper	7	Kraft Paper	0.00	1.45	4.10	0.60	4.25	0.00	0.00	3.70	0.45
Paper	8	OCC or Corrugated Cardboard	1.15	21.55	4.25	26.10	25.70	9.90	6.40	0.70	18.40
Paper	9	Aseptic, Gable Top, Polycoated	0.00	0.20	0.80	1.05	0.00	0.00	0.20	0.40	0.10
Paper	10	Compostable Paper Pkg NOT ASTM	2.90	9.40	27.35	12.75	12.45	1.30	51.50	17.15	7.75
Paper	11	Compostable Paper Pkg ASTM	0.00	0.70	0.20	1.05	0.00	0.00	0.60	0.60	0.00
Paper	12	Remainder/Composite Paper Products	0.00	0.00	1.30	0.00	0.00	0.00	0.50	1.80	0.00
Plastic	13	Plastic Deposit Beverage Containers	0.00	0.70	0.25	0.90	0.40	0.10	1.00	0.65	1.90
Plastic	14	Plastic Non-Deposit Beverage Containers	0.50	1.40	2.85	2.15	1.60	0.65	4.95	1.30	1.25
Plastic	15	#1 PET Bottles/Jars	0.00	0.65	0.75	1.20	0.00	0.00	0.70	0.00	0.25
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging	0.00	1.00	2.45	0.30	0.00	0.55	11.80	1.85	1.80
Plastic	17	#2 HDPE Bottles/Jars - Natural	0.15	1.50	0.90	0.70	0.00	0.25	1.25	0.70	0.90
Plastic	18	#2 HDPE Bottles/Jars - Colored	0.35	1.40	0.35	0.25	0.05	3.10	0.80	2.95	1.25
Plastic	19	Other HDPE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00
Plastic	20	#3 PVC Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21	#3 PVC Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	22	# 4 LDPE Hard Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	23	#4 LDPE Other	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00
Plastic	24	#5 PP Bottles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	25	#5 PP Packaging	0.30	3.80	4.90	2.50	0.70	1.25	9.10	3.13	2.30
Plastic	26	#6 Polystyrene	0.10	0.55	1.10	6.80	0.00	0.60	1.70	1.60	0.80
Plastic	27	#7 Plastic Packaging	0.00	0.00	0.05	0.00	0.00	0.05	18.15	0.00	0.95
Plastic	28	Agricultural Film	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30	Plastic Film	6.45	13.30	23.80	26.70	7.70	5.30	19.80	16.60	9.70
Plastic	31	Retail Shopping Bags	0.10	0.20	1.75	0.55	0.15	1.20	0.10	1.35	0.90
Plastic	32	Pouches/Flexible Plastic Packaging	0.00	0.00	0.05	0.20	0.00	0.00	0.00	0.20	0.00
Plastic	33	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34	Compostable Plastic Prod ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	35	Other Plastic	1.10	9.05	2.45	13.85	0.45	6.45	7.65	1.70	0.90
Organics	36	Food Waste - Unpackaged	212.60	30.00	73.40	35.90	9.90	30.20	75.15	32.40	35.55
Organics	37	Food Waste - Packaged	0.00	0.00	1.65	9.60	120.00	38.90	0.85	0.80	16.80
Organics	38	Yard Waste	0.00	0.00	0.25	0.00	0.00	0.00	2.95	23.85	1.55
Organics	39	Woody Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	40	Glass Deposit Beverage Containers	0.00	0.00	0.00	6.40	0.00	0.00	16.30	0.85	8.90
Glass	41	Glass Non-Deposit Beverage Containers	0.00	0.00	1.10	2.20	0.00	0.00	2.05	0.00	11.50
Glass	42	Glass Containers	1.80	0.00	0.85	0.00	0.00	1.30	0.00	0.00	0.00
Glass	43	Plate Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.50	5.15
Glass	44	Non-Glass Ceramics	0.00	0.00	0.70	0.00	0.00	0.80	0.00	0.45	0.65
Glass	45	Remainder/Composite Glass	6.55	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	46	Metal Deposit Beverage Containers	0.20	0.75	5.90	1.75	1.10	0.00	11.85	2.35	2.90
Metal	47	Metal Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	48	Aluminum Food Packaging	0.00	0.45	1.10	0.00	0.05	0.00	5.85	2.35	0.00
Metal	49	Other Aluminum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.15	0.00
Metal	50	Pet Food Containers	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.50	0.00

2025-2026 MN Statewide Waste Characterization Study - Fall Raw Data

		Sample ID	16	17	18	19	20	21	22	23	24
		Facility	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa
		Season	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall
Metal	51	Ferrous Food Cans - Tinned and Not Coated	0.00	1.10	1.75	1.20	2.30	0.30	0.00	1.15	0.75
Metal	52	Other Ferrous Metal	1.00	2.35	0.00	0.00	0.00	4.80	0.00	0.65	0.00
Metal	53	Other Nonferrous Metal	0.00	0.00	0.00	0.35	0.00	0.55	17.20	3.10	0.00
Metal	54	Mixed Metal/Material	0.00	0.00	0.00	0.00	0.00	0.20	0.00	11.45	0.00
Metal	55	Aerosol Containers	0.00	0.00	1.45	0.65	0.00	0.50	0.00	0.95	0.00
Consumer Products	56	Household Décor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	57	Textiles	2.40	11.15	0.75	1.55	0.15	33.25	0.95	10.30	6.20
Consumer Products	58	Shoes, Purses, and Belts	0.00	0.60	0.00	0.00	0.60	2.85	0.00	2.75	1.55
Consumer Products	59	Carpet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	6.60
Consumer Products	61	Furniture - Wood	0.00	61.50	0.00	5.95	0.00	13.25	0.00	0.00	0.00
Consumer Products	62	Furniture - Plastic	0.00	0.00	7.45	0.00	0.00	0.00	0.00	2.35	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	61.20
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.00	0.00	0.00	0.00	0.00	10.70	0.00	0.00	0.00
Consumer Products	67	Rubber Products	2.50	1.30	0.75	0.25	0.20	18.15	0.00	0.45	0.20
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	21.00	11.15	8.40	0.45	0.00	0.35	0.00	0.00	9.85
Consumer Products	70	Sports and Recreation Products	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	73	Other HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.35	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	75	Healthcare-Associated Waste	1.80	21.65	8.80	17.85	0.80	0.20	2.35	3.80	0.00
Hazardous & Special Wastes	76	Single Use Household Batteries	0.05	0.00	0.00	0.20	0.00	0.00	0.50	0.50	0.00
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.00	0.20	0.40	0.00	0.00	0.00	0.00	0.20	0.00
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	5.65	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C&D	96	C&D Contained in the MSW Loads	0.00	1.55	0.00	1.65	0.00	0.00	0.00	0.00	0.00
C&D	97	Wood - Treated and Untreated	0.45	0.00	0.25	5.20	71.85	20.75	0.00	0.75	8.25
Other	98	Non-Distinct	1.70	1.10	7.40	0.80	0.00	1.10	0.00	38.20	4.35
Other	99	Unclassifiable Fines	5.60	5.70	2.90	0.00	0.00	0.35	2.95	17.55	1.45
Plastic	100	#6 Polystyrene - Non-Foam	0.20	0.00	0.00	0.15	0.00	0.00	2.35	0.55	0.00
Total	Total	Total (Final Sample Weight)	278.30	228.60	224.80	236.50	262.50	219.00	292.10	243.98	250.05

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
		Facility	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	
		Date	1/12/26	1/12/26	1/12/26	1/12/26	1/13/26	1/13/26	1/13/26	1/13/26	1/13/26	1/13/26	1/13/26	1/13/26	1/14/26	1/14/26	1/14/26	1/14/26	1/14/26	1/14/26
		Time	8:59	11:25	14:28	15:39	7:48	8:48	10:56	12:30	13:33	14:28	14:45	8:15	9:30	9:47	10:56	14:00	15:30	
		Weather	Sunny	Sunny	Sunny	Sunny	Cloudy	Sunny, Windy	Sunny, Windy	Cloudy	Sunny, Windy	Cloudy, Windy	Cloudy, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	
		Hauler	Tennis	Tennis	Tennis	Republic	Tennis	Aspen	WM	WM	FCC	Maroney's	Nitti	Allied	Allied - Republic	Republic	Allied - Republic	Tennis NSD	Allied	
		Truck Number	6715	648	6705	6440	6708	3772	107131	2561	10343	6702	45	6464	6608	6477	6528	6705	6530	
		Vehicle Type	Side	Side	Side	Side	0 Front	Side	Front	Side	Side	Side	Side	0 Front	0 Front	0 Front	Side	0		
Waste Type	Res	Res	Res	Res	ICI	ICI	Res	Res	Res	Res	Res	ICI	ICI	ICI	ICI	Res	Res			
		Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)		
Paper	1	High Grade Office Paper Products	5.40	4.85	2.05	2.90	1.95	9.05	8.00	2.50	0.75	2.45	3.75	1.75	13.85	2.40	0.20	4.90	0.00	
Paper	2	Phone Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paper	3	Mixed/Low-Grade Paper Products	7.85	7.10	9.15	7.20	18.40	13.80	8.45	12.10	10.10	8.40	16.10	12.20	18.20	11.35	2.95	12.20	13.60	
Paper	4	Magazines/Catalogs/Glossy	11.35	1.75	0.15	5.95	8.60	3.05	1.10	0.30	0.30	0.25	4.60	0.00	27.15	0.45	0.25	0.20	0.00	
Paper	5	Newspaper/Newsprint	0.95	0.50	0.10	0.55	0.65	0.45	0.55	0.20	0.00	0.85	0.15	0.50	0.25	0.40	0.00	0.00	0.00	
Paper	6	Boxboard	5.85	8.80	8.60	5.10	5.35	5.75	10.70	4.30	2.40	2.45	8.15	5.50	7.55	11.35	4.00	10.45	3.20	
Paper	7	Kraft Paper	1.05	0.00	1.40	0.00	0.00	0.55	1.70	0.55	0.25	0.75	1.80	1.90	1.95	2.75	1.85	0.70	2.00	
Paper	8	OCC or Corrugated Cardboard	4.85	3.10	15.60	4.15	6.15	10.45	9.00	11.80	0.60	1.30	2.35	12.65	3.65	1.45	42.15	2.40	2.25	
Paper	9	Aseptic, Gable Top, Polycoated	0.10	0.15	0.05	1.65	3.90	0.00	1.35	0.20	0.05	0.40	0.25	0.20	0.90	0.50	0.00	0.35	0.20	
Paper	10	Compostable Paper Pkg NOT ASTM	17.35	17.35	16.50	22.95	21.80	13.60	21.40	11.20	14.90	11.00	10.85	14.25	11.30	19.80	12.15	12.65	15.70	
Paper	11	Compostable Paper Pkg ASTM	2.30	4.20	4.00	1.70	0.20	0.50	0.45	2.10	1.15	0.10	0.70	5.95	0.00	0.60	0.20	0.00	0.85	
Paper	12	Remainder/Composite Paper Products	0.60	1.45	0.10	2.10	0.60	0.40	1.15	0.70	1.20	0.30	0.00	1.95	0.40	0.00	0.00	0.10	0.00	
Plastic	13	Plastic Deposit Beverage Containers	1.50	0.00	5.30	0.95	3.05	3.35	2.70	2.85	2.30	0.15	1.60	7.15	11.30	9.05	1.60	1.20	1.25	
Plastic	14	Plastic Non-Deposit Beverage Containers	0.00	0.00	1.65	0.00	0.30	0.00	2.75	0.40	0.00	0.00	0.15	0.50	0.00	0.00	0.75	0.00	0.00	
Plastic	15	#1 PET Bottles/Jars	0.65	1.60	0.00	0.00	0.00	1.15	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging	0.95	4.00	0.85	3.30	1.75	0.80	2.25	0.30	0.15	1.80	1.55	2.35	1.35	1.85	0.55	0.00	1.85	
Plastic	17	#2 HDPE Bottles/Jars - Natural	0.25	0.25	0.85	0.85	2.35	0.75	3.00	0.30	0.00	0.60	0.60	0.00	0.00	0.60	0.00	0.00	0.85	
Plastic	18	#2 HDPE Bottles/Jars - Colored	1.65	1.00	0.65	2.10	0.90	0.90	0.65	0.95	0.00	3.15	0.50	0.85	1.30	0.85	1.20	0.50	0.55	
Plastic	19	Other HDPE	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.85	0.00	0.00	0.35	0.00	0.00	0.00	0.00	
Plastic	20	#3 PVC Packaging	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	21	#3 PVC Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	22	# 4 LDPE Hard Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	23	#4 LDPE Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	24	#5 PP Bottles	0.00	4.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	25	#5 PP Packaging	3.40	0.90	0.80	0.75	2.55	3.00	5.10	7.75	4.10	1.45	1.90	2.70	3.05	6.25	3.20	3.25	4.15	
Plastic	26	#6 Polystyrene	1.45	0.45	1.85	1.05	0.40	0.75	0.30	0.55	0.50	1.00	3.15	3.10	0.40	2.35	0.50	2.10	2.35	
Plastic	27	#7 Plastic Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	28	Agricultural Film	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	29	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	30	Plastic Film	7.25	12.90	14.15	17.15	31.55	20.60	29.50	15.60	26.20	23.30	10.55	19.85	27.20	26.90	14.90	17.85	31.95	
Plastic	31	Retail Shopping Bags	4.25	2.25	5.85	5.85	0.25	2.00	2.25	1.95	7.75	1.70	3.45	2.60	0.55	1.80	2.55	2.30	22.20	
Plastic	32	Pouches/Flexible Plastic Packaging	0.05	0.25	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	33	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	34	Compostable Plastic Prod ASTM	0.00	0.00	12.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	35	Other Plastic	6.75	7.75	6.70	7.15	8.35	1.35	5.50	1.85	9.85	3.70	6.65	5.10	4.65	3.65	3.20	4.20	2.20	
Organics	36	Food Waste - Unpackaged	66.60	66.05	64.25	39.40	71.85	28.00	52.60	36.50	42.65	26.20	0.00	22.15	25.05	41.25	36.60	33.50	23.10	
Organics	37	Food Waste - Packaged	11.30	17.90	17.25	9.80	4.00	17.95	10.35	22.65	17.00	5.50	5.60	21.00	7.45	8.30	14.25	7.20	25.80	
Organics	38	Yard Waste	7.10	0.95	10.10	4.15	0.00	0.00	0.65	10.00	0.00	0.00	59.65	9.30	0.00	0.45	12.55	0.00	0.00	
Organics	39	Woody Material	11.10	0.00	0.00	0.00	0.00	0.00	9.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.35	0.00	
Glass	40	Glass Deposit Beverage Containers	1.60	1.15	0.00	2.55	8.40	0.75	4.75	7.15	5.50	2.60	0.05	7.65	0.40	9.05	0.95	0.50	3.05	
Glass	41	Glass Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Glass	42	Glass Containers	0.00	1.20	1.45	0.00	0.00	0.00	0.00	1.80	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Glass	43	Plate Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Glass	44	Non-Glass Ceramics	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	1.05	0.00	0.05	0.00	1.50	0.00	0.30	0.00	0.00	
Glass	45	Remainder/Composite Glass	0.45	0.00	0.00	0.00	0.00	0.00	0											

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		Facility	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E	R&E
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
Metal	51	Ferrous Food Cans - Tinned and Not Coated	0.00	0.05	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	1.05	0.60	1.65	0.20	0.45	0.50
Metal	52	Other Ferrous Metal	0.65	0.00	0.25	0.00	0.00	12.40	0.00	0.50	3.30	1.05	0.00	0.00	0.45	7.70	3.80	3.60	13.60
Metal	53	Other Nonferrous Metal	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.50	5.45	20.10	3.55	0.00	0.00	0.00	0.00
Metal	54	Mixed Metal/Material	2.50	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
Metal	55	Aerosol Containers	0.00	0.25	0.00	0.00	0.00	0.30	0.55	0.30	0.20	0.20	0.00	0.00	0.00	0.20	0.55	0.00	0.35
Consumer Products	56	Household Décor	3.20	2.95	0.00	5.05	2.05	4.25	0.00	0.00	0.00	5.05	45.10	0.00	0.00	0.05	1.25	9.15	0.00
Consumer Products	57	Textiles	22.05	8.95	5.70	28.10	6.10	16.40	10.95	1.30	2.60	4.05	9.15	14.85	2.05	3.40	2.90	3.90	7.60
Consumer Products	58	Shoes, Purses, and Belts	3.45	4.80	0.00	5.55	0.00	0.65	0.00	0.00	0.75	0.75	0.00	1.55	0.00	0.00	0.00	2.75	0.00
Consumer Products	59	Carpet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.85	4.05	0.00	0.00	0.00	6.00	0.00	0.00	0.55
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.65	0.00	0.00	0.00	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	62	Furniture - Plastic	9.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.00	0.00	0.00	0.00	2.40	2.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.65	0.00	0.00	0.00
Consumer Products	67	Rubber Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	4.90	0.00	11.40	2.05	0.00	1.05	1.05	0.00	0.00
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	0.30	22.55	23.20	28.40	0.75	9.10	30.05	20.40	12.20	6.20	8.50	12.40	0.00	21.00	29.00	9.90	17.50
Consumer Products	70	Sports and Recreation Products	0.00	0.00	0.00	0.00	0.00	0.25	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.65	0.00	0.00	2.05	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	73	Other HHW	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	1.05	0.25	0.00	0.00	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.00	0.15	0.05	0.15	0.00	0.00	0.00	0.10	0.15	0.35	0.00	0.15	0.20	0.05	0.00	0.00	0.00
Hazardous & Special Wastes	75	Healthcare-Associated Waste	2.95	9.60	0.60	0.75	3.20	0.20	0.90	5.10	1.30	0.10	0.00	0.25	3.45	1.60	2.40	0.95	0.15
Hazardous & Special Wastes	76	Single Use Household Batteries	1.05	0.00	0.45	0.05	0.00	0.40	0.40	0.40	0.00	0.15	0.05	0.00	0.20	0.20	0.00	0.00	1.15
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.00	0.00	0.00	0.00	0.20	0.00	0.35	0.00	0.15	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.05	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.60	0.00
Electronics	93	Audio Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	2.45	6.50	1.25	0.10	0.00	0.70	0.00	0.20	0.00	0.00	0.00	0.95	0.45	3.90	0.30	0.10	2.00
C&D	96	C&D Contained in the MSW Loads	0.00	0.00	0.00	0.00	0.00	6.60	0.00	0.00	92.10	0.00	0.00	0.00	0.00	0.00	0.00	7.40	0.00
C&D	97	Wood - Treated and Untreated	0.00	1.55	0.00	0.55	3.05	17.05	0.60	3.35	0.00	3.70	6.75	8.40	0.15	16.30	5.65	15.00	0.95
Other	98	Non-Distinct	5.65	3.55	4.75	2.65	1.25	0.05	3.05	25.00	41.15	1.70	10.10	11.50	0.30	4.40	5.95	1.40	9.15
Other	99	Unclassifiable Fines	6.10	3.40	7.05	20.55	8.70	8.85	13.95	10.10	12.55	0.00	6.70	12.75	20.25	19.45	3.95	10.85	10.45
Plastic	100	#6 Polystyrene - Non-Foam	0.00	0.10	0.00	0.00	0.55	0.00	0.15	0.00	0.00	0.00	0.05	0.05	0.00	0.05	0.00	0.00	0.20
Total	Total	Total (Final Sample Weight)	246.60	239.30	248.85	242.70	246.65	221.55	264.90	228.60	234.45	226.00	253.20	253.40	212.75	270.90	215.65	205.70	227.60

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	18	19	20	21	22	23	24	1	2	3	4	5	6	7	8	9	10	
		Facility	R&E	R&E	R&E	R&E	R&E	R&E	R&E	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
		Date	1/30/26	1/30/26	1/30/26	1/30/26	1/30/26	1/30/26	1/30/26	1/30/26	1/15/26	1/15/26	1/15/26	1/15/26	1/15/26	1/15/26	1/15/26	1/15/26	1/15/26	1/16/26
		Time	8:30	8:40	9:00	9:10	11:00	12:40	14:30	8:30	9:24	9:55	10:20	10:31	11:57	13:32	14:38	15:17	8:11	
		Weather	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy, Windy	Cloudy, Windy	Cloudy, Windy	Cloudy, Windy	Cloudy, Windy	Cloudy, Windy	Cloudy, Windy
		Hauler	Allied-Republic	Tennis	Tennis	Nitti	WM	Highland	Allied	Republic	Republic	Republic	Republic	Republic	Republic	Republic	Republic	Republic	Republic	Republic
		Truck Number	6477	6077	6656	6665	60	4142	0	3445	1875	3444	3446	1361	1366	2562	2412	2111	3449	
		Vehicle Type	0 Rear	0 Side	Compactor	Rear	Front	Roll-Off	Front	Roll-Off	Roll-Off	Front	Front	Side	0	0	Rolloff			
		Waste Type	ICI	Res	ICI	ICI	ICI	Res	ICI	ICI	ICI	ICI	ICI	ICI	ICI	Res	Res	Res	ICI	
		Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)		
Paper	1	High Grade Office Paper Products	6.55	1.90	35.50	0.75	0.50	0.00	0.40	0.55	24.10	3.90	1.45	14.50	1.15	2.70	3.75	0.05	0.00	
Paper	2	Phone Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paper	3	Mixed/Low-Grade Paper Products	5.85	15.60	17.10	9.45	9.80	5.05	6.45	7.45	8.95	10.90	19.00	6.65	2.40	7.35	10.10	4.65	0.65	
Paper	4	Magazines/Catalogs/Glossy	0.00	0.00	5.80	0.00	0.00	0.00	0.00	3.25	3.70	1.35	0.65	4.00	-3.90	0.00	2.90	0.40	12.70	
Paper	5	Newspaper/Newsprint	0.00	0.00	0.00	0.05	0.00	0.00	0.20	0.45	0.15	0.30	0.00	0.00	0.00	0.05	0.00	0.00	0.05	
Paper	6	Boxboard	6.35	14.60	6.70	6.30	0.60	4.70	2.45	3.15	2.85	7.65	1.35	23.30	1.30	5.65	9.30	10.50	1.40	
Paper	7	Kraft Paper	0.55	2.15	0.25	6.55	0.00	1.80	0.50	3.80	0.00	5.65	0.95	2.95	0.00	0.00	2.85	2.40	0.15	
Paper	8	OCC or Corrugated Cardboard	9.75	0.80	2.80	0.40	3.85	0.30	1.45	5.45	1.80	7.55	16.50	3.40	2.50	6.45	2.55	2.00	2.55	
Paper	9	Aseptic, Gable Top, Polycoated	0.05	0.00	28.00	0.30	0.00	0.10	0.80	0.00	7.85	0.00	0.00	0.35	1.25	0.00	1.30	2.85	0.00	
Paper	10	Compostable Paper Pkg NOT ASTM	9.95	14.35	9.90	7.80	4.40	20.15	4.90	10.10	17.90	17.25	45.95	12.00	10.20	10.00	19.50	10.50	0.00	
Paper	11	Compostable Paper Pkg ASTM	0.25	2.55	0.15	0.55	0.53	1.80	0.35	0.40	0.00	5.70	0.00	0.00	0.00	3.65	1.05	5.25	0.00	
Paper	12	Remainder/Composite Paper Products	2.75	1.35	0.45	0.70	0.00	2.25	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	
Plastic	13	Plastic Deposit Beverage Containers	0.05	3.90	2.05	0.95	1.80	1.70	0.05	1.30	0.75	5.70	2.60	2.80	0.95	0.95	1.30	0.50	0.00	
Plastic	14	Plastic Non-Deposit Beverage Containers	0.00	0.45	0.00	1.55	0.00	0.90	0.30	0.00	0.00	0.25	0.00	1.15	0.00	0.00	0.20	0.95	0.00	
Plastic	15	#1 PET Bottles/Jars	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging	0.60	5.75	0.40	0.80	0.00	3.00	0.05	1.45	0.00	1.65	0.45	1.40	0.00	0.85	2.90	1.10	0.00	
Plastic	17	#2 HDPE Bottles/Jars - Natural	0.00	1.00	0.65	0.80	0.35	0.35	0.05	0.00	3.45	0.40	4.70	1.15	2.50	4.05	1.50	0.50	0.00	
Plastic	18	#2 HDPE Bottles/Jars - Colored	0.45	0.00	0.00	0.85	0.05	0.50	0.00	0.00	2.75	0.35	0.00	1.30	0.80	0.00	0.80	0.00	0.00	
Plastic	19	Other HDPE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	20	#3 PVC Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	21	#3 PVC Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	22	# 4 LDPE Hard Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	23	#4 LDPE Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	24	#5 PP Bottles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	25	#5 PP Packaging	0.55	4.50	3.10	0.40	0.45	4.10	4.35	4.45	9.10	5.60	2.70	3.35	1.95	2.45	4.55	2.35	0.00	
Plastic	26	#6 Polystyrene	5.10	1.05	1.50	1.20	1.75	6.40	0.30	4.65	1.05	0.70	1.20	0.75	2.95	0.95	0.80	0.15	0.00	
Plastic	27	#7 Plastic Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	
Plastic	28	Agricultural Film	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	29	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	30	Plastic Film	72.55	17.80	19.35	16.10	0.00	22.90	65.15	35.55	30.00	39.10	16.20	44.45	26.95	41.80	28.10	12.60	2.20	
Plastic	31	Retail Shopping Bags	0.00	1.95	0.10	1.60	18.15	0.60	2.55	0.45	0.40	0.45	0.15	3.35	0.05	0.85	1.90	0.45	0.00	
Plastic	32	Pouches/Flexible Plastic Packaging	0.00	0.00	0.00	0.10	0.10	0.10	0.00	0.00	0.25	0.00	0.00	0.55	0.00	0.40	0.15	0.00	0.00	
Plastic	33	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	34	Compostable Plastic Prod ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Plastic	35	Other Plastic	20.40	0.80	1.65	2.60	1.65	0.70	0.00	1.70	66.60	3.00	9.75	7.65	1.35	2.45	7.10	5.30	24.20	
Organics	36	Food Waste - Unpackaged	1.00	61.70	28.10	38.10	123.65	35.60	62.25	97.75	42.35	74.30	17.65	29.45	33.95	76.45	74.25	128.40	0.00	
Organics	37	Food Waste - Packaged	0.15	14.20	11.65	20.00	6.60	6.60	37.60	54.55	19.10	9.35	0.00	1.30	0.00	6.15	10.25	47.95	0.00	
Organics	38	Yard Waste	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	1.60	0.00	0.00	
Organics	39	Woody Material	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Glass	40	Glass Deposit Beverage Containers	0.00	0.00	0.00	0.00	2.30	4.20	0.85	1.95	5.35	16.70	0.45	0.00	0.00	0.00	8.60	0.00	0.00	
Glass	41	Glass Non-Deposit Beverage Containers	0.00	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.20	0.00	0.00	0.00	
Glass	42	Glass Containers	0.00	0.00	0.00	0.65	0.00	4.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	2.80	1.85	2.00	
Glass	43	Plate Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.25	0.00	4.45	0.00	0.00	0.00	0.00	0.00	15.50	
Glass	44	Non-Glass Ceramics	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	1.20	0.00	0.00	4.05	
Glass	45	Remainder/Composite Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15						

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	18	19	20	21	22	23	24	1	2	3	4	5	6	7	8	9	10
		Facility	R&E	R&E	R&E	R&E	R&E	R&E	R&E	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
Metal	51	Ferrous Food Cans - Tinned and Not Coated	0.00	0.00	0.00	1.55	0.35	1.15	0.20	0.95	0.00	1.40	0.30	0.10	0.00	1.10	0.00	0.25	0.00
Metal	52	Other Ferrous Metal	5.75	5.65	0.00	0.35	2.05	0.00	0.00	0.00	2.15	0.55	5.30	0.00	40.90	0.00	2.60	0.00	0.00
Metal	53	Other Nonferrous Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.70
Metal	54	Mixed Metal/Material	0.00	0.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	55	Aerosol Containers	1.00	0.00	0.90	0.00	0.00	0.00	0.45	0.00	0.35	0.00	0.00	0.00	0.55	0.50	0.50	0.00	0.00
Consumer Products	56	Household Décor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.45
Consumer Products	57	Textiles	0.40	0.55	0.60	9.45	0.30	11.95	0.00	0.00	1.60	1.20	3.10	9.25	0.90	6.05	1.65	1.05	85.70
Consumer Products	58	Shoes, Purses, and Belts	0.00	0.90	2.55	0.00	0.00	4.05	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	1.90	0.00	0.00
Consumer Products	59	Carpet	0.00	0.00	0.00	20.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.95	0.00
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	6.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.05
Consumer Products	62	Furniture - Plastic	0.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.00	0.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	67	Rubber Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	1.45	2.30	0.15	0.00	0.10	0.00	0.00
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	0.00	9.70	0.00	17.20	1.80	3.85	0.00	0.00	4.10	0.00	3.70	12.20	0.00	16.90	14.15	0.00	0.00
Consumer Products	70	Sports and Recreation Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.50	0.00	0.00	0.00	0.00	0.00	0.00	3.90	0.00	0.00	0.00	0.00	2.05	10.00	0.00	0.00	0.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	73	Other HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	75	Healthcare-Associated Waste	56.50	0.10	1.75	0.30	17.45	1.10	0.00	2.95	2.20	1.95	91.95	20.60	0.20	0.10	0.85	5.70	0.00
Hazardous & Special Wastes	76	Single Use Household Batteries	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.25	1.00	0.00	0.00
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.00	0.00	0.00	35.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.55	0.00	0.00	2.10	0.40	0.00
C&D	96	C&D Contained in the MSW Loads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.25	0.00	0.00	0.00	0.00	0.00	0.00
C&D	97	Wood - Treated and Untreated	4.10	1.65	0.00	1.60	0.00	33.85	0.00	0.05	0.35	0.15	0.00	3.55	81.85	3.10	0.65	0.00	13.75
Other	98	Non-Distinct	1.65	26.80	13.20	14.85	0.20	9.55	0.00	0.15	0.50	0.00	0.00	2.90	0.10	28.95	3.55	1.25	0.00
Other	99	Unclassifiable Fines	2.05	16.85	10.80	13.95	5.55	17.35	10.90	1.25	5.00	4.90	2.25	7.00	5.55	7.15	6.70	4.90	0.85
Plastic	100	#6 Polystyrene - Non-Foam	0.05	0.00	0.00	0.00	0.00	0.00	0.30	0.05	0.05	0.20	0.00	0.00	0.00	0.00	0.00	0.15	0.00
Total	Total	Total (Final Sample Weight)	216.00	235.00	218.30	242.05	206.48	214.35	202.85	248.75	281.45	230.65	292.50	236.45	219.20	257.45	239.30	261.00	218.95

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	11	12	13	14	15	16	17	18	19	20	21	22	23	24	1	2	3
		Facility	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Perham	Perham	Perham
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
		Date	1/16/26	1/16/26	1/16/26	1/16/26	1/16/26	1/16/26	1/16/26	1/16/26	1/19/26	1/19/26	1/19/26	1/19/26	1/19/26	1/19/26	1/21/26	1/21/26	1/21/26
		Time	8:45	9:32	10:07	11:49	13:24	14:27	14:30	15:12	8:31	9:10	9:57	11:05	13:05	13:36	7:45	8:25	8:25
		Weather	Cloudy, Windy	Cloudy, Windy	Cloudy	Cloudy	Cloudy, Windy - Snowing	Cloudy, Windy - Snowing	Cloudy, Windy	Cloudy, Snowy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Cloudy, Windy	Cloudy	Cloudy
		Hauler	Republic	Republic	Republic	Republic	Republic	Republic	Republic	Republic	Republic	Republic	Republic	Republic	Republic	Republic	Ottertail	Clay County	Clay County
		Truck Number	1375	1312	1361	2572	1375	2412	1367	2554	1352	1361	2578	1358	1375	1363	N/A	S2	S2
		Vehicle Type	Front	Front	Front	Side	Front	Side	Front	Side	Front	Front	Side	Front	Front	Front	Front	Compactor	Compactor
		Waste Type	ICI	ICI	ICI	Res	ICI	Res	ICI	Res	ICI	ICI	Res	ICI	ICI	ICI	ICI	Res	Res
			Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)
Paper	1	High Grade Office Paper Products	3.20	1.10	1.20	9.05	4.55	2.95	7.15	3.10	0.15	0.70	4.65	6.90	0.35	0.00	0.00	1.70	2.65
Paper	2	Phone Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3	Mixed/Low-Grade Paper Products	8.35	2.50	4.80	9.65	7.30	3.40	2.90	5.65	8.60	0.60	4.05	4.65	7.00	6.50	0.00	9.70	5.40
Paper	4	Magazines/Catalogs/Glossy	1.20	0.65	0.00	4.30	1.75	1.80	2.50	0.00	1.05	0.00	0.00	0.00	0.90	0.00	0.00	0.00	2.60
Paper	5	Newspaper/Newsprint	0.05	0.00	0.00	0.00	0.90	0.10	2.10	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	6	Boxboard	5.40	2.95	10.75	7.10	8.15	6.80	4.60	2.35	2.35	1.30	3.10	8.15	5.80	4.70	45.25	7.50	6.65
Paper	7	Kraft Paper	4.60	0.90	2.30	1.15	2.30	1.30	2.55	3.35	1.05	2.50	1.25	1.70	0.40	1.95	0.00	2.35	2.10
Paper	8	OCC or Corrugated Cardboard	2.95	0.15	4.70	5.80	1.65	3.85	0.95	7.25	4.95	0.00	1.75	0.00	6.00	4.55	0.00	2.85	0.00
Paper	9	Aseptic, Gable Top, Polycoated	1.70	0.25	0.45	0.65	2.20	0.50	0.15	1.35	0.70	0.00	2.60	0.50	1.00	0.00	0.00	0.80	0.40
Paper	10	Compostable Paper Pkg NOT ASTM	24.05	8.80	10.50	14.00	16.10	12.90	12.85	17.90	9.40	2.70	14.15	11.45	12.30	7.25	0.00	12.30	16.05
Paper	11	Compostable Paper Pkg ASTM	4.45	0.40	0.45	1.20	0.00	0.40	0.25	0.30	0.00	0.00	0.80	0.50	1.95	0.00	0.00	1.65	1.45
Paper	12	Remainder/Composite Paper Products	5.70	0.35	0.55	0.15	0.55	0.65	1.00	0.40	5.10	1.35	0.05	1.00	0.20	0.90	0.00	0.25	0.00
Plastic	13	Plastic Deposit Beverage Containers	1.65	0.50	0.90	0.30	1.30	0.25	1.50	2.95	0.50	2.20	2.05	2.65	1.30	2.05	0.00	1.65	2.70
Plastic	14	Plastic Non-Deposit Beverage Containers	0.00	0.10	0.10	0.55	0.00	0.60	0.15	0.00	0.00	0.00	0.10	0.05	0.20	0.00	0.00	0.60	0.40
Plastic	15	#1 PET Bottles/Jars	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging	1.50	1.05	0.30	3.00	2.50	0.90	1.35	1.10	0.70	0.00	1.15	0.85	1.75	0.15	0.00	0.50	2.15
Plastic	17	#2 HDPE Bottles/Jars - Natural	0.90	0.00	1.50	1.00	0.75	0.05	0.60	0.35	0.20	0.00	1.20	0.30	3.50	1.85	0.00	0.50	1.60
Plastic	18	#2 HDPE Bottles/Jars - Colored	24.65	0.20	1.70	0.00	1.50	0.35	0.70	0.95	0.35	0.40	3.70	1.20	0.75	1.25	0.00	1.10	0.60
Plastic	19	Other HDPE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.75
Plastic	20	#3 PVC Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21	#3 PVC Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	22	# 4 LDPE Hard Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	23	#4 LDPE Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	24	#5 PP Bottles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	25	#5 PP Packaging	4.40	8.00	3.25	3.50	4.60	1.45	1.70	2.70	4.95	1.60	6.35	2.85	2.20	2.00	0.00	3.85	2.45
Plastic	26	#6 Polystyrene	0.45	0.05	0.75	0.75	1.30	1.00	0.35	1.35	0.00	0.70	1.10	0.50	0.70	0.30	0.15	1.50	1.10
Plastic	27	#7 Plastic Packaging	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00
Plastic	28	Agricultural Film	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30	Plastic Film	33.25	13.10	16.80	23.55	21.20	19.35	18.50	19.00	38.85	4.35	12.95	36.65	13.70	17.90	1.10	23.20	23.60
Plastic	31	Retail Shopping Bags	0.25	0.15	0.75	1.35	2.35	1.55	1.25	6.70	0.00	0.10	1.50	3.75	1.40	5.60	0.00	3.15	2.55
Plastic	32	Pouches/Flexible Plastic Packaging	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
Plastic	33	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34	Compostable Plastic Prod ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	35	Other Plastic	3.95	7.85	2.20	4.25	9.60	5.55	1.60	3.90	5.55	1.25	2.10	4.85	10.80	2.25	0.00	4.80	1.90
Organics	36	Food Waste - Unpackaged	69.75	58.50	32.80	55.70	52.70	39.00	101.60	37.90	127.15	38.60	85.50	44.45	28.45	27.15	0.00	57.00	41.05
Organics	37	Food Waste - Packaged	9.70	49.50	5.65	10.40	5.85	10.90	2.60	10.35	0.00	2.25	21.20	9.15	7.20	1.65	0.00	3.15	1.70
Organics	38	Yard Waste	0.00	0.00	0.00	0.50	0.00	17.25	0.20	0.00	0.00	0.00	0.00	0.00	7.65	22.15	0.00	0.45	0.00
Organics	39	Woody Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	40	Glass Deposit Beverage Containers	0.00	0.00	1.80	5.00	0.00	0.00	0.90	2.95	0.65	1.70	2.20	0.00	0.00	8.05	0.00	8.30	0.00
Glass	41	Glass Non-Deposit Beverage Containers	0.50	0.00	0.00	0.00	0.00	0.00	0.70	0.85	0.00	0.00	0.00	0.00	10.55	0.00	0.00	0.00	0.00
Glass	42	Glass Containers	0.00	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00	2.85	0.00	0.70	2.00	0.00	0.00	2.65
Glass	43	Plate Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	44	Non-Glass Ceramics	0.00	0.00	0.00	0.00	0.00	4.05	0.00	1.75	0.00	0.00	8.10	0.00	0.00	0.00	0.00	0.00	1.65
Glass	45	Remainder/Composite Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.75	0.00	0.00	0.00	3.55
Metal	46	Metal Deposit Beverage Containers	9.25	0.55	1.45	0.90	0.00	0.00	1.20	0.40	0.40	0.00	1.25	1.90	0.85	1.35	0.00	1.50	3.15
Metal	47	Metal Non-Deposit Beverage Containers	0.45	0.20	0.00	0.00	1.35	0.35	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	48	Aluminum Food Packaging	1.00	0.25	0.00	0.20	0.60	1.05	0.25	1.40	0.30	0.00	0.10	0.40	0.75	0.30	0.00	0.30	3.55
Metal	49	Other Aluminum	0.00	0.00	0.00	0.85	0.00	0.00	0.35	1.30	1.65	0.05	0.00	0.00	1.10	0.00	0.00	0.00	0.00
Metal	50	Pet Food Containers	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.55	0.20

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	11	12	13	14	15	16	17	18	19	20	21	22	23	24	1	2	3
		Facility	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Eden Prairie	Perham	Perham	Perham
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
Metal	51	Ferrous Food Cans - Tinned and Not Coated	0.00	0.00	1.65	1.55	1.80	0.20	0.25	0.60	0.35	0.00	3.55	0.55	1.10	0.00	0.00	1.20	1.60
Metal	52	Other Ferrous Metal	0.00	0.00	2.10	3.25	9.15	6.15	0.00	0.00	0.00	0.00	0.00	0.00	21.25	0.00	0.00	0.00	7.35
Metal	53	Other Nonferrous Metal	0.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.00	0.00	0.00	0.00	0.00
Metal	54	Mixed Metal/Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00
Metal	55	Aerosol Containers	0.00	0.00	0.30	0.00	0.00	0.75	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.25	1.20
Consumer Products	56	Household Décor	0.00	17.10	0.00	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	2.55	0.80	0.00	0.00	0.00	0.00
Consumer Products	57	Textiles	0.00	6.45	0.00	4.10	2.25	14.60	1.55	28.00	0.95	1.85	2.50	44.35	7.75	1.00	0.00	12.80	5.60
Consumer Products	58	Shoes, Purses, and Belts	0.00	0.00	0.00	2.75	0.00	0.00	0.00	0.00	0.00	4.35	1.65	1.45	1.75	13.45	0.00	0.90	0.00
Consumer Products	59	Carpet	0.00	0.00	5.70	0.00	11.20	0.90	0.00	0.00	0.00	0.00	2.95	0.00	13.60	24.55	56.95	0.00	0.00
Consumer Products	60	Furniture - Metal	0.00	0.00	43.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	138.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	62	Furniture - Plastic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	15.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.00	0.00	0.00	0.00	0.00	0.00	8.55	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	67	Rubber Products	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.55
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	1.15	5.90	29.95	1.80	19.45	7.05	45.25	12.15	0.00	0.00	8.55	15.80	17.35	9.65	0.00	6.15	12.00
Consumer Products	70	Sports and Recreation Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.45	1.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	73	Other HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	75	Healthcare-Associated Waste	1.25	14.60	3.70	5.80	1.75	0.00	3.00	1.35	2.80	0.25	0.15	0.90	1.20	0.15	0.00	0.10	3.10
Hazardous & Special Wastes	76	Single Use Household Batteries	0.05	0.00	0.00	0.05	0.25	0.15	0.05	0.25	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.20	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	0.00	0.00	0.15	1.65	0.05	0.40	0.00	0.45	0.85	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00
C&D	96	C&D Contained in the MSW Loads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	125.35	0.00	0.00
C&D	97	Wood - Treated and Untreated	0.10	4.25	6.75	0.90	5.80	4.05	0.00	34.00	0.00	0.10	3.05	2.10	0.15	6.05	0.00	11.20	11.20
Other	98	Non-Distinct	0.15	0.90	0.00	34.60	2.50	30.45	5.90	15.05	0.00	0.00	1.15	0.05	7.05	37.80	0.00	22.20	23.70
Other	99	Unclassifiable Fines	4.30	5.70	4.90	7.00	6.25	5.35	4.90	4.80	3.45	2.60	11.95	7.35	5.65	9.60	0.00	14.15	29.95
Plastic	100	#6 Polystyrene - Non-Foam	0.00	0.00	0.00	0.00	0.05	0.00	0.15	0.85	1.30	0.00	0.20	0.20	0.30	0.10	0.00	0.00	0.20
Total	Total	Total (Final Sample Weight)	230.30	224.80	219.45	229.35	211.60	210.75	242.10	243.50	224.35	210.65	222.90	221.10	210.05	224.90	228.80	221.45	239.05

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
		Facility	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
		Date	1/21/26	1/21/26	1/21/26	1/21/26	1/22/26	1/22/26	1/22/26	1/22/26	1/22/26	2/20/26	2/20/26	2/20/26	2/20/26	2/20/26	2/20/2026	2/20/26	2/20/26	2/20/26
		Time	9:20	10:00	13:45	14:30	8:14	8:15	9:00	9:20	9:20	8:30	8:30	8:45	11:20	11:30	11:50	12:20	13:20	14:40
		Weather	Cloudy	Cloudy, Windy	Sunny, Windy	Sunny, Windy	Cloudy, Windy	Cloudy, windy	Cloudy, Windy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Windy	Windy	Sunny, Windy	Sunny	Sunny	Sunny
		Hauler	Tuffies	Ottertail	Wadena	Ottertail	Clay County	Clay County	Ottertail	Todd County	Otter Tail	Otter Tail	Ottertail	Todd	Todd	Ottertail	Ottertail	Wadena	Ottertail	
		Truck Number	Ottertail	Ottertail	Wadena	Ottertail	Clay County	Clay County	Ottertail	Todd County	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		Vehicle Type	Front	Rear	Rear	Front	Rear	Rear	Rear	Rear	Rear	Transfer	Transfer Trailer	Transfer Trailer	0 Side	Side	Side	Front	0 Trailer	Transfer
		Waste Type	ICI	Res	Res	Res	Res	Res	Res	Res	ICI	TS	TS	TS	Res	Res	Res	Res	Res	Res
		Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	
Paper	1	High Grade Office Paper Products		0.25	5.15	5.55	1.15	8.65	1.90	2.65	0.00	6.85	2.45	3.00	7.45	13.50	0.45	3.05	9.60	2.50
Paper	2	Phone Books		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3	Mixed/Low-Grade Paper Products		0.00	2.45	7.45	6.95	8.05	4.35	16.70	2.65	6.25	3.35	2.50	2.35	7.20	8.95	3.65	5.30	6.90
Paper	4	Magazines/Catalogs/Glossy		0.95	0.00	1.55	0.95	0.95	1.70	0.00	0.00	0.75	0.80	5.15	0.60	5.65	0.00	2.20	1.65	2.05
Paper	5	Newspaper/Newsprint		0.00	0.00	1.70	0.00	0.60	1.50	0.80	0.00	0.85	1.25	0.00	1.70	0.85	0.05	1.10	1.45	0.60
Paper	6	Boxboard		6.90	2.40	11.35	5.60	3.15	7.60	0.00	0.00	6.00	2.20	1.90	4.50	2.00	3.60	5.80	11.00	7.85
Paper	7	Kraft Paper		0.00	0.00	2.25	0.75	1.25	0.00	0.00	0.00	1.85	2.35	2.65	9.40	2.60	2.45	2.80	6.05	3.35
Paper	8	OCC or Corrugated Cardboard		4.35	40.95	5.15	1.05	5.65	5.30	2.70	26.45	7.95	2.30	3.80	7.65	8.85	2.75	3.95	11.10	41.60
Paper	9	Aseptic, Gable Top, Polycoated		0.00	10.75	1.25	1.05	1.35	0.70	0.25	0.00	0.85	1.20	0.80	0.65	0.60	0.65	0.40	2.50	0.00
Paper	10	Compostable Paper Pkg NOT ASTM		0.80	12.65	15.70	10.65	21.00	11.30	5.80	25.25	16.30	15.15	4.20	14.65	18.70	11.20	7.50	9.75	13.50
Paper	11	Compostable Paper Pkg ASTM		0.00	0.70	8.80	4.95	2.80	1.75	0.65	0.00	2.15	3.70	2.30	2.15	3.50	0.50	1.90	5.55	2.70
Paper	12	Remainder/Composite Paper Products		26.95	0.00	0.00	0.00	0.60	0.00	0.00	0.00	1.20	0.30	0.15	0.45	0.80	0.35	0.45	0.00	0.55
Plastic	13	Plastic Deposit Beverage Containers		0.00	1.80	1.85	0.60	2.25	1.50	1.05	3.05	0.90	0.20	0.15	0.85	4.30	0.00	1.35	3.95	1.65
Plastic	14	Plastic Non-Deposit Beverage Containers		0.00	0.40	0.00	0.00	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	15	#1 PET Bottles/Jars		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	1.40	0.45	0.00	0.00
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging		0.00	1.25	1.30	1.20	3.00	1.55	0.00	0.90	2.55	3.10	1.10	3.65	0.30	0.40	1.30	1.90	1.55
Plastic	17	#2 HDPE Bottles/Jars - Natural		0.00	0.75	0.00	2.10	2.10	2.40	0.00	0.40	0.55	0.75	0.00	1.75	1.20	1.90	0.85	3.25	2.05
Plastic	18	#2 HDPE Bottles/Jars - Colored		0.00	0.00	3.95	0.60	1.85	2.35	0.00	2.70	1.25	0.55	0.00	0.90	0.65	1.50	0.85	0.00	0.80
Plastic	19	Other HDPE		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	20	#3 PVC Packaging		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21	#3 PVC Other		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	22	# 4 LDPE Hard Packaging		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	23	#4 LDPE Other		0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	24	#5 PP Bottles		0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	25	#5 PP Packaging		0.00	10.25	2.85	2.75	4.15	4.55	0.00	1.25	3.65	1.95	1.70	2.55	6.35	1.75	3.60	3.15	3.75
Plastic	26	#6 Polystyrene		0.00	12.30	3.10	0.75	1.55	0.90	0.80	0.65	1.30	1.45	0.45	0.75	0.75	0.00	1.55	0.75	1.85
Plastic	27	#7 Plastic Packaging		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	28	Agricultural Film		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29	Boat Wrap		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30	Plastic Film		11.60	34.90	24.95	17.60	24.15	22.45	50.75	64.10	19.60	17.40	42.30	43.05	47.00	28.85	18.55	27.85	22.35
Plastic	31	Retail Shopping Bags		0.00	1.35	0.00	1.00	11.45	1.95	35.10	0.35	1.75	1.80	2.35	1.70	0.90	0.50	2.70	1.30	1.35
Plastic	32	Pouches/Flexible Plastic Packaging		0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	33	Compostable Plastic Prod NOT ASTM		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34	Compostable Plastic Prod ASTM		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	35	Other Plastic		0.80	2.85	2.10	0.95	5.05	6.60	0.00	6.85	11.75	11.05	3.20	3.45	4.25	0.50	5.70	3.45	3.80
Organics	36	Food Waste - Unpackaged		0.00	70.40	78.05	77.45	60.60	44.90	35.25	61.55	48.30	76.30	0.00	0.00	20.60	19.30	54.95	0.40	2.50
Organics	37	Food Waste - Packaged		0.00	1.70	0.00	4.60	2.10	3.85	0.00	2.35	0.30	5.45	54.30	67.20	1.00	0.00	3.05	31.30	44.10
Organics	38	Yard Waste		0.00	0.00	0.00	0.00	0.00	9.60	42.30	0.00	0.00	0.50	2.95	0.00	0.00	0.00	0.65	0.00	0.00
Organics	39	Woody Material		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	40	Glass Deposit Beverage Containers		0.00	0.00	1.20	2.95	0.00	3.40	0.00	1.00	5.45	2.85	3.55	3.20	5.15	64.00	3.75	2.95	3.25
Glass	41	Glass Non-Deposit Beverage Containers		0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	4.60	3.50	0.00	0.00
Glass	42	Glass Containers		0.00	0.00	0.00	4.25	1.95	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.15	0.00
Glass	43	Plate Glass		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	44	Non-Glass Ceramics		0.00	0.00	0.00	0.00													

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
		Facility	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham	Perham
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
Metal	51	Ferrous Food Cans - Tinned and Not Coated	0.00	0.25	2.15	0.50	2.35	1.90	0.00	1.35	0.00	1.05	0.00	1.35	1.10	2.15	2.35	2.10	0.90
Metal	52	Other Ferrous Metal	0.00	0.00	0.00	0.00	1.55	2.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
Metal	53	Other Nonferrous Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	54	Mixed Metal/Material	0.00	0.00	0.00	0.00	0.90	1.00	0.00	0.00	0.00	2.15	0.00	0.00	2.00	0.00	0.60	3.05	0.50
Metal	55	Aerosol Containers	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.55	0.30	0.40	0.60	0.80	0.55	0.30	0.20	0.00
Consumer Products	56	Household Décor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.20	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Consumer Products	57	Textiles	0.00	0.00	8.30	2.25	13.70	36.95	11.50	1.20	4.70	4.25	41.15	17.80	19.85	13.60	20.60	12.95	3.25
Consumer Products	58	Shoes, Purses, and Belts	0.00	1.50	5.20	0.00	0.00	5.60	0.00	0.00	3.45	0.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	59	Carpet	0.00	0.00	0.00	0.00	0.00	1.05	0.00	0.00	2.25	0.00	2.05	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	1.65	1.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	62	Furniture - Plastic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.00	0.00	0.00	0.00	0.00	0.00	3.85	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	7.75	0.00
Consumer Products	67	Rubber Products	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	0.00	0.00	11.55	31.60	9.95	9.35	11.90	0.00	12.15	17.65	10.00	7.90	9.70	1.55	15.90	9.10	23.75
Consumer Products	70	Sports and Recreation Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.60
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.00	0.00	0.00	8.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	73	Other HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.00	0.00	0.00	0.00	0.25	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.15	0.00
Hazardous & Special Wastes	75	Healthcare-Associated Waste	22.05	1.40	0.25	0.50	0.70	0.00	0.00	0.20	0.30	0.25	0.00	1.15	0.60	0.60	1.30	0.10	0.85
Hazardous & Special Wastes	76	Single Use Household Batteries	0.00	0.00	0.00	0.80	0.30	0.00	0.00	0.00	0.05	0.15	0.00	0.00	0.25	0.00	0.10	0.00	0.05
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.30	0.10	0.15
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.65	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.45	0.10	0.90	0.45	0.05	0.90	2.55	0.75	0.35
C&D	96	C&D Contained in the MSW Loads	0.00	0.00	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.35	0.00	0.00
C&D	97	Wood - Treated and Untreated	3.30	0.70	0.00	0.50	2.20	2.35	0.00	11.70	0.00	0.00	0.00	2.15	0.40	5.15	4.30	1.35	2.60
Other	98	Non-Distinct	134.40	6.60	13.40	25.35	14.55	3.60	1.10	0.00	33.25	38.80	6.90	9.55	23.00	3.15	2.60	14.10	11.80
Other	99	Unclassifiable Fines	0.00	0.55	10.45	4.65	11.45	12.80	6.20	1.05	7.15	7.50	23.50	16.20	34.05	15.10	10.80	12.25	18.50
Plastic	100	#6 Polystyrene - Non-Foam	0.00	0.00	0.30	0.20	0.00	0.10	0.00	0.00	0.00	0.10	0.00	0.20	0.00	0.60	0.20	1.50	0.00
Total	Total	Total (Final Sample Weight)	212.35	226.50	241.55	226.85	235.90	223.35	230.65	215.15	223.15	235.90	228.10	242.35	254.65	220.50	213.90	221.20	237.50

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	21	22	23	24	1	2	3	4	5	6	7	8	9	10	11	12	13	
		Facility	Perham	Perham	Perham	Perham	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew
		Season	Winter	Winter	Winter	Winter			Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
		Date	2/20/26	3/12/26	3/12/26	3/12/26			2/16/26	2/16/26	2/16/26	2/16/26	2/16/26	2/16/26	2/16/26	2/16/26	2/16/26	2/17/26	2/17/26	2/17/26
		Time	14:40	8:15	8:38	11:10			10:30	10:40	11:00	12:30	13:30	13:56	15:07	15:20	7:50	9:12	9:30	
		Weather	Sunny	Sunny	Sunny	Sunny			Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny, Windy	Sunny, Windy
		Hauler	Becker	Clay County	Clay County	Todd			Hartel's	Hartel's	Hartels	Hartel	Hartels	Hartlets	WM	WM	WM	Hartels	Hartel	
		Truck Number	NA	NA	NA	NA			0	0	0	295	0	0	0	0	0	0	29Ff	29V
		Vehicle Type	Transfer Trailer	Trailer	Trailer	Trailer			Side	Rear	0	Side	Side	Side	Side	Side	Side	Side	Rear	Front
		Waste Type	TS	ICI	Res	ICI			Res	ICI	ICI	Res	Res	Res	Res	Res	Res	Res	Res	Res
		Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)			Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	
Paper	1	High Grade Office Paper Products		1.65	3.05	2.20	1.15			3.95	4.55	1.05	2.70	2.50	4.05	1.50	1.70	2.95	1.85	1.50
Paper	2	Phone Books		0.00	0.45	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3	Mixed/Low-Grade Paper Products		17.55	24.00	17.60	6.10			6.10	7.75	7.50	14.20	5.20	5.20	4.15	4.25	9.60	3.90	2.20
Paper	4	Magazines/Catalogs/Glossy		0.00	2.10	2.60	0.00			0.20	0.65	0.65	0.00	0.35	0.00	2.50	0.50	0.50	0.00	0.40
Paper	5	Newspaper/Newsprint		0.60	5.10	0.15	0.25			0.00	0.15	0.00	0.00	0.25	0.35	0.00	0.00	0.00	0.00	0.70
Paper	6	Boxboard		4.45	14.20	5.60	7.90			0.35	0.00	2.20	3.35	2.90	2.95	4.75	4.15	2.70	5.35	6.00
Paper	7	Kraft Paper		10.90	0.55	1.65	0.05			1.00	0.55	6.00	4.80	0.75	1.45	0.65	1.15	2.05	3.20	2.35
Paper	8	OCC or Corrugated Cardboard		5.85	10.00	2.60	6.10			4.00	19.85	3.60	7.10	1.45	2.85	10.20	2.35	1.75	2.85	4.00
Paper	9	Aseptic, Gable Top, Polycoated		8.40	0.70	0.60	0.30			1.05	0.20	6.80	0.15	0.85	1.25	0.20	0.90	1.60	0.75	0.25
Paper	10	Compostable Paper Pkg NOT ASTM		9.90	0.05	0.00	0.00			0.00	8.50	7.90	32.20	17.30	16.25	13.55	12.35	10.70	12.80	3.40
Paper	11	Compostable Paper Pkg ASTM		1.55	1.00	0.65	0.80			0.00	0.05	0.00	0.00	0.00	1.40	1.65	2.70	0.15	3.95	0.30
Paper	12	Remainder/Composite Paper Products		0.00	2.80	2.25	65.80			0.80	2.25	1.75	2.45	5.85	0.30	2.40	1.15	1.10	0.25	0.10
Plastic	13	Plastic Deposit Beverage Containers		1.85	0.35	0.75	0.40			0.00	0.00	0.00	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	14	Plastic Non-Deposit Beverage Containers		0.00	1.75	2.55	2.20			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	15	#1 PET Bottles/Jars		0.00	1.95	0.90	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging		0.70	1.05	0.70	0.25			0.35	3.00	4.05	2.25	1.35	5.00	2.45	3.65	3.15	3.75	2.70
Plastic	17	#2 HDPE Bottles/Jars - Natural		1.05	1.75	0.00	0.15			0.30	0.00	0.00	0.95	0.35	1.10	0.85	0.25	1.95	0.25	1.15
Plastic	18	#2 HDPE Bottles/Jars - Colored		0.50	1.85	0.45	0.30			1.15	3.75	0.00	0.35	1.65	0.00	0.85	0.00	0.00	0.00	0.70
Plastic	19	Other HDPE		0.00	0.00	0.10	0.05			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	20	#3 PVC Packaging		0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21	#3 PVC Other		0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	22	# 4 LDPE Hard Packaging		0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00
Plastic	23	#4 LDPE Other		0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	24	#5 PP Bottles		0.00	0.00	0.10	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	25	#5 PP Packaging		9.30	2.20	0.00	1.55			3.90	3.75	2.90	2.85	4.75	2.95	5.05	2.10	3.65	4.60	3.70
Plastic	26	#6 Polystyrene		0.45	1.25	0.85	0.80			0.60	0.65	0.25	2.10	1.35	0.80	0.50	0.15	0.35	0.80	0.20
Plastic	27	#7 Plastic Packaging		0.00	0.20	0.05	0.05			1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	28	Agricultural Film		0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29	Boat Wrap		0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30	Plastic Film		28.45	22.95	13.85	7.30			34.05	39.30	38.75	48.80	61.15	33.20	23.10	19.65	26.20	16.60	9.65
Plastic	31	Retail Shopping Bags		0.30	2.45	2.90	1.10			4.30	0.90	2.05	0.35	1.95	4.65	2.30	1.50	0.70	4.00	2.15
Plastic	32	Pouches/Flexible Plastic Packaging		0.25	0.40	0.25	0.10			0.00	0.00	0.95	0.00	0.25	0.00	0.30	0.35	0.00	0.00	0.00
Plastic	33	Compostable Plastic Prod NOT ASTM		0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34	Compostable Plastic Prod ASTM		0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	35	Other Plastic		16.75	3.80	2.00	14.20			3.80	0.45	0.85	2.50	0.50	0.90	38.05	1.30	1.50	2.70	2.85
Organics	36	Food Waste - Unpackaged		0.00	49.55	44.75	30.20			33.75	19.85	107.45	31.00	62.55	56.50	28.05	33.35	28.20	59.40	66.15
Organics	37	Food Waste - Packaged		52.45	4.20	3.95	6.95			3.85	6.05	4.45	4.80	7.90	24.20	8.10	0.25	7.70	8.60	0.00
Organics	38	Yard Waste		4.30	0.05	0.00	0.00			0.00	0.00	0.60	0.00	2.35	0.45	0.00	0.15	0.00	5.15	0.00
Organics	39	Woody Material		0.00	0.00	0.00	0.00			3.15	46.40	0.00	0.00	0.50	0.00	19.10	6.05	0.00	0.60	4.30
Glass	40	Glass Deposit Beverage Containers		2.30	3.70	2.55	0.40			0.65	7.75	3.65	0.95	7.40	1.75	7.30	3.30	6.80	7.95	2.45
Glass	41	Glass Non-Deposit Beverage Containers		0.00	0.45	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	42	Glass Containers		0.00	2.05	2.95	0.70			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	43	Plate Glass		0.00	0.00	0.05	0.05			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	44	Non-Glass Ceramics		0.00	0.00	1.65	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00
Glass	45	Remainder/Composite Glass		0.00	0.05	0.10	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	46	Metal Deposit Beverage Containers		2.25	1.10	1.85	0.90			0.90	3.50	12.60	1.80	0.00	0.00	0.00	1.15	2.85	1.70	1.95
Metal	47	Metal Non-Deposit Beverage Containers		0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.50	0.25	0.85	0.00	0.00	0.00	0.00
Metal	48	Aluminum Food Packaging		0.40	0.25	0.25	0.00			0.80	0.65	0.00	0.50	1.65	2.05	0.45	0.15	0.30	1.35	0.20
Metal	49	Other Aluminum		0.00	0.00	0.55	0.00			0.00	0.00	0.00	19.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	50	Pet Food Containers		4.80	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.55	0.35	0.00	0.00	0.00	1.25	0.00

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	21	22	23	24	1	2	3	4	5	6	7	8	9	10	11	12	13
		Facility	Perham	Perham	Perham	Perham	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew
		Season	Winter	Winter	Winter	Winter			Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
Metal	51	Ferrous Food Cans - Tinned and Not Coated	1.90	0.55	0.75	0.75			0.20	1.25	0.95	0.00	1.55	0.85	1.20	0.95	5.45	1.15	1.00
Metal	52	Other Ferrous Metal	0.00	0.15	0.65	0.70			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	53	Other Nonferrous Metal	0.00	1.05	1.50	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	54	Mixed Metal/Material	0.25	1.25	2.95	0.00			15.15	0.00	0.00	0.70	1.25	26.00	0.00	0.00	0.00	0.00	0.00
Metal	55	Aerosol Containers	0.80	0.25	0.25	0.00			0.00	0.00	0.65	0.00	0.45	1.15	0.65	0.10	0.00	0.00	0.60
Consumer Products	56	Household Décor	0.00	1.70	1.35	0.90			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.60	0.00	0.00
Consumer Products	57	Textiles	2.45	5.80	8.30	4.05			18.55	4.35	16.85	0.00	6.75	8.65	8.05	24.35	12.40	7.65	15.35
Consumer Products	58	Shoes, Purses, and Belts	0.00	0.45	7.65	1.20			0.00	0.00	1.25	0.00	0.00	0.60	0.00	8.35	0.20	0.00	0.00
Consumer Products	59	Carpet	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.20
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	4.85	0.00	0.00	0.75	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	62	Furniture - Plastic	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.00	0.00	0.00	0.00			0.00	14.80	0.00	1.40	0.00	0.00	5.80	0.00	0.00	0.00	0.00
Consumer Products	67	Rubber Products	0.00	0.65	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	68	Tires	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	4.30	8.85	25.30	19.45			23.20	3.90	6.60	2.65	27.35	26.15	4.75	59.25	0.00	12.80	5.35
Consumer Products	70	Sports and Recreation Products	0.00	6.50	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	1.00
Hazardous & Special Wastes	73	Other HHW	0.00	0.00	0.00	0.00			0.00	0.00	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.00	0.05	0.00	0.00			0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.15	0.05	0.00	0.00
Hazardous & Special Wastes	75	Healthcare-Associated Waste	3.80	3.45	2.45	1.55			0.15	0.00	7.15	7.05	1.15	0.15	0.00	1.45	37.20	0.90	0.20
Hazardous & Special Wastes	76	Single Use Household Batteries	0.00	0.00	0.50	0.00			0.10	0.00	0.00	0.25	0.10	0.00	0.00	0.25	0.00	0.05	0.00
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.00	0.20	0.15	0.10			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.25	0.00
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Electronics	90	Computers	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.70	0.00	1.75
Electronics	91	Cellphones	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.85	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	0.45	0.95	0.45	0.00			0.00	0.00	0.65	0.25	0.00	0.00	0.60	0.00	0.00	0.00	0.15
C&D	96	C&D Contained in the MSW Loads	0.00	0.85	0.55	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.50
C&D	97	Wood - Treated and Untreated	1.40	1.20	1.10	0.55			13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.75	0.00	3.50
Other	98	Non-Distinct	21.15	15.90	25.30	47.70			42.30	8.00	0.80	8.40	3.70	14.70	13.20	8.25	41.25	44.95	15.80
Other	99	Unclassifiable Fines	3.10	20.65	21.25	7.85			9.25	5.10	8.00	5.30	6.70	8.65	13.35	4.95	8.05	8.65	8.35
Plastic	100	#6 Polystyrene - Non-Foam	0.40	0.30	0.00	0.30			0.00	0.00	0.00	0.20	0.00	0.00	0.20	0.00	0.00	0.10	0.15
Total	Total	Total (Final Sample Weight)	227.80	238.10	220.45	241.20			233.15	217.90	262.50	213.90	243.20	257.45	231.65	212.60	241.30	231.65	214.60

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	14	15	16	17	18	19	20	21	22	23	24	25	26	1	2	3	4
		Facility	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Lyon	Lyon	Lyon	Lyon
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
		Date	2/17/26	2/17/26	2/17/26	2/17/26	2/17/26	2/17/26	2/19/26	2/19/26	2/19/26	2/19/26	2/19/26	2/19/26	2/19/26	1/26/26	1/26/26	1/26/26	1/26/26
		Time	9:45	10:40	13:39	11:45	14:20	14:40	9:09	10:23	10:50	12:00	13:18	13:40	14:05	8:17	8:30	8:45	9:06
		Weather	Sunny, Winter	Sunny, Windy	Sunny, Windy	Sunny, Windy	Cloudy, Windy	Cloudy, Windy	Cloudy, Windy	Cloudy	Cloudy, Windy	Cloudy, Windy	Cloudy	Cloudy	Cloudy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy
		Hauler	Hartel	WM	Hartel	Cloquet	Hartlet	WM	WM	Hartel	Hartel	WM	WM	WM	WM	Southwest	Southwest San	Sweetman	Sweetman
		Truck Number	29C2	309232	297	0	0	417930	214088	29L	29V	419323	214802	NA	NA	15	15	227003	227003
		Vehicle Type	Side	Front	Roll-off	0	Roll-off	Roll-off	Front	Front	Front	Roll-Off	0	Roll-Off	Roll-Off	Side	Side	Side	Side
		Waste Type	Res	ICI	ICI	Res	ICI	ICI	Res	ICI	ICI	ICI	ICI	ICI	ICI	Res	Res	Res	Res
			Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)
Paper	1	High Grade Office Paper Products	3.05	4.55	0.20	0.25	0.00	0.30	3.10	1.60	68.70	3.00	2.55	0.75	0.00	7.90	1.30	8.45	2.30
Paper	2	Phone Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3	Mixed/Low-Grade Paper Products	5.05	2.20	0.25	0.25	0.00	0.70	11.15	4.60	5.05	0.90	2.90	0.00	0.00	3.90	8.30	5.65	18.50
Paper	4	Magazines/Catalogs/Glossy	0.60	0.45	0.00	0.00	0.00	0.00	2.30	0.00	4.15	0.00	0.00	0.00	0.00	1.80	0.00	1.40	1.30
Paper	5	Newspaper/Newsprint	0.00	3.95	0.00	0.00	0.00	0.00	0.25	0.00	0.60	0.00	0.00	0.00	0.00	1.65	0.05	0.20	0.00
Paper	6	Boxboard	3.15	5.25	1.15	0.05	0.00	0.85	5.95	2.60	4.15	1.85	1.95	0.65	0.00	7.20	6.45	8.30	7.25
Paper	7	Kraft Paper	2.65	1.20	0.60	0.45	0.00	0.95	1.60	1.95	1.50	0.80	4.15	5.05	0.00	0.95	2.00	1.60	1.75
Paper	8	OCC or Corrugated Cardboard	3.70	2.30	0.90	55.90	0.00	6.25	0.55	1.20	0.80	0.40	8.95	1.40	0.00	11.95	9.20	1.15	1.05
Paper	9	Aseptic, Gable Top, Polycoated	0.70	2.80	0.00	0.00	0.00	0.00	0.80	0.30	0.75	35.70	1.85	0.00	0.00	0.60	0.35	1.70	4.70
Paper	10	Compostable Paper Pkg NOT ASTM	14.45	23.15	0.45	0.75	0.00	0.00	32.95	8.10	8.20	11.10	7.50	0.00	0.00	15.00	9.05	20.05	11.80
Paper	11	Compostable Paper Pkg ASTM	0.80	0.00	0.00	0.00	0.00	2.40	1.90	0.00	0.35	0.00	16.50	0.00	0.00	1.50	0.10	6.25	0.70
Paper	12	Remainder/Composite Paper Products	0.10	13.75	2.05	1.20	0.00	0.00	0.60	0.00	0.45	0.00	0.15	0.00	0.00	0.00	0.35	0.30	0.15
Plastic	13	Plastic Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.45	0.10	0.45	0.00	0.00	0.00	4.05	2.35	2.55	1.90
Plastic	14	Plastic Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.20	0.00	0.60
Plastic	15	#1 PET Bottles/Jars	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.55	0.00
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging	3.20	5.80	0.00	0.40	0.00	0.00	5.65	1.15	3.30	1.25	2.00	0.00	0.00	2.00	1.10	2.10	0.60
Plastic	17	#2 HDPE Bottles/Jars - Natural	0.00	0.00	0.00	0.00	0.00	0.00	2.40	1.85	1.65	0.35	0.00	0.00	0.00	2.95	0.90	0.60	0.55
Plastic	18	#2 HDPE Bottles/Jars - Colored	0.00	2.90	1.20	0.00	0.00	0.00	4.60	0.65	1.30	0.35	0.00	20.55	0.00	1.00	2.75	4.85	2.80
Plastic	19	Other HDPE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	20	#3 PVC Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21	#3 PVC Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	22	# 4 LDPE Hard Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	23	#4 LDPE Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	24	#5 PP Bottles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	25	#5 PP Packaging	3.65	3.65	0.35	0.00	0.00	0.00	7.65	1.40	2.45	1.35	6.30	0.00	0.00	2.10	2.75	4.75	3.60
Plastic	26	#6 Polystyrene	0.70	8.35	0.00	1.00	0.00	3.40	1.05	0.35	0.45	0.90	1.45	0.00	0.00	1.15	0.30	0.30	2.15
Plastic	27	#7 Plastic Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	28	Agricultural Film	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30	Plastic Film	29.60	24.40	3.10	1.50	0.00	41.65	25.35	22.60	14.05	10.90	31.30	0.00	0.00	19.90	32.70	22.65	28.15
Plastic	31	Retail Shopping Bags	5.35	0.35	0.15	0.15	0.00	0.00	0.95	0.20	0.55	0.00	1.25	0.00	0.00	3.75	5.10	5.35	4.35
Plastic	32	Pouches/Flexible Plastic Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00	0.00
Plastic	33	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34	Compostable Plastic Prod ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	35	Other Plastic	4.20	2.45	35.15	0.85	2.95	0.85	2.45	3.50	2.40	1.10	2.15	0.00	0.00	2.85	6.95	3.10	4.35
Organics	36	Food Waste - Unpackaged	52.30	10.60	3.20	10.60	0.00	0.00	38.85	11.80	13.95	164.45	111.30	0.00	0.00	70.45	57.35	61.85	67.50
Organics	37	Food Waste - Packaged	2.95	0.00	0.00	0.00	0.00	0.00	1.40	1.85	1.55	0.50	2.90	0.00	0.00	1.75	1.65	1.00	5.45
Organics	38	Yard Waste	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.90	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Organics	39	Woody Material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	40	Glass Deposit Beverage Containers	4.60	0.00	0.00	0.00	0.00	0.00	0.00	1.15	1.15	0.00	4.20	1.30	0.00	3.40	1.55	9.85	2.30
Glass	41	Glass Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.50	0.00
Glass	42	Glass Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	0.00	2.60
Glass	43	Plate Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	44	Non-Glass Ceramics	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	52.40	0.00	0.85	0.00	1.85	0.00
Glass	45	Remainder/Composite Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	46	Metal Deposit Beverage Containers	1.30	0.55	0.00	0.00	0.00	0.00	0.00	1.65	1.65	0.00	2.35	0.00	0.00	2.05	1.95	0.00	3.05
Metal	47	Metal Non-Deposit Beverage Containers	0.00	0.00	0.00	0.20	0.00	0.00	2.60	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
Metal	48	Aluminum Food Packaging	2.00	0.00	0.10	0.00	0.00	0.00	0.95	0.00	0.10	0.00	0.55	0.00	0.00	1.55	0.50	0.30	0.60
Metal	49	Other Aluminum	0.00	0.00	0.60	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00
Metal	50	Pet Food Containers	0.40	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.05	0.20

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	14	15	16	17	18	19	20	21	22	23	24	25	26	1	2	3	4
		Facility	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Resource Renew	Lyon	Lyon	Lyon	Lyon
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
Metal	51	Ferrous Food Cans - Tinned and Not Coated	0.85	0.35	0.00	0.00	0.00	0.00	0.10	0.65	0.80	0.00	0.00	4.55	0.00	1.05	1.55	2.15	1.75
Metal	52	Other Ferrous Metal	0.00	0.00	0.00	0.00	0.00	58.80	0.00	115.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.75	0.00
Metal	53	Other Nonferrous Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00
Metal	54	Mixed Metal/Material	0.00	0.00	23.90	0.00	0.00	0.00	0.00	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	55	Aerosol Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	1.35	0.00	0.15	0.30
Consumer Products	56	Household Décor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	57	Textiles	3.40	41.60	1.95	11.70	0.00	0.00	4.15	2.80	9.40	4.25	1.65	1.80	0.00	5.55	4.05	4.80	5.35
Consumer Products	58	Shoes, Purses, and Belts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.40	0.00	0.00	0.00	1.60	0.00	0.00	0.40
Consumer Products	59	Carpet	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.65	240.55	0.00	0.00	0.00	4.20
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	4.65	201.45	0.00	10.35	0.00	16.95	0.00	1.60	5.75	0.00	0.00	0.00	0.00	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	0.00	0.00	92.25	0.00	0.00	0.00	0.00	0.00	97.43	0.00	0.00	0.00	0.00	0.00
Consumer Products	62	Furniture - Plastic	3.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	119.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.00	0.00	30.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	67	Rubber Products	0.20	0.00	6.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.60	0.00
Consumer Products	69	Diapers & Sanitary Products	12.20	6.10	0.00	0.00	0.00	0.00	5.80	0.00	0.60	0.00	44.75	0.00	0.00	4.30	13.15	8.05	7.35
Consumer Products	70	Sports and Recreation Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.00
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.00	0.00	0.00	0.00	0.00	2.85	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	73	Other HHW	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.40	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Hazardous & Special Wastes	75	Healthcare-Associated Waste	0.70	17.55	0.00	0.00	0.00	0.00	7.10	3.20	2.35	1.10	2.40	0.00	0.00	1.30	1.20	3.10	2.35
Hazardous & Special Wastes	76	Single Use Household Batteries	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.60	0.15
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	22.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.00	0.00	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	0.00	0.00	26.45	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.00	0.00
C&D	96	C&D Contained in the MSW Loads	2.60	0.55	1.85	0.00	0.00	0.00	0.00	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C&D	97	Wood - Treated and Untreated	1.35	0.00	65.50	0.00	49.65	27.95	0.00	59.80	5.35	1.05	0.45	19.70	0.00	1.05	2.70	0.60	1.85
Other	98	Non-Distinct	22.70	25.15	0.00	36.10	0.00	0.00	7.75	3.65	0.00	0.00	10.60	5.20	0.00	18.15	5.05	25.20	6.50
Other	99	Unclassifiable Fines	7.70	4.65	0.00	2.90	0.00	0.00	11.45	9.35	24.20	6.50	0.00	0.35	0.00	14.35	20.45	9.70	20.90
Plastic	100	#6 Polystyrene - Non-Foam	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.30	0.00	0.00	0.70	0.00	0.00	0.00	0.00	0.30	0.00
Total	Total	Total (Final Sample Weight)	203.60	214.70	218.70	248.75	255.15	239.20	226.65	271.30	221.05	274.65	274.95	223.53	240.55	222.35	205.90	249.15	231.65

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
		Facility	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
		Date	1/26/26	1/26/26	1/26/26	1/26/26	1/26/26	1/26/26	1/27/26	1/27/26	1/27/26	1/27/26	1/27/26	1/27/26	1/27/26	1/27/26	1/27/26	1/28/26	1/28/26
		Time	9:46	9:46	11:27	14:08	14:39	14:36	8:45	9:22	10:02	10:40	9:56	13:22	13:58	14:32	14:40	8:17	8:40
		Weather	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Sunny, Windy	Cloudy, Windy	Cloudy, Windy	Cloudy	Cloudy	Cloudy
		Hauler	Olson	Olson	Southwest	Southwest	Tyler	Olson	Olson	Redwood	Redwood	Redwood	Redwood	Southwest	Van Dyke	Pipestone	Rock County	Redwood	Redwood
		Truck Number	17	17	15	15	1	5	2	TR18	TR18	DC2	DC2	23	400418	4	2	TR17	TR17
		Vehicle Type	Side	Side	Side	Side	Side	Side	Rolloff	0	Semi	Trailer	0	Side	Side	Side	Roll-off	Trailer	Trailer
		Waste Type	Res	Res	Res	Res	Res	Res	Res	Res	Res	Res	Res	Res	Res	Res	TS	Res	Res
			Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)
Paper	1	High Grade Office Paper Products	3.65	2.15	1.20	6.55	8.45	9.75	0.00	2.25	11.40	1.55	4.70	23.35	3.40	7.55	7.90	11.25	4.20
Paper	2	Phone Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3	Mixed/Low-Grade Paper Products	15.10	9.90	0.95	5.90	4.65	10.95	6.55	16.45	18.55	9.30	7.55	4.50	4.45	11.95	7.40	14.20	10.10
Paper	4	Magazines/Catalogs/Glossy	0.00	0.55	0.00	0.15	0.00	0.75	0.00	0.00	1.60	1.60	0.75	0.30	1.50	1.10	0.00	0.10	0.10
Paper	5	Newspaper/Newsprint	0.00	0.00	1.05	0.10	1.05	0.90	0.00	1.60	2.05	0.85	0.50	2.60	0.35	3.20	2.40	0.30	0.00
Paper	6	Boxboard	8.30	9.70	3.55	6.25	1.50	9.85	2.90	11.30	7.45	10.05	4.60	6.50	7.55	10.20	11.90	22.10	7.40
Paper	7	Kraft Paper	0.80	2.90	0.80	2.85	1.25	0.80	2.10	1.40	1.75	0.40	0.15	0.75	1.80	1.05	0.65	2.45	0.65
Paper	8	OCC or Corrugated Cardboard	0.70	0.55	1.90	0.25	4.30	3.00	2.15	16.30	1.25	5.15	0.75	1.35	0.75	1.15	0.30	3.95	6.80
Paper	9	Aseptic, Gable Top, Polycoated	1.70	0.60	0.15	0.65	0.25	0.85	0.30	0.25	5.15	0.70	0.20	0.65	0.80	0.20	0.15	1.45	0.00
Paper	10	Compostable Paper Pkg NOT ASTM	9.05	7.05	16.90	13.20	8.35	7.95	13.60	3.20	10.30	18.85	8.70	18.70	11.05	8.70	10.65	14.50	10.25
Paper	11	Compostable Paper Pkg ASTM	1.10	2.20	0.00	1.40	1.80	1.70	0.55	0.65	0.10	1.80	1.20	1.05	2.35	1.50	0.10	0.15	1.30
Paper	12	Remainder/Composite Paper Products	0.10	0.50	0.20	0.85	0.10	0.00	4.50	0.25	0.65	0.80	0.60	0.40	0.25	0.00	0.15	2.55	0.25
Plastic	13	Plastic Deposit Beverage Containers	2.55	2.30	3.20	0.65	1.85	2.95	2.25	1.85	1.70	4.30	3.10	3.25	4.25	2.95	3.05	0.30	2.65
Plastic	14	Plastic Non-Deposit Beverage Containers	0.35	0.35	4.35	0.25	0.55	0.55	0.00	0.20	0.35	1.35	0.55	0.00	0.10	0.20	0.10	0.50	0.00
Plastic	15	#1 PET Bottles/Jars	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging	1.10	1.70	1.15	1.05	1.25	2.90	0.10	0.00	0.85	0.15	3.00	1.90	1.15	0.95	0.50	0.60	2.00
Plastic	17	#2 HDPE Bottles/Jars - Natural	3.90	1.95	10.10	1.00	2.20	1.15	0.50	0.00	0.00	0.55	0.00	1.25	0.30	0.95	1.80	0.95	0.90
Plastic	18	#2 HDPE Bottles/Jars - Colored	0.00	2.95	2.35	0.85	1.45	2.45	0.40	0.55	1.90	0.60	0.60	1.05	0.25	0.55	2.55	1.60	0.60
Plastic	19	Other HDPE	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	20	#3 PVC Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21	#3 PVC Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	22	# 4 LDPE Hard Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	23	#4 LDPE Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	24	#5 PP Bottles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	25	#5 PP Packaging	4.25	2.70	2.35	3.05	2.90	3.60	9.75	2.95	1.60	2.00	1.95	2.25	1.95	2.10	3.55	4.20	3.50
Plastic	26	#6 Polystyrene	0.90	2.05	1.30	1.00	1.55	0.70	0.05	1.50	0.75	2.25	0.40	2.55	3.20	1.85	0.20	1.90	1.90
Plastic	27	#7 Plastic Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	28	Agricultural Film	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30	Plastic Film	22.40	30.15	29.45	17.55	20.90	26.95	28.85	38.50	22.15	26.00	20.20	25.10	24.60	29.75	22.55	14.85	18.75
Plastic	31	Retail Shopping Bags	1.80	8.70	15.40	4.85	1.15	1.50	0.25	1.40	0.25	1.90	2.15	1.00	2.40	1.15	3.10	0.80	1.30
Plastic	32	Pouches/Flexible Plastic Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	33	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34	Compostable Plastic Prod ASTM	0.00	6.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	35	Other Plastic	2.30	5.00	2.90	5.80	17.80	1.85	0.15	13.30	7.30	3.15	5.85	2.25	2.00	1.30	5.95	1.25	0.35
Organics	36	Food Waste - Unpackaged	42.50	58.95	56.60	60.90	25.75	64.25	95.80	68.40	59.40	36.40	47.10	32.90	35.80	66.85	52.40	21.55	46.90
Organics	37	Food Waste - Packaged	8.95	22.85	3.05	0.00	18.65	0.95	0.00	2.35	17.45	3.35	17.35	10.30	9.55	3.90	14.30	0.65	9.50
Organics	38	Yard Waste	0.00	0.00	0.00	1.35	0.00	3.10	0.00	0.00	0.00	6.75	6.75	0.00	0.00	0.00	2.20	1.00	0.00
Organics	39	Woody Material	0.00	0.00	0.00	0.00	0.00	0.00	4.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	40	Glass Deposit Beverage Containers	2.40	6.60	6.80	2.75	1.85	2.90	22.10	0.00	8.10	4.60	0.55	0.90	1.35	1.10	1.90	9.90	1.50
Glass	41	Glass Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	42	Glass Containers	7.35	0.60	0.00	1.95	0.85	2.10	0.00	2.35	0.00	0.25	0.00	1.10	0.00	2.35	0.00	0.00	3.75
Glass	43	Plate Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	44	Non-Glass Ceramics	0.00	0.85	1.15	0.30	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00
Glass	45	Remainder/Composite Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	46	Metal Deposit Beverage Containers	3.30	4.45	1.00	2.20	1.65	2.90	1.10	1.70	0.90	2.20	1.65	2.25	2.20	2.50	3.45	3.10	1.70
Metal	47	Metal Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	48	Aluminum Food Packaging	1.15	1.10	2.00	4.05	0.15	0.25	0.20	0.00	0.55	0.60	0.00	0.50	0.25	2.35	0.00	0.40	0.25
Metal	49	Other Aluminum	0.00	0.00	1.70	0.00	0.00	0.00	1.60	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.55
Metal	50	Pet Food Containers	0.00	0.00	0.20	0.05	0.00	0.50	0.00	0.00	0.00	0.00	0.00	1.10	0.00	0.10	0.00	0.00	0.45

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
		Facility	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon	Lyon
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
Metal	51	Ferrous Food Cans - Tinned and Not Coated	3.55	1.30	0.75	0.15	0.45	2.60	0.10	1.35	0.45	3.30	3.35	1.45	0.40	0.20	0.55	0.35	2.25
Metal	52	Other Ferrous Metal	0.00	11.50	0.30	8.10	2.20	0.15	0.00	3.55	0.65	0.85	4.25	0.10	14.50	0.00	3.25	4.15	0.00
Metal	53	Other Nonferrous Metal	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
Metal	54	Mixed Metal/Material	0.00	1.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00
Metal	55	Aerosol Containers	0.00	0.00	0.30	0.45	0.35	0.60	0.00	0.40	6.45	0.10	0.00	0.00	0.10	0.00	0.35	0.00	0.60
Consumer Products	56	Household Décor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	57	Textiles	5.25	3.65	1.45	7.85	4.15	9.30	0.20	2.85	0.10	18.40	6.25	7.25	3.20	5.00	0.00	6.20	6.15
Consumer Products	58	Shoes, Purses, and Belts	0.00	0.00	0.50	0.55	0.00	0.00	0.00	0.05	0.00	4.50	1.75	0.00	0.00	0.00	0.35	3.90	0.00
Consumer Products	59	Carpet	0.00	0.00	0.00	0.00	0.00	11.20	0.00	0.00	0.00	0.55	0.00	0.00	0.00	9.30	0.80	0.00	2.15
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	62	Furniture - Plastic	0.00	0.00	0.00	13.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	8.05	0.00	8.90	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.00	0.00	0.00	0.00	0.00	0.00	1.95	0.00	2.95	13.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	67	Rubber Products	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	15.25	6.25	15.40	23.15	18.10	16.85	7.90	0.00	19.05	0.00	16.20	30.60	15.95	17.75	5.20	29.15	20.85
Consumer Products	70	Sports and Recreation Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00	0.00	0.00	5.30	0.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	73	Other HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.25	0.00	0.20	0.05	0.00	0.00	0.05	0.00	0.10
Hazardous & Special Wastes	75	Healthcare-Associated Waste	7.20	0.00	1.95	0.25	4.30	0.00	1.90	1.25	3.65	0.15	0.00	0.25	0.50	0.15	6.10	2.30	0.45
Hazardous & Special Wastes	76	Single Use Household Batteries	0.40	0.60	0.00	0.40	0.05	0.45	0.00	0.00	0.00	0.00	0.65	0.35	0.25	0.10	0.05	0.05	0.20
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.00	0.85	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.05	0.00	0.00	0.00
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	1.50	0.20	2.10	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.00	0.20	0.00	0.00	9.90
C&D	96	C&D Contained in the MSW Loads	0.00	8.55	25.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C&D	97	Wood - Treated and Untreated	0.00	5.40	2.30	0.00	14.25	0.00	0.40	27.95	0.35	0.15	1.90	0.00	1.55	9.65	8.85	1.75	4.05
Other	98	Non-Distinct	34.65	18.05	6.90	22.10	32.60	8.10	1.10	0.00	0.00	8.50	16.55	0.00	27.45	5.35	10.15	10.65	14.55
Other	99	Unclassifiable Fines	10.00	25.80	6.20	7.00	16.75	21.35	11.05	23.10	7.30	26.45	32.45	19.90	41.75	18.20	38.90	25.55	35.10
Plastic	100	#6 Polystyrene - Non-Foam	0.20	0.00	0.00	0.05	0.00	1.05	0.35	0.00	0.20	0.00	0.00	0.00	0.85	0.35	0.30	0.50	0.00
Total	Total	Total (Final Sample Weight)	231.25	278.55	236.55	232.70	225.60	239.70	226.10	249.40	226.35	224.05	224.65	210.45	246.75	241.85	234.10	235.85	233.95

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	22	23	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
		Facility	Lyon	Lyon	Lyon	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
		Date	1/28/26	1/28/26	1/28/26	2/2/26	2/2/26	2/2/26	2/2/26	2/2/26	2/2/26	2/2/26	2/2/26	2/2/26	2/2/26	2/2/26	2/2/26	2/2/26	2/2/26	2/3/26
		Time	9:55	10:30	11:40	8:05	8:40	8:44	9:19	9:40	9:55	10:29	10:47	11:00	13:51	13:58	14:23	14:50	8:30	
		Weather	Cloudy	Cloudy, Windy	Cloudy, Windy	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Cloudy	Cloudy	Sunny	Sunny
		Hauler	Olson	Southwest	Southwest	WM	LJP	LJP	LJP	LJP	West Central	Stewart	LJP	LJP	WM	LJP	LJP	LJP	LJP	LJP
		Truck Number	18	8	18	4193	BI25	24	2819	5954	0	None	4324	4145	NA	25	2819	RtoB	0	
		Vehicle Type	Side	Side	Front	Rolloff	Semi	Semi	Front	Rear	Front	0	Rolloff	Front	Front	Semi	Front	Semi	Rolloff	
		Waste Type	Res	Res	ICI	ICI	ICI	ICI	Res	ICI	ICI	Res	ICI	ICI	Res	Res	ICI	ICI	ICI	
		Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)		
Paper	1	High Grade Office Paper Products		2.05	0.00	5.35	0.35	0.85	0.00	2.20	0.00	6.85	10.75	1.40	1.60	1.50	0.10	4.75	0.10	29.20
Paper	2	Phone Books		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3	Mixed/Low-Grade Paper Products		3.40	15.55	7.35	4.00	24.60	0.05	10.60	0.55	15.50	6.65	86.35	4.60	11.85	97.10	11.90	17.65	6.50
Paper	4	Magazines/Catalogs/Glossy		2.05	0.00	1.15	0.45	1.15	1.45	0.00	0.85	1.90	0.00	0.00	1.05	1.80	0.30	16.30	0.00	0.00
Paper	5	Newspaper/Newsprint		0.05	7.30	1.90	0.00	0.00	0.00	0.10	0.00	0.35	1.15	0.00	0.20	0.40	0.25	0.00	3.00	0.00
Paper	6	Boxboard		5.85	5.50	10.55	0.90	2.60	8.70	2.10	43.55	6.30	7.75	1.85	10.45	2.70	2.40	8.25	11.30	2.30
Paper	7	Kraft Paper		0.50	0.30	0.55	0.00	2.35	0.00	0.50	0.00	2.15	1.40	0.00	2.15	0.20	0.20	1.50	1.45	1.40
Paper	8	OCC or Corrugated Cardboard		6.25	0.70	2.20	0.30	53.80	13.90	2.15	0.00	1.85	4.20	11.30	0.15	1.20	1.25	4.25	3.55	15.70
Paper	9	Aseptic, Gable Top, Polycoated		1.05	0.15	0.00	0.20	0.10	0.00	0.20	0.00	1.90	0.60	0.00	3.95	0.60	0.15	0.10	0.10	0.15
Paper	10	Compostable Paper Pkg NOT ASTM		6.50	10.55	10.60	7.35	5.00	0.00	6.55	0.00	13.00	8.00	4.60	6.00	15.50	2.70	9.45	8.25	3.85
Paper	11	Compostable Paper Pkg ASTM		1.20	0.00	1.45	0.00	1.15	0.00	1.05	0.00	0.05	0.00	0.40	1.85	0.30	0.00	0.00	0.00	0.10
Paper	12	Remainder/Composite Paper Products		1.15	0.00	0.65	0.40	0.35	0.00	1.55	0.00	0.15	0.05	0.00	1.25	0.10	0.00	0.75	0.10	0.50
Plastic	13	Plastic Deposit Beverage Containers		2.90	3.05	7.25	0.55	0.55	0.00	3.55	0.00	3.25	3.10	0.30	2.50	1.60	0.20	0.70	0.65	0.50
Plastic	14	Plastic Non-Deposit Beverage Containers		3.65	0.85	0.10	0.00	0.05	0.00	0.30	0.00	0.20	0.00	0.15	0.00	0.40	0.20	3.00	0.00	0.60
Plastic	15	#1 PET Bottles/Jars		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.05	0.15	0.20	0.00	0.00
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging		2.15	1.00	0.45	0.40	1.75	0.00	0.35	0.00	2.45	1.65	0.30	0.90	0.00	0.00	0.45	1.30	0.15
Plastic	17	#2 HDPE Bottles/Jars - Natural		0.40	0.30	0.10	0.85	2.15	0.00	1.30	0.00	1.20	2.30	3.10	3.40	2.40	0.75	2.20	0.90	0.00
Plastic	18	#2 HDPE Bottles/Jars - Colored		1.00	0.80	5.00	0.45	0.00	0.00	1.15	0.00	0.00	0.40	0.00	0.10	0.00	0.00	0.45	0.20	0.00
Plastic	19	Other HDPE		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	20	#3 PVC Packaging		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21	#3 PVC Other		0.00	0.00	0.00	2.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	22	# 4 LDPE Hard Packaging		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	23	#4 LDPE Other		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	24	#5 PP Bottles		0.00	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	25	#5 PP Packaging		4.95	0.40	2.65	1.30	0.45	0.00	2.15	0.00	3.60	4.05	0.45	2.35	2.95	1.45	2.70	3.90	1.55
Plastic	26	#6 Polystyrene		0.35	0.00	1.65	0.05	2.45	1.40	0.30	0.00	2.35	0.65	0.90	0.05	2.35	0.95	2.20	0.20	13.25
Plastic	27	#7 Plastic Packaging		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.10	0.00	0.15	0.00	0.00	0.00
Plastic	28	Agricultural Film		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29	Boat Wrap		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30	Plastic Film		17.85	11.10	27.50	6.90	49.35	1.40	26.90	0.95	24.40	18.95	46.85	25.80	32.35	13.40	14.75	37.55	11.55
Plastic	31	Retail Shopping Bags		2.30	0.95	1.15	0.05	0.30	0.00	1.20	0.00	0.30	0.30	1.00	0.70	3.30	0.00	0.75	0.60	0.15
Plastic	32	Pouches/Flexible Plastic Packaging		0.00	0.20	0.00	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
Plastic	33	Compostable Plastic Prod NOT ASTM		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34	Compostable Plastic Prod ASTM		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.00	0.00	0.00
Plastic	35	Other Plastic		1.65	2.80	3.10	1.35	2.15	64.60	1.15	27.30	1.00	4.55	35.35	3.55	1.05	3.85	0.00	3.00	6.05
Organics	36	Food Waste - Unpackaged		32.00	60.30	46.85	6.80	13.10	0.00	65.25	0.00	69.45	57.85	6.90	32.40	68.40	16.80	36.15	30.65	3.00
Organics	37	Food Waste - Packaged		29.60	29.65	9.05	0.10	0.00	0.00	1.65	0.00	8.35	3.75	16.75	6.35	12.60	2.35	7.65	4.40	0.00
Organics	38	Yard Waste		0.00	0.00	0.50	5.30	0.00	0.00	0.00	0.00	0.00	0.35	0.90	0.00	0.00	0.00	4.50	1.05	0.00
Organics	39	Woody Material		0.00	0.00	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.00
Glass	40	Glass Deposit Beverage Containers		2.50	0.00	1.30	0.00	0.00	0.00	0.45	0.00	0.00	2.65	0.00	0.85	0.00	0.00	0.00	0.75	0.00
Glass	41	Glass Non-Deposit Beverage Containers		0.00	0.00	0.00	0.00	2.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.50
Glass	42	Glass Containers		0.00	0.65	0.75	0.15	0.00	0.00	0.00	0.00	2.50	2.45	0.00	0.00	0.00	0.00	2.00	0.00	0.20
Glass	43	Plate Glass		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	44	Non-Glass Ceramics		0.00	0.00	0.00	0.													

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	22	23	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Facility	Lyon	Lyon	Lyon	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
Metal	51	Ferrous Food Cans - Tinned and Not Coated	1.70	0.80	1.20	0.00	0.75	0.00	0.85	0.00	2.35	0.65	0.45	0.95	0.55	1.10	1.90	0.95	1.15
Metal	52	Other Ferrous Metal	0.00	0.00	7.00	20.35	0.00	162.65	0.55	144.90	0.55	13.00	0.30	0.00	2.30	0.00	0.95	2.70	0.00
Metal	53	Other Nonferrous Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	54	Mixed Metal/Material	0.00	0.00	0.00	0.00	1.75	0.00	0.00	0.00	0.00	2.10	0.25	0.00	0.00	0.00	0.60	0.00	0.00
Metal	55	Aerosol Containers	0.10	0.20	0.45	0.00	0.00	0.00	0.00	0.00	1.25	0.10	0.25	0.30	0.00	0.70	0.00	0.25	0.00
Consumer Products	56	Household Décor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.80	0.00	0.00	0.00
Consumer Products	57	Textiles	21.75	17.20	1.50	3.45	7.85	0.00	2.50	0.00	5.20	4.35	11.20	33.10	3.10	1.55	17.85	14.00	2.45
Consumer Products	58	Shoes, Purses, and Belts	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	4.80	0.00	0.60	0.00	3.45	1.00	0.80	0.75
Consumer Products	59	Carpet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.30	1.55	0.85
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.70	0.00	5.70
Consumer Products	62	Furniture - Plastic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	3.25	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	4.65	0.00
Consumer Products	67	Rubber Products	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	9.50	21.55	1.15	1.55	7.85	0.00	21.30	0.00	0.00	3.50	0.00	24.35	25.55	1.30	19.35	5.80	0.00
Consumer Products	70	Sports and Recreation Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.30	0.00	0.00
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	73	Other HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.00	0.00	0.00	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	75	Healthcare-Associated Waste	0.10	0.90	0.15	142.65	1.30	0.00	8.65	13.00	1.35	0.40	0.85	2.55	0.10	9.20	0.95	2.55	0.90
Hazardous & Special Wastes	76	Single Use Household Batteries	0.10	0.20	0.00	0.00	0.00	0.00	1.40	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.05	0.35	0.00
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.35	0.00	0.00	0.00	0.15	0.00	0.10	0.00
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	0.00	0.30	0.00	12.80	0.00	1.00	0.00	0.00	0.00	0.00	8.50	0.00	0.00	0.00	0.05	0.00	0.00
C&D	96	C&D Contained in the MSW Loads	0.00	6.40	8.60	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	58.50
C&D	97	Wood - Treated and Untreated	5.40	1.55	3.40	0.00	2.20	0.00	1.75	0.00	0.50	6.35	0.00	2.55	2.05	5.60	2.65	2.25	14.40
Other	98	Non-Distinct	0.00	10.40	47.75	0.35	5.70	34.65	38.05	5.80	20.60	18.45	2.10	26.90	36.10	14.30	1.10	5.05	0.95
Other	99	Unclassifiable Fines	10.15	34.55	34.25	4.80	18.95	0.00	12.35	0.00	14.40	7.55	6.10	16.95	16.85	45.65	19.75	23.95	40.10
Plastic	100	#6 Polystyrene - Non-Foam	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
Total	Total	Total (Final Sample Weight)	204.45	257.05	265.25	227.65	216.10	289.80	222.05	236.05	223.45	231.05	250.00	221.45	251.80	235.50	214.55	216.10	224.05

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	15	16	17	18	19	20	21	22	23	24
		Facility	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
		Date	2/3/26	2/3/26	2/3/26	2/3/26	2/3/26	2/3/26	2/3/26	2/3/26	2/3/26	2/4/26
		Time	9:01	9:19	9:44	10:17	13:30	14:07	14:50	15:14	15:23	9:50
		Weather	Sunny	Sunny	Sunny	Sunny	0 Sunny	Sunny	Sunny	Sunny	Sunny	Cloudy
		Hauler	LJP	WM	LJP	LJP	Hanson	WM	LJP	Medalmer	Hansen	LJP
		Truck Number	8ED	4993	Rental	2819	Blue	419487	2145	0	61	2819
		Vehicle Type	Semi	Front	Rolloff	Front	Side	0	Front	Rolloff	Rear	Front
		Waste Type	ICI	ICI	ICI	ICI	Res	ICI	ICI	ICI	Res	ICI
			Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)	Material Weight (lbs)		
Paper	1	High Grade Office Paper Products	0.00	9.50	0.45	7.50	6.30	3.75	1.80	0.00	5.65	7.85
Paper	2	Phone Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paper	3	Mixed/Low-Grade Paper Products	0.00	5.50	24.40	16.10	10.80	5.30	2.50	0.00	6.95	2.60
Paper	4	Magazines/Catalogs/Glossy	0.00	4.25	0.00	4.55	4.85	0.50	3.60	0.00	9.70	0.00
Paper	5	Newspaper/Newsprint	0.00	1.45	0.00	1.00	0.80	0.00	1.10	0.00	0.00	0.00
Paper	6	Boxboard	0.00	5.10	1.50	11.80	19.25	6.60	4.05	0.00	5.95	3.55
Paper	7	Kraft Paper	0.00	1.95	0.45	2.00	0.90	3.20	0.95	0.00	0.80	0.95
Paper	8	OCC or Corrugated Cardboard	0.00	1.20	0.70	12.10	19.05	0.40	5.60	0.00	17.55	17.55
Paper	9	Aseptic, Gable Top, Polycoated	0.00	0.40	0.65	0.75	0.05	0.10	0.55	0.00	0.00	1.05
Paper	10	Compostable Paper Pkg NOT ASTM	0.00	44.05	2.35	13.95	24.60	11.10	10.55	0.00	9.20	9.60
Paper	11	Compostable Paper Pkg ASTM	0.00	0.75	3.10	0.05	0.10	2.25	0.00	0.00	0.00	0.55
Paper	12	Remainder/Composite Paper Products	0.00	0.75	0.60	0.55	0.10	1.55	0.45	0.00	0.00	0.30
Plastic	13	Plastic Deposit Beverage Containers	0.00	1.15	0.30	1.25	0.65	0.05	0.20	0.00	1.25	0.80
Plastic	14	Plastic Non-Deposit Beverage Containers	0.00	3.60	0.20	8.75	0.85	3.65	0.80	0.00	1.75	1.45
Plastic	15	#1 PET Bottles/Jars	0.00	0.00	0.05	0.65	0.75	0.55	0.00	0.00	0.15	0.00
Plastic	16	#1 PET Non-Bottle Rigid Containers & Packaging	0.00	1.40	0.00	0.40	0.40	0.90	1.20	0.00	0.30	1.20
Plastic	17	#2 HDPE Bottles/Jars - Natural	0.00	1.05	0.10	2.40	2.10	0.35	0.90	0.00	0.95	0.70
Plastic	18	#2 HDPE Bottles/Jars - Colored	0.00	9.05	0.00	0.25	0.80	0.70	0.60	0.00	2.00	0.00
Plastic	19	Other HDPE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	20	#3 PVC Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	21	#3 PVC Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	22	# 4 LDPE Hard Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	23	#4 LDPE Other	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	24	#5 PP Bottles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	25	#5 PP Packaging	0.00	7.05	1.15	4.45	2.95	7.30	3.00	0.00	2.05	3.70
Plastic	26	#6 Polystyrene	0.00	1.00	1.75	0.65	0.55	1.35	2.60	0.00	2.45	1.80
Plastic	27	#7 Plastic Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Plastic	28	Agricultural Film	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	29	Boat Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	30	Plastic Film	300.00	31.80	50.00	17.20	26.95	34.35	18.35	0.00	24.10	16.15
Plastic	31	Retail Shopping Bags	0.00	0.25	0.10	1.70	0.50	1.15	1.85	0.00	0.45	0.45
Plastic	32	Pouches/Flexible Plastic Packaging	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	33	Compostable Plastic Prod NOT ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	34	Compostable Plastic Prod ASTM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plastic	35	Other Plastic	0.00	2.45	64.35	10.25	1.85	1.10	5.60	0.00	5.55	2.30
Organics	36	Food Waste - Unpackaged	0.00	42.20	3.65	28.75	24.20	124.30	38.55	0.00	31.95	16.85
Organics	37	Food Waste - Packaged	0.00	2.15	0.00	7.05	0.00	4.05	13.65	238.45	10.15	6.60
Organics	38	Yard Waste	0.00	0.00	0.00	5.95	29.25	0.00	0.00	0.00	0.00	10.05
Organics	39	Woody Material	0.00	0.00	45.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	40	Glass Deposit Beverage Containers	0.00	0.00	0.00	1.20	0.00	3.95	2.50	0.00	1.75	0.00
Glass	41	Glass Non-Deposit Beverage Containers	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35
Glass	42	Glass Containers	0.00	1.95	0.00	0.55	1.45	0.00	0.00	0.00	0.65	0.90
Glass	43	Plate Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass	44	Non-Glass Ceramics	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.00
Glass	45	Remainder/Composite Glass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	46	Metal Deposit Beverage Containers	0.00	3.90	0.40	5.65	2.90	1.40	0.60	0.00	1.85	1.45
Metal	47	Metal Non-Deposit Beverage Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	48	Aluminum Food Packaging	0.00	1.25	0.00	0.35	0.05	1.00	0.40	0.00	0.55	7.05
Metal	49	Other Aluminum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	50	Pet Food Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2025-2026 MN Statewide Waste Characterization Study - Winter Raw Data

		Sample ID	15	16	17	18	19	20	21	22	23	24
		Facility	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa	Blue Earth Ponderosa
		Season	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
Metal	51	Ferrous Food Cans - Tinned and Not Coated	0.00	1.25	0.00	2.15	0.00	0.35	1.05	0.00	1.95	0.30
Metal	52	Other Ferrous Metal	0.00	0.00	0.00	0.00	5.45	0.00	1.30	0.00	5.40	3.00
Metal	53	Other Nonferrous Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal	54	Mixed Metal/Material	0.00	0.00	0.00	2.20	0.00	0.00	1.30	0.00	0.00	0.00
Metal	55	Aerosol Containers	0.00	0.55	0.00	0.00	0.35	0.00	0.70	0.00	0.95	0.00
Consumer Products	56	Household Décor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	57	Textiles	0.00	16.45	0.00	9.90	4.80	0.60	20.10	0.00	0.55	8.60
Consumer Products	58	Shoes, Purses, and Belts	0.00	0.00	0.00	1.30	0.00	0.00	5.25	0.00	3.15	4.10
Consumer Products	59	Carpet	0.00	0.00	0.00	0.00	0.00	0.00	3.90	0.00	6.50	0.00
Consumer Products	60	Furniture - Metal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	61	Furniture - Wood	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	69.05
Consumer Products	62	Furniture - Plastic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63	Furniture - Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	64	Mattresses and Box Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	65	Large Appliances (White Goods)	0.00	0.00	0.00	12.10	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66	Small Household Appliances	0.00	0.00	0.00	4.80	0.00	0.00	11.65	0.00	0.00	0.00
Consumer Products	67	Rubber Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	68	Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	69	Diapers & Sanitary Products	0.00	0.15	0.00	2.00	3.75	0.00	13.15	0.00	12.10	0.85
Consumer Products	70	Sports and Recreation Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	71	All Paints, Stains, Varnish, & Lacquer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.65
Hazardous & Special Wastes	72	Flammable Liquids	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	73	Other HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	74	Syringes/Needles	0.00	0.05	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	75	Healthcare-Associated Waste	0.00	3.20	0.45	0.30	1.45	0.35	0.85	0.00	4.55	0.70
Hazardous & Special Wastes	76	Single Use Household Batteries	0.00	0.10	0.00	0.10	0.00	0.05	0.05	0.00	0.05	0.20
Hazardous & Special Wastes	77	Lead-Acid Batteries	0.00	8.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	78	Items Containing Lithium Batteries	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.25
Hazardous & Special Wastes	79	Lithium Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	80	Other Rechargeable Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	81	Fluorescent Lighting and Mercury Bulbs	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
Hazardous & Special Wastes	82	Used Oil Filters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hazardous & Special Wastes	83	Smoke Detectors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	84	Televisions - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	85	Televisions - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	86	Computer Monitors - CRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	87	Computer Monitors - LCD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.50	0.00
Electronics	88	Laptops	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.50	0.00
Electronics	89	Television Peripherals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	90	Computers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	91	Cellphones	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	92	Computer Peripherals	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	93	Audio Equipment	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	94	Internet Connection Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electronics	95	Electronic Equipment Cables and Wires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00
C&D	96	C&D Contained in the MSW Loads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.90	11.25
C&D	97	Wood - Treated and Untreated	0.00	0.45	5.00	0.75	2.70	0.00	3.90	0.00	10.70	2.70
Other	98	Non-Distinct	0.00	4.05	0.00	2.75	0.55	2.75	19.10	0.00	4.70	4.50
Other	99	Unclassifiable Fines	0.00	12.10	28.80	19.70	41.60	3.30	15.95	0.00	27.00	5.65
Plastic	100	#6 Polystyrene - Non-Foam	0.00	0.10	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
Total	Total	Total (Final Sample Weight)	300.00	232.55	235.90	227.40	243.90	228.30	220.20	238.45	238.10	235.95

Appendix K

Scale Certification Receipt



Martin Calibration "Your Partner in Quality"

Martin Calibration
11965 12th Ave. S.
Burnsville, MN 55337-1422

Phone: 952-882-1528
Email: ar@martincalibration.com

Invoice

[PAID IN FULL]
10/21/2025

Date	Invoice #
09/18/2025	IS176736

BILL TO

SCS ENGINEERS
12700 DODD BLVD
ROSEMOUNT MN 55068
UNITED STATES

SHIP TO

SCS ENGINEERS
12700 DODD BLVD
ROSEMOUNT MN 55068
UNITED STATES

Terms	Account Representative	Purchase Order #	Work Order #
CREDIT CARD	MARTIN ACCOUNT	CREDIT CARD	353489

Quantity	Description	Price Each	Amount
1	ID#: SG0614, S/N: SG0614, SCALES/BALANCES, 201 TO 1000 LB, CALIBRATION/STANDARD	\$177.00	\$177.00
1	ID#: SG0614, S/N: SG0614, SCALES/BALANCES, 201 TO 1000 LB, EXPEDITE 1-DAY	\$88.50	\$88.50
1	ID#: YL0067, S/N: YL0067, SCALES/BALANCES, 201 TO 1000 LB, CALIBRATION/STANDARD	\$177.00	\$177.00
1	ID#: YL0067, S/N: YL0067, SCALES/BALANCES, 201 TO 1000 LB, EXPEDITE 1-DAY	\$88.50	\$88.50
1	HANDLING FEE	\$6.95	\$6.95
0.035	CREDIT CARD PROCESSING FEE - 3.5%	\$537.95	\$18.83

Payments Accepted: 1. ACH: Routing # 091000019 for credit to Martin Calibration Account # 6811111373 2. Credit Card: A 3.5% CC processing fee applies to all invoices paid by credit card 3. Check: Martin Calibration PO Box 851682 Minneapolis, MN 55485-1682	Subtotal	\$556.78
	Sales Tax	\$0.00
	Payments / Credits	\$556.78
Thank you for your business! Have a great day!		Balance Due \$0.00

TERMS AND CONDITIONS OF SALE:

The Customer's acceptance of the goods or services provided by Martin Calibration shall manifest the Customer's assent to the following terms and conditions.

Terms of Payment - Invoices are due and payable in full within thirty (30) days from their date unless other terms have been agreed to in writing by Martin Calibration. Finance charges at the rate of 1-1/2% monthly may be added at Martin Calibration's option to any invoice not paid when due. Prices stated in the invoices are subject to correction for errors unless otherwise noted.

Transportation and Risk of Loss - Unless otherwise stated by Martin Calibration, delivery of products hereunder shall be as follows: For shipments delivered within the Continental United States and outside of the United States - delivery of products shall be F.O.B. point of shipment and transportation expenses shall be paid by the Customer. Title to the products, right to possession and risk of loss pass to the Customer at the point of shipment even if (a) the carrier is selected by Martin Calibration or (b) prices are quoted F.O.B. destination, C.O.D. or in any other manner.