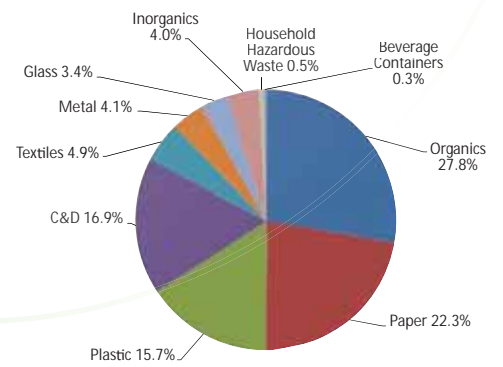
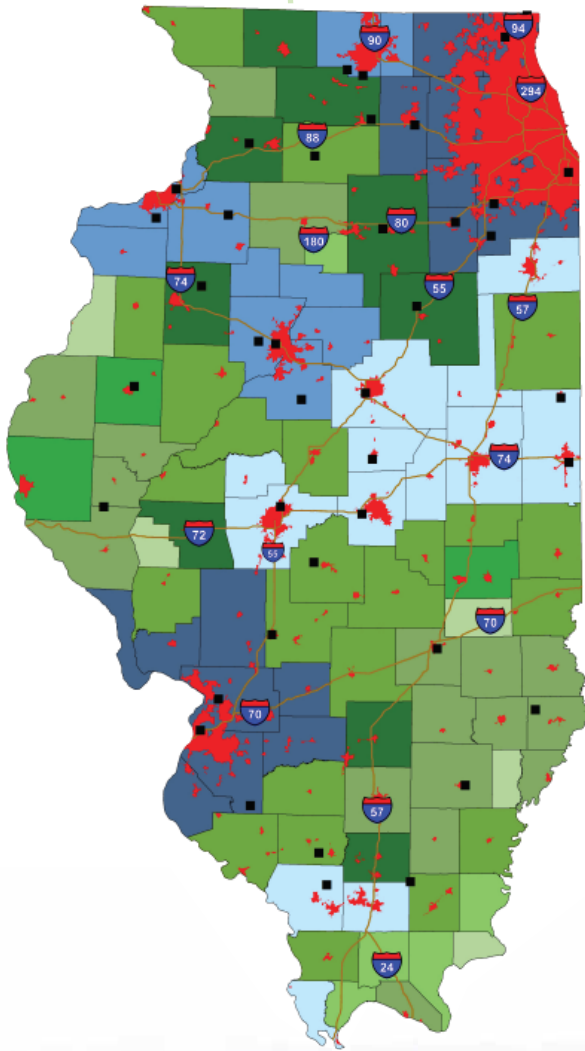


Illinois Commodity/ Waste Generation and Characterization Study Update

March 30, 2015



Commissioned by:



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- Appendix B – MSW Characterization Data
- Appendix C – Generation Results
- Appendix D – Photographic Log

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Executive Summary

Introduction

The Illinois Department of Commerce and Economic Opportunity (DCEO), Division of Recycling and Waste Reduction, commissioned the Illinois Recycling Association (IRA) to develop an update to the 2008 Illinois Commodity/Waste Generation and Characterization Study (ICWGC). CDM Smith Inc. (CDM) was contracted by IRA to conduct both the 2008 ICWGC and the 2014 update. This study will assist DCEO in fulfilling its recycling and waste reduction related missions:

- Supporting efforts to increase the quantity of materials recycled or composted in Illinois.
- Supporting efforts to develop and expand markets for recyclable materials.
- Supporting efforts to advance the self-sufficiency of the recycling industry in Illinois.

In Illinois, there are three primary laws that address the management of solid waste and discarded materials: The Solid Waste Management Act (SWMA), the Solid Waste Planning and Recycling Act (SWPRA) and the Illinois Environmental Protection Act (EPAct). Each of these laws includes important language that guides the management of solid waste in Illinois.

Purpose

In order to effectively manage resources and waste pursuant with the intent of the SWMA, SWPRA, and EPAct, it is important to understand the types and quantities of materials generated, the generating sectors, the quantities that are potentially recoverable and those that are otherwise disposed. Acquiring this data can enable sound policy and program design, implementation and program analyses for both the public sector and private sector. The data gained from this Study can be used for strategic planning; developing future legislative initiatives; evaluating effectiveness of current recovery efforts; targeting programs and educational efforts to advance recovery of commodities; providing guidance to state agencies and local governments; and aid in fulfilling the responsibilities required under the SWMA, SWPRA, and EPAct by local governments or management districts. This is the second statewide report to study this data in Illinois and will be used in conjunction with the Illinois statewide study that was conducted in 2008.

Project Tasks and Objectives

The following tasks and objectives outline the activities that were conducted as a part of this Study:

Waste Characterization – Develops the composition and quantification of the municipal solid waste (MSW) originating and disposed within the state:

- Determine the aggregate composition of Illinois' MSW disposed statewide according to the material categories.
- For the State as a whole, differentiate and compare MSW composition of defined material categories disposed from the Residential, Industrial/Commercial/Institutional (ICI), and C&D generation sectors.
- For the State as a whole, differentiate and compare MSW composition of defined material categories generated and disposed from urban and rural areas by residential and ICI sectors.
- Determine the estimated recovery rates by material types, and in gross aggregate, being recovered by subtracting out the amount that will be estimated as being disposed from generation data.

- Identify key opportunities for diversion, recovery (including composting) or reuse of specific types of disposed material categories.
- Identify the types and quantities of disposed materials generated from residential, commercial and C&D sectors that could be recoverable and the estimated value of those materials based upon Midwest markets.

Waste Generation- Develops the quantity of MSW generated within the state:

- Determine the estimated generation of Illinois' MSW by generating source.
- By pounds per capita per day (PCD), differentiating urban and rural values.
- By the Illinois EPA's seven regions in aggregate.
- By county.
- Statewide in aggregate.
- Comparison of findings to national data.

Planning Model – Development and implementation of an excel based commodity/waste generation and characterization (CWGC) planning model. This model is intended to provide communities or counties a tool to estimate the quantity and composition of waste generated based upon certain parameters as inputs, or as a default, the results of this study. Specific data can also be entered, such as recycling data, to determine diversion rates.

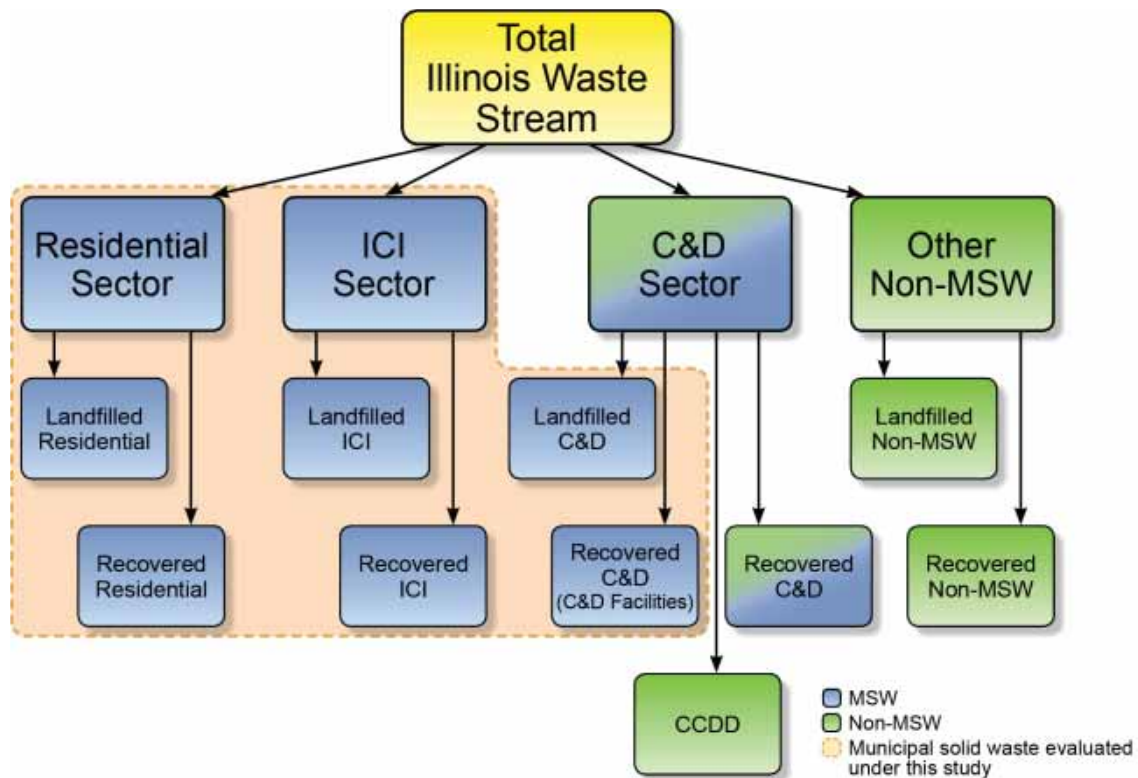
This report will present the results of these tasks and objectives; determine statewide recycling diversion rate estimates, basic economic impacts, limited environmental impacts, and compare the results to the 2008 ICWGC.

Illinois Municipal Solid Waste

For the purposes of the study, a waste sector is identified by the particular generation characteristics that make it a unique portion of the total waste stream. This study is limited to analysis of the statutory definition of municipal solid waste (MSW or municipal waste), which is defined by Illinois law as “garbage, general household, institutional and commercial waste, landscape waste and construction or demolition debris” as per 415 ILCS 5/3.290 (see Figure 1-1). As a note, in this report the terms municipal waste and MSW are used interchangeably. Based on the definition of MSW several waste sectors were not considered as part of this study, specifically the following materials were excluded:

- Special waste which includes any of the following per 415 ILCS 5/3.475:
 - potentially infectious medical waste;
 - hazardous waste;
 - industrial process waste or pollution control waste. (415 ILCS 5/3.235).
- Clean construction or demolition debris (CCDD) is not considered a “waste” if it is separated or processed and returned to the economic mainstream as raw materials or used as fill material (415 ILCS 5/3.160), with the exception of CCDD materials within the definition that are disposed at MSW landfills; and
- Diverted C&D materials.

Figure 1. Illinois Municipal Solid Waste



Principal Findings

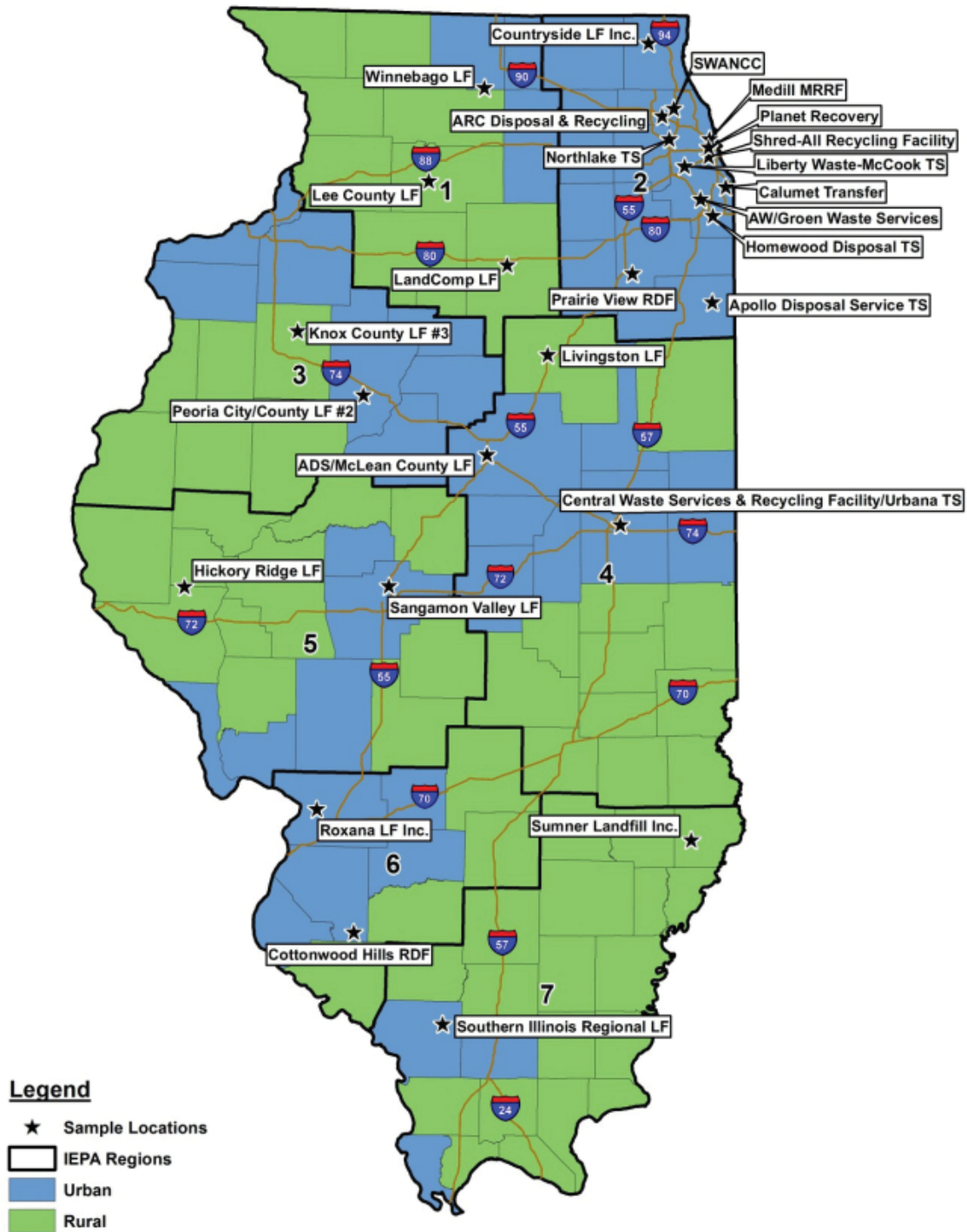
MSW Characterization

This section develops MSW composition and quantification estimates for the residential, ICI and C&D sectors of MSW originating within the State of Illinois. All of the results in this section are for materials found to be landfilled; landfilled means disposed in landfills or destined for landfills (for data obtained from transfer stations). These composition and quantification estimates are later compared to the MSW generation estimates, developed in Section 3, to provide an estimate of the recovery efforts in the State of Illinois.

Methodology

A sampling plan was developed for the MSW characterization task to comply with the industry standards for conducting waste characterization studies and the American Society for Testing and Materials (ASTM) standard D5231 for samples size. This plan was developed to ensure that the samples collected were representative of Illinois' statewide waste stream.

Figure 2. Sample Location Map



Overall, CDM Smith conducted 28 sampling events at 27 solid waste facilities located throughout Illinois, 15 landfills and 12 transfer stations (TS), over 31 days between September 10, 2014 and December 2, 2014 (Figure 2). Twenty-two sampling events were conducted for the IRA statewide study and six sampling events were completed at additional Suburban Cook County facilities through a waste characterization study for the Cook County Department of Environmental Control and The Delta Institute titled: Cook County, Illinois Commodity/Waste Generation and Characterization Study (CCICWGS). A total of 263 waste samples (60

from the additional CCICWGCS facilities and 203 statewide Illinois facilities) from the Residential and ICI waste sector were hand-sorted and “physically” characterized and 161 samples (14 from the additional CCICWGCS facilities and 147 statewide Illinois facilities) from the C&D waste sector were visually characterized to develop the waste composition profiles provided in this section. A summary of the sample allocation is provided in Table 1.

Table 1. Number of Samples by Waste Sector

Sampling Group	Sample Count		Total Sample Wt.	Mean Sample Wt.
	No.	%	(pounds)	
Residential	133	100%	28,532	214.5
<i>Urban</i>	102	76.7%	22,575	221.33
<i>Rural</i>	31	23.3%	5,956	192.1
ICI	130	100%	30,514	234.73
<i>Urban</i>	100	76.9%	23,853	238.5
<i>Rural</i>	30	23.1%	6,661	222.0
Total Res./ICI	263	100%	59,046 (29.5 tons)	224.5
C&D – State	161		918 tons	5.7 tons

After the samples were collected they were sorted into material categories and weighed. The samples were sorted into 10 material classes; Paper, Beverage Containers, Plastics, Glass, Metals, Organics, C&D, Inorganics, Household Hazardous Waste (HHW), and Textiles. Materials within these classes were further separated into 79 individual material categories as shown in Section 2.2.3.

Landfilled MSW Composition

Figure 3 shows the percentage, by weight, of each of the ten material classes for landfilled MSW. Organics, Paper, and C&D material classes account for approximately 66% (27.8%, 22.3%, and 16.9%, respectively) of landfilled MSW.

Figure 3. Composition of Landfilled MSW by Material Class

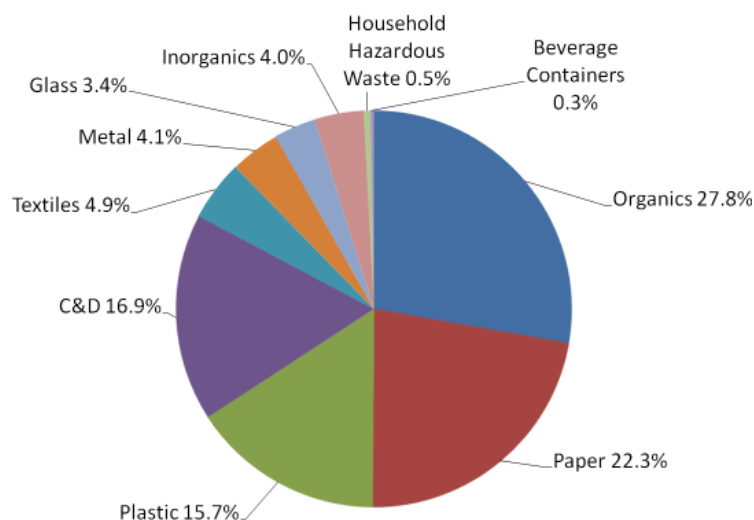


Table 2 lists the top ten material categories that were found in landfilled MSW. These ten categories account for approximately 50% of landfilled MSW. Food Scraps, Uncoated OCC/Kraft, and Compostable Paper material categories account for 30% (17.5%, 8.8%, and 3.7 respectively) of landfilled MSW.

Table 2. Top Ten individual Material Categories in Landfilled MSW

Component	Waste Composition %	Cum. %
Food Scraps	17.5%	17.5%
Uncoated OCC/Kraft	8.8%	26.3%
Compostable Paper	3.7%	30.0%
Other Film	3.1%	33.1%
Painted Wood	3.0%	36.1%
Bottom Fines & Dirt	3.0%	39.2%
Mixed Paper - Recyclable	2.7%	41.9%
Yard Waste - Compostable	2.6%	44.5%
Recyclable Glass Bottles & Jars	2.6%	47.0%
Other Rigid Plastic Products	2.5%	49.6%
Total	49.6%	

Comparison of Landfilled MSW Composition by Waste Sector

The overall waste stream is relatively similar to the residential and ICI MSW sectors as these two sectors comprise the majority of the landfilled waste stream, when compared to the C&D sector. As anticipated there are numerous classes where the C&D sector differs from the residential and ICI sectors.

Approximately 71% of the C&D sector consists of material categories that fall within the C&D class of materials (e.g., composite shingles, concrete, rock and other aggregates, etc.) and 29% of the C&D sector consists of material categories that fall within the nine other classes of waste materials (e.g., Paper, Plastics, HHW, etc.).

Residential and ICI waste sectors have many commonalities (Figure 4). The majority of the material classes fall within the 90% confidence interval. However, when the residential composition profile is compared to the ICI composition profile, Glass, Organics, and C&D classes were statistically different. The other material classes were not statistically different. The 90% confidence interval means that 90% of the time the composition results will be within the error bars (+/- %). There is significantly more C&D disposed by the ICI sector, while there is significantly more Glass and Organics disposed by the residential sector.

Figure 4. Comparison of MSW Waste Sectors Composition

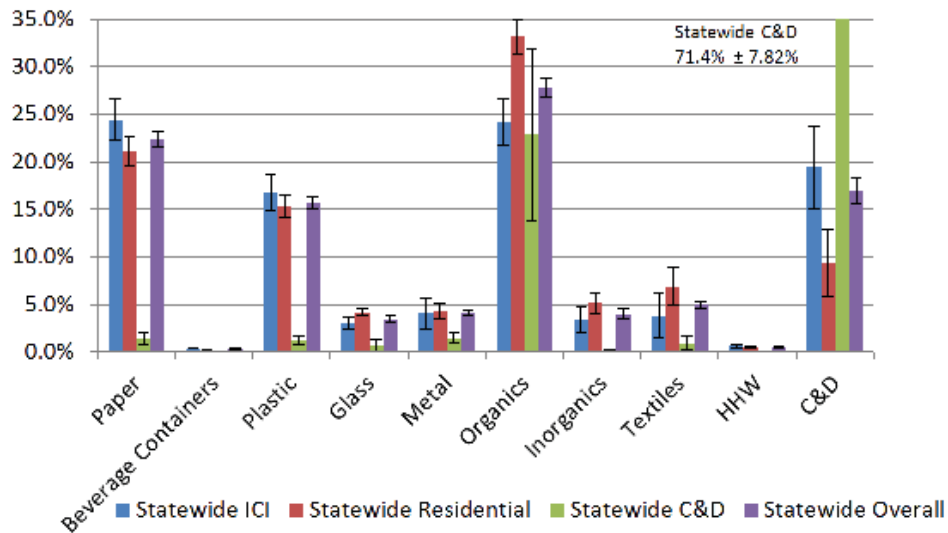


Figure 5 compares the waste composition profiles for the Residential waste sector and its subsectors. When considering the residential MSW waste, the majority of the material classes fall within the 90% confidence interval for the rural and urban sectors, with the exception of the Paper, Plastic and Organics classes. There is significantly more papers and plastics disposed within the rural counties of Illinois and there are significantly more organics disposed within urban areas of Illinois.

Figure 5. Comparison of Residential MSW Composition

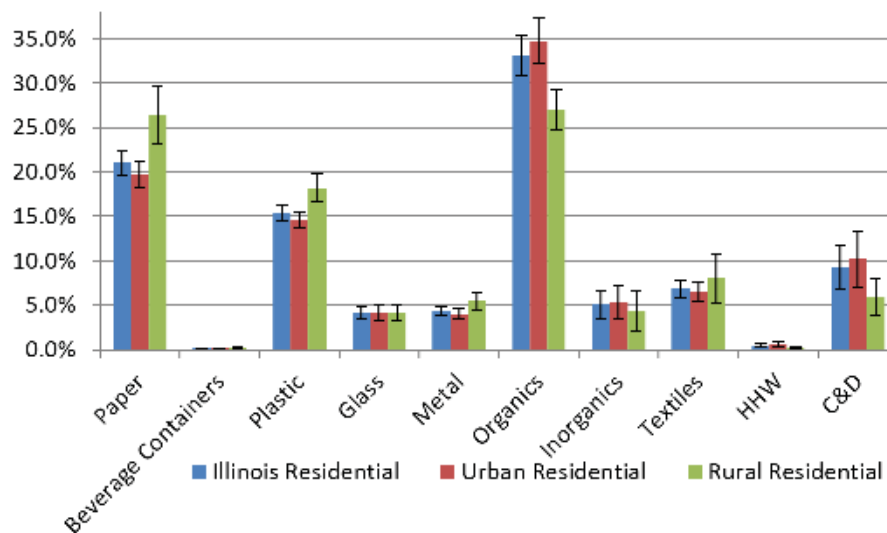
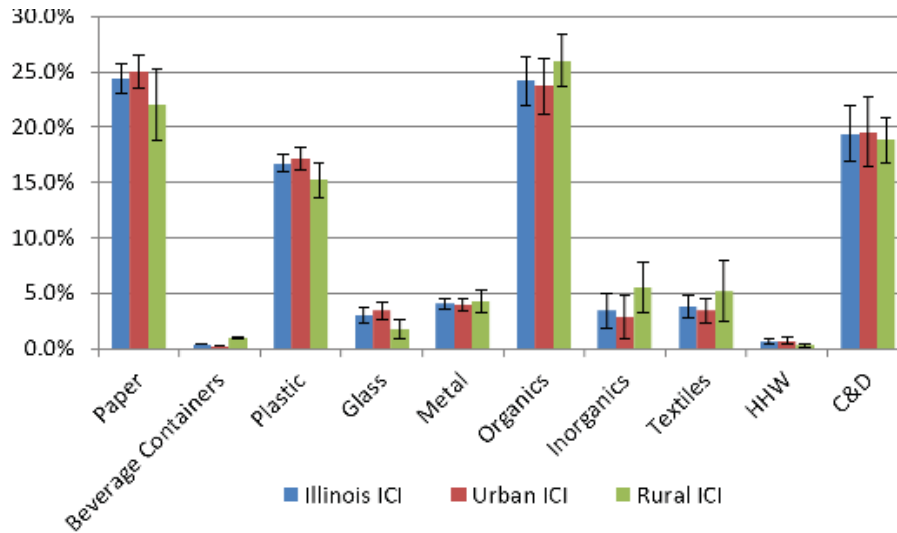


Figure 6 compares the waste composition profiles for the ICI waste sector and subsectors. The majority of the material classes fall within the 90% confidence interval for the rural and urban sectors, with the exception of the Beverage Containers classes. There is significantly more beverage containers disposed within the rural counties of Illinois.

Figure 6. Comparison of ICI MSW Composition



MSW Generation

Introduction and Methodology

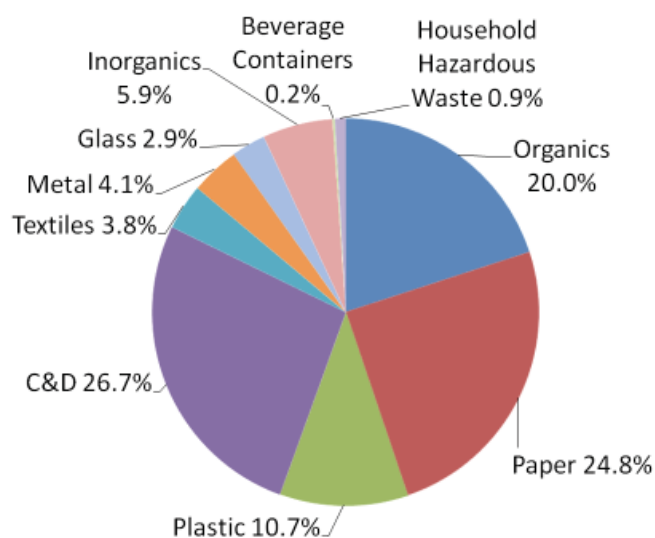
This task develops statewide, regional, and county-by-county municipal solid waste (MSW) generation estimates. Generation is that quantity of products considered municipal waste entering the waste management system from residential, commercial, industrial, institutional and C&D sources before materials recovery or disposal takes place. To develop the generation estimates, factors based on Illinois specific economic indicators were applied to 2013 national per capita generation rates that were derived from the U.S. EPA national data *Municipal Solid Waste Generation, Recycling, and Disposal in the United States Tables and Figures for 2012*¹. The Illinois factors were adjusted using the composition and waste sector quantity results presented in the report.

Total Statewide MSW Generation

Total statewide MSW generation in 2014 was 19.3 million tons or 8.20 pounds per person per day. Generation by material class is shown in Figure 7. C&D materials comprise the largest portion of MSW generated, at 26.7%. Paper products were the second largest fraction, at 24.8%. The third largest category of MSW generation is Organic material, which made up 20.0% of total MSW generation. Plastic products are 10.7% of generation and the remaining categories total 28.5%. Table 3 depicts the top ten individual material categories and their respective generation in tons.

¹ U. S. Environmental Protection Agency U.S. Environmental Protection Agency Office of Resource Conservation and Recovery February 2014.

http://www.epa.gov/epawaste/nonhaz/municipal/pubs/2012_msw_dat_tbls.pdf

Figure 7. Statewide MSW Generation by Material Class**Table 3. Top Ten MSW Generation Individual Material Categories**

Category	Waste Composition Tons	Cum. Tons
Uncoated OCC/Kraft	2,470,980	2,470,980
Food Scraps	2,147,760	4,618,740
Yard Waste - Compostable	758,110	5,376,850
Clean Engineered Wood	582,340	5,959,190
Newsprint	561,670	6,520,860
Clean Dimensional Lumber	559,010	7,079,870
Other C&D	556,440	7,636,310
Concrete	507,840	8,144,150
Compostable Paper	471,650	8,615,800
Recyclable Glass Bottles & Jars	439,980	9,055,780
Total	9,055,780	

MSW Generation by IEPA Region is shown in Figure 8. Region 2 generates approximately 71.5% of the total statewide MSW generation. Table 4 compares the per capita MSW generation rates for the seven IEPA Regions.

Figure 8. MSW Generation by IEPA Regions (% of statewide generation)

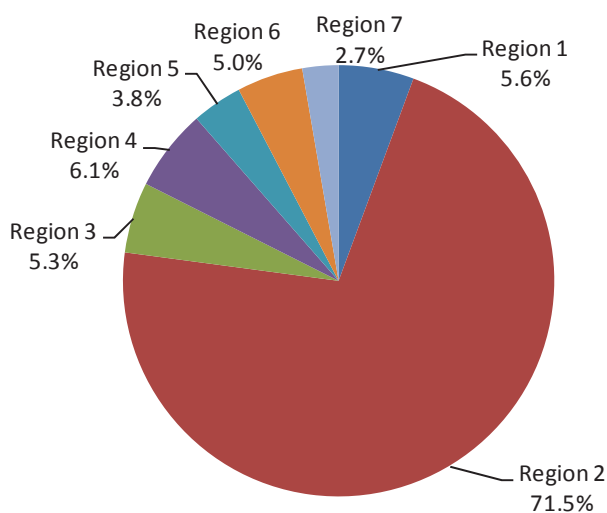


Table 4. Per Capita MSW Generation Rates by IEPA Region

IEPA Region	Waste Generated (per capita day)
One: Northwestern Illinois	7.1
Two: Chicago Metropolitan	8.7
Three: Peoria/Quad Cities	7.4
Four: East Central Illinois	7.1
Five: West Central Illinois	7.1
Six: Metropolitan East St. Louis	7.2
Seven: Southern Illinois	6.6
Total	8.2

MSW Diversion Data

It is the intent of Illinois law that the recovery of resources and diversion of commodities from landfills should be a fundamental concept in Illinois management goals and can be accomplished using a variety of strategies including source reduction, re-use, recycling, composting and other techniques. The diversion rate is a key indicator as to the success or failure of recovery efforts. In order to calculate a diversion rate, the quantity of materials generated must be known as well as a knowledge of the quantity of materials recovered using the strategies named above. Unfortunately, the task of ascertaining the quantity of materials being recovered was beyond the scope of this Study. Nonetheless, a diversion rate can be estimated by assuming that the difference between the generation quantities developed in Section 3 – 19.3 million tons, and disposal quantities developed in Section 2 – 12.1 million tons, is the quantity of materials recovered – some 7.2 million tons. Based on this methodology, **the estimated overall Illinois diversion rate is 37.3% by weight.**

Comparison of the 2008 ICWGC Study and 2014 Update Study

This section compares the results of the 2008 ICWGC study and the 2014 ICWGC study. DCEO and IRA commissioned the 2008 ICWGC Study and the 2014 ICWGC Study update to determine what differences

have occurred during this time period for the estimated quantity and types of materials generated, landfilled, and recovered in Illinois. Every effort was made to repeat the 2008 ICWGC study as closely as possible using the same methods and data sources. This section presents the results of the two studies, providing comparisons of the Landfilled MSW Characterization, Generated MSW and MSW Recovery/Diversion at the state level. Additional comparisons of waste sectors, subsectors and material classes are provided in Section 5.

Landfilled MSW Composition 2008 and 2014

Figure 9 compares the waste composition profiles of total Illinois landfilled MSW for 2008 and 2014. The percentages of Beverage Containers, Glass, and HHW material classes are not statistically different between 2008 and 2014. There was significantly more Plastic, Organic, and Inorganics landfilled in 2014 than in 2008 and significantly less Paper, Metal, Textiles, and C&D landfilled in 2014 than in 2008.

Figure 9. Comparison of 2008 and 2014 Illinois Landfilled MSW

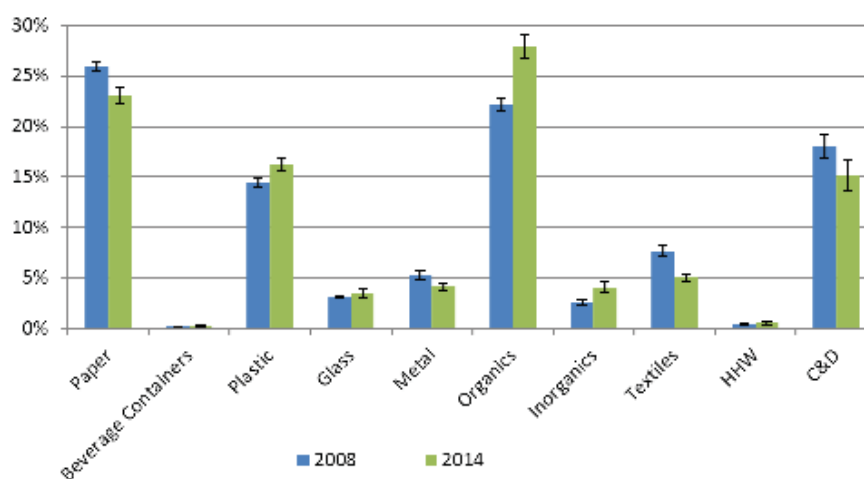


Figure 10 compares the top ten commodity products that were landfilled in Illinois. These ten material categories account for 34% and approximately 38% of the overall waste stream in 2008 and 2014, respectively. There was more High Grade Office Paper, Boxboard, Yard Waste – Compostable, and Food Scraps landfilled in 2014 than in 2008; and less Newsprint, Uncoated OCC/Kraft, and Aluminum Beverage Containers landfilled in 2014 than in 2008.

Figure 10. Comparison of 2008 and 2014 Illinois MSW Landfilled Commodity Materials

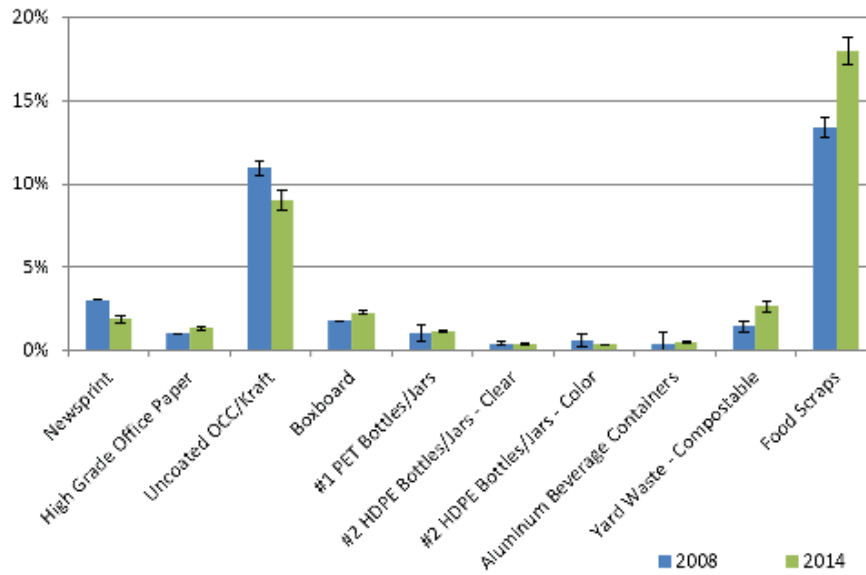
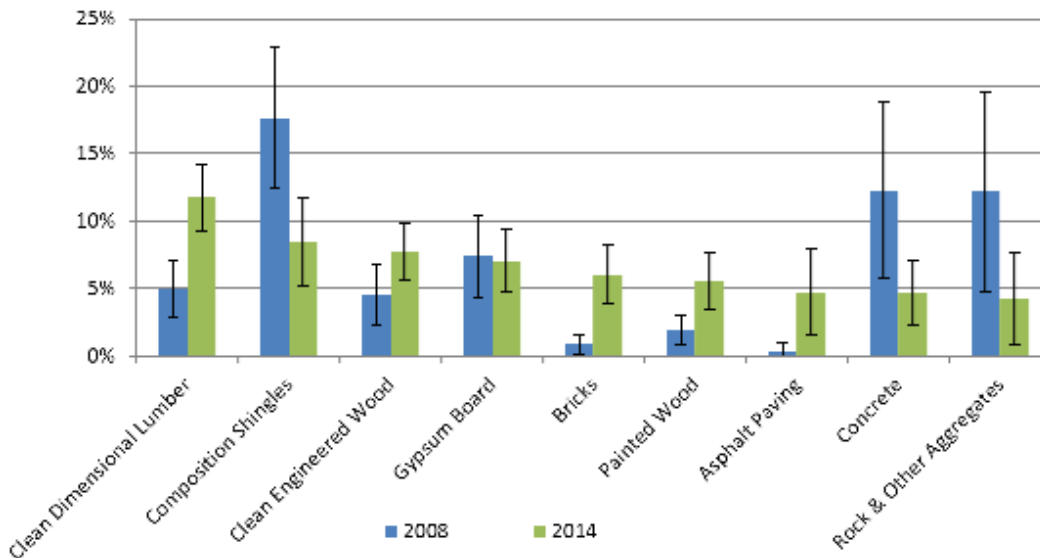


Table 11 lists the top ten material categories that were found in the 2014 landfilled C&D waste sector. These ten categories account for 69% and approximately 80% of the C&D waste streams in 2008 and 2014, respectively. The waste composition percentages for Clean Engineered Wood, Gypsum Board, Concrete, and Rock & Other Aggregates are not statistically different. There was more Clean Dimensional Lumber, Bricks, Painted Wood, and Asphalt Paving landfilled in 2014 than in 2008; there was less Composition Shingles landfilled in 2014 than in 2008. It should be noted that the C&D waste stream characterization has inherent greater variability than Residential or ICI waste streams and thus greater variability in the study results is expected, as noted by the larger error bars.

Figure 11. Comparison of 2008 and 2014 C&D Landfilled Waste



Total Statewide MSW Generation 2008 and 2014

Figure 12 summarizes the ten material class generation estimates for 2008 and 2014. Estimates indicate overall tonnage of waste produced in the state in 2014 has increased approximately 20% from 2008, much

of that originating from increases in inorganics and the C&D waste sector. It should be noted again, that availability of data on C&D disposal, as well as recovery, has changed dramatically over the past few years and this comparison should be further assessed, in the future. Also, estimates indicate an approximate 30% reduction in Textiles generation in 2014 when compared to 2008. Total Illinois MSW pounds per person per year (ppy) generation is estimated at 2% higher in 2014 (2,993) than in 2008 (2,942). Expressed in pounds per person per day (ppd), Total Illinois MSW generation is estimated at 8.20 ppd in 2014 and 8.06 ppd in 2008.

Figure 12. Comparison of 2014 and 2008 Statewide MSW Generation

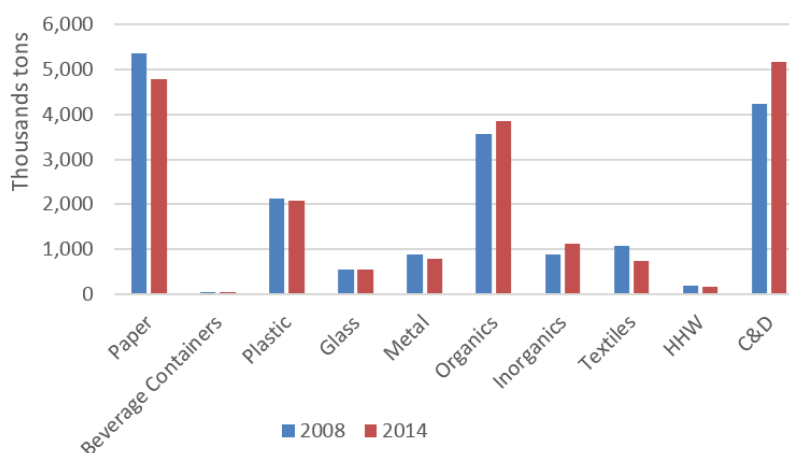
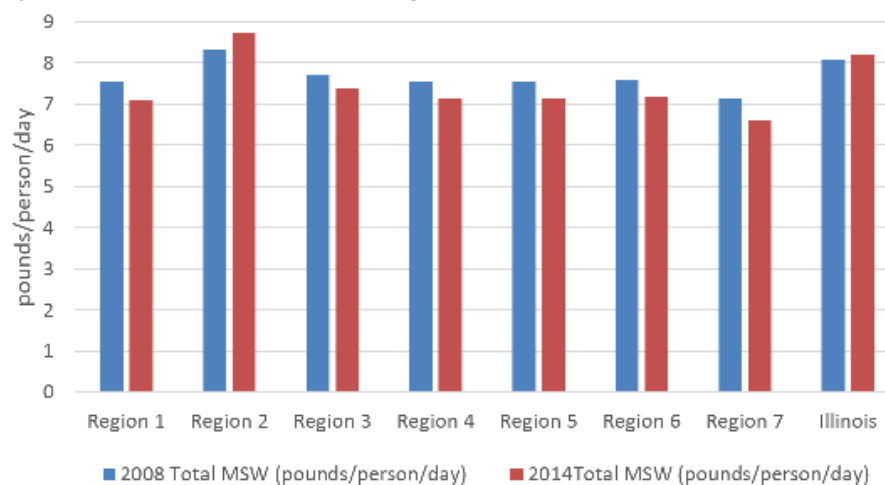


Figure 13 shows that on a per capita basis, Region 2 is the only IEPA region to show increased MSW generation estimates between 2008 to 2014, at a rate of 5% increase (i.e., $8.72/8.31\% = 105\%$). The remaining regions show decreasing estimates of waste generation of between 4% and 7% reduction in 2014.

Figure 13. Comparison of 2014 and 2008 IEPA Region MSW Generation



MSW Diversion 2008 and 2014

The studies indicate material recovery for six of the ten material classes remained relatively static, including Beverage Containers, Plastic, Glass, Organics, Inorganics, and HHW. The recovery estimates shown in Figure 14, indicate Paper, Metal, Textiles, and C&D material recovery has substantially increased.

However, some portion of the increase in C&D materials recovery may be attributed to quality of data available in 2014 vs 2008, as discussed in Section 5.3.1.

Figure 14. Comparison of 2014 and 2008 Illinois Recovery/Diversion Rates

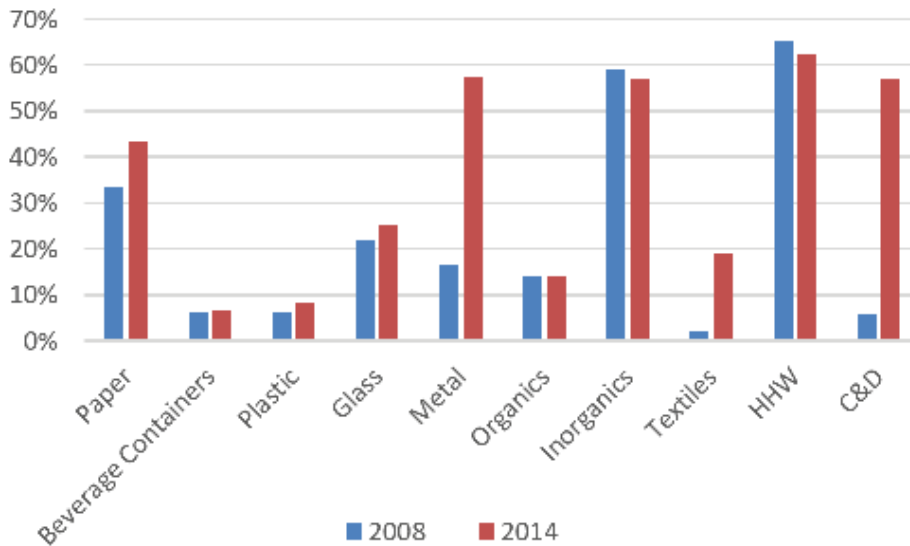
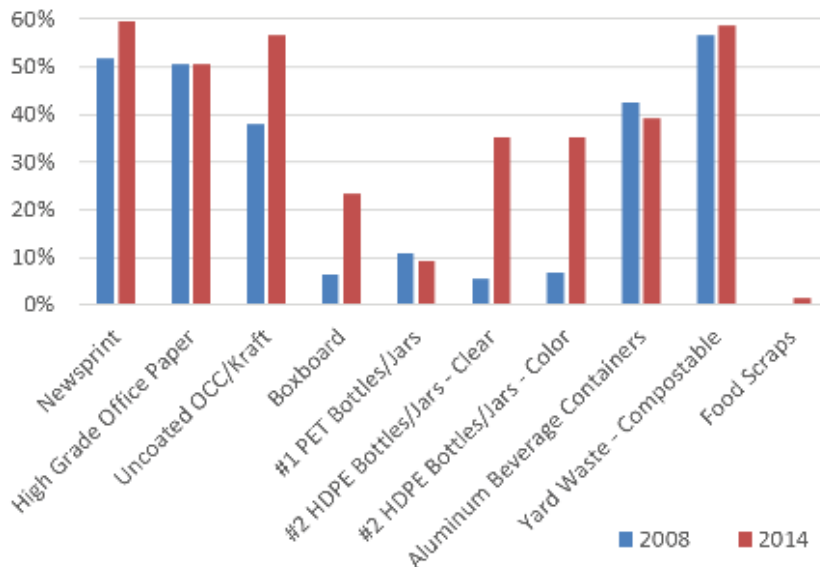


Figure 15 compares the top ten commodity products. The recovery rates of five of these commodity materials is similar in 2014 and 2008, including High Grade Office Paper, #1 PET Bottles/Jars, Aluminum Beverage Containers, Yard Waste - Compostable, and Food Scraps. There is increased recovery in 2014 for the other five commodity materials, including Newsprint, Boxboard, Uncoated OCC/Kraft, #2 HDPE Bottles/Jars - Clear, and #2 HDPE Bottles/Jars - Color.

Figure 15. Comparison of 2014 and 2008 Illinois Recovery/Diversion of Commodity Materials



Market Values of Landfilled Commodities

One of the sub-goals of this Study is to determine the estimated value of commodities that are landfilled and thus being lost to the overall economy – wasting jobs, natural resources, and contributing to negative

environmental impacts. A comprehensive economic evaluation would include direct, indirect and induced economic values of all commodities being landfilled, and is a complete study in and of itself. In light of this, it was determined to focus on the “traditional” commodities typically collected in residential or commercial recycling programs. Recognizing that there are other significant quantities of commodities being recycled, the value presented here then should be viewed as a minimum. The market value was calculated based on the average 2014 commodity values from January 2014 through December 2014 obtained from market data detailed in Section 4.5 for the Midwest region. **The direct market value of the landfilled materials shown in Table 4-5 is calculated at over \$360 Million.**

MSW Greenhouse Gas Data

Global warming is an issue that has been steadily gaining national and worldwide attention and concern. It is widely agreed that greenhouse gases (GHG) that result from the burning of fossil fuels and other human activities, is contributing to climate change. Illinois has a sustainable energy plan and is a signatory to the Midwestern Greenhouse Gas Accord. Recovering commodities from discarded materials through recycling, composting, and waste reduction strategies can play a significant role in reducing GHG's by reducing emissions. Recovering commodities:

1. Avoids emissions from raw material extraction and transport,
2. Avoids emissions from raw material processing into “manufacturing ready” feedstock,
3. Avoids emissions from landfilling (methane),
4. Sustains forest carbon sequestration,
5. Reuses carbon based plastics indefinitely, rather than one time btu value for combustion.

The Illinois MSW generation and disposal information was inputted into the U.S. Environmental Protection Agency (EPA) Waste Reduction Model (WARM)², to determine equivalent greenhouse gas emissions resulting from the landfilling of MSW in Illinois and to determine the emission reductions resulting from the quantities estimated to be recovered. The GHG emission factors were developed following a life-cycle assessment methodology using estimation techniques developed for national inventories of GHG emissions. Default values for all variables were used for this model. CDM Smith assumed the national landfill average for methane recovery for flare and assumed default transport distances for emissions that occur during transport to landfills.

The total GHG emissions produced from the annual landfilled MSW (12.1 million tons) is approximately 2,516,928 MTCO₂E. This is equivalent to the annual greenhouse gas emissions from approximately 461,000 passenger vehicles or the carbon sequestered annually by 17,600 acres of forest preserved from deforestation³.

The total GHG emissions reduced from materials currently recycled (7.2 million tons) is 17,242,620 MTCO₂E. This is equivalent to the annual greenhouse gas emissions from approximately 3,158,000 passenger vehicles or the carbon sequestered annually by 120,600 acres of forest.

² EPA's report Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks (EPA 530-R-06-004) describes this methodology in detail. visit <http://epa.gov/climatechange/wycd/waste/SWMGHGreport.html>
http://www.epa.gov/climatechange/wycd/waste/calculators/Warm_home.html.

³ EPA. 2009. Greenhouse Gas Equivalencies Calculator. <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>

Section 1

Introduction

The Illinois Department of Commerce and Economic Opportunity (DCEO), Division of Recycling and Waste Reduction, commissioned the Illinois Recycling Association (IRA) to develop an update to the 2008 Illinois Commodity/Waste Generation and Characterization Study (ICWGC). CDM Smith Inc. (CDM) was contracted by IRA to conduct both the 2008 ICWGC and the 2014 update. This study will assist DCEO in fulfilling its recycling and waste reduction related missions:

- Supporting efforts to increase the quantity of materials recycled or composted in Illinois.
- Supporting efforts to develop and expand markets for recyclable materials.
- Supporting efforts to advance the self-sufficiency of the recycling industry in Illinois.

In Illinois, there are three primary laws that address the management of solid waste: The Solid Waste Management Act (SWMA), the Solid Waste Planning and Recycling Act (SWPRA) and the Illinois Environmental Protection Act (EPAAct). Each of these laws includes important language that guides the management of solid waste in Illinois.

The SWMA, adopted in 1986, establishes the following waste management hierarchy, in descending order of preference, as State policy:

1. Volume reduction at the source [of generation];
2. Recycling and reuse;
3. Combustion with energy recovery;
4. Combustion for volume reduction; and
5. Disposal in landfill facilities.

Under the SWPRA, adopted in 1988, all Illinois counties as well as the City of Chicago shall develop and implement comprehensive solid waste management plans that are required to place a substantial emphasis on recycling and landfill alternatives, encourage recycling and source reduction, and to promote composting. Each county waste management plan is required to be updated and reviewed every 5 years by IEPA to ensure compliance with the purpose and provisions of the Act. Each plan must include provisions for the implementation of a recycling program(s) designed to recycle 25 percent of the municipal waste generated in their jurisdiction. SWPRA acknowledges that recovering certain materials from municipal waste will decrease flows to landfills, aid in the conservation and recovery of valuable resources, conserve energy in manufacturing processes, increase the supply of materials for state industries, and substantially reduce the need for municipal waste incinerators.

The EPAAct contains Illinois' environmental regulations and this legislation establishes requirements for the issuance of permits for pollution control facilities such as landfills and transfer stations. (Recycling centers and "clean" material recovery facilities (MRFs) do not require permits.) It also regulates the disposal of used tires and garbage. In addition, The EPAAct also establishes fees that support DCEO's and IEPA's solid waste management programs.

The EPAct also contains provisions that prohibit a variety of items from being disposed of in Illinois' landfills. The following items are currently banned: landscape waste; lead-acid batteries; whole waste tires; "white goods" (appliances); and used motor oil. The Electronic Products Recycling and Reuse Act, signed into law on September 17, 2008, advances a producer responsibility model for managing end-of-life electronics and banned covered electronic devices from being landfilled in Illinois that started January 1, 2012.

1.1 Purpose

In order to effectively manage resources and waste pursuant with the intent of the SWMA, SWPRA, and EPAct, it is important to understand the types and quantities of materials generated, the generating sectors, the quantities that are potentially recoverable and those that are otherwise disposed. Acquiring this data can enable sound policy and program design, implementation and program analyses for both the public sector and private sector. The data gained from this Study can be used for strategic planning; developing future legislative initiatives; evaluating effectiveness of current recovery efforts; targeting programs and educational efforts to advance recovery of commodities; providing guidance to state agencies and local governments; and aid in fulfilling the responsibilities required under the SWMA, SWPRA, and EPAct by local governments or management districts. This is the second statewide report to study this data in Illinois and will be used in conjunction with the Illinois statewide study that was conducted in 2008.

1.2 Project Tasks and Objectives

The following tasks and objectives outline the activities that were conducted as a part of this Study:

Waste Characterization – Develops the composition and quantification of the municipal solid waste (MSW) originating and disposed within the state:

- Determine the aggregate composition of Illinois' MSW disposed statewide according to the material categories.
- For the State as a whole, differentiate and compare MSW composition of defined material categories disposed from the Residential, Industrial/Commercial/Institutional (ICI), and C&D generation sectors.
- For the State as a whole, differentiate and compare MSW composition of defined material categories generated and disposed from urban and rural areas by residential and ICI sectors.
- Determine the estimated recovery rates by material types, and in gross aggregate, being recovered by subtracting out the amount that will be estimated as being disposed from generation data.
- Identify key opportunities for diversion, recovery (including composting) or reuse of specific types of disposed material categories.
- Identify the types and quantities of disposed materials generated from residential, commercial and C&D sectors that could be recoverable and the estimated value of those materials based upon Midwest markets.

Waste Generation- Develops the quantity of MSW generated within the state:

- Determine the estimated generation of Illinois' MSW by generating source.
- By pounds per capita per day (PCD), differentiating urban and rural values.

- By the Illinois EPA’s seven regions in aggregate.
- By county.
- Statewide in aggregate.
- Comparison of findings to national data.

Planning Model – Development and implementation of an excel based commodity/waste generation and characterization (CWGC) planning model. This model is intended to provide communities or counties a tool to estimate the quantity and composition of waste generated based upon certain parameters as inputs, or as a default, the results of this study. Specific data can also be entered, such as recycling data, to determine diversion rates.

This report will present the results of these tasks and objectives; determine statewide recycling diversion rate estimates, basic economic impacts, limited environmental impacts, and compare the results to the 2008 ICWGC.

1.3 Consulting Team

CDM Smith conducted the above tasks with the assistance of its subconsultants Franklin Associates (Franklin) and Cascadia Consulting Group (Cascadia). CDM Smith has performed numerous solid waste planning and management projects in the State of Illinois and has conducted waste characterization sampling and sorted more than 3,000 waste samples. Franklin has completed the “Characterization of Municipal Solid Waste in the United States” for the USEPA for the past 28 years. Cascadia brings thousands of waste composition sample results from past national studies already classified in a database by SIC code. The availability of this source-sampled data was used to validate, augment, and improve data collected and generated as part of this study.

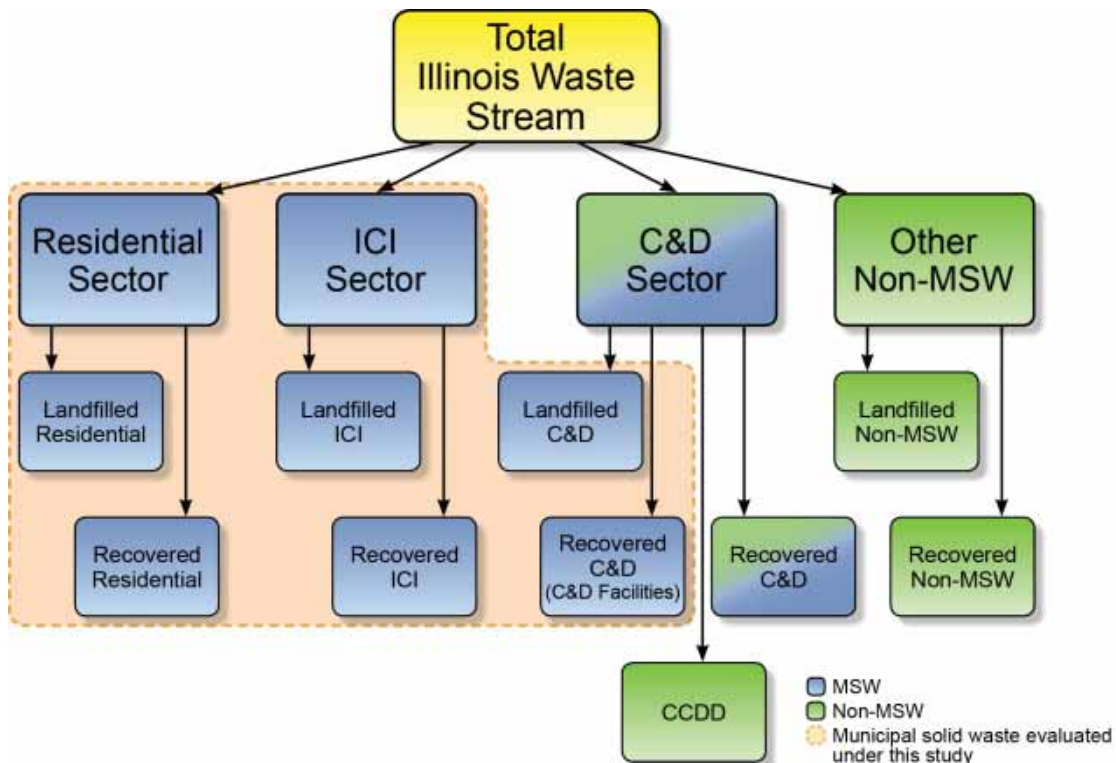
1.4 Defining the Waste Stream

For the purposes of the study, a waste sector is identified by the particular generation characteristics that make it a unique portion of the total waste stream. This study is limited to analysis of the statutory definition of municipal solid waste (MSW or municipal waste), which is defined by Illinois law as “garbage, general household, institutional and commercial waste, landscape waste and construction or demolition debris” as per 415 ILCS 5/3.290 (see Figure 1-1). As a note, in this report the terms municipal waste and MSW are used interchangeably. Based on the definition of MSW several waste sectors were not considered as part of this study, specifically the following materials were excluded:

- Special waste which includes any of the following per 415 ILCS 5/3.475:
 - potentially infectious medical waste;
 - hazardous waste;
 - industrial process waste or pollution control waste. (415 ILCS 5/3.235).
- Clean construction or demolition debris (CCDD) is not considered a “waste” if it is separated or processed and returned to the economic mainstream as raw materials or used as fill material (415 ILCS 5/3.160), with the exception of CCDD materials within the definition that are disposed at MSW landfills; and
- Diverted C&D materials.

In the State of Illinois, clean construction or demolition debris (CCDD) is not considered a “waste” if it is separated or processed and returned to the economic mainstream as raw materials or used as fill material (415 ILCS 5/3.160(a)). CCDD includes the following uncontaminated materials (415 ILCS 5/3.160(b)): broken concrete without protruding metal bars; bricks; rock; stone; reclaimed asphalt pavement; and dirt or sand generated from construction or demolition activities.

Figure 1-1. Illinois Municipal Solid Waste



This study examines the following distinct waste sectors for the State of Illinois:

1. Residential – waste generated by single and multifamily residences. This waste is primarily collected in packer trucks (e.g., side-loading or rear loading vehicles).
2. Industrial/Commercial/Institutional (ICI) – waste generated by fabricated manufacturing facilities, mills, and mines; various commercial, retail and wholesale businesses; and institutions. This waste is collected in a variety of vehicles including loose and compactor drop boxes, rear-loading and front-end loading trucks.
3. Construction and Demolition (C&D) – waste generated from new construction, renovation activities, or demolition. This waste is collected in vehicles such as dump trucks, loose roll-off boxes, and end dump vehicles. As noted above, CCDD and diverted C&D were not considered as part of this study except those materials disposed at MSW landfills.

In addition to separating the Illinois MSW into the above waste sectors, the Illinois residential and ICI MSW was further evaluated at the rural and urban subsector level to provide additional planning information. The U.S. Department of Agriculture assigns each county a rural-urban continuum code (RUC), which identifies it as a metropolitan or nonmetropolitan county (Figure 1-2).¹ A metropolitan area is defined by

the federal Office of Management and Budget as a core area with a city of 50,000 or more inhabitants, plus adjacent communities having a high degree of economic and social integration with that core or an Urbanized Area (UA) and a total population of at least 100,000. The county or counties containing the largest city and surrounding densely settled territory are central counties of the metropolitan area. A non-metro area is any area located outside of the metropolitan areas as defined above.

The RUC codes classify metropolitan (i.e., urban) counties with codes 1 through 3 and nonmetropolitan (i.e., rural) counties with codes 4 through 9. This same distribution was assumed for the urban/rural split in this report. The rural and urban county definitions below mirror the U.S. Department of Agriculture definitions of metropolitan and nonmetropolitan counties.

1. Urban – waste generated by metropolitan counties as identified by the Census Rural-Urban Continuum (RUC) Codes number 1 through 3.⁴ [40 Counties]
2. Rural - waste generated by nonmetropolitan counties as identified by the Census RUC Codes 4 through 9.¹ [62 Counties]

The following sections and appendices provide a detailed discussion of the tasks conducted to meet the goals and objectives of this study.

⁴ U.S. Department of Agriculture. Economic Research Center.

<http://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx>

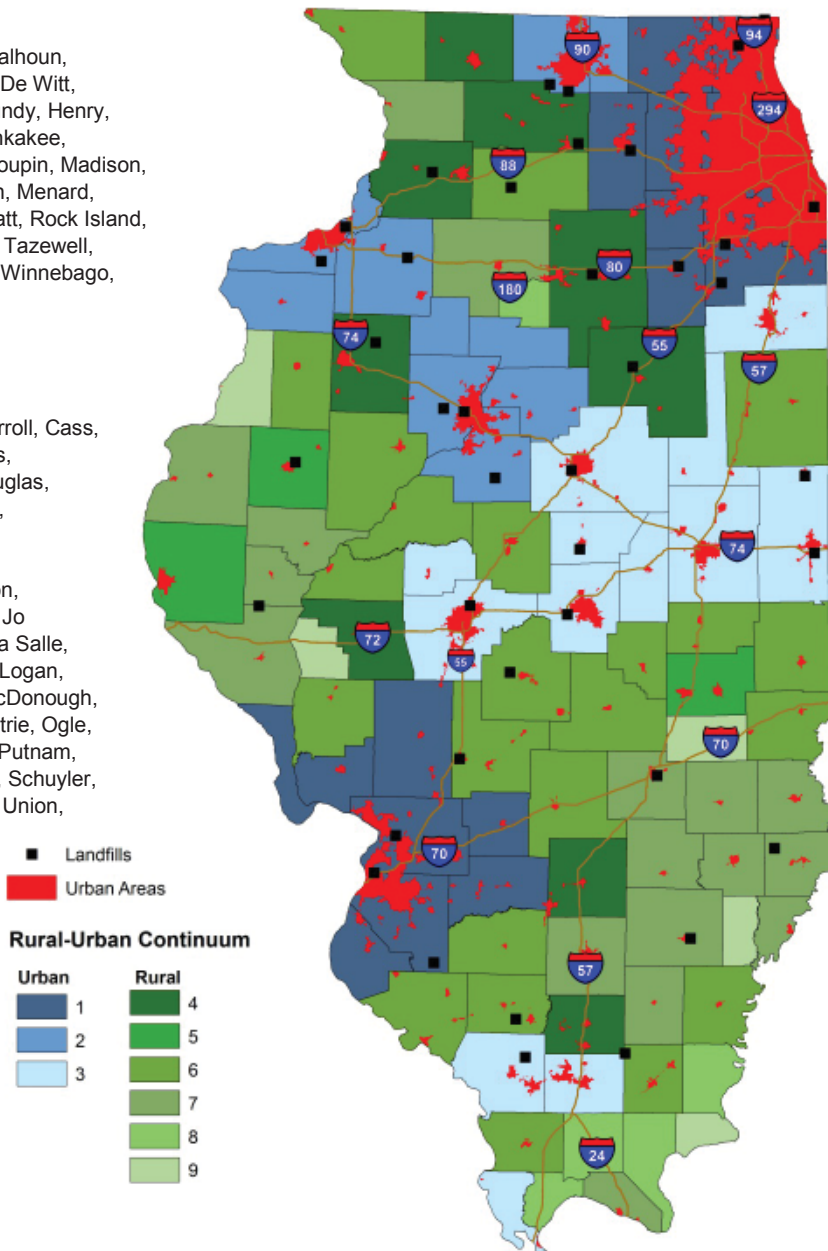
Figure 1-2. Urban and Rural Counties within Illinois

Urban Counties

Alexander, Bond, Boone, Calhoun, Champaign, Clinton, Cook, De Witt, DeKalb, DuPage, Ford, Grundy, Henry, Jackson, Jersey, Kane, Kankakee, Kendall, Lake, Macon, Macoupin, Madison, Marshall, McHenry, McLean, Menard, Mercer, Monroe, Peoria, Piatt, Rock Island, Sangamon, St. Clair, Stark, Tazewell, Vermilion, Will, Williamson, Winnebago, Woodford.

Rural Counties

Adams, Brown, Bureau, Carroll, Cass, Christian, Clark, Clay, Coles, Crawford, Cumberland, Douglas, Edgar, Edwards, Effingham, Fayette, Franklin, Fulton, Gallatin, Greene, Hamilton, Hancock, Hardin, Henderson, Iroquois, Jasper, Jefferson, Jo Daviess, Johnson, Knox, La Salle, Lawrence, Lee, Livingston, Logan, Marion, Mason, Massac, McDonough, Montgomery, Morgan, Moultrie, Ogle, Perry, Pike, Pope, Pulaski, Putnam, Randolph, Richland, Saline, Schuyler, Scott, Shelby, Stephenson, Union, Wabash, Warren, Washington, Wayne, White, Whiteside



Source:

Landfill locations provided by the Illinois EPA report *Nonhazardous Solid Waste Management and Landfill Capacity in Illinois: 2013*.

Urban Areas and the Rural -Urban county designations provided by U.S. Census Bureau. Population Division. December 27, 2013.

Section 2

MSW Characterization

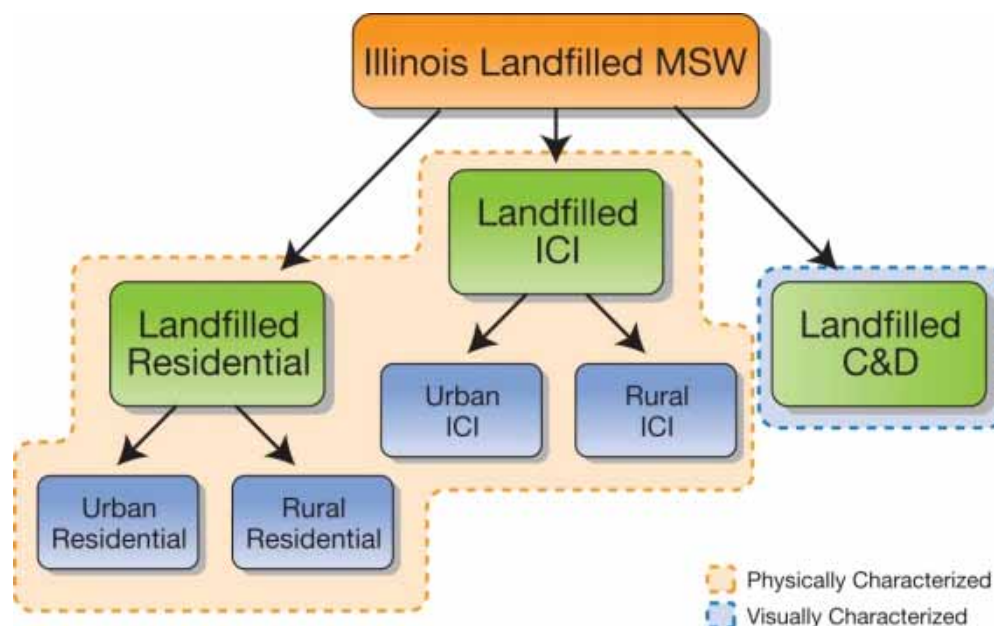
2.1 Purpose

This section develops MSW composition and quantification estimates for the residential, ICI and C&D sectors of MSW originating within the State of Illinois. All of the results in this section are for materials found to be landfilled; landfilled means disposed in landfills or destined for landfills (for data obtained from transfer stations). These composition and quantification estimates are later compared to the MSW generation estimates, developed in Section 3, to provide an estimate of the recovery efforts in the State of Illinois.

The following sections discuss the methodology used to obtain representative MSW composition estimates. This includes the study parameters, the number and allocation of samples, the solid waste facilities where sampling activities were conducted, and the basis for selecting waste samples.

Overall, CDM Smith conducted 28 sampling events at 27 solid waste facilities, 15 landfills and 12 transfer stations (TS), over 31 days between September 10, 2014 and December 2, 2014. Twenty-two sampling events were conducted for the IRA statewide study and six sampling events were completed at additional Suburban Cook County facilities through a waste characterization study for the Cook County Department of Environmental Control and The Delta Institute titled: Cook County, Illinois Commodity/Waste Generation and Characterization Study (CCICWGCS). The data collected at all 27 sites (28 sampling events total) were combined and presented in this report to develop the comprehensive statewide MSW composition. A total of 263 waste samples (60 from the additional CCICWGCS facilities and 203 statewide Illinois facilities) from the Residential and ICI waste sector were hand-sorted and “physically” characterized and 161 samples (14 from the additional CCICWGCS facilities and 147 statewide Illinois facilities) from the C&D waste sector were visually characterized. Due to the bulky nature of C&D materials, visual characterization of entire vehicles was used as it is considered by the industry to yield more accurate results. This approach is depicted in Figure 2-1.

Figure 2-1. Illinois MSW Characterization



2.2 Methodology

This section presents a summary of the data collection methods and calculation procedures used in this study. A copy of the approved sampling plan can be found in **Appendix A**.

An alternative method for visual characterization of C&D loads was applied in the field. The work plan stated the C&D characterization would be conducted by visually estimating volumes of material categories and total volume of the load. During this 2014 field sampling event, percentage by weight of total load of material categories were estimated, thus considering density of the different materials.

All material categories within the load were first marked on the Visual Characterization Form. Next, estimates of the volumetric percentages of those materials, weighted based on density of the material, were recorded to the nearest 0.5%. This process was conducted starting with the smallest material category by volume and repeated for all of the material categories present in the load. The benefit of this method is having a total estimated composition of the load by weight for the option of field revisions, rather than applying density multipliers at a later date.

2.2.1 Sample Allocation

To ensure that samples were representative of Illinois' statewide waste stream, sampling was conducted 27 disposal facilities located throughout Illinois. Disposal locations were distributed in both rural and urban counties of Illinois, as shown on Figure 2-2 and listed in Table 2-1, to provide data for urban and rural MSW sectors.

At each sampling location (landfill or transfer station), physical and visual characterizations (where available) of samples were performed. The total number of samples conducted at each site was maximized to the extent possible with the allocated field staff; however, the number varied based on the number of C&D loads available that particular day, site conditions, site staff assistance, weather conditions, the time that loads were delivered to the site, and a number of other factors. Samples collected as part of the MSW characterization sampling were generally allocated equally between the residential and ICI sectors, corresponding to the approximate ratio of disposed quantities for each sector. The number of C&D visual characterization samples was maximized based on the number of samples that could be completed at each facility, which was influenced mostly by the number of loads disposed that day.

A total of 263 samples (60 from the additional CCICWGCS facilities and 203 statewide Illinois facilities) were physically sorted from the residential and ICI sectors and 161 source separated C&D loads (14 from the additional CCICWGCS facilities and 147 statewide Illinois facilities) were visually characterized to develop the waste composition profiles provided in this section. Suburban Cook County was sampled during this study; however, additional samples from the CCICWGCS conducted by CDM Smith for Cook County Department of Environmental Control and The Delta Institute were used to develop comprehensive statewide MSW composition. The 60 residential and ICI samples collected and 14 C&D visually characterized loads from the Fall 2014 CCICWGCS were incorporated into this Illinois statewide report with permission by Cook County Department of Environmental Control and The Delta Institute. The CCICWGCS samples were collected and sorted using the same methods as this study.

Table 2-1. Sampling Locations

IEPA Region	Landfill or Transfer Station	County (County)	Operator	Sample Date
1	Winnebago Landfill	Rockford (Winnebago)	Winnebago Reclamation Service	10/01/14
	Lee County Landfill Inc.	Dixon (Lee)	Republic Services	10/02/14
	LandComp Landfill	Ottawa (La Salle)	Republic Services	10/03/14
2	AW/Groen Waste Services Transfer Station [#]	Crestwood (Cook)	Republic Services	09/10/14
	ARC Disposal & Recycling Transfer Station [#]	Mt. Prospect (Cook)	Republic Services	09/11/14
	Liberty Waste-McCook Transfer Station [#]	McCook (Cook)	Liberty Waste Services	09/12/14
	Northlake Transfer Station [#]	Northlake (Cook)	Republic Services	09/16/14
	Homewood Disposal Transfer Station [#]	Homewood (Cook)	Homewood Disposal	09/17/14
	SWANCC Transfer Station [#]	Des Plaines (Cook)	Groot Industries	09/18/14
	Countryside Landfill Inc.	Grayslake (Lake)	Waste Management	09/24/14
	Calumet Transfer	Chicago (Cook)	Republic Services	09/25/14
	Shred-All Recycling Facility (TS)	Chicago (Cook)	Republic Services	09/26/14
	Medill Transfer Station	Chicago (Cook)	Allied Waste	10/15/14
	Prairie View Recycling and Disposal Facility	Wilmington (Will)	Waste Management	10/16/14
	Apollo Disposal Service Transfer Station - Momence Kankakee	Momence (Cook)	Republic Services	10/17/14
	Planet Recovery Transfer Station	Chicago (Cook)	Republic Services	11/06/14
	Northlake Transfer Station*	Northlake (Cook)	Republic Services	11/11/14
3	Knox County Landfill #3	Oneida (Knox)	Knox County	10/29/14
	Peoria City/County Landfill #2	Brimfield (Peoria)	Waste Management	10/30/14
4	Central Waste Services & Recycling Facility/Urbana Transfer Station	Urbana (Champaign)	Republic Services	10/22/14
	ADS/McLean County Landfill #2	Bloomington (McLean)	Republic Services	10/23/14
	Livingston Landfill	Pontiac (Livingston)	Republic Services	10/24/14
5	Sangamon Valley Landfill	Springfield (Sangamon)	Republic Services	10/10/14
	Hickory Ridge Landfill (Formerly Pike)	Baylis (Pike)	Peoria Disposal Company	10/28/14
6	Cottonwood Hills Recycling and Disposal Facility	Marissa (St. Clair)	Waste Management	10/08/14
	Roxana Landfill Inc.	Edwardsville (Madison)	Republic Services	10/09/14
7	Southern Illinois Regional Landfill	DeSoto (Jackson)	Republic Services	10/07/14
	Sumner Landfill Inc.	Sumner (Lawrence)	Republic Services	10/24/14

[#]Sampling activities were conducted by CDM Smith at these additional Suburban Cook County facilities under separate contract/project for the Cook County Department of Environmental Control and The Delta Institute.

*Sampling activities conducted at Northlake Transfer Station on two separate dates. First sampling event focused on Cook County MSW and second focused on DuPage County MSW.

Figure 2-2. Sample Location Map

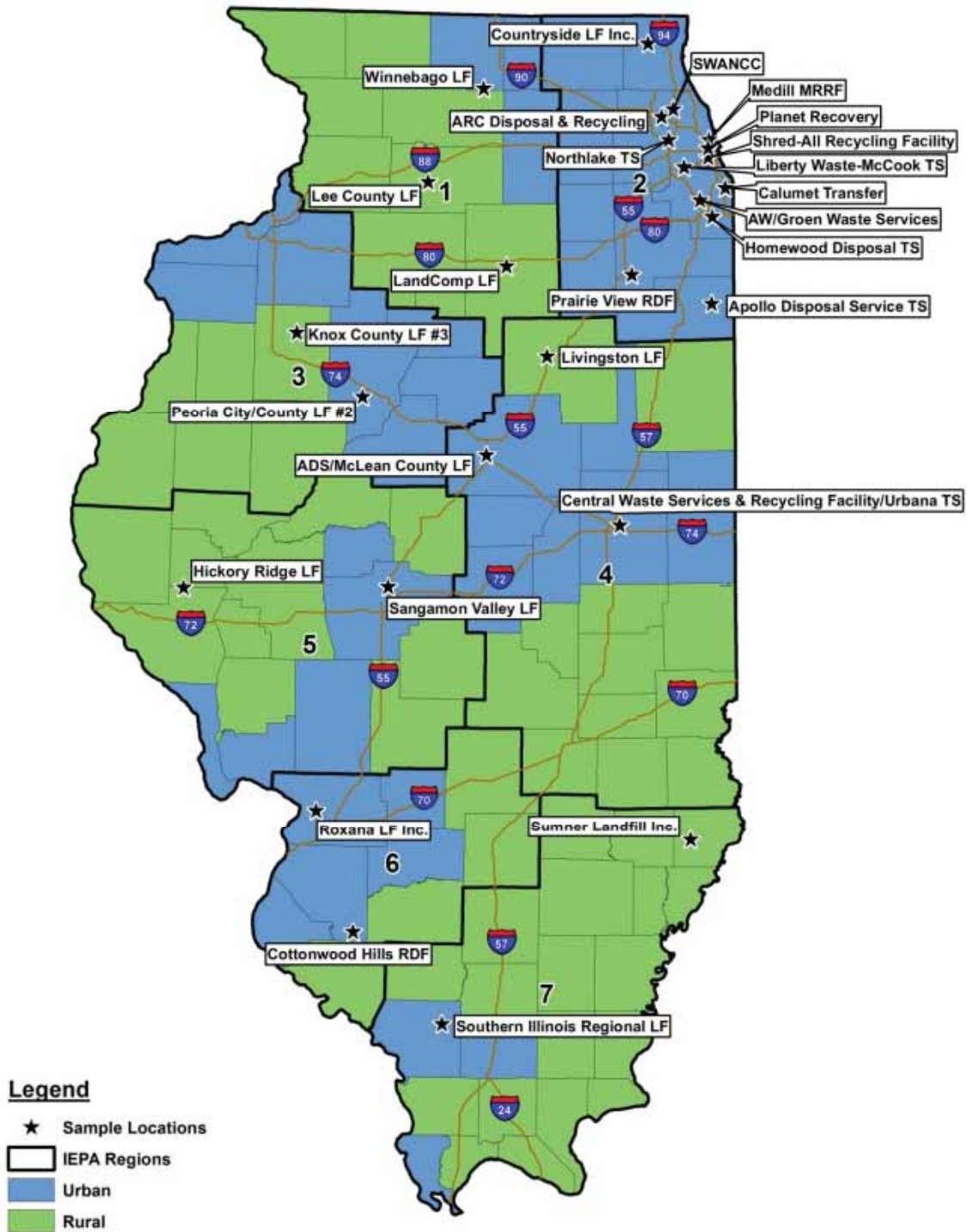


Table 2-2 summarizes the samples that were used to determine the landfilled MSW composition. A total of 263 waste samples were collected from the residential and commercial waste sectors in 2014. Of the 263 samples collected, 130 (49%) were samples of commercial waste, and 133 (51%) were samples of residential waste, of those samples a total of 202 (77%) were samples from urban areas and 61 (23%) were samples from rural areas.

Table 2-2. Number of Samples by Waste Sector

Sampling Group	Sample Count		Total Sample Wt.	Mean Sample Wt.
	No.	%	(pounds)	
Residential	133	100%	28,532	214.5
<i>Urban</i>	102	76.7%	22,575	221.33
<i>Rural</i>	31	23.3%	5,956	192.1
ICI	130	100%	30,514	234.73
<i>Urban</i>	100	76.9%	23,853	238.5
<i>Rural</i>	30	23.1%	6,661	222.0
Total Res./ICI	263	100%	59,046 (29.5 tons)	224.5
C&D – State	161		918 tons	5.7 tons

2.2.2 Sampling Plan

CDM Smith contacted the 27 facilities for permission to sample at the facilities identified above and to coordinate with the site managers. CDM Smith requested information for each of the 27 selected disposal facilities to determine the relative mix of waste sectors that are disposed at each facility. From this information, CDM Smith constructed a sampling plan for the selection of vehicles at each facility. The sampling plan was developed to comply with the industry standards for conducting waste characterization studies and the American Society for Testing and Materials (ASTM) standard D5231 for samples size (provided in Appendix A). All work was completed in general accordance with the approved sampling plan.

2.2.3 Data Collection Procedures

Scale house personnel were employed to assist CDM Smith in the selection of samples and in the gatehouse surveys that were used to determine the mix of waste disposed in Illinois. Selected vehicles were tipped in a designated location and samples were collected from a randomly selected portion of each tipped pile. The samples consisted of approximately 200 to 300 pounds of waste were then sorted into 10 material classes; Paper, Beverage Containers, Plastics, Glass, Metals, Organics, C&D, Inorganics, Household Hazardous Waste (HHW), and Textiles. Materials within these classes were further separated into 79 individual material categories (definitions are provided in **Appendix A**):

1. **Paper** – Newsprint, High Grade Office Paper, Magazines/Catalogs, Uncoated OCC/Kraft, Boxboard, Mixed Paper - Recyclable, Compostable Paper, Other Paper;
2. **Beverage Containers** - Milk And Juice Cartons/Boxes, Coated;
3. **Plastics** - #1 Pet Bottles/Jars, #1 Other Pet Containers & Packaging, #2 HDPE Bottles/Jars – Clear, #2 HDPE Bottles/Jars – Color, #2 Other HDPE Containers & Packaging, #6 Expanded Polystyrene Packaging (EPS), #3-#7 Other – All, Other Rigid Plastic Products, Grocery & Merchandise Bags, Trash Bags, Commercial & Industrial Film, Other Film, Remainder/ Composite Plastic;
4. **Glass** - Recyclable Glass Bottles And Jars, Flat Glass, Other Glass;
5. **Metals** - Aluminum Beverage Containers, Other Aluminum, HVACs Ducting, Ferrous Containers (Tin Cans), Other Ferrous, Other Non-Ferrous, Other Metal;

6. **Organics** - Yard Waste (Compostable), Yard Waste (Woody), Food Scraps, Bottom Fines And Dirt, Diapers, Other Organic;
7. **C&D** - Clean Dimensional Lumber, Clean Engineered Wood, Wood Pallets, Painted Wood, Treated Wood, Concrete, Reinforced Concrete, Asphalt Paving, Rock & Other Aggregates, Bricks, Gypsum Board, Composition Shingles, Other Roofing, Plastic C&D Materials, Ceramics/Porcelain, Other C&D;
8. **Inorganics** – Televisions, Computer Monitors, Computer Equipment/Peripherals, Electronic Equipment, White Goods – Refrigerated, White Goods - Not Refrigerated, Lead-Acid Batteries, Other Household Batteries, Tires, Household Bulky Items, Fluorescent Lights/Ballasts;
9. **HHW** - Latex Paint, Oil Paint, Plant/Organism/Pest Control/Growth, Used Oil/Filters, Other Automotive Fluids, Mercury-Containing Items, Sharps & Infectious Waste, Ash, Sludge, & Other Industrial Processed Wastes, Sewage Solids, Other HHW; and
10. **Textiles** – Carpet, Carpet Padding, Clothing, Other Textiles.

After the samples were sorted each material category was weighed. Weight and load information associated with each sample were recorded on the *Hand Sort Characterization Form*.

2.2.4 Calculation Procedures

The overall approach to developing the waste composition estimates in this report was to calculate the percent composition of each material in the waste sectors as outlined in the Sampling Plan provided in **Appendix A**.

All composition results presented in this report were calculated at a 90% confidence interval. This means that there is a 90% probability that the material is between the mean percentage value plus or minus the confidence interval. For example, there is a 90% probability that the overall Residential/ICI Illinois MSW composition of newsprint is between 1.71% and 2.15% (1.93% plus or minus 0.22%).

2.3 MSW Physical Characterization Results

The MSW physical characterization results incorporate the sample results from both this study and the CCICWGCS. Table 2-2 summarizes the sample information for each of the study's sampling groups and sectors. The goal for this study was to physically characterize 200 samples with a sample size of between 200 and 300 lbs (ASTM D5231). In September through November 2014, 203 waste samples were selected and hand sorted at 22 locations evenly distributed throughout the State of Illinois. The samples sizes and numbers were within the sample plan goals. The average sample weight for the 203 statewide Illinois samples was 220 pounds. A total of 44,672 pounds of MSW was physically sorted and classified during the Illinois study. An additional 60 waste samples were collected from additional CCICWGCS facilities and hand sorted earlier in September 2014. The average sample weight for the 60 additional CCICWGCS samples was approximately 239 pounds, with a total of 14,374 pounds of MSW physically sorted.

In the following sections, the landfilled MSW composition results are presented for the ICI and residential waste sectors, as well as for the urban and rural waste sectors. The landfilled MSW composition was determined by combining the sample results from both the statewide samples collected through this study and the additional CCICWGCS samples. The number of samples from the additional CCICWGCS (60 samples) accounts for approximately 23% of the total number of samples; however, Cook County's actual percentage of the Illinois population is approximately 19%. Because the ratio is not significantly disproportionate, the samples were used equally in determining the waste composition. The combined

residential/ICI composition was determined by weighting the ICI and Residential Sampling results by using the ratio of residential to ICI MSW determined by the gatehouse surveys (Section 2.5). The equation used for weighting samples is provided in the sampling plan (**Appendix A**).

Each composition profile is presented as follows:

- A pie chart depicting the ten material classes by weight (i.e., Paper, Plastic, Beverage Containers, Organics, Textiles, Glass, C&D, Metal, Inorganics, And HHW);
- A list of the ten largest material categories by weight (e.g., Food Scraps, High Grade Office Paper, Televisions, etc.);
- A comprehensive table detailing the full composition results for the entire 79 material categories.

2.3.1 Landfilled Residential MSW Composition

Figure 2-3 shows the percentage, by weight, of each of the ten material classes for the landfilled residential MSW sector. Organics, Paper, and Plastic account for approximately 70% (33.1%, 21.1%, and 15.4%, respectively) of the landfilled residential MSW for this sector.

Figure 2-3. Composition of Landfilled Residential MSW by Material Class

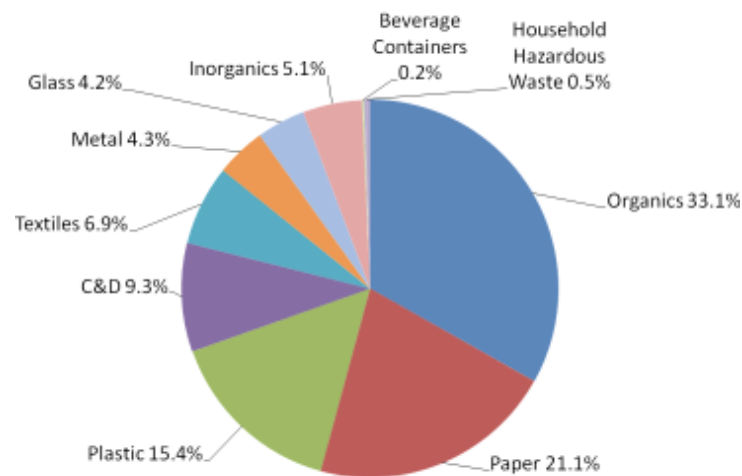


Table 2-3 lists the top ten material categories that were found in the landfilled residential MSW sector. These ten categories account for approximately 53% of landfilled residential MSW. Food Scraps, Yard Waste - Compostable, and Uncoated OCC/Kraft material categories account for 29% (20.2%, 4.7%, and 4.3%, respectively) of landfilled residential MSW.

Table 2-3. Top Ten Individual Material Categories in Landfilled Residential MSW

Category	Waste Composition %	Cum. %
Food Scraps	20.2%	20.2%
Yard Waste - Compostable	4.7%	24.9%
Uncoated OCC/Kraft	4.3%	29.2%
Compostable Paper	4.2%	33.4%
Mixed Paper - Recyclable	3.8%	37.2%
Recyclable Glass Bottles & Jars	3.6%	40.8%
Other Organic	3.4%	44.2%
Diapers	3.2%	47.4%
Other Film	3.0%	50.4%
Painted Wood	3.0%	53.3%
Total	53.3%	

Table 2-4 provides a composition profile of landfilled residential MSW.

Table 2-4. Composition Profile of Landfilled Residential MSW

Calculated at a 90% confidence level.

	Mean	+/-	Inorganics	Mean	+/-
Paper					
Newsprint	21.1%	1.38%		5.1%	1.58%
High Grade Office Paper	2.4%	0.38%	Televisions	0.3%	0.41%
Magazines/Catalogs	1.2%	0.41%	Computer Monitors	0.1%	0.14%
Uncoated OCC/Kraft	1.6%	0.24%	Computer Equipment/Peripherals	0.2%	0.20%
Boxboard	4.3%	0.78%	Electronic Equipment	0.7%	0.27%
Mixed Paper - Recyclable	3.0%	0.24%	White Goods - Refrigerated	0.0%	0.00%
Compostable Paper	3.8%	0.46%	White Goods - Not refrigerated	0.4%	0.26%
Other Paper	4.2%	0.27%	Lead-acid Batteries	0.0%	0.00%
	0.6%	0.17%	Other Household Batteries	0.4%	0.43%
			Tires	0.2%	0.19%
Beverage Containers	0.2%	0.03%	Household Bulky Items	2.9%	1.29%
Milk & Juice Cartons/Boxes - Coated	0.2%	0.03%	Fluorescent Lights/Ballasts	0.0%	0.01%
Plastic			Textiles		
#1 PET Bottles/Jars	15.4%	0.84%	Carpet	6.9%	1.00%
#1 Other PET Containers	1.2%	0.11%	Carpet Padding	1.3%	0.58%
#2 HDPE Bottles/Jars - Clear	0.5%	0.06%	Clothing	0.4%	0.32%
#2 HDPE Bottles/Jars - Color	0.4%	0.05%	Other Textiles	2.8%	0.54%
#2 Other HDPE Containers	0.5%	0.05%		2.3%	0.38%
#6 Exp. Polystyrene Packaging	0.0%	0.02%			
#3-#7 Other - All	1.0%	0.08%	Household Hazardous Waste	0.5%	0.22%
Other Rigid Plastic Products	0.9%	0.11%	Latex Paint	0.2%	0.09%
Grocery & Merchandise Bags	2.8%	0.50%	Oil Paint	0.0%	0.08%
Trash Bags	1.1%	0.10%	Plant/Organism/Pest Control/Growth	0.0%	0.00%
Commercial & Industrial Film	1.5%	0.13%	Used Oil/Filters	0.1%	0.06%
Other Film	0.2%	0.11%	Other Automotive Fluids	0.0%	0.00%
Other Plastic	3.0%	0.26%	Mercury-Containing Items	0.0%	0.00%
	2.2%	0.31%	Sharps & Infectious Waste	0.0%	0.01%
			Ash, Sludge, & Industrial Wastes	0.1%	0.12%
Glass	4.2%	0.69%	Sewage Solids	0.0%	0.00%
Recyclable Glass Bottles & Jars	3.6%	0.44%	Other HHW	0.1%	0.12%
Flat Glass	0.4%	0.55%			
Other Glass	0.1%	0.05%			
			C&D	9.3%	2.52%
Metal	4.3%	0.51%	Clean Dimensional Lumber	0.7%	0.24%
Aluminum Beverage Containers	0.7%	0.10%	Clean Engineered Wood	1.2%	0.38%
Other Aluminum	0.4%	0.05%	Wood Pallets	0.1%	0.14%
HVAC Ducting	0.0%	0.00%	Painted Wood	3.0%	1.26%
Ferrous Containers (Tin Cans)	1.0%	0.11%	Treated Wood	0.1%	0.06%
Other Ferrous	1.2%	0.32%	Concrete	0.3%	0.45%
Other Non-Ferrous	0.2%	0.06%	Reinforced Concrete	0.0%	0.00%
Other Metal	0.9%	0.23%	Asphalt Paving	0.0%	0.01%
			Rock & Other Aggregates	0.6%	0.47%
Organics	33.1%	2.20%	Bricks	0.0%	0.01%
Yard Waste - Compostable	4.7%	1.21%	Gypsum Board	0.5%	0.44%
Yard Waste - Woody	0.4%	0.17%	Composition Shingles	1.2%	1.81%
Food Scraps	20.2%	1.48%	Other Roofing	0.0%	0.00%
Bottom Fines & Dirt	1.3%	0.36%	Plastic C&D Materials	0.7%	0.33%
Diapers	3.2%	0.43%	Ceramics/Porcelain	0.5%	0.20%
Other Organic	3.4%	0.65%	Other C&D	0.3%	0.15%
			Total Percentage	100.0%	

2.3.2 Landfilled ICI MSW Composition

Figure 2-4 shows the percentage, by weight, of each of the ten material classes for the landfilled ICI MSW sector. Paper, Organics, and C&D account for 68% (24.4%, 24.2%, and 19.4%, respectively) of the landfilled MSW for this sector.

Figure 2-4. Composition of Landfilled ICI MSW by Material Class

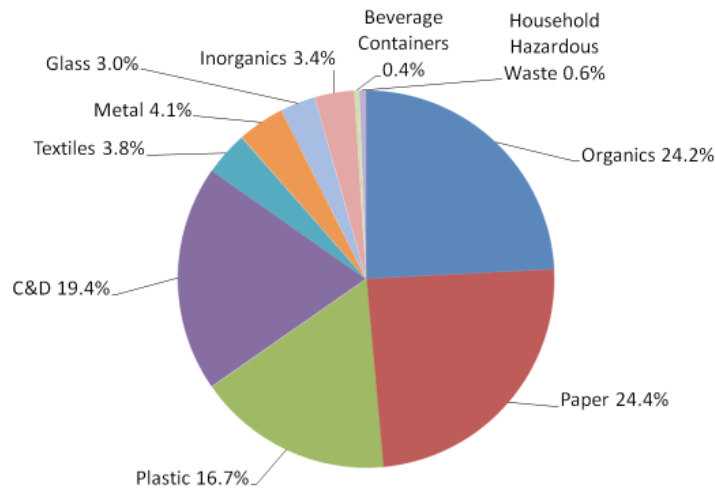


Table 2-5 lists the top ten material categories that were found in the landfilled ICI MSW sector. These ten categories account for approximately 55% of landfilled ICI MSW. Food Scraps, Uncoated OCC/Kraft, and Wood Pallets material categories account for approximately 33% (16.4%, 12.5%, and 4.0%, respectively) of landfilled ICI MSW.

Table 2-5. Top Ten Individual Material Categories in Landfilled ICI MSW

Category	Waste Composition %	Cum. %
Food Scraps	16.4%	16.4%
Uncoated OCC/Kraft	12.5%	28.9%
Wood Pallets	4.0%	32.9%
Compostable Paper	3.6%	36.5%
Other Film	3.4%	39.9%
Bottom Fines & Dirt	3.3%	43.2%
Other C&D	3.1%	46.3%
Commercial & Industrial Film	3.0%	49.3%
Painted Wood	2.9%	52.2%
Other Rigid Plastic Products	2.5%	54.7%
Total	54.7%	

Table 2-6 provides the composition profile of the landfilled ICI MSW sector.

Table 2-6. Composition Profile of Landfilled ICI MSW

Calculated at a 90% confidence level

	Mean	+/-		Mean	+/-
Paper			Inorganics		
Newsprint	24.4%	2.29%	Televisions	3.4%	1.25%
High Grade Office Paper	1.6%	0.61%	Computer Monitors	0.1%	0.13%
Magazines/Catalogs	1.5%	0.30%	Computer Equipment/Peripherals	0.1%	0.12%
Uncoated OCC/Kraft	0.7%	0.18%	Electronic Equipment	0.4%	0.17%
Boxboard	12.5%	1.78%	White Goods - Refrigerated	0.1%	0.17%
Mixed Paper - Recyclable	1.8%	0.24%	White Goods - Not refrigerated	0.3%	0.37%
Compostable Paper	2.1%	0.40%	Lead-acid Batteries	0.0%	0.00%
Other Paper	3.6%	0.55%	Other Household Batteries	0.1%	0.11%
	0.6%	0.14%	Tires	0.2%	0.20%
Beverage Containers	0.4%	0.18%	Household Bulky Items	2.0%	1.13%
Milk & Juice Cartons/Boxes - Coated	0.4%	0.18%	Fluorescent Lights/Ballasts	0.0%	0.02%
Plastic			Textiles		
#1 PET Bottles/Jars	16.7%	1.82%	Carpet	3.8%	1.03%
#1 Other PET Containers	1.1%	0.19%	Carpet Padding	1.2%	0.79%
#2 HDPE Bottles/Jars - Clear	0.2%	0.05%	Clothing	0.3%	0.22%
#2 HDPE Bottles/Jars - Color	0.4%	0.11%	Other Textiles	1.3%	0.38%
#2 Other HDPE Containers	0.3%	0.05%		1.1%	0.30%
#6 Exp. Polystyrene Packaging	0.0%	0.01%	Household Hazardous Waste	0.6%	0.30%
#3-#7 Other - All	1.0%	0.40%	Latex Paint	0.0%	0.04%
Other Rigid Plastic Products	0.5%	0.10%	Oil Paint	0.0%	0.02%
Grocery & Merchandise Bags	2.5%	0.75%	Plant/Organism/Pest Control/Growth	0.0%	0.00%
Trash Bags	2.1%	0.30%	Used Oil/Filters	0.2%	0.15%
Commercial & Industrial Film	3.0%	1.28%	Other Automotive Fluids	0.0%	0.00%
Other Film	3.4%	0.68%	Mercury-Containing Items	0.0%	0.00%
Other Plastic	1.8%	0.33%	Sharps & Infectious Waste	0.0%	0.04%
			Ash, Sludge, & Industrial Wastes	0.1%	0.17%
Glass			Sewage Solids	0.0%	0.00%
Recyclable Glass Bottles & Jars	3.0%	1.10%	Other HHW	0.2%	0.21%
Flat Glass	2.0%	0.38%			
Other Glass	0.6%	0.91%	C&D	19.4%	4.12%
	0.5%	0.55%	Clean Dimensional Lumber	1.4%	0.66%
Metal			Clean Engineered Wood	1.7%	0.55%
Aluminum Beverage Containers	4.1%	0.90%	Wood Pallets	4.0%	1.78%
Other Aluminum	0.4%	0.07%	Painted Wood	2.9%	1.33%
HVAC Ducting	0.2%	0.05%	Treated Wood	0.1%	0.11%
Ferrous Containers (Tin Cans)	0.0%	0.01%	Concrete	1.3%	1.62%
Other Ferrous	0.9%	0.34%	Reinforced Concrete	0.0%	0.00%
Other Non-Ferrous	1.4%	0.52%	Asphalt Paving	0.0%	0.00%
Other Metal	0.5%	0.64%	Rock & Other Aggregates	0.1%	0.15%
	0.6%	0.19%	Bricks	0.4%	0.29%
Organics			Gypsum Board	0.1%	0.10%
Yard Waste - Compostable	24.2%	3.18%	Composition Shingles	0.8%	0.48%
Yard Waste - Woody	1.2%	0.63%	Other Roofing	1.4%	1.28%
Food Scraps	0.5%	0.31%	Plastic C&D Materials	0.5%	0.79%
Bottom Fines & Dirt	16.4%	2.34%	Ceramics/Porcelain	1.0%	0.49%
Diapers	3.3%	2.14%	Other C&D	0.5%	0.33%
Other Organic	1.2%	0.35%		3.1%	1.23%
	1.5%	0.93%	Total Percentage	100.0%	

2.3.3 Landfilled Combined Residential/ICI MSW Composition

Figure 2-5 shows the percentage, by weight, of each of the ten material classes for the combined residential and ICI MSW sectors in Illinois. Organics, Paper, and Plastic account for over 67% (27.9%, 23.0%, and 16.2%, respectively) of the landfilled combined residential/ICI MSW.

Figure 2-5. Composition of Landfilled Combined Residential/ICI MSW by Material Class

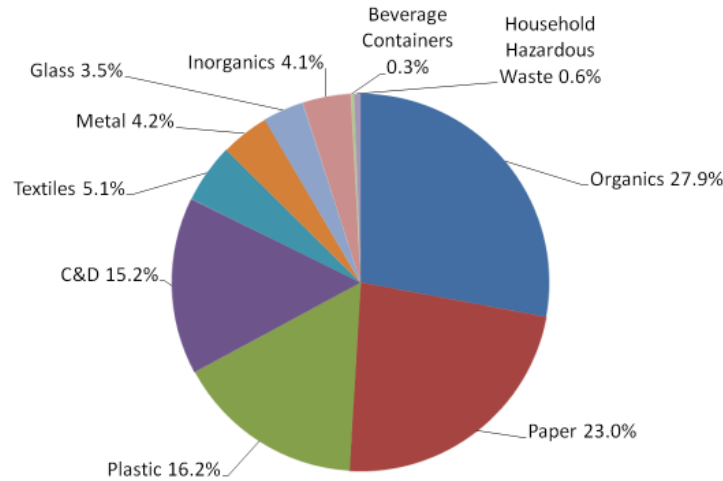


Table 2-7 lists the top ten material categories that were found in the landfilled combined residential/ICI MSW. These ten categories account for over 50% of landfilled residential/ICI MSW. Food Scraps, Uncoated OCC/Kraft, and Compostable Paper material categories account for approximately 31% (18.0%, 9.1%, and 3.8%, respectively) of landfilled residential/ICI MSW.

Table 2-7. Top Ten Individual Material Categories in Landfilled Combined Residential/ICI MSW

Category	Waste Composition %	Cum. %
Food Scraps	18.0%	18.0%
Uncoated OCC/Kraft	9.1%	27.1%
Compostable Paper	3.8%	30.9%
Other Film	3.2%	34.1%
Painted Wood	2.9%	37.1%
Mixed Paper - Recyclable	2.8%	39.9%
Yard Waste - Compostable	2.7%	42.5%
Recyclable Glass Bottles & Jars	2.7%	45.2%
Other Rigid Plastic Products	2.6%	47.8%
Bottom Fines & Dirt	2.5%	50.3%
Total	50.3%	

Table 2-8 provides the composition profile of the landfilled combined residential/ICI MSW.

Table 2-8. Composition Profile of Landfilled Residential/ICI MSW

Calculated at a 90% confidence level

Paper	Mean	+/-	Inorganics	Mean	+/-
Newsprint	23.01%	0.81%		4.1%	0.50%
High Grade Office Paper	1.93%	0.22%	Televisions	0.2%	0.08%
Magazines/Catalogs	1.37%	0.13%	Computer Monitors	0.1%	0.05%
Uncoated OCC/Kraft	1.07%	0.07%	Computer Equipment/Peripherals	0.2%	0.07%
Boxboard	9.06%	0.62%	Electronic Equipment	0.5%	0.08%
Mixed Paper - Recyclable	2.30%	0.09%	White Goods - Refrigerated	0.1%	0.06%
Compostable Paper	2.81%	0.16%	White Goods - Not refrigerated	0.3%	0.13%
Other Paper	3.83%	0.19%	Lead-acid Batteries	0.0%	0.00%
	0.65%	0.06%	Other Household Batteries	0.2%	0.08%
			Tires	0.2%	0.08%
Beverage Containers	0.29%	0.06%	Household Bulky Items	2.4%	0.44%
Milk & Juice Cartons/Boxes - Coated	0.29%	0.06%	Fluorescent Lights/Ballasts	0.0%	0.01%
Plastic	16.17%	0.63%	Textiles	5.1%	0.39%
#1 PET Bottles/Jars	1.13%	0.07%	Carpet	1.2%	0.29%
#1 Other PET Containers	0.32%	0.02%	Carpet Padding	0.3%	0.09%
#2 HDPE Bottles/Jars - Clear	0.41%	0.04%	Clothing	1.9%	0.16%
#2 HDPE Bottles/Jars - Color	0.38%	0.02%	Other Textiles	1.6%	0.12%
#2 Other HDPE Containers	0.02%	0.01%			
#6 Exp. Polystyrene Packaging	0.99%	0.14%	Household Hazardous Waste	0.6%	0.11%
#3-#7 Other - All	0.71%	0.04%	Latex Paint	0.1%	0.02%
Other Rigid Plastic Products	2.61%	0.27%	Oil Paint	0.0%	0.02%
Grocery & Merchandise Bags	0.75%	0.04%	Plant/Organism/Pest Control/Growth	0.0%	0.00%
Trash Bags	1.84%	0.10%	Used Oil/Filters	0.1%	0.05%
Commercial & Industrial Film	1.86%	0.44%	Other Automotive Fluids	0.0%	0.00%
Other Film	3.23%	0.23%	Mercury-Containing Items	0.0%	0.00%
Other Plastic	1.93%	0.12%	Sharps & Infectious Waste	0.0%	0.01%
			Ash, Sludge, & Industrial Wastes	0.1%	0.06%
			Sewage Solids	0.0%	0.00%
Glass	3.50%	0.39%	Other HHW	0.2%	0.07%
Recyclable Glass Bottles & Jars	2.66%	0.15%			
Flat Glass	0.53%	0.32%			
Other Glass	0.31%	0.19%			
			C&D	15.2%	1.46%
			Clean Dimensional Lumber	1.1%	0.23%
Metal	4.16%	0.32%	Clean Engineered Wood	1.5%	0.20%
Aluminum Beverage Containers	0.51%	0.03%	Wood Pallets	2.4%	0.60%
Other Aluminum	0.30%	0.02%	Painted Wood	2.9%	0.50%
HVAC Ducting	0.00%	0.00%	Treated Wood	0.1%	0.04%
Ferrous Containers (Tin Cans)	0.93%	0.12%	Concrete	0.9%	0.55%
Other Ferrous	1.31%	0.18%	Reinforced Concrete	0.0%	0.00%
Other Non-Ferrous	0.41%	0.22%	Asphalt Paving	0.1%	0.05%
Other Metal	0.70%	0.08%	Rock & Other Aggregates	0.5%	0.13%
			Bricks	0.1%	0.03%
			Gypsum Board	0.6%	0.18%
Organics	27.94%	1.14%	Composition Shingles	1.3%	0.54%
Yard Waste - Compostable	2.67%	0.30%	Other Roofing	0.3%	0.27%
Yard Waste - Woody	0.43%	0.11%	Plastic C&D Materials	0.9%	0.17%
Food Scraps	18.02%	0.83%	Ceramics/Porcelain	0.5%	0.12%
Bottom Fines & Dirt	2.48%	0.73%	Other C&D	1.9%	0.42%
Diapers	2.03%	0.14%			
Other Organic	2.31%	0.33%			
			Total Percentage	100.0%	

2.3.4 Landfilled Urban MSW Composition

In determining the landfilled urban MSW composition for residential and ICI MSW sectors, the samples were identified based on the RUC code for the city/county that they were generated. Out of 263 samples, a total of 202 (77%) of the samples were collected from the urban MSW sector. 102 (50.5%) urban samples were collected from residential MSW and 100 (49.5%) urban samples were collected from ICI MSW.

2.3.4.1 Landfilled Urban Residential MSW

Figure 2-6 shows the percentage, by weight, of each of the ten material classes for the landfilled urban residential MSW subsector. Organics, Paper, and Plastic account for 69% (34.7%, 19.7%, and 14.6%, respectively) of the landfilled MSW for this sector.

Figure 2-6. Composition of Landfilled Urban Residential MSW by Material Class

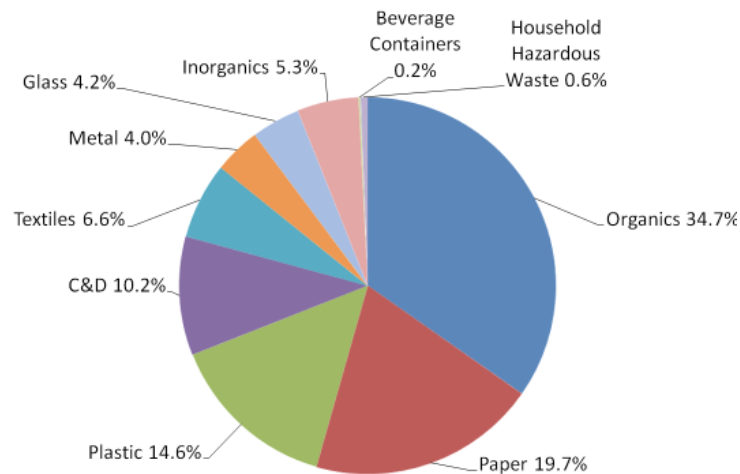


Table 2-9 lists the top ten material categories that were found in the landfilled urban residential MSW subsector. These ten categories account for approximately 55% of landfilled urban residential MSW. Food Scraps, Yard Waste – Compostable, and Uncoated OCC/Kraft material categories account for over 30% (20.6%, 5.4%, and 4.3%, respectively) of landfilled urban residential MSW.

Table 2-9. Top Ten Individual Material Categories in Landfilled Urban Residential MSW

Category	Waste Composition %	Cum. %
Food Scraps	20.6%	20.6%
Yard Waste - Compostable	5.4%	26.0%
Uncoated OCC/Kraft	4.3%	30.3%
Compostable Paper	4.1%	34.5%
Recyclable Glass Bottles & Jars	3.6%	38.0%
Other Organic	3.6%	41.6%
Painted Wood	3.4%	45.0%
Mixed Paper - Recyclable	3.2%	48.2%
Diapers	3.2%	51.5%
Household Bulky Items	3.2%	54.7%
Total	54.7%	

Table 2-10 provides the composition profile of landfilled urban residential MSW.

Table 2-10. Composition Profile of Landfilled Urban Residential MSW

Calculated at a 90% confidence level

	Mean	+/-		Mean	+/-
Paper	19.7%	1.52%	Inorganics	5.3%	1.90%
Newsprint	2.2%	0.46%	Televisions	0.0%	0.00%
High Grade Office Paper	0.9%	0.26%	Computer Monitors	0.1%	0.18%
Magazines/Catalogs	1.5%	0.26%	Computer Equipment/Peripherals	0.2%	0.25%
Uncoated OCC/Kraft	4.3%	0.89%	Electronic Equipment	0.7%	0.33%
Boxboard	2.7%	0.26%	White Goods - Refrigerated	0.0%	0.00%
Mixed Paper - Recyclable	3.2%	0.42%	White Goods - Not refrigerated	0.4%	0.29%
Compostable Paper	4.1%	0.32%	Lead-acid Batteries	0.0%	0.00%
Other Paper	0.7%	0.21%	Tires	0.4%	0.24%
Beverage Containers	0.2%	0.03%	Household Bulky Items	3.2%	1.60%
Milk & Juice Cartons/Boxes - Coated	0.2%	0.03%	Fluorescent Lights/Ballasts	0.0%	0.01%
Plastic	14.6%	0.98%	Textiles	6.6%	1.04%
#1 PET Bottles/Jars	1.1%	0.13%	Carpet	1.5%	0.72%
#1 Other PET Containers	0.4%	0.06%	Carpet Padding	0.4%	0.35%
#2 HDPE Bottles/Jars - Clear	0.4%	0.06%	Clothing	2.6%	0.48%
#2 HDPE Bottles/Jars - Color	0.5%	0.06%	Other Textiles	2.0%	0.38%
#2 Other HDPE Containers	0.0%	0.03%	Household Hazardous Waste	0.6%	0.27%
#6 Exp. Polystyrene Packaging	0.9%	0.09%	Latex Paint	0.2%	0.10%
#3-#7 Other - All	0.9%	0.13%	Oil Paint	0.1%	0.10%
Other Rigid Plastic Products	2.6%	0.59%	Plant/Organism/Pest Control/Growth	0.0%	0.00%
Grocery & Merchandise Bags	1.1%	0.11%	Used Oil/Filters	0.1%	0.08%
Trash Bags	1.4%	0.13%	Other Automotive Fluids	0.0%	0.00%
Commercial & Industrial Film	0.2%	0.13%	Mercury-Containing Items	0.0%	0.00%
Other Film	2.9%	0.29%	Sharps & Infectious Waste	0.0%	0.01%
Other Plastic	2.2%	0.38%	Ash, Sludge, & Industrial Wastes	0.1%	0.15%
Glass	4.2%	0.84%	Sewage Solids	0.0%	0.05%
Recyclable Glass Bottles & Jars	3.6%	0.51%	Other HHW	0.1%	0.15%
Flat Glass	0.5%	0.69%	C&D	10.2%	3.12%
Other Glass	0.1%	0.06%	Clean Dimensional Lumber	0.8%	0.29%
Metal	4.0%	0.58%	Clean Engineered Wood	1.1%	0.40%
Aluminum Beverage Containers	0.6%	0.11%	Wood Pallets	0.1%	0.10%
Other Aluminum	0.4%	0.06%	Painted Wood	3.4%	1.56%
HVAC Ducting	0.0%	0.00%	Treated Wood	0.1%	0.08%
Ferrous Containers (Tin Cans)	0.8%	0.11%	Concrete	0.4%	0.57%
Other Ferrous	1.2%	0.39%	Reinforced Concrete	0.0%	0.01%
Other Non-Ferrous	0.2%	0.06%	Asphalt Paving	0.0%	0.01%
Other Metal	0.8%	0.24%	Rock & Other Aggregates	0.8%	0.60%
Organics	34.7%	2.57%	Bricks	0.0%	0.02%
Yard Waste - Compostable	5.4%	1.47%	Gypsum Board	0.5%	0.54%
Yard Waste - Woody	0.5%	0.21%	Composition Shingles	1.5%	2.29%
Food Scraps	20.6%	1.76%	Other Roofing	0.0%	0.00%
Bottom Fines & Dirt	1.5%	0.45%	Plastic C&D Materials	0.6%	0.35%
Diapers	3.2%	0.52%	Ceramics/Porcelain	0.6%	0.25%
Other Organic	3.6%	0.80%	Other C&D	0.3%	0.14%
			Total Percentage	100.0%	

2.3.4.2 Landfilled Urban ICI MSW

Figure 2-7 shows the percentage, by weight, of each of the ten material classes for the landfilled urban ICI MSW subsector. Paper, Organics, and C&D account for over 68% (25.0%, 23.7%, and 19.6%) of the landfilled MSW for this subsector.

Figure 2-7. Composition of Landfilled Urban ICI MSW by Material Class

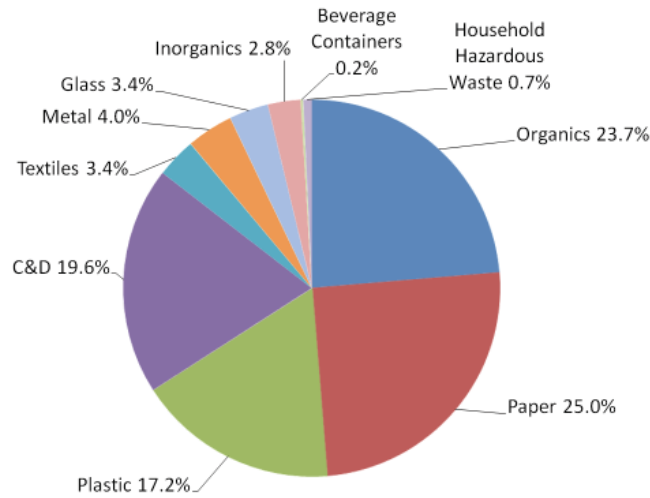


Table 2-11 lists the top ten material categories that were found in the landfilled urban ICI MSW subsector. These ten categories account for approximately 56% of the landfilled urban ICI MSW. Food Scraps, Uncoated OCC/Kraft, and Bottom Fines & Dirt material categories account for approximately 33% (15.6%, 13.3%, and 3.8%, respectively) of landfilled urban ICI MSW.

Table 2-11. Top Ten Individual Material Categories in Landfilled Urban ICI MSW

Category	Waste Composition %	Cum. %
Food Scraps	15.6%	15.6%
Uncoated OCC/Kraft	13.3%	28.9%
Bottom Fines & Dirt	3.8%	32.7%
Other C&D	3.7%	36.4%
Compostable Paper	3.6%	40.0%
Commercial & Industrial Film	3.6%	43.6%
Wood Pallets	3.4%	47.0%
Other Film	3.3%	50.3%
Painted Wood	2.7%	53.0%
Other Rigid Plastic Products	2.6%	55.6%
Total	55.6%	

Table 2-12 provides the composition profile of the landfilled urban ICI MSW sector.

Table 2-12. Composition Profile of Landfilled Urban ICI MSW

Calculated at a 90% confidence level

Paper	Mean		+/-		Mean	+/-
	25.0%	75.0%	2.57%	7.43%		
Inorganics						
Newsprint	1.5%	0.54%	0.1%	0.16%	2.8%	1.22%
High Grade Office Paper	1.5%	0.36%	0.1%	0.15%	0.1%	0.16%
Magazines/Catalogs	0.7%	0.23%	0.2%	0.21%	0.2%	0.15%
Uncoated OCC/Kraft	13.3%	2.12%	0.3%	0.15%	0.3%	0.15%
Boxboard	1.8%	0.28%	0.0%	0.00%	0.0%	0.00%
Mixed Paper - Recyclable	2.0%	0.36%	0.4%	0.48%	0.4%	0.48%
Compostable Paper	3.6%	0.68%	0.0%	0.00%	0.0%	0.00%
Other Paper	0.6%	0.13%	0.1%	0.14%	0.1%	0.14%
Beverage Containers						
Milk & Juice Cartons/Boxes - Coated	0.2%	0.06%	0.1%	0.11%	1.6%	1.05%
	0.2%	0.06%	0.0%	0.03%	0.0%	0.03%
Plastic						
#1 PET Bottles/Jars	17.2%	2.20%	3.4%	0.96%	3.4%	0.96%
#1 Other PET Containers	1.0%	0.23%	0.9%	0.57%	0.9%	0.57%
#2 HDPE Bottles/Jars - Clear	0.2%	0.04%	0.3%	0.28%	0.3%	0.28%
#2 HDPE Bottles/Jars - Color	0.3%	0.07%	1.1%	0.30%	1.1%	0.30%
#2 Other HDPE Containers	0.3%	0.06%	1.1%	0.36%	1.1%	0.36%
#6 Exp. Polystyrene Packaging	0.0%	0.01%				
#3-#7 Other - All	1.0%	0.50%	0.7%	0.37%	0.7%	0.37%
Other Rigid Plastic Products	0.5%	0.11%	0.0%	0.05%	0.0%	0.05%
Grocery & Merchandise Bags	2.6%	0.88%	0.0%	0.03%	0.0%	0.03%
Trash Bags	0.5%	0.11%	0.0%	0.00%	0.0%	0.00%
Commercial & Industrial Film	2.0%	0.34%	0.2%	0.18%	0.2%	0.18%
Other Film	3.6%	1.62%	0.0%	0.00%	0.0%	0.00%
Other Plastic	3.3%	0.81%	0.0%	0.00%	0.0%	0.00%
	1.9%	0.40%	0.0%	0.00%	0.0%	0.00%
Glass						
Recyclable Glass Bottles & Jars	3.4%	1.39%	0.2%	0.21%	0.2%	0.21%
Flat Glass	2.1%	0.46%	0.0%	0.00%	0.0%	0.00%
Other Glass	0.8%	1.17%	0.0%	0.00%	0.0%	0.00%
	0.5%	0.70%	0.2%	0.25%	0.2%	0.25%
Metal						
Aluminum Beverage Containers	4.0%	1.07%	19.6%	4.45%	19.6%	4.45%
Other Aluminum	0.4%	0.07%	1.6%	0.83%	1.6%	0.83%
HVAC Ducting	0.3%	0.06%	1.7%	0.56%	1.7%	0.56%
Ferrous Containers (Tin Cans)	0.0%	0.01%	3.4%	1.57%	3.4%	1.57%
Other Ferrous	0.6%	0.19%	2.7%	1.35%	2.7%	1.35%
Other Non-Ferrous	1.5%	0.63%	0.1%	0.14%	0.1%	0.14%
Other Metal	0.7%	0.82%	1.7%	2.07%	1.7%	2.07%
	0.6%	0.23%	0.0%	0.00%	0.0%	0.00%
Organics						
Yard Waste - Compostable	23.7%	3.61%	0.5%	0.33%	0.5%	0.33%
Yard Waste - Woody	1.4%	0.80%	0.9%	0.81%	0.9%	0.81%
Food Scraps	0.6%	0.39%	0.6%	1.01%	0.6%	1.01%
Bottom Fines & Dirt	15.6%	2.47%	1.2%	0.61%	1.2%	0.61%
Diapers	3.8%	2.69%	0.7%	0.41%	0.7%	0.41%
Other Organic	1.2%	0.39%	3.7%	1.54%	3.7%	1.54%
	1.1%	0.58%				
Total Percentage					100.0%	

2.3.4.3 Landfilled Urban Residential/ICI MSW Composition

Figure 2-8 shows the percentage, by weight, of each of the ten material classes for the landfilled urban residential/ICI MSW sector. Organics, Paper, and Plastic account for over 67% (28.3%, 22.8%, and 16.1%) of the landfilled MSW for this sector.

Figure 2-8. Composition of Landfilled Urban Residential/ICI MSW by Material Class

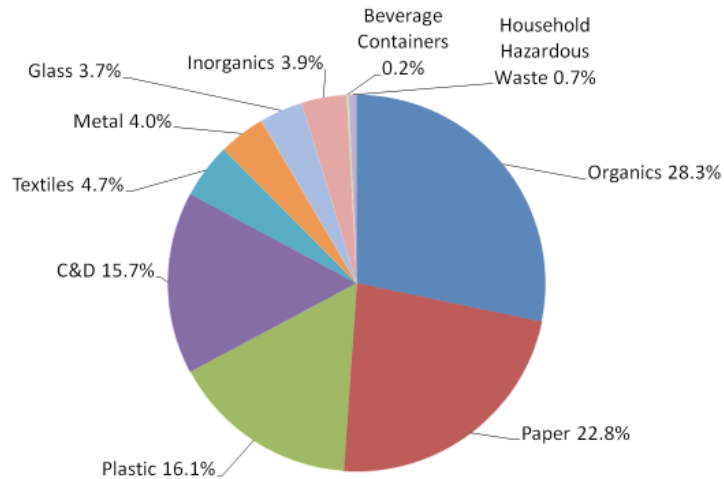


Table 2-13 lists the top ten material categories that were found in the landfilled urban residential/ICI MSW sector. These ten categories account for approximately 51% of landfilled urban MSW. Food Scraps, Uncoated OCC/Kraft, and Compostable Paper material categories account for over 31% (17.7%, 9.5%, and 3.9%, respectively) of landfilled urban residential/ICI MSW.

Table 2-13. Top Ten Individual Material Categories in Landfilled Urban Residential/ICI MSW

Category	Waste Composition %	Cum. %
Food Scraps	17.7%	17.7%
Uncoated OCC/Kraft	9.5%	27.2%
Compostable Paper	3.9%	31.1%
Other Film	3.1%	34.2%
Yard Waste - Compostable	3.1%	37.3%
Painted Wood	3.0%	40.3%
Bottom Fines & Dirt	2.8%	43.1%
Recyclable Glass Bottles & Jars	2.7%	45.8%
Other Rigid Plastic Products	2.6%	48.4%
Mixed Paper - Recyclable	2.5%	50.9%
Total	50.9%	

Table 2-14 provides the composition profile of landfilled urban residential/ICI MSW.

Table 2-14. Composition Profile of Landfilled Urban Residential/ICI MSW

Calculated at a 90% confidence level

	Mean	+/-		Mean	+/-
Paper			Inorganics		
Newsprint	1.8%	0.91%	Televisions	3.9%	0.53%
High Grade Office Paper	1.3%	0.20%	Computer Monitors	0.1%	0.06%
Magazines/Catalogs	1.0%	0.13%	Computer Equipment/Peripherals	0.2%	0.08%
Uncoated OCC/Kraft	9.5%	0.09%	Electronic Equipment	0.4%	0.08%
Boxboard	2.2%	0.74%	White Goods - Refrigerated	0.0%	0.00%
Mixed Paper - Recyclable	2.5%	0.11%	White Goods - Not refrigerated	0.4%	0.17%
Compostable Paper	3.9%	0.14%	Lead-acid Batteries	0.0%	0.00%
Other Paper	0.6%	0.24%	Other Household Batteries	0.3%	0.11%
		0.06%	Tires	0.1%	0.06%
Beverage Containers	0.2%	0.02%	Household Bulky Items	2.3%	0.45%
Milk & Juice Cartons/Boxes - Coated	0.2%	0.02%	Fluorescent Lights/Ballasts	0.0%	0.01%
Plastic	16.1%	0.77%	Textiles	4.7%	0.37%
#1 PET Bottles/Jars	1.1%	0.08%	Carpet	1.2%	0.23%
#1 Other PET Containers	0.3%	0.02%	Carpet Padding	0.4%	0.11%
#2 HDPE Bottles/Jars - Clear	0.3%	0.03%	Clothing	1.7%	0.13%
#2 HDPE Bottles/Jars - Color	0.4%	0.02%	Other Textiles	1.5%	0.14%
#2 Other HDPE Containers	0.0%	0.01%			
#6 Exp. Polystyrene Packaging	0.9%	0.17%	Household Hazardous Waste	0.7%	0.13%
#3-#7 Other - All	0.7%	0.04%	Latex Paint	0.1%	0.03%
Other Rigid Plastic Products	2.6%	0.32%	Oil Paint	0.0%	0.02%
Grocery & Merchandise Bags	0.8%	0.04%	Plant/Organism/Pest Control/Growth	0.0%	0.00%
Trash Bags	1.7%	0.12%	Used Oil/Filters	0.2%	0.06%
Commercial & Industrial Film	2.2%	0.55%	Other Automotive Fluids	0.0%	0.00%
Other Film	3.1%	0.28%	Mercury-Containing Items	0.0%	0.00%
Other Plastic	2.0%	0.15%	Sharps & Infectious Waste	0.0%	0.02%
			Ash, Sludge, & Industrial Wastes	0.1%	0.08%
Glass	3.7%	0.49%	Sewage Solids	0.0%	0.01%
Recyclable Glass Bottles & Jars	2.7%	0.18%	Other HHW	0.2%	0.09%
Flat Glass	0.7%	0.41%			
Other Glass	0.3%	0.24%	C&D	15.7%	1.60%
			Clean Dimensional Lumber	1.3%	0.29%
Metal	4.0%	0.38%	Clean Engineered Wood	1.4%	0.20%
Aluminum Beverage Containers	0.5%	0.03%	Wood Pallets	2.0%	0.53%
Other Aluminum	0.3%	0.02%	Painted Wood	3.0%	0.53%
HVAC Ducting	0.0%	0.00%	Treated Wood	0.1%	0.05%
Ferrous Containers (Tin Cans)	0.7%	0.07%	Concrete	1.2%	0.71%
Other Ferrous	1.4%	0.22%	Reinforced Concrete	0.0%	0.00%
Other Non-Ferrous	0.5%	0.28%	Asphalt Paving	0.1%	0.06%
Other Metal	0.7%	0.09%	Rock & Other Aggregates	0.6%	0.16%
			Bricks	0.1%	0.04%
Organics	28.3%	1.30%	Gypsum Board	0.5%	0.15%
Yard Waste - Compostable	3.1%	0.37%	Composition Shingles	1.1%	0.49%
Yard Waste - Woody	0.5%	0.14%	Other Roofing	0.4%	0.34%
Food Scraps	17.7%	0.89%	Plastic C&D Materials	1.0%	0.22%
Bottom Fines & Dirt	2.8%	0.91%	Ceramics/Porcelain	0.6%	0.15%
Diapers	2.0%	0.16%	Other C&D	2.3%	0.52%
Other Organic	2.1%	0.24%			
			Total Percentage	100.0%	

2.3.5 Landfilled Rural MSW Composition

In determining the landfilled rural MSW composition for the residential and ICI sectors, the samples were split based on the county that they were generated from and its RUC code. Out of 263 samples collected throughout the state, a total of 61 (23%) samples were collected from the rural MSW sector, 31 (51%) rural samples were collected from the rural residential MSW subsector and 30 (49%) rural samples were collected from the rural ICI MSW subsector.

2.3.5.1 Landfilled Rural Residential MSW

Figure 2-9 shows the percentage, by weight, of each of the ten material classes for the landfilled rural residential MSW subsector. Organics, Paper, and Plastic account for approximately 72% (27.0%, 26.5%, and 18.2%) of the total MSW for this sector.

Figure 2-9. Composition of Landfilled Rural Residential MSW by Material Class

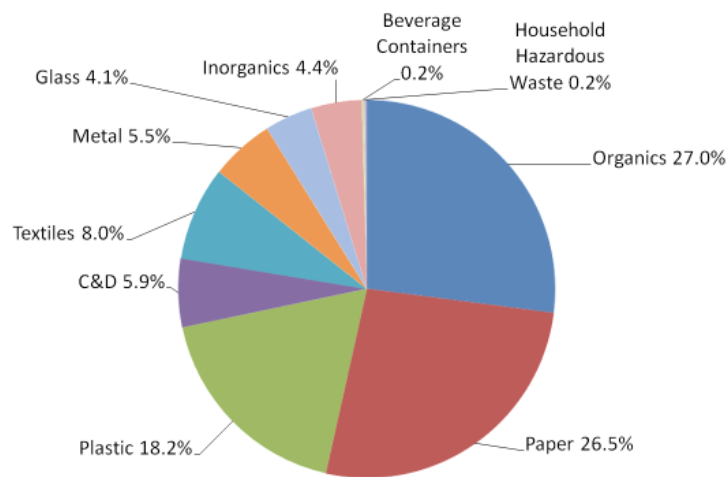


Table 2-15 lists the top ten material categories that were found in the landfilled rural residential MSW subsector. These ten categories account for approximately 56% of the landfilled rural residential MSW. Food Scraps, Mixed Paper - Recyclable, and Compostable Paper material categories account for over 29% (19.0%, 5.9%, and 4.4%, respectively) of the landfilled rural residential MSW.

Table 2-15. Top Ten Individual Material Categories in Landfilled Rural Residential MSW

Category	Waste Composition %	Cum. %
Food Scraps	19.0%	19.0%
Mixed Paper - Recyclable	5.9%	24.9%
Compostable Paper	4.4%	29.3%
Uncoated OCC/Kraft	4.2%	33.5%
Boxboard	4.1%	37.6%
Recyclable Glass Bottles & Jars	3.9%	41.5%
Other Rigid Plastic Products	3.6%	45.1%
Other Film	3.6%	48.7%
Other Textiles	3.6%	52.2%
Clothing	3.5%	55.7%
Total	55.7%	

Table 2-16 provides the composition profile of landfilled rural residential MSW.

Table 2-16. Composition Profile of Landfilled Rural Residential MSW

Calculated at a 90% confidence level

	Mean	+/-	Inorganics	Mean	+/-
Paper					
Newsprint	26.5%	3.21%	Televions	4.4%	2.25%
High Grade Office Paper	2.8%	0.59%	Computer Monitors	1.2%	1.98%
Magazines/Catalogs	2.4%	1.69%	Computer Equipment/Peripherals	0.0%	0.00%
Uncoated OCC/Kraft	2.1%	0.54%	Electronic Equipment	0.0%	0.00%
Boxboard	4.2%	1.54%	White Goods - Refrigerated	0.5%	0.23%
Mixed Paper - Recyclable	4.1%	0.47%	White Goods - Not refrigerated	0.0%	0.00%
Compostable Paper	5.9%	1.44%	Lead-acid Batteries	0.5%	0.55%
Other Paper	4.4%	0.48%	Other Household Batteries	0.0%	0.00%
	0.5%	0.10%	Tires	0.2%	0.07%
			Household Bulky Items	0.0%	0.00%
Beverage Containers	0.2%	0.07%	Fluorescent Lights/Ballasts	2.0%	1.05%
Milk & Juice Cartons/Boxes - Coated	0.2%	0.07%		0.0%	0.02%
Plastic			Textiles		
#1 PET Bottles/Jars	18.2%	1.59%	Carpet	8.0%	2.78%
#1 Other PET Containers	1.5%	0.24%	Carpet Padding	0.5%	0.36%
#2 HDPE Bottles/Jars - Clear	0.7%	0.11%	Clothing	0.4%	0.73%
#2 HDPE Bottles/Jars - Color	0.6%	0.13%	Other Textiles	3.5%	1.85%
#2 Other HDPE Containers	0.7%	0.13%		3.6%	1.12%
#6 Exp. Polystyrene Packaging	0.0%	0.01%			
#3-#7 Other - All	1.3%	0.16%	Household Hazardous Waste	0.2%	0.17%
Other Rigid Plastic Products	1.2%	0.22%	Latex Paint	0.1%	0.14%
Grocery & Merchandise Bags	3.6%	0.85%	Oil Paint	0.0%	0.00%
Trash Bags	1.0%	0.14%	Plant/Organism/Pest Control/Growth	0.0%	0.00%
Commercial & Industrial Film	2.0%	0.34%	Used Oil/Filters	0.0%	0.04%
Other Film	0.2%	0.14%	Other Automotive Fluids	0.0%	0.00%
Other Plastic	3.6%	0.66%	Mercury-Containing Items	0.0%	0.00%
	1.9%	0.27%	Sharps & Infectious Waste	0.0%	0.02%
			Ash, Sludge, & Industrial Wastes	0.0%	0.00%
Glass	4.1%	0.88%	Sewage Solids	0.0%	0.00%
Recyclable Glass Bottles & Jars	3.9%	0.87%	Other HHW	0.0%	0.03%
Flat Glass	0.1%	0.04%			
Other Glass	0.2%	0.13%			
			C&D		
Metal			Clean Dimensional Lumber	5.9%	2.05%
Aluminum Beverage Containers	5.5%	1.03%	Clean Engineered Wood	0.5%	0.30%
Other Aluminum	1.0%	0.26%	Wood Pallets	1.3%	1.01%
HVAC Ducting	0.4%	0.06%	Painted Wood	0.4%	0.59%
Ferrous Containers (Tin Cans)	0.0%	0.01%	Treated Wood	1.2%	1.04%
Other Ferrous	1.6%	0.31%	Concrete	0.0%	0.00%
Other Non-Ferrous	0.9%	0.36%	Reinforced Concrete	0.0%	0.00%
Other Metal	0.3%	0.19%	Asphalt Paving	0.0%	0.00%
	1.3%	0.59%	Rock & Other Aggregates	0.0%	0.03%
			Bricks	0.0%	0.00%
Organics	27.0%	2.32%	Gypsum Board	0.0%	0.00%
Yard Waste - Compostable	1.7%	1.14%	Composition Shingles	0.3%	0.29%
Yard Waste - Woody	0.0%	0.01%	Other Roofing	0.1%	0.13%
Food Scraps	19.0%	2.08%	Plastic C&D Materials	0.0%	0.00%
Bottom Fines & Dirt	0.8%	0.22%	Ceramics/Porcelain	1.2%	0.91%
Diapers	3.0%	0.64%	Other C&D	0.2%	0.12%
Other Organic	2.5%	0.68%		0.6%	0.52%
			Total Percentage	100.0%	

2.3.5.2 Landfilled Rural ICI MSW

Figure 2-10 shows the percentage, by weight, of each of the ten material classes for the landfilled rural ICI MSW subsector. Organics, Paper, and C&D account for approximately 67% (26.0%, 22.0%, and 18.8%) of the landfilled MSW for this subsector.

Figure 2-10. Composition of Landfilled Rural ICI MSW by Material Class

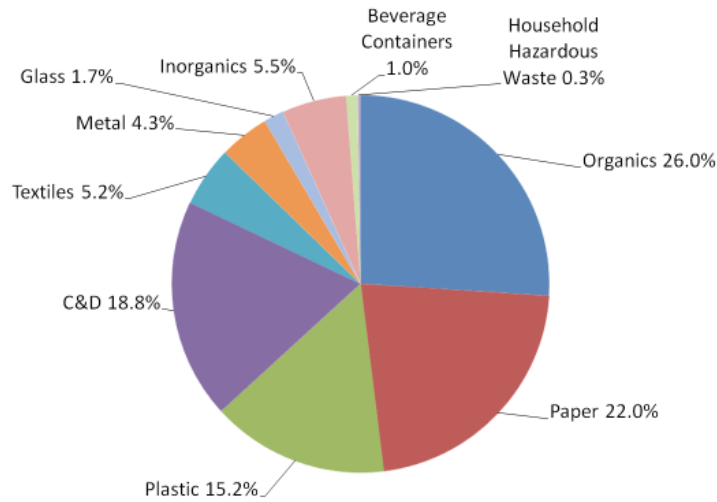


Table 2-17 lists the top ten material categories that were found in the landfilled rural ICI MSW subsector. These ten categories account for over 58% of landfilled rural ICI MSW. Food Scraps, Uncoated OCC/Kraft, and Wood Pallets material categories account for over 35% (19.4%, 9.7%, and 6.3%, respectively) of landfilled rural ICI MSW.

Table 2-17. Top Ten Individual Material Categories in Landfilled Rural ICI MSW

Category	Waste Composition %	Cum. %
Food Scraps	19.4%	19.4%
Uncoated OCC/Kraft	9.7%	29.0%
Wood Pallets	6.3%	35.4%
Painted Wood	3.7%	39.1%
Other Film	3.6%	42.7%
Household Bulky Items	3.5%	46.2%
Compostable Paper	3.2%	49.4%
Composition Shingles	3.2%	52.6%
Other Organic	3.1%	55.7%
Mixed Paper - Recyclable	2.6%	58.3%
Total	58.3%	

Table 2-18 provides the composition profile of landfilled rural ICI MSW.

Table 2-18. Composition Profile of Landfilled Rural ICI MSW

Calculated at a 90% confidence level

Paper	Mean		+/-		Inorganics	Mean		+/-	
	22.0%	5.00%	2.07%	0.55%		5.5%	3.68%		
Newsprint					Televisions				
High Grade Office Paper	1.3%	0.55%	2.07%	0.55%	Computer Monitors	0.0%	0.00%	0.0%	0.00%
Magazines/Catalogs	0.6%	0.25%	0.6%	0.25%	Computer Equipment/Peripherals	0.0%	0.03%	0.0%	0.03%
Uncoated OCC/Kraft	9.7%	2.74%	9.7%	2.74%	Electronic Equipment	0.9%	0.68%	0.9%	0.68%
Boxboard	1.8%	0.47%	1.8%	0.47%	White Goods - Refrigerated	0.5%	0.79%	0.5%	0.79%
Mixed Paper - Recyclable	2.6%	1.31%	2.6%	1.31%	White Goods - Not refrigerated	0.1%	0.06%	0.1%	0.06%
Compostable Paper	3.2%	0.73%	3.2%	0.73%	Lead-acid Batteries	0.0%	0.00%	0.0%	0.00%
Other Paper	0.8%	0.43%	0.8%	0.43%	Other Household Batteries	0.1%	0.04%	0.1%	0.04%
					Tires	0.5%	0.82%	0.5%	0.82%
Beverage Containers	1.0%	0.76%	1.0%	0.76%	Household Bulky Items	3.5%	3.58%	3.5%	3.58%
Milk & Juice Cartons/Boxes - Coated	1.0%	0.76%	1.0%	0.76%	Fluorescent Lights/Ballasts	0.0%	0.01%	0.0%	0.01%
Plastic	15.2%	2.67%	15.2%	2.67%	Textiles	5.2%	3.21%	5.2%	3.21%
#1 PET Bottles/Jars	1.2%	0.32%	1.2%	0.32%	Carpet	2.0%	3.01%	2.0%	3.01%
#1 Other PET Containers	0.4%	0.13%	0.4%	0.13%	Carpet Padding	0.0%	0.06%	0.0%	0.06%
#2 HDPE Bottles/Jars - Clear	0.6%	0.43%	0.6%	0.43%	Clothing	2.1%	1.35%	2.1%	1.35%
#2 HDPE Bottles/Jars - Color	0.3%	0.09%	0.3%	0.09%	Other Textiles	1.0%	0.48%	1.0%	0.48%
#2 Other HDPE Containers	0.0%	0.02%	0.0%	0.02%					
#6 Exp. Polystyrene Packaging	1.2%	0.31%	1.2%	0.31%	Household Hazardous Waste	0.3%	0.35%	0.3%	0.35%
#3-#7 Other - All	0.5%	0.16%	0.5%	0.16%	Latex Paint	0.0%	0.00%	0.0%	0.00%
Other Rigid Plastic Products	2.2%	1.38%	2.2%	1.38%	Oil Paint	0.0%	0.00%	0.0%	0.00%
Grocery & Merchandise Bags	0.3%	0.11%	0.3%	0.11%	Plant/Organism/Pest Control/Growth	0.0%	0.00%	0.0%	0.00%
Trash Bags	2.5%	0.62%	2.5%	0.62%	Used Oil/Filters	0.0%	0.08%	0.0%	0.08%
Commercial & Industrial Film	1.1%	0.83%	1.1%	0.83%	Other Automotive Fluids	0.0%	0.00%	0.0%	0.00%
Other Film	3.6%	1.11%	3.6%	1.11%	Mercury-Containing Items	0.0%	0.00%	0.0%	0.00%
Other Plastic	1.4%	0.38%	1.4%	0.38%	Sharps & Infectious Waste	0.0%	0.00%	0.0%	0.00%
					Ash, Sludge, & Industrial Wastes	0.0%	0.00%	0.0%	0.00%
Glass	1.7%	0.64%	1.7%	0.64%	Sewage Solids	0.0%	0.00%	0.0%	0.00%
Recyclable Glass Bottles & Jars	1.4%	0.55%	1.4%	0.55%	Other HHW	0.2%	0.35%	0.2%	0.35%
Flat Glass	0.1%	0.07%	0.1%	0.07%					
Other Glass	0.2%	0.31%	0.2%	0.31%	C&D	18.8%	10.22%	18.8%	10.22%
					Clean Dimensional Lumber	0.7%	0.55%	0.7%	0.55%
Metal	4.3%	1.53%	4.3%	1.53%	Clean Engineered Wood	1.7%	1.51%	1.7%	1.51%
Aluminum Beverage Containers	0.4%	0.15%	0.4%	0.15%	Wood Pallets	6.3%	5.95%	6.3%	5.95%
Other Aluminum	0.2%	0.09%	0.2%	0.09%	Painted Wood	3.7%	3.76%	3.7%	3.76%
HVAC Ducting	0.0%	0.00%	0.0%	0.00%	Treated Wood	0.0%	0.01%	0.0%	0.01%
Ferrous Containers (Tin Cans)	2.1%	1.37%	2.1%	1.37%	Concrete	0.0%	0.02%	0.0%	0.02%
Other Ferrous	1.0%	0.71%	1.0%	0.71%	Reinforced Concrete	0.0%	0.00%	0.0%	0.00%
Other Non-Ferrous	0.1%	0.04%	0.1%	0.04%	Asphalt Paving	0.0%	0.00%	0.0%	0.00%
Other Metal	0.5%	0.31%	0.5%	0.31%	Rock & Other Aggregates	0.3%	0.39%	0.3%	0.39%
					Bricks	0.0%	0.00%	0.0%	0.00%
Organics	26.0%	6.89%	26.0%	6.89%	Gypsum Board	1.6%	1.84%	1.6%	1.84%
Yard Waste - Compostable	0.6%	0.44%	0.6%	0.44%	Composition Shingles	3.2%	5.12%	3.2%	5.12%
Yard Waste - Woody	0.0%	0.01%	0.0%	0.01%	Other Roofing	0.0%	0.00%	0.0%	0.00%
Food Scraps	19.4%	6.11%	19.4%	6.11%	Plastic C&D Materials	0.4%	0.34%	0.4%	0.34%
Bottom Fines & Dirt	1.6%	1.78%	1.6%	1.78%	Ceramics/Porcelain	0.0%	0.04%	0.0%	0.04%
Diapers	1.3%	0.83%	1.3%	0.83%	Other C&D	0.9%	0.91%	0.9%	0.91%
Other Organic	3.1%	3.73%	3.1%	3.73%					
					Total Percentage	100.0%		100.0%	

2.3.5.3 Landfilled Rural Residential/ICI MSW Composition

Figure 2-11 shows the percentage, by weight, of each of the ten material classes for the landfilled rural residential/ICI MSW sector. Organics, Paper, and Plastic account for approximately 67% (26.4%, 23.9%, and 16.5%) of the landfilled MSW for this sector.

Figure 2-11. Composition of Landfilled Rural Residential/ICI MSW by Material Class

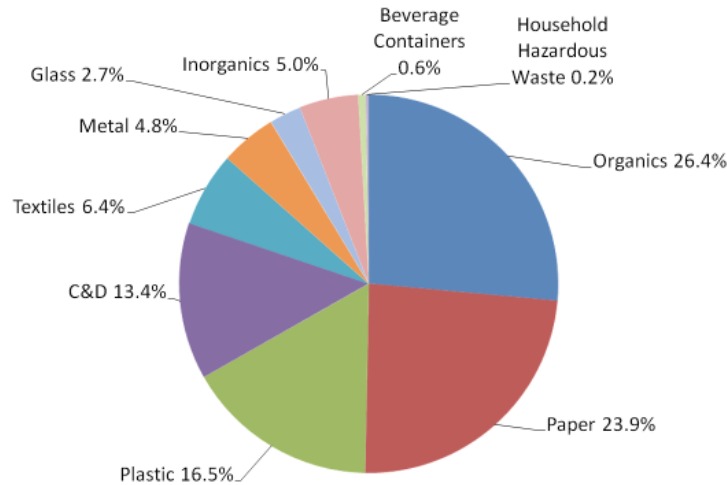


Table 2-19 lists the top ten material categories that were found in the landfilled rural residential/ICI MSW sector. These ten categories account for approximately 53% of landfilled rural residential/ICI MSW. Food Scraps, Uncoated OCC/Kraft, and Mixed Paper - Recyclable material categories account for approximately 31% (19.2%, 7.4%, and 4.0%, respectively) of landfilled rural residential/ICI MSW.

Table 2-19. Top Ten Individual Material Categories in Landfilled Rural Residential/ICI MSW

Category	Waste Composition %	Cum. %
Food Scraps	19.2%	19.2%
Uncoated OCC/Kraft	7.4%	26.6%
Mixed Paper - Recyclable	4.0%	30.6%
Wood Pallets	3.8%	34.4%
Compostable Paper	3.7%	38.1%
Other Film	3.6%	41.7%
Household Bulky Items	2.9%	44.6%
Boxboard	2.8%	47.3%
Other Rigid Plastic Products	2.8%	50.1%
Other Organic	2.8%	52.9%
Total	52.9%	

Table 2-20 provides the composition profile of landfilled rural residential/ICI MSW.

Table 2-20. Composition Profile of Landfilled Rural Residential/ICI MSW

	Mean	+/-		Mean	+/-
Paper			Inorganics		
Newsprint	23.9%	1.79%	Televisions	5.0%	1.31%
High Grade Office Paper	2.4%	0.71%	Computer Monitors	0.5%	0.35%
Magazines/Catalogs	1.7%	0.35%	Computer Equipment/Peripherals	0.0%	0.00%
Uncoated OCC/Kraft	1.3%	0.13%	Electronic Equipment	0.0%	0.01%
Boxboard	7.4%	0.97%	White Goods - Refrigerated	0.7%	0.23%
Mixed Paper - Recyclable	2.8%	0.18%	White Goods - Not refrigerated	0.3%	0.27%
Compostable Paper	4.0%	0.51%	Lead-acid Batteries	0.2%	0.10%
Other Paper	3.7%	0.26%	Other Household Batteries	0.0%	0.00%
	0.7%	0.15%	Tires	0.1%	0.02%
			Household Bulky Items	0.3%	0.28%
Beverage Containers	0.6%	0.26%	Fluorescent Lights/Ballasts	2.9%	1.22%
Milk & Juice Cartons/Boxes - Coated	0.6%	0.26%		0.0%	0.00%
Plastic	16.5%	0.95%	Textiles	6.4%	1.19%
#1 PET Bottles/Jars	1.3%	0.12%	Carpet	1.4%	1.02%
#1 Other PET Containers	0.5%	0.05%	Carpet Padding	0.2%	0.13%
#2 HDPE Bottles/Jars - Clear	0.6%	0.15%	Clothing	2.7%	0.56%
#2 HDPE Bottles/Jars - Color	0.5%	0.04%	Other Textiles	2.1%	0.26%
#2 Other HDPE Containers	0.0%	0.01%			
#6 Exp. Polystyrene Packaging	1.2%	0.11%	Household Hazardous Waste	0.2%	0.12%
#3-#7 Other - All	0.8%	0.07%	Latex Paint	0.1%	0.02%
Other Rigid Plastic Products	2.8%	0.49%	Oil Paint	0.0%	0.00%
Grocery & Merchandise Bags	0.6%	0.05%	Plant/Organism/Pest Control/Growth	0.0%	0.00%
Trash Bags	2.3%	0.22%	Used Oil/Filters	0.0%	0.03%
Commercial & Industrial Film	0.7%	0.28%	Other Automotive Fluids	0.0%	0.00%
Other Film	3.6%	0.40%	Mercury-Containing Items	0.0%	0.00%
Other Plastic	1.6%	0.14%	Sharps & Infectious Waste	0.0%	0.00%
			Ash, Sludge, & Industrial Wastes	0.0%	0.00%
			Sewage Solids	0.0%	0.00%
Glass	2.7%	0.27%	Other HHW	0.1%	0.12%
Recyclable Glass Bottles & Jars	2.4%	0.24%			
Flat Glass	0.1%	0.03%			
Other Glass	0.2%	0.11%			
			C&D	13.4%	3.48%
			Clean Dimensional Lumber	0.6%	0.19%
Metal	4.8%	0.55%	Clean Engineered Wood	1.5%	0.54%
Aluminum Beverage Containers	0.7%	0.07%	Wood Pallets	3.8%	2.02%
Other Aluminum	0.3%	0.03%	Painted Wood	2.7%	1.29%
HVAC Ducting	0.0%	0.00%	Treated Wood	0.0%	0.00%
Ferrous Containers (Tin Cans)	1.9%	0.47%	Concrete	0.0%	0.01%
Other Ferrous	1.0%	0.25%	Reinforced Concrete	0.0%	0.00%
Other Non-Ferrous	0.2%	0.04%	Asphalt Paving	0.0%	0.00%
Other Metal	0.8%	0.15%	Rock & Other Aggregates	0.2%	0.13%
			Bricks	0.0%	0.00%
			Gypsum Board	1.1%	0.63%
Organics	26.4%	2.37%	Composition Shingles	1.9%	1.73%
Yard Waste - Compostable	1.1%	0.25%	Other Roofing	0.0%	0.00%
Yard Waste - Woody	0.0%	0.00%	Plastic C&D Materials	0.7%	0.20%
Food Scraps	19.2%	2.10%	Ceramics/Porcelain	0.1%	0.02%
Bottom Fines & Dirt	1.3%	0.61%	Other C&D	0.8%	0.32%
Diapers	2.0%	0.30%			
Other Organic	2.8%	1.27%			
			Total Percentage	100.0%	

Calculated at a 90% confidence level

2.4 Visual Characterization of C&D Results

A total of 161 source separated C&D loads were visually characterized at the 18 sampling locations, where C&D loads were accepted on the date of study site visits. Due to the bulky nature of C&D materials, visual characterization of entire vehicles was used as it is considered by the industry to yield more accurate results. Visual characterization of C&D and bulky materials is used in waste characterization studies because it allows the entire load to be characterized, rather than physically sampling a manageable-sized sample or fewer larger samples that may be less representative of the waste stream. The large and heavy nature of C&D materials makes physical sorting impractical and typically inappropriate. The C&D composition profile is presented in the following ways:

- A pie chart depicting the C&D material categories by weight.
- A list of the ten largest material categories by weight.
- A comprehensive table detailing the full composition results for the entire 79 material categories.
- Figure 2-12 shows the percentage, by weight, of each of the individual material categories that account for greater than two percent of the total observed materials for the landfilled C&D waste sector in Illinois.

Figure 2-12. Composition of Landfilled C&D

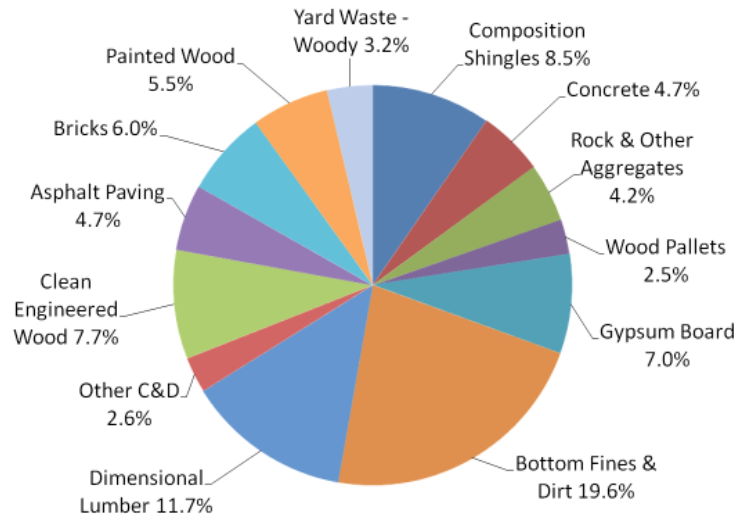


Table 2-21 lists the top ten material categories that were found in the landfilled C&D waste sector. These ten categories account for approximately 80% of the overall C&D waste stream. Bottom Fines & Dirt, Clean Dimensional Lumber, and Composite Shingles material categories account for approximately 40% (19.6%, 11.7%, and 8.5% respectively) of the landfilled C&D waste.

Table 2-21. Top Ten Individual Material Categories in Landfilled C&D

Category	Waste Composition %	Cum. %
Bottom Fines & Dirt	19.6%	19.6%
Clean Dimensional Lumber	11.7%	31.3%
Composition Shingles	8.5%	39.8%
Clean Engineered Wood	7.7%	47.6%
Gypsum Board	7.0%	54.6%
Bricks	6.0%	60.7%
Painted Wood	5.5%	66.2%
Asphalt Paving	4.7%	70.9%
Concrete	4.7%	75.6%
Rock & Other Aggregates	4.2%	79.8%
Total	79.6%	

Table 2-22 provides the composition profile of landfilled C&D waste.

Table 2-22. Composition Profile of Landfilled C&D

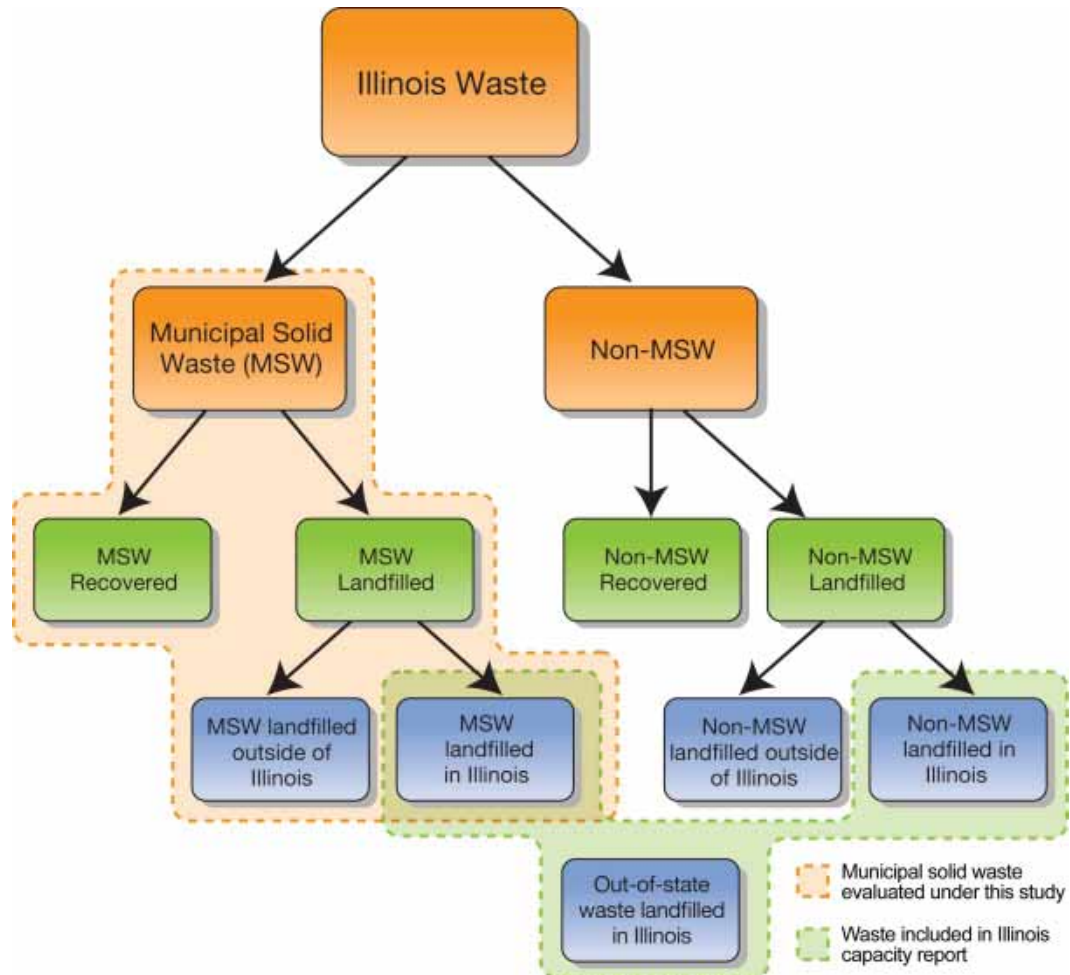
Calculated at a 90% confidence level.

	Mean	+/-	Inorganics	Mean	+/-
Paper					
Newsprint	1.4%	0.61%		0.1%	0.08%
High Grade Office Paper	0.0%	0.02%	Televisions	0.0%	0.00%
Magazines/Catalogs	0.0%	0.00%	Computer Monitors	0.0%	0.00%
Uncoated OCC/Kraft	1.4%	0.60%	Electronic Equipment	0.0%	0.00%
Boxboard	0.0%	0.03%	White Goods - Refrigerated	0.0%	0.00%
Mixed Paper - Recyclable	0.0%	0.00%	White Goods - Not refrigerated	0.0%	0.00%
Compostable Paper	0.0%	0.02%	Lead-acid Batteries	0.0%	0.00%
Other Paper	0.0%	0.00%	Other Household Batteries	0.0%	0.00%
			Tires	0.0%	0.00%
Beverage Containers	0.0%	0.00%	Household Bulky Items	0.1%	0.08%
Milk & Juice Cartons/Boxes - Coated	0.0%	0.00%	Fluorescent Lights/Ballasts	0.0%	0.00%
Plastic	1.2%	0.48%	Textiles	0.9%	0.67%
#1 PET Bottles/Jars	0.0%	0.01%	Carpet	0.5%	0.45%
#1 Other PET Containers	0.0%	0.01%	Carpet Padding	0.3%	0.23%
#2 HDPE Bottles/Jars - Clear	0.0%	0.00%	Clothing	0.0%	0.01%
#2 HDPE Bottles/Jars - Color	0.0%	0.02%	Other Textiles	0.1%	0.04%
#2 Other HDPE Containers	0.0%	0.08%			
#6 Exp. Polystyrene Packaging	0.1%	0.07%	Household Hazardous Waste	0.0%	0.00%
#3-#7 Other - All	0.0%	0.00%	Latex Paint	0.0%	0.00%
Other Rigid Plastic Products	0.3%	0.21%	Oil Paint	0.0%	0.00%
Grocery & Merchandise Bags	0.0%	0.00%	Plant/Organism/Pest Control/Growth	0.0%	0.00%
Trash Bags	0.0%	0.01%	Used Oil/Filters	0.0%	0.00%
Commercial & Industrial Film	0.3%	0.11%	Other Automotive Fluids	0.0%	0.00%
Other Film	0.1%	0.03%	Mercury-Containing Items	0.0%	0.00%
Other Plastic	0.3%	0.15%	Sharps & Infectious Waste	0.0%	0.00%
			Ash, Sludge, & Industrial Wastes	0.0%	0.00%
Glass	0.7%	0.64%	Sewage Solids	0.0%	0.00%
Recyclable Glass Bottles & Jars	0.0%	0.02%	Other HHW	0.0%	0.00%
Flat Glass	0.7%	0.64%			
Other Glass	0.0%	0.01%	C&D	71.4%	7.82%
			Clean Dimensional Lumber	11.7%	2.43%
Metal	1.4%	0.53%	Clean Engineered Wood	7.7%	2.09%
Aluminum Beverage Containers	0.0%	0.01%	Wood Pallets	2.5%	1.04%
Other Aluminum	0.3%	0.14%	Painted Wood	5.5%	2.11%
HVAC Ducting	0.2%	0.11%	Treated Wood	0.8%	0.65%
Ferrous Containers (Tin Cans)	0.0%	0.01%	Concrete	4.7%	2.39%
Other Ferrous	0.4%	0.20%	Reinforced Concrete	0.4%	0.59%
Other Non-Ferrous	0.4%	0.14%	Asphalt Paving	4.7%	3.19%
Other Metal	0.1%	0.20%	Rock & Other Aggregates	4.2%	3.41%
			Bricks	6.0%	2.17%
Organics	22.8%	9.10%	Gypsum Board	7.0%	2.35%
Yard Waste - Compostable	0.0%	0.02%	Composition Shingles	8.5%	3.28%
Yard Waste - Woody	3.2%	3.73%	Other Roofing	0.4%	0.28%
Food Scraps	0.0%	0.00%	Plastic C&D Materials	2.8%	0.88%
Bottom Fines & Dirt	19.6%	8.25%	Ceramics/Porcelain	1.8%	1.38%
Diapers	0.0%	0.00%	Other C&D	2.6%	1.94%
Other Organic	0.0%	0.01%			
			Total Percentage	100.0%	

2.5 MSW Landfilled Quantities

The MSW Characterization results discussed above provide a composition profile for MSW landfilled in Illinois. The MSW generation estimates calculated in Section 3 are based on all waste generated by Illinois residents. In order to compare the two results, a total Illinois MSW landfilled quantity must be calculated. Figure 2-13 provides a conceptual model of the Illinois waste stream and was used to develop the quantities provided in this section.

Figure 2-13. Illinois Waste Stream



In order to determine the MSW landfilled quantities, a distribution between the waste sectors (i.e., residential, ICI, etc.) was needed. The Illinois EPA report *Nonhazardous Solid Waste Management and Landfill Capacity in Illinois: 2014* (Illinois 2013 Capacity Report) does not provide quantities for each waste sector because this data is not required to be reported by landfills (and is difficult to obtain as many loads delivered to landfills include a mix of waste from the different sectors). As such, a gatehouse survey of the waste sectors disposed at each facility studied was conducted as part of the MSW characterization study. Use of gatehouse surveys has its limitations as the surveys are only a one day “snapshot” of the data; however, this was determined to be the most appropriate method based on budgetary limitations and has been used in numerous waste characterization studies nationwide.

Data collected during the gatehouse surveys were used to determine the percentages of each waste sector that is disposed in Illinois landfills (Table 2-23). A weighted average was computed using the data collected

at each landfill (weighted based on the total reported waste tonnage accepted in 2013 based on the Illinois 2013 Capacity Report). Because the landfills chosen as sampling locations receive approximately half of the waste disposed in Illinois, this waste sector distribution was assumed to be accurate for the entire Illinois waste stream (excluding waste originating from out-of-state). The out-of-state waste sector was determined by using both the results from the gatehouse surveys and as well as the quantities provided in the Illinois 2013 Capacity Report. The waste sector distribution estimates are provided in Table 2-23.

Table 2-23. Illinois Landfilled Waste Sector Distribution

Waste Sector	Percentage (by Weight)
Residential Waste	30.8%
ICI Waste	42.9%
C&D Waste	2.4%
Other Non-MSW	15.8%
Out-of- State Waste	8.1%
Total	100.0%

Notes: Based on gatehouse surveys and Illinois 2013 Capacity Report

As shown in Figure 2-13, the Illinois 2013 Capacity Report only summarizes the quantity of waste disposed in Illinois landfills and does not include the quantity of waste generated within Illinois and disposed outside the State. Table 2-24 summarizes the total quantity of Illinois waste that is landfilled (i.e., landfilled). The Illinois landfill waste quantities were calculated using the Illinois 2013 Capacity Report quantity estimates multiplied times the waste sector distribution estimates provided above. The total Illinois waste disposed was calculated using the quantity of Illinois waste disposed in Illinois landfills plus the quantity of Illinois waste disposed outside of Illinois in neighboring states (Indiana, Michigan and Wisconsin). Since the actual waste sector distribution disposed outside of Illinois is unknown, the distribution of the waste sectors disposed outside of Illinois was assumed to be the same as the waste sector distribution at the Illinois landfills. **Subtracting Non-MSW from the total tons disposed, leaves a net 12,166,761 tons landfilled.**

Table 2-24. Illinois Waste Disposed

Disposal Location ^{1,2}	Residential (Tons)	ICI (Tons)	C&D (Tons)	Non-MSW ³ (Tons)	Annual Waste (Tons)
Illinois Waste Disposed Within Illinois					11,930,293
<i>Illinois</i>	3,999,733	5,568,668	305,263	2,056,629	11,930,293
Illinois Waste Disposed Outside of Illinois⁴					2,734,488
<i>Indiana</i>					2,612,644
<i>Michigan</i>					19,261
<i>Wisconsin</i>					102,583
Total Waste⁴	4,916,493	6,845,037	375,231	2,528,020	14,664,781

¹Illinois quantities calculate using Illinois 2013 Capacity Report landfill quantities and the waste distribution provided in Table 2-23. Does not include the out-of-state waste disposed in Illinois.

²Indiana, Michigan and Wisconsin quantities provided by the state agencies (Indians -IDEM Solid Waste Facility Quarterly Reports Online (2013), Michigan - MDEQ Annual Solid Waste Report January 31, 2013, Wisconsin - WDNR website resource for waste imports and exports)

³ Any landfilled waste that is not included within definition of MSW (e.g., industrial process waste).

⁴ Distribution assumed to be the same as the Illinois distribution provided in Table 2-23.

2.6 Landfilled MSW Composition

The MSW quantities provided in Table 2-24 were combined with the waste composition profiles to determine the total landfilled MSW quantity by weight of each material type landfilled. Table 2-25 compares the weight composition of the three waste sectors: residential, ICI, and C&D and provides a composition of the overall Illinois MSW. The residential, ICI, and C&D quantities were added together to develop an overall Illinois MSW composition by weight.

Figure 2-14 shows the percentage, by weight, of each of the ten material classes for landfilled MSW. Organics, Paper, and C&D material classes account for approximately 66% (27.8%, 22.3%, and 16.9%, respectively) of landfilled MSW.

Figure 2-14. Composition of Landfilled MSW by Material Class

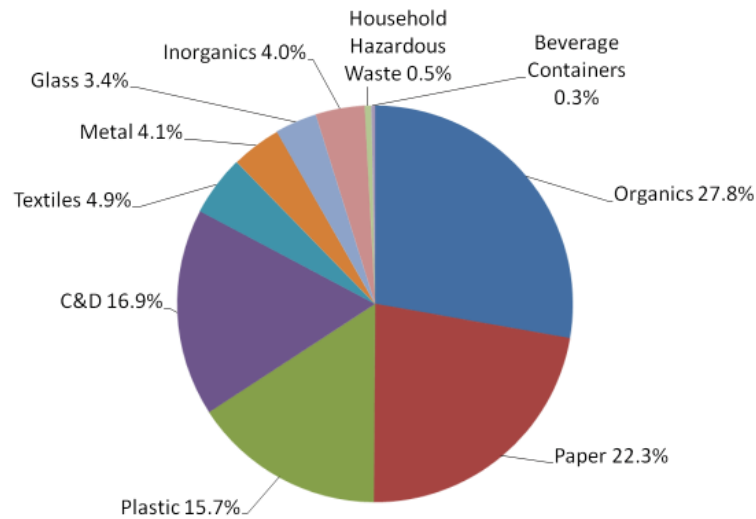


Table 2-26 lists the top ten material categories that were found in landfilled MSW. These ten categories account for approximately 50% of landfilled MSW. Food Scraps, Uncoated OCC/Kraft, and Compostable Paper material categories account for 30% (17.5%, 8.8%, and 3.7 respectively) of landfilled MSW.

Table 2-25. Top Ten Individual Material Categories in Landfilled MSW

Component	Waste Composition %	Cum. %
Food Scraps	17.5%	17.5%
Uncoated OCC/Kraft	8.8%	26.3%
Compostable Paper	3.7%	30.0%
Other Film	3.1%	33.1%
Painted Wood	3.0%	36.1%
Bottom Fines & Dirt	3.0%	39.2%
Mixed Paper - Recyclable	2.7%	41.9%
Yard Waste - Compostable	2.6%	44.5%
Recyclable Glass Bottles & Jars	2.6%	47.0%
Other Rigid Plastic Products	2.5%	49.6%
Total	49.6%	

Table 2-26. Illinois Landfilled MSW Sector Tonnages

	Residential		ICI		C&D		Illinois MSW		Residential		ICI		C&D		Illinois MSW	
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Paper*	1,037,200	1,669,100	5,400	2,711,700					250,800	234,700	200				485,700	
Newsprint	116,260	110,860	50	227,170					12,370	6,660	-				19,030	
High Grade Office Paper	59,970	101,060	-	161,030					4,290	5,000	-				9,290	
Magazines/Catalogs	80,300	45,310	10	125,620					9,240	9,780	-				19,020	
Uncoated OCC/Kraft	210,370	854,820	5,160	1,070,350					32,710	27,340	-				60,050	
Boxboard	145,520	124,990	120	270,630					-	7,160	-				7,160	
Mixed Paper - Recyclable	186,100	144,080	10	330,190					20,300	20,230	-				40,530	
Compostable Paper	206,690	243,480	50	450,220					-	-	-				-	
Other Paper	31,950	44,460	20	76,430					18,510	7,900	-				26,410	
Beverage Containers*	8,700	25,900	-	34,600					8,120	11,130	-				19,250	
Milk & Juice Cartons/Boxes - Coated	8,680	25,930	-	34,610					144,400	137,870	200				282,470	
									900	1,620	-				2,520	
Plastic*	755,300	1,146,400	4,500	1,906,200					337,500	259,000	3,400				599,900	
#1 PET Bottles/Jars	59,850	73,150	50	133,050					64,790	79,480	2,020				146,290	
#1 Other PET Containers	22,950	14,330	10	37,290					21,610	17,380	1,050				40,040	
#2 HDPE Bottles/Jars - Clear	20,970	26,920	10	47,900					135,860	88,450	50				224,360	
#2 HDPE Bottles/Jars - Color	25,830	18,390	50	44,270					115,280	73,670	320				189,270	
#2 Other HDPE Containers	1,590	1,320	180	3,090					4,510	10,570	-				15,080	
#6 Exp. Polystyrene Packaging	46,890	69,920	450	117,260					23,800	41,400	-				65,200	
#3-#7 Other - All	46,630	36,630	10	83,270					7,690	2,180	-				9,870	
Other Rigid Plastic Products	136,390	170,960	1,110	308,460					2,360	1,260	-				3,620	
Grocery & Merchandise Bags	54,660	33,060	10	87,730					-	-	-				-	
Trash Bags	73,490	142,650	120	216,260					-	-	-				-	
Commercial & Industrial Film	11,240	207,650	1,100	219,990					-	20	-				20	
Other Film	148,710	230,600	220	379,530					-	-	-				-	
Other Plastic	106,130	120,800	1,120	228,050					1,086	2,510	-				3,600	
Glass*	204,500	207,300	2,700	414,500					3,520	8,880	-				12,400	
Recyclable Glass Bottles & Jars	179,120	133,520	60	312,700					-	-	-				-	
Flat Glass	19,800	42,370	2,580	64,800					4,650	15,990	-				20,600	
Other Glass	5,620	31,400	10	37,030					-	-	-				-	
Metal*	211,800	277,500	5,400	494,700					457,000	1,327,900	268,000				2,052,900	
Aluminum Beverage Containers	33,340	27,100	30	60,470					35,380	98,230	44,060				177,670	
Other Aluminum	18,900	16,060	1,030	35,990					57,740	114,180	29,080				201,000	
HVAC Ducting	70	340	600	1,000					6,820	276,700	9,220				292,740	
Ferrous Containers (Tin Cans)	47,660	61,170	30	108,860					146,250	199,580	20,770				366,600	
Other Ferrous	57,800	95,990	1,580	155,370					2,690	7,020	2,950				12,660	
Other Non-Ferrous	11,030	37,370	1,620	50,020					17,010	91,950	17,540				126,500	
Other Metal	43,040	39,440	480	82,960					140	-	1,370				1,510	
Organics*	1,629,700	1,655,900	85,700	3,371,300					470	6,350	17,620				24,140	
Yard Waste - Compostable	228,770	84,970	120	313,860					30,900	26,290	15,730				72,920	
Yard Waste - Woody	17,830	32,170	12,070	62,070					470	8,520	22,690				31,680	
Food Scraps	995,310	1,123,840	-	2,119,200					23,350	51,840	26,430				101,620	
Bottom Fines & Dirt	66,200	225,890	73,430	365,520					60,120	93,540	31,910				185,570	
Diapers	156,090	83,160	-	239,250					-	32,640	1,650				34,290	
Other Organic	165,530	105,830	30	271,390					33,830	71,720	10,510				116,060	
									25,262	37,190	6,869				69,320	
									16,920	212,160	9,580				238,660	
Total*									4,916,500	6,845,000	375,100				12,136,700	

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* Numbers rounded to nearest 100 Tons

2.7 Comparison of Waste Sectors

Figure 2-15 compares the waste composition profiles for the residential waste sector and subsectors. The 90% confidence intervals are shown on these figures. When comparing the rural to urban sectors, there is a significant difference in the material classes when the error bars do not overlap.

2.7.1 Comparison by Rural vs. Urban Sectors

When considering the residential MSW waste, the majority of the material classes fall within the 90% confidence interval for the rural and urban sectors, with the exception of the Paper, Plastic and Organics classes. There is significantly more papers and plastics disposed within the rural counties of Illinois and there are significantly more organics disposed within urban areas of Illinois.

Figure 2-15. Comparison of Residential MSW Composition

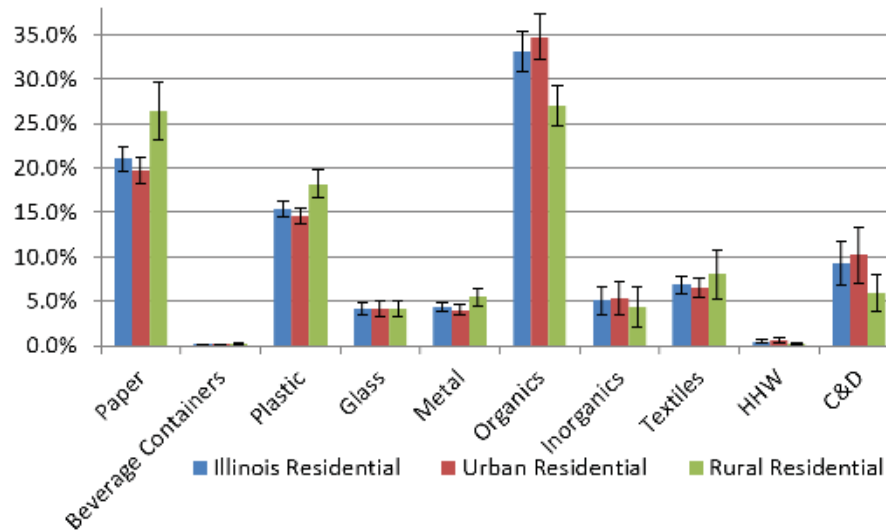
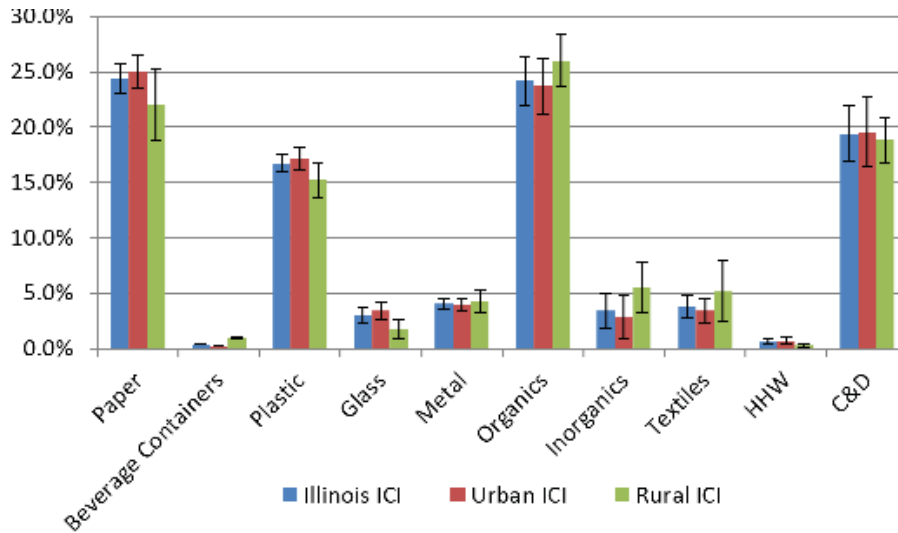


Figure 2-16 compares the waste composition profiles for the ICI waste sector and subsectors. The majority of the material classes fall within the 90% confidence interval for the rural and urban sectors, with the exception of the Beverage Containers classes. There is significantly more beverage containers disposed within the rural counties of Illinois.

Figure 2-16. Comparison of ICI MSW Composition



2.7.2 Comparison by Waste Generation Sector

The overall waste stream is relatively similar to the residential and ICI MSW sectors as these two sectors comprise the majority of the landfilled waste stream, when compared to the C&D sector that is often diverted from landfills due to economic drivers. As anticipated there are numerous classes where the C&D sector differs from the residential and ICI sectors. Approximately 71% of the C&D sector consists of material categories that fall within the C&D class of materials (e.g., composite shingles, concrete, rock and other aggregates, etc.) and 29% of the C&D sector consists of material categories that fall within the nine other classes of waste materials (e.g., Paper, Plastics, HHW, etc.).

Residential and ICI waste sectors have many commonalities. The majority of the material classes fall within the 90% confidence interval when comparing the residential sector to the ICI sector, with the exception of the Glass, Organics, and C&D classes. There is significantly more C&D disposed by the ICI sector, while there is significantly more Glass and Organics disposed by the residential sector.

Figure 2-17. Comparison of MSW Waste Sectors Composition

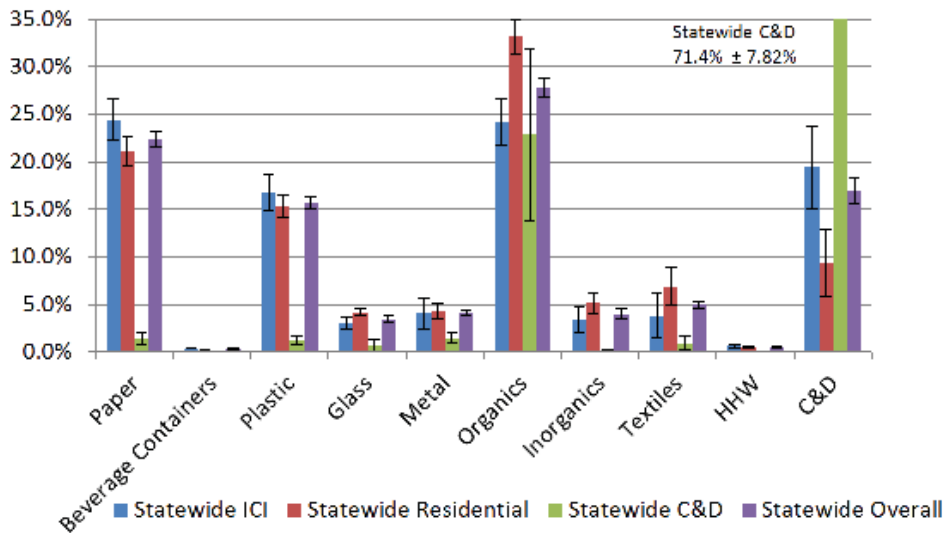


Table 2-27. Comparison of Waste Sector Composition Profiles

	Residential		ICI		C&D		Rural		Urban		Residential		ICI		C&D		Rural		Urban	
	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %	Mean %
Paper	21.1%	24.4%	1.4%	26.7%	25.7%	<i>Inorganics</i>					5.1%	3.4%	0.1%	5.0%	3.9%					
Newsprint	2.4%	1.6%	0.0%	2.4%	1.8%	Televisions	0.3%	0.1%	0.0%	0.5%	0.1%	0.0%	0.5%	0.1%						
High Grade Office Paper	1.2%	1.5%	0.0%	1.7%	1.3%	Computer Monitors	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%						
Magazines/Catalogs	1.6%	0.7%	0.0%	1.3%	1.0%	Electronic Equipment/Peripherals	0.2%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%						
Uncoated OCC/Kraft	4.3%	12.5%	1.4%	7.4%	9.5%	Computer Equipment	0.7%	0.4%	0.0%	0.7%	0.0%	0.0%	0.7%	0.4%						
Boxboard	3.0%	1.8%	0.0%	2.8%	2.2%	White Goods - Refrigerated	0.0%	0.1%	0.0%	0.3%	0.0%	0.0%	0.3%	0.0%						
Mixed Paper - Recyclable	3.8%	2.1%	0.0%	4.0%	2.5%	White Goods - Not refrigerated	0.4%	0.3%	0.0%	0.2%	0.4%	0.0%	0.2%	0.4%						
Compostable Paper	4.2%	3.6%	0.0%	6.5%	6.7%	Lead-acid Batteries	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%						
Other Paper	0.6%	0.6%	0.0%	0.7%	0.6%	Other Household Batteries	0.4%	0.1%	0.0%	0.1%	0.3%	0.0%	0.1%	0.3%						
Beverage Containers	0.2%	0.4%	0.0%	0.6%	0.2%	Tires	0.2%	0.2%	0.0%	0.3%	0.0%	0.0%	0.3%	0.1%						
Milk & Juice Cartons/Boxes - Coated	0.2%	0.4%	0.0%	0.6%	0.2%	Household Bulky Items	2.9%	2.0%	0.1%	2.9%	2.0%	0.1%	2.9%	2.3%						
						Fluorescent Lights/Ballasts	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%						
Plastic	15.4%	16.7%	1.2%	16.5%	16.1%	Textiles	6.9%	3.8%	0.9%	6.4%	4.7%									
#1 PET Bottles/Jars	1.2%	1.1%	0.0%	1.3%	1.1%	Carpet	1.3%	1.2%	0.5%	1.4%	1.2%									
#1 Other PET Containers	0.5%	0.2%	0.0%	0.5%	0.3%	Carpet Padding	0.4%	0.3%	0.3%	0.4%	0.4%									
#2 HDPE Bottles/Jars - Clear	0.4%	0.4%	0.0%	0.6%	0.3%	Clothing	2.8%	1.3%	0.0%	2.7%	1.7%									
#2 HDPE Bottles/Jars - Color	0.5%	0.3%	0.0%	0.5%	0.4%	Other Textiles	2.3%	1.1%	0.1%	2.1%	1.5%									
#2 Other HDPE Containers	0.0%	0.0%	0.0%	0.0%	0.0%	Household Hazardous Waste	0.5%	0.6%	0.0%	0.2%	0.7%									
#6 Exp. Polystyrene Packaging	1.0%	1.0%	0.1%	1.2%	0.9%	Latex Paint	0.2%	0.0%	0.0%	0.1%	0.1%									
#3-#7 Other - All	0.9%	0.5%	0.0%	0.8%	0.7%	Oil Paint	0.0%	0.0%	0.0%	0.0%	0.0%									
Other Rigid Plastic Products	2.8%	2.5%	0.3%	2.8%	2.6%	Plant/Organism/Pest Control/Growth	0.0%	0.0%	0.0%	0.0%	0.0%									
Grocery & Merchandise Bags	1.1%	0.5%	0.0%	0.6%	0.8%	Used Oil/Filters	0.1%	0.2%	0.0%	0.0%	0.2%									
Trash Bags	1.5%	2.1%	0.0%	2.3%	1.7%	Other Automotive Fluids	0.0%	0.0%	0.0%	0.0%	0.0%									
Commercial & Industrial Film	0.2%	3.0%	0.3%	3.6%	3.1%	Mercury-Containing Items	0.0%	0.0%	0.0%	0.0%	0.0%									
Other Film	3.0%	3.4%	0.1%	3.6%	2.0%	Sharps & Infectious Waste	0.1%	0.0%	0.0%	0.0%	0.0%									
Other Plastic	2.2%	1.8%	0.3%	1.6%	3.7%	Ash, Sludge, & Industrial Wastes	0.1%	0.1%	0.0%	0.1%	0.1%									
Glass	4.2%	3.0%	0.7%	2.7%	3.7%	Sewage Solids	0.0%	0.0%	0.0%	0.0%	0.0%									
Recyclable Glass Bottles & Jars	3.6%	2.0%	0.0%	2.4%	2.7%	Other HHW	0.0%	0.2%	0.0%	0.0%	0.2%									
Flat Glass	0.4%	0.6%	0.7%	0.1%	0.7%	C&D	9.3%	19.4%	71.4%	15.7%										
Other Glass	0.1%	0.5%	0.0%	0.2%	0.3%	Clean Dimensional Lumber	0.7%	1.4%	11.7%	1.3%										
Metal	4.3%	4.1%	1.4%	4.8%	4.0%	Clean Engineered Wood	1.2%	1.7%	7.7%	1.4%										
Aluminum Beverage Containers	0.7%	0.4%	0.0%	0.7%	0.5%	Wood Pallets	0.1%	4.0%	2.5%	1.5%										
Other Aluminum	0.4%	0.2%	0.3%	0.3%	0.3%	Painted Wood	3.0%	2.9%	5.5%	3.8%										
HVAC Ducting	0.0%	0.0%	0.2%	0.0%	0.0%	Treated Wood	0.1%	0.1%	0.8%	2.7%										
Ferrous Containers (Tin Cans)	1.0%	0.9%	0.0%	1.9%	0.7%	Concrete	0.3%	1.3%	4.7%	0.0%										
Other Ferrous	1.2%	1.4%	0.4%	1.0%	1.4%	Reinforced Concrete	0.0%	0.0%	0.4%	0.0%										
Other Non-Ferrous	0.2%	0.5%	0.4%	0.2%	0.5%	Asphalt Paving	0.0%	0.1%	4.7%	0.1%										
Other Metal	0.9%	0.6%	0.1%	0.8%	0.7%	Rock & Other Aggregates	0.6%	0.4%	4.2%	0.6%										
Organics	33.1%	24.2%	22.8%	23.7%	25.4%	Bricks	0.0%	0.1%	6.0%	0.1%										
Yard Waste - Compostable	4.7%	1.2%	0.0%	1.1%	3.1%	Gypsum Board	0.5%	0.8%	7.0%	0.5%										
Yard Waste - Woody	0.4%	0.5%	3.2%	0.0%	0.5%	Composition Shingles	1.2%	1.4%	8.5%	1.1%										
Food Scraps	20.2%	16.4%	0.0%	16.4%	14.8%	Other Roofing	0.0%	0.5%	0.4%	0.4%										
Bottom Fines & Dirt	1.3%	3.3%	19.6%	1.3%	2.8%	Plastic C&D Materials	0.7%	1.0%	2.8%	1.0%										
Diapers	3.2%	1.2%	0.0%	2.0%	2.0%	Ceramics/Porcelain	0.5%	0.5%	1.8%	0.6%										
Other Organic	3.4%	1.5%	0.0%	2.8%	2.1%	Other C&D	0.3%	3.1%	2.6%	2.3%										
						Other MSW	0.0%	0.0%	0.0%	0.0%										
						Total Percentage	100.0%	100.0%	100.0%	100.0%										

Section 3

Municipal Solid Waste Generation

3.1 Introduction and Purpose of Task

This task develops statewide, regional, and county-by-county municipal solid waste (MSW) generation estimates. Generation is that quantity of products considered municipal waste entering the waste management system from residential, commercial, industrial, institutional and C&D sources before materials recovery or disposal takes place. To develop the generation estimates, factors based on Illinois specific economic indicators were applied to 2012 national per capita generation rates that were derived from the U.S. EPA national data *Municipal Solid Waste Generation, Recycling, and Disposal in the United States Tables and Figures for 2012*.⁵ The Illinois factors were adjusted using the composition and waste sector quantity results presented in Section 2 of the report.

The indicators include direct economic data from the U.S. Census Bureau such as median income and product sales as well as indirect indicators such as employment. Federal Highway Administration transportation data were used for tires, lead-acid battery, oil, and oil filter generation. In addition to government statistics, product-specific marketing data was incorporated for the paper and beverage industries.

A description of the generation methodology and the statewide results for total generation; the residential and ICI sectors; and the urban and rural sectors are shown below. Regional results are also summarized. Detailed regional and individual county results are included in Appendix C.

3.2 Methodology

The national average MSW per capita generation rates were derived from the U.S. EPA national data *Municipal Solid Waste Generation, Recycling, and Disposal in the United States Tables and Figures for 2012*. The national generation rates are developed by a materials flow method, which relies on a mass balance approach. This methodology, developed by the U.S. EPA, has been used consistently since the late eighties in a series of reports sponsored by the Agency to characterize municipal solid waste. The 2012 data used in this study is the latest in that series. The data presented in the EPA report are “as generated” which means the materials are dry and clean and have not been cross-contaminated from wet materials such as food waste or other liquid wastes or have not absorbed moisture from precipitation. Since the Illinois generation estimates are compared to disposal estimates obtained from field sampling and gate house records, the national generation rates were adjusted to account for this increase in weight from moisture contamination.

Determining the moisture contamination of MSW field samples is a costly undertaking. Only one study⁶ was identified that included the laboratory analysis necessary to determine contamination levels on a product-by-product basis. Although caution should be used when applying the data to other locations, adjustment of the national generation rates was determined to be critical to this analysis and the Oregon results were applied to the 2012 national rates.

⁵ U. S. Environmental Protection Agency U.S. Environmental Protection Agency Office of Resource Conservation and Recovery February 2014. http://www.epa.gov/epawaste/nonhaz/municipal/pubs/2012_msw_dat_tbls.pdf

⁶ Oregon Department of Environmental Quality. *Waste Composition Study, 2009/2010*. Preliminary data Table A2. <http://www.deq.state.or.us/lq/pubs/docs/sw/WasteComp2009TableA2.pdf>

After the national per capita rates were determined, economic indicators were identified that would demonstrate whether Illinois residents generated MSW products at a rate higher or lower than the U.S. average. For example, 2012 Illinois motor vehicle registrations compared to U.S. registrations shows Illinois had 3.99% of the U.S. registered vehicles in that year. Since Illinois had 4.10% of the U.S. population in 2012, a factor of 0.97 was assumed for lead-acid battery generation in Illinois (3.99/4.10). The U.S. average generation rate was then multiplied by this factor to determine the Illinois per capita rate. Using ESRI projected 2014 Illinois population statistics,⁷ the total tons of lead-acid battery generation was then calculated.

Estimated generation of glass bottles and jars provides an example of how marketing data were used to estimate Illinois generation. The Beer Institute publishes Illinois beer and wine consumption and beer packaging data.⁸ The Distilled Spirits Council publishes Illinois consumption of liquor.⁹ Beverage Marketing Corporation publishes wine and liquor packaging statistics.¹⁰ The gallons of alcohol consumed in Illinois in glass bottles divided by the average unit volume of a bottle multiplied by the weight of a bottle equals the tons of glass beer, wine, and liquor bottles generated. Per capita rates for beer, wine, and liquor were calculated and added to national per capita rates for soft drink, food, and other bottles and jars to arrive at total recyclable glass bottles and jars generation.

Analyses similar to these two examples were conducted for the other MSW products. For some MSW products, county level indicators were available, while indicator data for other products were available on a state basis.

For some products, local and national average generation estimates do not exist. Examples of these products include flat glass, HVAC ducting, and household batteries. For products without local or national generation estimates, field sampling data were used to estimate generation. Generation estimates for all products were compared to the disposal estimates developed from the field sampling and gate-house records and available recovery data to check for reasonableness.

C&D generation is based on a combination of field sampling data and Illinois recovery data. The amount of C&D measured (Section 2) combined with recovery data equals *total* C&D generation. Most recovery data are reported as totals without individual product detail. A separate methodology is used to distribute this total to the individual C&D products shown in this section. Illinois C&D recycling facility data provide a profile of mixed C&D recovered. Total C&D generation is distributed to individual C&D products based on this limited profile. This is different from the other MSW product categories where product generation estimates were summed to total category generation. This method is also different than the method used in the previous IRA study.¹¹ During the mid-2000s, limited recovery of C&D was happening. In the 2009 study, C&D generation was assumed to equal disposal with the exception of wood pallets.

For this study, a waste sector is identified by the particular generation characteristics that make it a unique portion of the total waste stream. This study examined waste generated by the distinct waste sectors residential, ICI and C&D, as defined in Section 1.

⁷ ESRI Market Profiles for counties in Illinois. 2014 projected population. www.esri.com

⁸ The Beer Institute. *Brewers Almanac* 2013. March 28, 2013. Illinois packaging and consumption data.

⁹ The Distilled Spirits Council of the United States (DISCUS). October 2013. *Apparent Consumption of Distilled Spirits by State, 2012*. Illinois total consumption data.

¹⁰ Beverage Marketing Corporation. *2005 Beverage Packaging in the U.S.* November 2005.

¹¹ IRA. *Illinois Commodity/Waste Generation and Characterization Study*. May 22, 2009.

The percentages of residential and ICI MSW at the point of generation will vary slightly from the same measurement at the point of disposal due to recovery of recyclable materials. This change in composition is primarily due to the recovery of old corrugated containers (OCC) and office paper from the commercial sector.

The residential and ICI MSW estimates were compared to the previously published statewide residential MSW generation and the statewide ICI MSW generation.¹² For those products with minimal or no recovery (e.g., diapers, bottom fines), landfilled MSW characterization results (Section 2) were used to determine the distribution between the residential MSW generation and the ICI MSW generation. For products with moderate to strong recovery markets (e.g., newspapers and boxboard), the previously published product distributions were used. The average landfilled MSW characterization results (Section 2) for total C&D were used to determine the distribution of C&D to the residential and ICI sectors. The average for all products (26% residential: 74% ICI) was assumed for the individual C&D products.

As described in Section 1, counties were classified as either urban or rural based on the RUC code and the generation estimates were summed for each classification.

Table 3-1 lists the material categories used for this study compared to the corresponding U.S. product categories, and the Illinois methodology and indicators used to estimate MSW generation. For some products, there is a direct match between the IRA sorting categories and the U.S. product categories (see newsprint, high grade office paper). For other products, U.S. product categories were combined to match the IRA categories (see magazines/catalogs, uncoated OCC/Kraft). When IRA categories were more detailed than the U.S. categories (see HDPE bottles, jars, and containers), the U.S. product categories were combined and then redistributed to the IRA categories based on the field sampling data. The IRA sorting categories with no corresponding U.S. product category relied on Illinois field sampling data. As described in Section 1, CCDD was not considered as part of Illinois MSW generation.

Table 3-1. MSW Generation Methodology Summary

Material Class	Material Category	U.S. Product Category	Data Source/ Methodology
PAPER	Newsprint	Newsprint (ONP)	County level market data; circulation of newspapers and weight of newspapers
	High Grade Office Paper	High Grade Office Paper	Generation factors applied to county employment statistics
	Magazines/Catalogs	Magazines	County level market data; circulation of magazines
		Commercial Printing	National average
	Uncoated OCC/Kraft	Old Corrugated Containers	Generation factors applied to county employment statistics
		Paper Bags and Sacks	National average adjusted with economic indicator - County level median income
		Other Paperboard Packaging	National average adjusted with economic indicator - County level median income
	Boxboard	Boxboard	National average adjusted with economic indicator - Illinois food store sales
	Mixed Paper - Recyclable	Standard Mail	National average adjusted with sampling data
		Directories	National average adjusted with sampling data

¹² IRA. *Illinois Commodity/Waste Generation and Characterization Study*. May 22, 2009.

Material Class	Material Category	U.S. Product Category	Data Source/ Methodology
	Compostable Paper and Other Paper - <i>Distribution of U.S. categories based on sampling study results</i>	Books	National average adjusted with sampling data
		Tissue Paper & Towels	National average
		Paper Plates and Cups	National average
		Other Nonpackaging Paper	National average
		Other Paper Packaging	National average adjusted with economic indicator - State level median income
Beverage Containers	Milk & Juice Cartons/Boxes - Coated	Milk Cartons	National average adjusted with economic indicator - Illinois food store sales
PLASTICS	#1 PET Bottles/Jars and #1 Other PET Containers - <i>Distribution of U.S. categories based on sampling study results</i>	PET Soft Drink	National average adjusted with economic indicator - Illinois food store sales & adjusted with sampling data
		PET Containers & Packaging	National average adjusted with economic indicator - Illinois food store sales & adjusted with sampling data
	#2 HDPE Bottles/Jars - Clear, #2 HDPE Bottles/Jars - Color, and #2 Other HDPE Containers - <i>Distribution of U.S. categories based on sampling study results</i>	HDPE Milk	National average adjusted with economic indicator - Illinois food store sales & adjusted with sampling data
		HDPE Other Containers	National average adjusted with economic indicator - Illinois food store sales & adjusted with sampling data
	#6 Exp. Polystyrene Packaging and #3-#7 Other - All - <i>Distribution of U.S. categories based on sampling study results</i>	Other Containers	National average adjusted with sampling data
		Plastic Food Service	National average adjusted with sampling data
		Other Plastics Packaging	National average
	Other Rigid Plastic Products		See Inorganics section below
	Grocery & Merchandise Bags	Plastic Bags and Sacks	National average adjusted with economic indicator - County level median income adjusted with sampling data
	Trash Bags	Trash Bags	National average adjusted with sampling data
	Commercial & Industrial Film	Wrap	National average adjusted with economic indicator - County level median income adjusted with sampling data
	Other Film	Other Film	Illinois sampling data
	Other Plastic	Other Miscellaneous Packaging	National average adjusted with economic indicator - County level median income
Miscellaneous Nondurables		National average adjusted with economic indicator - County level median income adjusted with sampling data	

Material Class	Material Category	U.S. Product Category	Data Source/ Methodology
GLASS	Recyclable Glass Bottles & Jars	Glass Beer and Soft Drink Bottles	Illinois market data and national average
		Glass Wine and Liquor Bottles	Illinois market data
		Food and Other Bottles & Jars	National Average
	Flat Glass		Illinois sampling data
	Other Glass		See Inorganics section below
METALS	Aluminum Beverage Containers	Aluminum Beverage Containers & Foil and Closures	Illinois and U.S. national average data
	Other Aluminum		See Inorganics section below
	HVAC Ducting		Illinois sampling data adjusted with Illinois recovery data
	Ferrous Containers (Tin Cans)	Steel Food and Other Cans and Other Steel Packaging	National average adjusted with sampling data
	Other Ferrous		See Inorganics section below
	Other Non-Ferrous	Other Non-Ferrous	Illinois sampling data
	Other Metal		See Inorganics section below
ORGANICS	Yard Waste - Compostable and Yard Waste - Woody - <i>Distribution of U.S. category based on sampling study results</i>	Yard waste	National average adjusted for affect of yard waste legislation
	Food Scraps	Food Scraps	National average adjusted with economic indicators – Consumer spending - Residential - consumer spending food at home, Commercial - consumer spending away-from-home adjusted with sampling data
	Bottom Fines & Dirt		Illinois sampling data
	Diapers	Diapers	National average adjusted with sampling data
	Other Organic	Other Organic	Illinois sampling data
INORGANICS	Televisions	Televisions	National average adjusted with economic indicator - Illinois electronics store sales
	Computer Monitors	Computer Monitors	National average adjusted with economic indicator - Illinois electronics store sales
	Computer Equipment/Peripherals	Computer Equipment/Peripherals	National average adjusted with economic indicator - Illinois electronics store sales
	Electronic Equipment - <i>Distribution of U.S. categories based on sampling study results</i>	Other Electronic Equipment	National average adjusted with economic indicator - Illinois electronics store sales
		Small Appliances	National average adjusted with economic indicator - Illinois electronics store sales

Material Class	Material Category	U.S. Product Category	Data Source/ Methodology	
	White Goods - Refrigerated	White Goods - refrigerated	National average adjusted with economic indicator - Illinois historical appliance store sales	
	White Goods - Not refrigerated	White Goods - not refrigerated	National average adjusted with economic indicator - Illinois historical appliance store sales	
	Lead-acid Batteries	Lead-acid Batteries	National average adjusted with Illinois motor vehicle registrations	
	Other Household Batteries		Illinois sampling data	
	Tires	Tires	National average adjusted with Illinois automotive fuel consumed and miles traveled per registered vehicle	
	Other Rigid Plastic Products, Other Glass, Other Ferrous, Other Metal, Household Bulky Items - <i>Distribution of U.S. categories based on sampling study results</i>	Furniture and Furnishings		National average adjusted with economic indicator - Illinois historical furniture and furnishings store sales
		Miscellaneous Durable Goods		National average adjusted with economic indicator - average of factors developed for white goods, electronics, furniture & furnishings
		Miscellaneous Inorganic Wastes		Illinois sampling data adjusted with Illinois HHW data
Fluorescent Lights/Ballasts		National average adjusted with economic indicator - Illinois electronics store sales		
TEXTILES	Carpet	Carpet and rugs	National average adjusted with economic indicator - Illinois number of carpet installers adjusted with sampling data	
	Carpet Padding	Carpet padding	National average adjusted with economic indicator - Illinois number of carpet installers adjusted with sampling data	
	Clothing	Clothing	National average adjusted with economic indicator - County median income	
	Other Textiles	Footwear and Linen	National average adjusted with sampling data	
Household Hazardous Waste (HHW)	Latex Paint		Illinois sampling data adjusted with Illinois HHW data	
	Oil Paint		Illinois sampling data adjusted with Illinois HHW data	
	Plant/Organism/Pest Control/Growth		Illinois sampling data adjusted with Illinois HHW data	
	Used Oil/Filters	Used Oil and Used Oil Filters	National average adjusted with Illinois motor vehicle registration, salvaged vehicles, and annual miles driven	
	Other Automotive Fluids	Transmission Fluid	National average adjusted with Illinois motor vehicle registration, salvaged vehicles, and annual miles driven	
	Mercury-Containing Items		Illinois sampling data adjusted with Illinois HHW data	
	Sharps & Infectious Waste		Illinois sampling data adjusted with Illinois HHW data	
	Ash, Sludge, & Industrial Wastes		Illinois sampling data adjusted with Illinois HHW data	
	Sewage Solids		Illinois sampling data	

Material Class	Material Category	U.S. Product Category	Data Source/ Methodology
	Other HHW		Illinois sampling data adjusted with Illinois HHW data
Construction & Demolition (C&D)	Clean Dimensional Lumber		Illinois sampling data adjusted with Illinois recovery data
	Clean Engineered Wood		Illinois sampling data adjusted with Illinois recovery data
	Wood Pallets	Wood Pallets	National average adjusted with economic indicator - County level median income
	Painted Wood		Illinois sampling data
	Treated Wood		Illinois sampling data
	Concrete		Illinois sampling data adjusted with Illinois recovery data
	Reinforced Concrete		Illinois sampling data adjusted with Illinois recovery data
	Asphalt Paving		Illinois sampling data adjusted with Illinois recovery data
	Rock & Other Aggregates		Illinois sampling data adjusted with Illinois recovery data
	Bricks		Illinois sampling data adjusted with Illinois recovery data
	Gypsum Board		Illinois sampling data adjusted with Illinois recovery data
	Composition Shingles		Illinois sampling data adjusted with Illinois recovery data
	Other Roofing		Illinois sampling data
	Plastic C&D materials		Illinois sampling data adjusted with Illinois recovery data
	Ceramics/Porcelain		Illinois sampling data
	Other C&D		Illinois sampling data adjusted with Illinois recovery data
	HVAC Ducting		Illinois sampling data adjusted with Illinois recovery data
	Bottom Fines & Dirt		Illinois sampling data
	Mixed C&D Metals		Illinois sampling data adjusted with Illinois recovery data

3.3 Summary of Results

The Illinois MSW generation, shown in the following tables and figures, is divided into the following ten material classes:

- Paper
- Beverage Containers
- Plastic
- Glass

- Metals
- Organics
- Inorganics
- Textiles
- HHW
- C&D

The generation composition and quantity results are provided both on a per capita basis and total tons generated in 2014. The percentages that are shown on the tables and figures are calculated as a percentage of total generation. Results are provided for the following MSW sectors:

- Total Illinois MSW Generation
- Residential MSW Generation
- ICI MSW Generation
- Urban MSW Generation (from urban county data)
- Rural MSW Generation (from rural county data)
- IEPA Regions 1 through 7 Generation (from county data)
- County Generation (Appendix C)

3.3.1 Per Capita Statewide MSW Generation

Table 3-2 compares U.S. and Illinois per capita generation. For most products, Illinois generation rates are higher than national averages. Two MSW generation demographic drivers that increase generation include median income and level of urbanization. The Illinois statewide 2012 median income was seven percent higher than the U.S. average and 88% of the Illinois population lives in urban areas compared to 85% on the national level.¹³

The Illinois total MSW generation rate was determined to be 2,993 pounds per person per year or 8.20 pounds per person per day. This rate includes household hazardous waste, C&D, and other wastes such as flat glass and HVAC ducting that are not included in national average per capita rates referenced.

A summation of those categories shown in Table 3-2 with *both* U.S. and Illinois average per capita rates, estimates that the Illinois per capita rates is 23% higher than the national average (2,009 pounds per person per year in Illinois compared to 1,631 pounds per person per year for the national average).

Paper products make up the largest material category, by weight. Newsprint is generated at about 1.5 times the national average. Uncoated Old Corrugated Containers (OCC)/Kraft are generated at about 1.7 times the national average. Newsprint generation was estimated from county-level circulation data on number of papers sold combined with newsprint consumption (by weight) of the individual papers. OCC generation was estimated by county-level employment statistics multiplied by per employee generation factors.

¹³ U.S. Department of Commerce. Economics and Statistics Administration. Household Income 2012 American Community Survey Briefs. Amanda Noss. September 2013. U.S. Department of Agriculture. Economic Research Service. <http://www.ers.usda.gov/topics/rural-economy-population/population-migration.aspx>

Table 3-2. Statewide Per Capita Municipal Solid Waste (MSW) Generation
(pounds per person per year)

	U.S. Generation* (lb/c/yr)	Illinois Generation (lb/c/yr)	U.S. Generation* (lb/c/yr)	Illinois Generation (lb/c/yr)
Paper				
Newsprint	58.8	87.0	Other Ferrous	51.2
High Grade Office Paper	31.4	50.4	Other Non-Ferrous	9.1
Magazines/Catalogs	29.2	29.9	Other Metal	15.9
Uncoated OCC/Kraft	226.8	382.7		
Boxboard	42.2	54.6	Organics	
Mixed Paper - Recyclable	35.5	53.2	Yard Waste - Compostable	180.6
Compostable Paper	89.1	73.0	Yard Waste - Woody	35.7
Other Paper	15.1	12.4	Food Scraps	232.1
			Bottom Fines & Dirt	45.2
Beverage Containers			Diapers	37.1
Milk & Juice Cartons/Boxes - Coated	4.4	5.7	Other Organic	42.0
Plastic				
#1 PET Bottles/Jars	17.6	22.7	Televisions	4.7
#1 Other PET Containers	4.9	6.4	Computer Monitors	3.0
#2 HDPE Bottles/Jars - Clear	8.9	11.5	Computer Equipment/Peripherals	6.6
#2 HDPE Bottles/Jars - Color	8.2	10.6	Electronic Equipment	7.5
#2 Other HDPE Containers	0.6	0.7	White Goods - Refrigerated	8.3
#6 Exp. Polystyrene Packaging	28.3	18.4	White Goods - Not refrigerated	18.5
#3-#7 Other - All	20.1	13.0	Lead-acid Batteries	18.8
Other Rigid Plastic Products	55.0	58.0	Other Household Batteries	4.3
Grocery & Merchandise Bags	6.7	13.7	Tires	30.0
Trash Bags	9.1	33.5	Household Bulky Items	59.9
Commercial & Industrial Film	10.1	38.4	Fluorescent Lights/Ballasts	63.1
Other Film	17.4	58.8		0.4
Other Plastic	27.5	35.5		
			Textiles	
			Carpet	19.6
Glass			Carpet Padding	5.3
Recyclable Glass Bottles & Jars	59.5	68.1	Clothing	58.3
Flat Glass		10.0	Other Textiles	30.7
Other Glass	11.5	7.8		
			Household Hazardous Waste	
Metal				
Aluminum Beverage Containers	14.5	15.4	Construction and Demolition Debris (C&D)	
Other Aluminum	8.3	8.7		799.0
Ferrous Containers (Tin Cans)	15.2	22.8	Total MSW (pounds/person/year)	2,993
			Total MSW (pounds/person/day)	8.20

* U.S. generation estimates adjusted for moisture contamination.

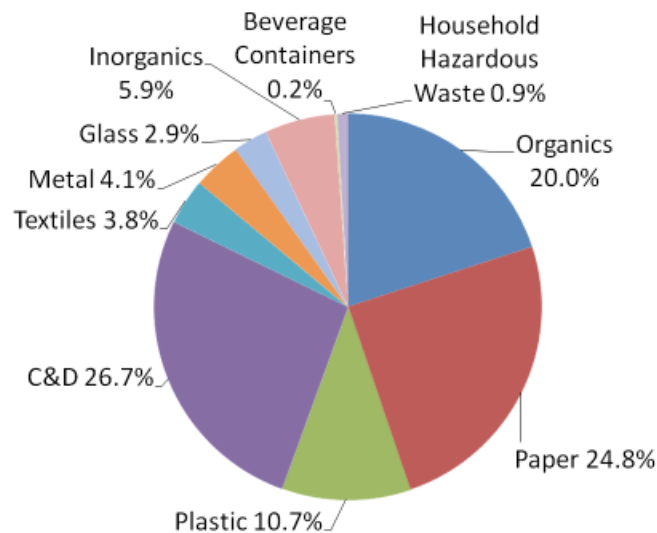
Sources: United States Environmental Protection. Municipal Solid Waste Generation, Recycling, and Disposal in the United States Tables and Figures for 2012, February 2014.
Oregon Department of Environmental Quality. Oregon DEQ. 2009/2010 Oregon Recycling Characterization and Composition Study, Preliminary Data. Sky Valley Associates. Table A2.

Individual products generated at a rate of about three times the national rate include plastic film products (trash bags, commercial and industrial film, and other film). Grocery and merchandise bags are generated at two times the national average. The generation methodology for these products included an adjustment of the economic indicator estimates with Illinois sampling data. This would suggest that these products had a higher than anticipated contamination rate from food and other liquid wastes and possibly precipitation.

3.3.2 Total Statewide MSW Generation

Total statewide MSW generation in 2014 was 19.3 million tons or 8.20 pounds per person per day (see Table 3-4). Generation by material class is shown in Figure 3-1. C&D materials comprise the largest portion of MSW generated, at 27%. Paper products are the second largest fraction, at 25%. The third largest category of MSW generation is organic material, which made up 20% of total MSW generation. Plastic products are 11% of generation and the remaining categories total 17%. Table 3-3 depicts the top ten material categories and their respective generation in tons. The top ten material categories account for almost 50% of total generation.

Figure 3-1. Statewide MSW Generation by Material Class, (% of Generation)



Paper products account for 4.8 million tons of MSW generation. Uncoated OCC/Kraft is by far the largest single component of paper products, at 2.5 million tons. Newsprint is the next largest at about 0.6 million tons.

C&D products are estimated at almost 5.2 million tons. Clean engineered wood, dimensional lumber, the mixed category other C&D, and concrete account for between 0.5 and 0.6 million tons each.

Total plastic generation is estimate at 2.1 million tons. Other Rigid Plastic Products accounts for almost 0.4 million tons. Examples of Other Rigid Plastic Products include plastic outdoor furniture, plastic toys, sporting goods, CDs, plastic house wares, tool boxes, and plastic buckets.

Total glass generation is estimated at about 0.6 million tons. Recyclable glass bottles and jars account for over 0.4 million tons. The remaining glass products are flat glass (e.g. windows and flat automotive glass) and other glass products including glass tableware and cookware.

Table 3-3. Top Ten MSW Generation Individual Material Categories

Category	Waste Composition Tons	Cum. Tons
Uncoated OCC/Kraft	2,470,980	2,470,980
Food Scraps	2,147,760	4,618,740
Yard Waste - Compostable	758,110	5,376,850
Clean Engineered Wood	582,340	5,959,190
Newsprint	561,670	6,520,860
Clean Dimensional Lumber	559,010	7,079,870
Other C&D	556,440	7,636,310
Concrete	507,840	8,144,150
Compostable Paper	471,650	8,615,800
Recyclable Glass Bottles & Jars	439,980	9,055,780
Total	9,055,780	

3.3.3 Residential/ICI Statewide MSW Generation

Table 3-4 also shows the MSW generation split between residential and ICI. The residential portion is 39% of total generation; the ICI portion is 61%. Total MSW generation excluding C&D is shown at 44% from residential and 56% from ICI. Major product categories range from 52% of the organics to 63% of textiles is generated from the residential sector.

Some categories such as other automotive fluids and mercury-containing items are generated only in the commercial sector. Since the methodology for estimating these materials relied on field sampling data, it is possible that these materials are generated in both the residential and ICI sectors but were missed during the field sampling period.

White goods and tires are shown as generated at 90% or more from the ICI sector. Although these products are used in the residential sector, collection (i.e., generation) mostly occurs in the ICI sector.

3.3.4 Urban/Rural Statewide MSW Generation

MSW generation is typically higher in an urban community compared to a rural community. Urban newspapers tend to be larger and there is increased commercial activity in urbanized areas.

The statewide urban/rural split was derived from the individual county generation estimates shown in the appendices to this report. Counties were classified as either urban or rural and the generation estimates were summed for each classification. Figure 3-2 summarizes the county annual generation estimates.

Tables 3-5 and 3-6 show Illinois urban and rural MSW generation. Eighty-eight percent of the state's population lives in urban areas; 12% reside in rural areas. Ninety percent of the statewide MSW generation is from urban areas (17.5 million tons / 19.3 million tons). Table 3-5 shows total MSW generation in urban areas is 8.40 pounds per person per day; MSW generation in rural areas is 6.73 pounds per person per day (see Table 3-6).

Table 3-4. Statewide MSW Generation

	Total (tons)	Residential (tons)	ICI (tons)	Total (tons)	Residential (tons)	ICI (tons)
Paper	4,798,920	1,786,220	3,012,700	63%	63%	63%
Newsprint	561,670	466,190	95,480	White Goods - Not refrigerated	149,310	134,380
High Grade Office Paper	325,390	121,180	204,210	Lead-acid Batteries	117,750	23,550
Magazines/Catalogs	192,980	125,440	67,550	Other Household Batteries	27,990	8,370
Uncoated OCC/Kraft	2,470,980	395,360	2,075,620	Tires	166,630	166,630
Boxboard	352,380	211,430	140,950	Household Bulky Items	407,310	188,940
Mixed Paper - Recyclable	343,790	216,590	127,200	Fluorescent Lights/Ballasts	2,870	1,850
Compostable Paper	471,650	216,550	255,100			
Other Paper	80,070	33,480	46,590	Textiles	740,980	276,320
				Carpet	157,960	48,970
Beverage Containers	37,020	9,290	27,730	Carpet Padding	42,750	20,090
Milk & Juice Cartons/Boxes - Coated	37,020	9,290	27,730	Clothing	342,120	130,010
				Other Textiles	120,900	77,250
Plastic	2,073,870	824,570	1,249,300	Household Hazardous Waste	173,240	122,090
#1 PET Bottles/Jars	146,510	65,930	80,580	Latex Paint	10,070	7,850
#1 Other PET Containers	41,070	25,280	15,790	Oil Paint	3,770	2,460
#2 HDPE Bottles/Jars - Clear	74,040	32,420	41,620	Plant/Organism/Pest Control/Growth	250	170
#2 HDPE Bottles/Jars - Color	68,430	39,970	28,460	Used Oil/Filters	31,250	73,130
#2 Other HDPE Containers	4,770	2,600	2,170	Other Automotive Fluids	17,100	17,100
#6 Exp. Polystyrene Packaging	118,620	47,610	71,010	Mercury-Containing Items	<10	<10
#3-#7 Other - All	84,230	47,170	37,060	Sharps & Infectious Waste	3,600	2,510
Other Rigid Plastic Products	374,330	166,120	208,210	Ash, Sludge, & Industrial Wastes	12,780	9,160
Grocery & Merchandise Bags	88,350	55,050	33,300	Sewage Solids	-	-
Trash Bags	216,260	73,530	142,730	Other HHW	4,800	16,490
Commercial & Industrial Film	248,200	12,740	235,460			
Other Film	379,530	148,800	230,730	MSW Excluding C&D (tons)	14,163,490	7,898,070
Other Plastic	229,530	107,350	122,180			
				MSW Excluding C&D (pounds/person/day)	2.66	3.35
Glass	554,980	280,350	274,630	MSW Excluding C&D (pounds/person/day)	6.01	3.35
Recyclable Glass Bottles & Jars	439,980	252,090	187,890	Construction and Demolition Debris (C&D)	5,158,730	3,837,860
Flat Glass	64,800	20,640	44,160	Clean Dimensional Lumber	143,130	415,880
Other Glass	50,200	7,620	42,580	Clean Engineered Wood	149,110	433,230
				Wood Pallets	108,300	314,660
Metal	794,900	355,700	439,200	Painted Wood	93,870	272,730
Aluminum Beverage Containers	99,340	69,540	29,800	Treated Wood	3,240	9,420
Other Aluminum	56,170	30,370	25,800	Concrete	130,030	377,810
HVAC Ducting	-	-	-	Reinforced Concrete	24,800	72,040
Ferrous Containers (Tin Cans)	147,410	64,560	82,850	Asphalt Paving	6,180	17,960
Other Ferrous	330,810	124,330	206,480	Rock & Other Aggregates	83,760	243,380
Other Non-Ferrous	58,520	13,330	45,190	Bricks	69,130	200,880
Other Metal	102,650	53,570	49,080	Gypsum Board	228,730	170,160
				Composition Shingles	98,720	286,850
Organics	3,858,530	2,019,860	1,838,670	Other Roofing	8,780	25,510
Yard Waste - Compostable	758,110	553,420	204,690	Plastic C&D Materials	34,290	204,550
Yard Waste - Woody	149,930	49,470	100,460	Ceramics/Porcelain	17,750	51,570
Food Scraps	2,147,760	1,013,020	1,134,740	Other C&D	69,320	413,970
Bottom Fines & Dirt	292,090	82,850	209,240	HVAC Ducting	142,470	36,220
Diapers	239,250	156,090	83,160	Bottom Fines & Dirt	73,430	54,630
Other Organic	271,390	165,010	106,380	Mixed C&D Metals	18,800	236,410
Inorganics	1,131,050	473,620	657,430	C&D (pounds/person/day)	2.19	1.63
Televisions	32,490	30,870	1,620	Total MSW (tons)	7,586,290	11,735,930
Computer Monitors	20,530	9,650	10,880	Total MSW (pounds/person/day)	3.22	4.98
Computer Equipment/Peripherals	45,860	22,270	23,590			
Electronic Equipment	93,320	55,990	37,330			
White Goods - Refrigerated	66,990	6,700	60,290			

Sources: Total generation - Table 3.2 per capita generation times Illinois projected 2014 projected population of 12,913,544. Illinois Commodity/Waste Generation and Characterization Study. Illinois Recycling Association. May 22, 2009. Residential/ICI - Illinois sampling study. Fall 2014.

HVAC Ducting is included in C&D. Sewage Solids are included in Other Organics.

Table 3-5. Urban MSW Generation

	Urban Generation (lb/c/yr)	Urban Generation (tons)		Urban Generation (lb/c/yr)	Urban Generation (tons)
Paper	762.4	4,342,250	Metal		
Newsprint	91.4	520,320	Other Ferrous	51.2	291,820
High Grade Office Paper	52.0	296,360	Other Non-Ferrous	9.1	51,610
Magazines/Catalogs	29.6	168,850	Other Metal	15.9	90,520
Uncoated OCC/Kraft	396.1	2,255,880			
Boxboard	54.6	310,840	Organics	600.7	3,421,350
Mixed Paper - Recyclable	53.2	303,270	Yard Waste - Compostable	117.4	668,720
Compostable Paper	73.1	416,090	Yard Waste - Woody	23.2	132,270
Other Paper	12.4	70,640	Food Scraps	335.7	1,912,260
			Bottom Fines & Dirt	45.2	257,630
Beverage Containers	5.8	33,120	Diapers	37.1	211,060
Milk & Juice Cartons/Boxes - Coated	5.8	33,120	Other Organic	42.0	239,410
Plastic	324.1	1,845,870	Inorganics	175.2	997,730
#1 PET Bottles/Jars	23.0	131,220	Televisions	5.0	28,630
#1 Other PET Containers	6.5	36,790	Computer Monitors	3.2	18,080
#2 HDPE Bottles/Jars - Clear	11.6	66,350	Computer Equipment/Peripherals	7.1	40,440
#2 HDPE Bottles/Jars - Color	10.8	61,280	Electronic Equipment	14.5	82,330
#2 Other HDPE Containers	0.8	4,310	White Goods - Refrigerated	10.4	59,100
#6 Exp. Polystyrene Packaging	18.4	104,640	White Goods - Not refrigerated	23.1	131,700
#3-#7 Other - All	13.0	74,280	Lead-acid Batteries	18.2	103,880
Other Rigid Plastic Products	58.0	330,190	Other Household Batteries	4.3	24,680
Grocery & Merchandise Bags	14.0	79,770	Tires	25.8	146,990
Trash Bags	33.5	190,790	Household Bulky Items	63.1	359,320
Commercial & Industrial Film	39.4	224,180	Fluorescent Lights/Ballasts	0.5	2,580
Other Film	58.8	334,800			
Other Plastic	36.4	207,270	Textiles	116.7	664,910
			Carpet	24.5	139,300
Glass	85.9	489,520	Carpet Padding	6.6	37,730
Recyclable Glass Bottles & Jars	68.1	388,110	Clothing	54.2	308,960
Flat Glass	10.0	57,150	Other Textiles	31.4	178,920
Other Glass	7.8	44,260			
			Household Hazardous Waste	26.8	152,910
Metal	123.1	701,150	Construction and Demolition Debris (C&D)	843.6	4,805,040
Aluminum Beverage Containers	15.4	87,630			
Other Aluminum	8.7	49,540	Total MSW (tons)		17,453,850
HVAC Ducting	-	-	Total MSW (pounds/person/day)		8.40
Ferrous Containers (Tin Cans)	22.8	130,030			

Sources: Urban/rural - U.S. Department of Agriculture. Economic Research Center. <http://www.ers.usda.gov/data-products/rural-urban-continuum-codes/documentation.aspx>
 11,391,543
 2014 projected population

Alexander, Bond, Boone, Calhoun, Champaign, Clinton, Cook, DeKalb, DeWitt, DuPage, Ford, Grundy, Henry, Jackson, Jersey, Kane, Kanikakee, Kendall, Lake, Macon, Macoupin, Madison, Marshall, McHenry, McLean, Menard, Mercer, Monroe, Peoria, Piatt, Rock Island, Sangamon, St. Clair, Stark, Tazewell, Vermilion, Will, Williamson, Winnebago, Woodford Counties.

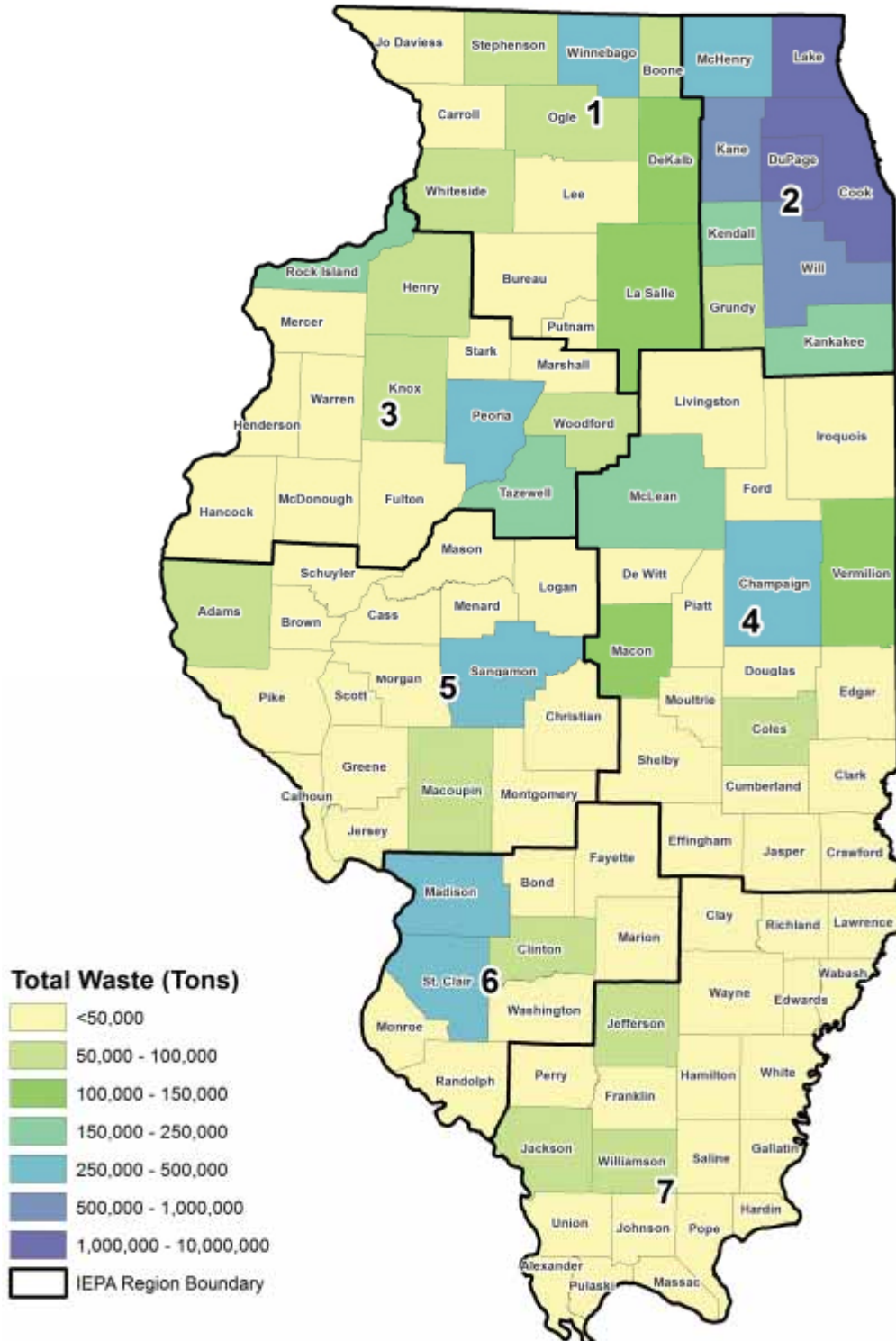
Table 3-6. Rural MSW Generation

	Rural Generation (lb/c/yr)	Rural Generation (tons)		Rural Generation (lb/c/yr)	Rural Generation (tons)
Paper	600.1	456,670	Metal		
Newsprint	54.3	41,350	Other Ferrous	51.2	38,990
High Grade Office Paper	38.1	29,030	Other Non-Ferrous	9.1	6,910
Magazines/Catalogs	31.7	24,140	Other Metal	15.9	12,130
Uncoated OCC/Kraft	282.7	215,100			
Boxboard	54.6	41,540	Organics	574.5	437,170
Mixed Paper - Recyclable	53.2	40,520	Yard Waste - Compostable	117.5	89,390
Compostable Paper	73.0	55,560	Yard Waste - Woody	23.2	17,660
Other Paper	12.4	9,430	Food Scraps	309.4	235,490
			Bottom Fines & Dirt	45.3	34,460
Beverage Containers	5.1	3,900	Diapers	37.0	28,190
Milk & Juice Cartons/Boxes - Coated	5.1	3,900	Other Organic	42.0	31,980
Plastic	299.6	228,000	Inorganics	175.2	133,320
#1 PET Bottles/Jars	20.1	15,290	Televisions	5.1	3,860
#1 Other PET Containers	5.6	4,280	Computer Monitors	3.2	2,450
#2 HDPE Bottles/Jars - Clear	10.1	7,690	Computer Equipment/Peripherals	7.1	5,420
#2 HDPE Bottles/Jars - Color	9.4	7,150	Electronic Equipment	14.4	10,990
#2 Other HDPE Containers	0.6	460	White Goods - Refrigerated	10.4	7,890
#6 Exp. Polystyrene Packaging	18.4	13,970	White Goods - Not refrigerated	23.1	17,610
#3-#7 Other - All	13.1	9,960	Lead-acid Batteries	18.2	13,870
Other Rigid Plastic Products	58.0	44,140	Other Household Batteries	4.3	3,310
Grocery & Merchandise Bags	11.3	8,580	Tires	25.8	19,640
Trash Bags	33.5	25,470	Household Bulky Items	63.1	47,990
Commercial & Industrial Film	31.6	24,020	Fluorescent Lights/Ballasts	0.4	290
Other Film	58.8	44,730			
Other Plastic	29.3	22,260	Textiles	100.0	76,070
			Carpet	24.5	18,660
Glass	86.0	65,460	Carpet Padding	6.6	5,020
Recyclable Glass Bottles & Jars	68.2	51,870	Clothing	43.6	33,160
Flat Glass	10.1	7,650	Other Textiles	25.3	19,230
Other Glass	7.8	5,940			
			Household Hazardous Waste	26.7	20,330
Metal	123.2	93,750	Construction and Demolition Debris (C&D)	464.8	353,690
Aluminum Beverage Containers	15.4	11,710			
Other Aluminum	8.7	6,630	Total MSW (tons)		1,868,360
HVAC Ducting	-	-	Total MSW (pounds/person/day)		6.73
Ferrous Containers (Tin Cans)	22.8	17,380			

Sources: Urban/rural - U.S. Department of Agriculture. Economic Research Center. <http://www.ers.usda.gov/data-products/rural-urban-continuum-codes/documentation.aspx>
 1,522,001
 2014 projected population
 Adams, Brown, Bureau, Carroll, Cass, Christian, Clark, Clay, Coles, Crawford, Cumberland, Douglas, Edgar, Edwards, Effingham, Fayette, Franklin, Fulton, Gallatin, Greene, Hamilton, Hancock, Hardin, Henderson, Ingham, Jasper, Jefferson, Jo Daviess, Johnson, Knox, LaSalle, Lawrence, Lee, Livingston, Logan, Marion, Mason, Massac, McDonough, Montgomery, Morgan, Moultrie, Ogle, Perry, Pike, Pope, Pulaski, Putnam, Randolph, Richland, Saline, Schuyler, Scott, Shelby, Stephenson, Union, Wabash, Washington, Wayne, White, Whiteside Counties.
 HVAC Ducting is included in C&D.

Comparing the per capita rates shown in these two tables shows that paper generation is 27% higher in urban areas (762 pounds per capita per year urban/ 600 pounds per capita per year rural). Plastics are 8% higher, organics are 5% higher, and textiles are 17% higher in urban areas. C&D generation is 82% higher in urban areas.

Figure 3-2. Illinois County Annual MSW Generation

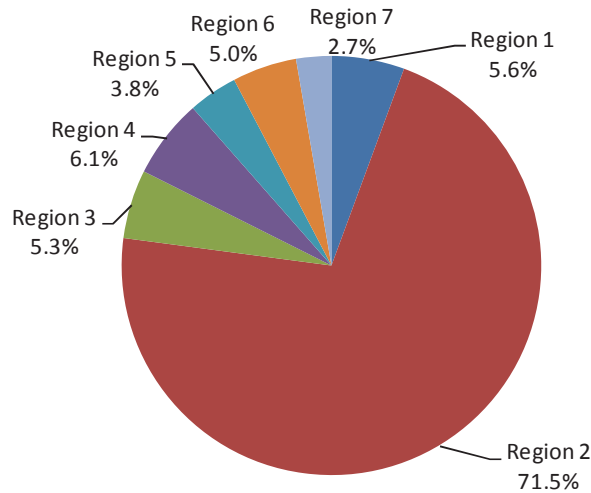


3.3.5 MSW Generation by IEPA Region

The regional summary shown in Table 3-7 was derived from the summation of the individual county generation estimates included in the appendices to this report and shown in Figure 3-2. Table 3-7 displays the ten main product categories for each region on a per person basis and total generation in tons. Figure 3-2 identifies the counties included in each IEPA Region and detailed region-by-region MSW data are provided in the appendices.

As illustrated in Figure 3-3, Region 2 generates the largest portion of Illinois MSW at 72%. This region includes 67% of the state’s population. The remaining regions each generate between 3 and 6% of the statewide MSW.

Figure 3-3. MSW Generation by IEPA Regions (% of statewide generation)



On a per capita basis, Region 2 also has the highest waste generation rate at 8.7 pounds per person per day (see Table 3-7 and Figure 3-4). The other regions range from 6.6 to 7.4 pounds per person per day. The statewide per capita rate is 8.2 pounds per person per day.

Figure 3-4. Per Capita MSW Generation by IEPA Region (pound per capita per day)

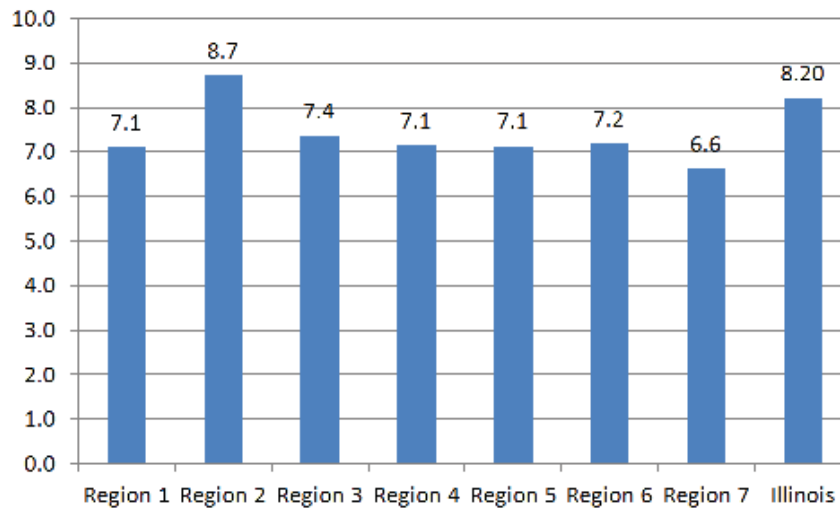


Table 3-7. MSW Generation by IEPA Regions

	Regional Generation (lb/c/yr)	Regional Generation (tons)	Regional Generation (lb/c/yr)	Regional Generation (tons)	Regional Generation (lb/c/yr)	Regional Generation (tons)
Region 1						
Paper	642.0	269,290	793.2	3,440,930	675.0	257,730
Beverage Containers	5.0	2,090	6.0	26,030	6.0	2,290
Plastic	306.0	128,350	328.5	1,425,010	316.6	120,880
Glass	86.0	36,050	86.0	372,860	85.9	32,810
Metal	123.1	51,640	123.1	534,010	123.2	47,030
Organics	575.6	241,410	606.4	2,630,390	601.0	229,480
Inorganics	175.3	73,520	175.2	759,880	175.1	66,850
Textiles	107.5	45,080	123.8	517,580	107.8	41,150
HHW	26.8	11,260	26.9	116,530	26.8	10,250
C&D	545.7	228,870	918.8	3,985,720	573.3	213,910
Total MSW (tons)		1,087,560		13,808,940		1,027,380
Total MSW (pounds/person/day)		7.10		8.72		7.37
Region 2						
Paper	640.4	290,400	656.8	184,720	633.3	232,020
Beverage Containers	5.2	2,340	5.2	1,460	5.1	1,870
Plastic	306.5	138,990	307.6	86,510	307.3	112,590
Glass	85.9	38,970	85.9	24,150	86.0	31,500
Metal	123.1	55,810	123.3	34,680	123.1	45,090
Organics	578.5	262,300	577.7	162,460	578.7	212,010
Inorganics	175.1	79,420	175.6	49,390	175.0	64,130
Textiles	106.1	48,120	106.9	30,070	107.2	39,290
HHW	26.8	12,140	26.7	7,500	26.8	9,820
C&D	558.4	253,200	537.0	151,030	581.6	213,090
Total MSW (tons)		1,181,690		731,970		961,410
Total MSW (pounds/person/day)		7.14		7.13		7.19
Region 3						
Paper	642.0	269,290	793.2	3,440,930	675.0	257,730
Beverage Containers	5.0	2,090	6.0	26,030	6.0	2,290
Plastic	306.0	128,350	328.5	1,425,010	316.6	120,880
Glass	86.0	36,050	86.0	372,860	85.9	32,810
Metal	123.1	51,640	123.1	534,010	123.2	47,030
Organics	575.6	241,410	606.4	2,630,390	601.0	229,480
Inorganics	175.3	73,520	175.2	759,880	175.1	66,850
Textiles	107.5	45,080	123.8	517,580	107.8	41,150
HHW	26.8	11,260	26.9	116,530	26.8	10,250
C&D	545.7	228,870	918.8	3,985,720	573.3	213,910
Total MSW (tons)		1,087,560		13,808,940		1,027,380
Total MSW (pounds/person/day)		7.10		8.72		7.37
Region 4						
Paper	640.4	290,400	656.8	184,720	633.3	232,020
Beverage Containers	5.2	2,340	5.2	1,460	5.1	1,870
Plastic	306.5	138,990	307.6	86,510	307.3	112,590
Glass	85.9	38,970	85.9	24,150	86.0	31,500
Metal	123.1	55,810	123.3	34,680	123.1	45,090
Organics	578.5	262,300	577.7	162,460	578.7	212,010
Inorganics	175.1	79,420	175.6	49,390	175.0	64,130
Textiles	106.1	48,120	106.9	30,070	107.2	39,290
HHW	26.8	12,140	26.7	7,500	26.8	9,820
C&D	558.4	253,200	537.0	151,030	581.6	213,090
Total MSW (tons)		1,181,690		731,970		961,410
Total MSW (pounds/person/day)		7.14		7.13		7.19
Region 5						
Paper	640.4	290,400	656.8	184,720	633.3	232,020
Beverage Containers	5.2	2,340	5.2	1,460	5.1	1,870
Plastic	306.5	138,990	307.6	86,510	307.3	112,590
Glass	85.9	38,970	85.9	24,150	86.0	31,500
Metal	123.1	55,810	123.3	34,680	123.1	45,090
Organics	578.5	262,300	577.7	162,460	578.7	212,010
Inorganics	175.1	79,420	175.6	49,390	175.0	64,130
Textiles	106.1	48,120	106.9	30,070	107.2	39,290
HHW	26.8	12,140	26.7	7,500	26.8	9,820
C&D	558.4	253,200	537.0	151,030	581.6	213,090
Total MSW (tons)		1,181,690		731,970		961,410
Total MSW (pounds/person/day)		7.14		7.13		7.19
Region 6						
Paper	640.4	290,400	656.8	184,720	633.3	232,020
Beverage Containers	5.2	2,340	5.2	1,460	5.1	1,870
Plastic	306.5	138,990	307.6	86,510	307.3	112,590
Glass	85.9	38,970	85.9	24,150	86.0	31,500
Metal	123.1	55,810	123.3	34,680	123.1	45,090
Organics	578.5	262,300	577.7	162,460	578.7	212,010
Inorganics	175.1	79,420	175.6	49,390	175.0	64,130
Textiles	106.1	48,120	106.9	30,070	107.2	39,290
HHW	26.8	12,140	26.7	7,500	26.8	9,820
C&D	558.4	253,200	537.0	151,030	581.6	213,090
Total MSW (tons)		1,181,690		731,970		961,410
Total MSW (pounds/person/day)		7.14		7.13		7.19
Region 7						
Paper	572.2	123,830	743.2	4,798,920	743.2	4,798,920
Beverage Containers	4.3	940	5.7	37,020	5.7	37,020
Plastic	284.4	61,540	321.2	2,073,870	321.2	2,073,870
Glass	86.1	18,640	86.0	554,980	86.0	554,980
Metal	123.1	26,640	123.1	794,900	123.1	794,900
Organics	556.7	120,470	597.6	3,858,520	597.6	3,858,520
Inorganics	175.0	37,860	175.2	1,131,050	175.2	1,131,050
Textiles	91.0	19,690	114.8	740,980	114.8	740,980
HHW	26.5	5,740	26.8	173,240	26.8	173,240
C&D	498.7	107,910	799.0	5,158,730	799.0	5,158,730
Total MSW (tons)		523,260		19,322,210		19,322,210
Total MSW (pounds/person/day)		6.62		8.20		8.20
Illinois Total						
Paper	572.2	123,830	743.2	4,798,920	743.2	4,798,920
Beverage Containers	4.3	940	5.7	37,020	5.7	37,020
Plastic	284.4	61,540	321.2	2,073,870	321.2	2,073,870
Glass	86.1	18,640	86.0	554,980	86.0	554,980
Metal	123.1	26,640	123.1	794,900	123.1	794,900
Organics	556.7	120,470	597.6	3,858,520	597.6	3,858,520
Inorganics	175.0	37,860	175.2	1,131,050	175.2	1,131,050
Textiles	91.0	19,690	114.8	740,980	114.8	740,980
HHW	26.5	5,740	26.8	173,240	26.8	173,240
C&D	498.7	107,910	799.0	5,158,730	799.0	5,158,730
Total MSW (tons)		523,260		19,322,210		19,322,210
Total MSW (pounds/person/day)		6.62		8.20		8.20

Sources: Regional Appendix Tables. See appendix for additional detail and a list of counties included in each region.

2014 population estimated by ESRI based on US Census Bureau 2010 population data.

Region 1 838,855

Region 2 8,676,137

Region 3 763,673

Region 4 906,891

Region 5 562,476

Region 6 732,728

Region 7 432,784

Total population 12,913,544

Beverage Containers - Milk & Juice Cartons/Boxes - Coated

HHW - Household Hazardous Waste

C&D - Construction and Demolition Debris

Section 4

MSW Diversion

4.1 Introduction

It is the intent of Illinois law that the recovery of resources and diversion of commodities from landfills should be a fundamental concept in Illinois management goals and can be accomplished using a variety of strategies including source reduction, re-use, recycling, composting and other techniques. The following sections identify materials that could be diverted, estimate the current Illinois diversion rate, compare select Illinois diversion rates to national averages, determine the market value of the recoverable materials, and determine the impact of these materials on the environment.

4.2 Illinois Diversion/Recovery Rates

The diversion rate is a key indicator as to the success or failure of recovery efforts. In order to calculate a diversion rate, the quantity of materials generated must be known as well as a knowledge of the quantity of materials recovered using the strategies named above. Unfortunately the task of ascertaining the quantity of materials being recovered was beyond the scope of this Study. Nonetheless, a diversion rate can be estimated by assuming that the difference between the generation quantities developed in Section 3 – 19.3 million tons, and disposal quantities developed in Section 2 – 12.1 million tons, is the quantity of materials recovered – some 7.2 million tons. Based on this methodology, **the overall Illinois diversion rate is estimated to be 37.3% by weight.** Table 4-1 summarizes the material diversion/recovery rates and overall Illinois diversion rate estimates.

Currently there is no mechanism in Illinois that establishes a protocol for or requires the type and quantity of materials recovered through programs and efforts throughout the state to be reported to a central entity. Therefore, Illinois cannot verify the estimated diversion rate calculated in this report using the methodology above..

4.3 Illinois Recovery Rates Compared to National Recovery

The Illinois recovery rates presented in Section 4.3 are compared to national recovery rates in Table 4-2. The national recovery rates are developed for the U.S. EPA report series Municipal Solid Waste in the National recovery of most MSW products is estimated from industry data. The data are typically supplied through trade groups such as the American Forest & Paper Association, the Aluminum Association, the American Chemistry Council, Rubber Manufacturers Association, and the Steel Recycling Institute. This type of data is only available on a national level.

Recovery of other products such as yard waste and food scraps are estimated from facility information supplied by state agencies and trade publications such as *BioCycle*.

National recovery rates are available for only a portion of the IRA product categories. The product categories where a comparison can be made between Illinois and the U.S. are shown in Table 4-2 as a percent of generation of each product. It should be noted that only individual product recovery rate comparisons between Illinois and the U.S. can be made. Since the Illinois definition of MSW includes products and materials not included in EPA's definition, total Illinois MSW recovery shown in this report is *not* comparable to the total U.S. MSW recovery rate shown in the EPA report.

Table 4-1. Illinois Recovery/Diversion Rates

	Generated Tons	Disposed Tons	Recovery Tons*	Recovery %	Generated Tons	Disposed Tons	Recovery Tons*	Recovery %
Paper	4,798,920	2,711,700	2,087,200	43.5%	1,131,050	485,700	645,400	57.1%
Newsprint	561,670	227,170	334,500	59.6%	32,490	19,030	13,500	41.6%
High Grade Office Paper	325,390	161,030	164,400	50.5%	20,530	9,290	11,200	54.6%
Magazines/Catalogs	192,990	125,620	67,400	34.9%	45,860	19,020	26,800	58.4%
Uncoated OCC/Kraft	2,470,980	1,070,350	1,400,600	56.7%	93,320	60,050	33,300	35.7%
Boxboard	352,380	270,630	81,800	23.2%	66,990	7,160	59,800	89.3%
Mixed Paper - Recyclable	343,790	330,190	13,600	4.0%	149,310	40,530	108,800	72.9%
Compostable Paper	471,650	450,220	21,400	4.5%	117,750	-	117,750	100.0%
Other Paper	80,070	76,430	3,600	4.5%	27,990	26,410	1,600	5.7%
Beverage Containers	37,020	34,600	2,400	6.5%	166,630	19,250	147,400	88.5%
Milk & Juice Cartons/Boxes - Coated	37,020	34,610	2,400	6.5%	407,310	282,470	124,800	30.6%
Plastic	2,073,870	1,906,200	167,700	8.1%	740,980	599,900	141,100	19.0%
#1 PET Bottles/Jars	146,510	133,050	13,500	9.2%	157,960	146,290	11,700	7.4%
#1 Other PET Containers	41,070	37,290	3,800	9.3%	42,750	40,040	2,700	6.3%
#2 HDPE Bottles/Jars - Clear	74,040	47,900	26,100	35.3%	342,120	224,360	117,800	34.4%
#2 HDPE Bottles/Jars - Color	68,430	44,270	24,200	35.4%	198,150	189,270	8,900	4.5%
#2 Other HDPE Containers	4,770	3,090	1,700	35.6%	-	-	-	-
#6 Exp. Polystyrene Packaging	118,620	117,260	1,400	1.2%	173,240	65,200	108,000	62.3%
#3-#7 Other - All	84,230	83,270	1,000	1.2%	10,070	9,870	200	2.0%
Other Rigid Plastic Products	374,330	308,460	65,900	17.6%	3,770	3,620	200	5.3%
Grocery & Merchandise Bags	88,350	87,730	600	0.7%	250	-	250	100.0%
Trash Bags	216,260	216,260	-	0.0%	104,380	15,080	89,300	85.6%
Commercial & Industrial Film	248,200	219,990	28,200	11.4%	17,100	20	17,080	99.9%
Other Film	379,530	379,530	-	0.0%	<10	<10	-	0.0%
Other Plastic	229,530	228,050	1,500	0.7%	3,600	3,600	-	0.0%
Glass	554,980	414,500	140,500	25.3%	12,780	12,400	400	3.1%
Recyclable Glass Bottles & Jars	439,980	312,700	127,300	28.9%	-	-	-	0.0%
Flat Glass	64,800	64,800	-	0.0%	21,290	20,600	700	3.3%
Other Glass	50,200	37,030	13,200	26.3%	-	-	-	0.0%
Metal	1,161,360	494,700	666,700	57.4%	4,677,540	2,052,900	2,714,600	56.9%
Aluminum Beverage Containers	99,340	60,470	38,900	39.2%	559,010	177,670	381,300	68.2%
Other Aluminum	56,170	35,990	20,200	36.0%	582,340	201,000	381,300	65.5%
HVAC Ducting	48,680	1,000	47,700	98.0%	422,960	292,740	130,200	30.8%
Ferrous Containers (Tin Cans)	147,410	108,860	38,600	26.2%	366,600	366,600	-	0.0%
Other Ferrous	330,810	155,370	175,400	53.0%	12,660	12,660	-	0.0%
Other Non-Ferrous	58,520	50,020	8,500	14.5%	507,840	126,500	381,300	75.1%
Other Metal + mixed C&D metals	420,430	82,960	337,500	80.3%	96,840	1,510	95,300	98.4%
Organics	3,931,960	3,371,300	560,700	14.3%	327,140	72,920	254,200	77.7%
Yard Waste - Compostable	758,110	313,860	444,300	58.6%	270,010	31,680	238,300	88.3%
Yard Waste - Woody	149,930	62,070	87,900	58.6%	228,730	101,620	127,100	55.6%
Food Scraps	2,147,760	2,119,200	28,600	1.3%	385,570	185,570	200,000	51.9%
Bottom Fines & Dirt	365,520	365,520	-	0.0%	34,290	34,290	-	0.0%
Diapers	239,250	239,250	-	0.0%	274,950	116,060	158,900	57.8%
Other Organic	271,390	271,390	-	0.0%	69,320	69,320	-	0.0%
Total*	19,370,900	12,136,700	7,234,300	37.3%	19,370,900	12,136,700	7,234,300	37.3%

* Numbers rounded to nearest 100 Tons

HVAC Ducting and mixed C&D metals are included in Metal
All Bottom Fines & Dirt are included in Organics

Sewage Solids are included in Other Organics.

Table 4-2. Comparison of Illinois Recovery Rates to National Averages

	Illinois Recovery (%)	U.S. Recovery (%)		Illinois Recovery (%)	U.S. Recovery (%)
Paper			Metal		
Newsprint	60%	70%	Aluminum Beverage Containers	39%	55%
High Grade Office Paper	51%	53%	Ferrous Containers (Tin Cans)	26%	71%
Uncoated OCC/Kraft	57%	91%	Organics		
Boxboard	23%	25%	Yard Waste - Compostable	59%	58%
			Yard Waste - Woody	59%	58%
			Food Waste	1%	5%
			Inorganics		
Beverage Containers			Televisions	55%	29%
Milk & Juice Cartons/Boxes - Coated	7%	6%	Computer Monitors	59%	29%
			Computer Equipment/Peripherals	36%	29%
Plastic			White Goods - Refrigerated	89%	82%
#1 PET Bottles/Jars	9%	31%	White Goods - Not refrigerated	73%	82%
#1 Other PET Containers	9%	21%	Lead-acid Batteries	100%	96%
#2 HDPE Bottles/Jars - Clear	35%	28%	Tires	88%	96%
#2 HDPE Bottles/Jars - Color	35%	21%	Textiles		
#2 Other HDPE Containers	35%	21%	Carpet	7%	8%
#6 Exp. Polystyrene Packaging	1%	7%	Carpet Padding	6%	8%
#3-#7 Other - All	1%	negligible	Clothing	34%	14%
Other Rigid Plastic Products	18%	7%			
Grocery & Merchandise Bags	1%	12%	Construction and Demolition Debris (C&D)		
Commercial & Industrial Film	11%	12%	Wood Pallets	31%	25%
Glass					
Recyclable Glass Bottles & Jars	29%	34%			

Sources U.S. Recovery:

United States Environmental Protection. Municipal Solid Waste Generation, Recycling, and Disposal in the United States Tables and Figures for 2012, February 2014.

All products except for products listed separately.

United States Environmental Protection. Municipal Solid Waste in the United States: 2009 Facts and Figures. Milk & Juice Cartons/boxes.

American Forest & Paper Association (AF&PA). Paper Recycles. Recovery of Printing and Writing Paper. 2013 AF&PA recovery assumed for High Grade Office Paper.

Steel Recycling Institute. Steel Recycling Rates. 2013 Appliances.

Rubber Manufacturers Association (RMA). 2013 U.S. Scrap Tire Management Summary. November 2014. 2013 tire utilization.

Grocery & Merchandise Bags and Commercial & Industrial Film material categories are a combined recovery value.

Table 4-2 shows that in Illinois, recovery of individual products are varied as compared to the national average. Of the material categories presented in Table 4-2, roughly one-third are above the national average, one-third are at or very near the national average, and the remaining one-third are below the national average.

Material categories with Illinois recovery rates within $\pm 10\%$ of the national average include High Grade Office Paper (ex: $51\%/53\% = 5\%$ variation), Boxboard, Milk & Juice Cartons/Boxes – Coated, Plastics #3-#7 Other – All, Grocery & Merchandise Bags, Commercial & Industrial Film, Yard Waste – Compostable, Yard Waste – Woody, Lead-acid Batteries, Tires, and Carpet.

Although all paper grades are estimated to be recovered below national average, OCC/Kraft is at 62% of the national recovery rate (57%/91%). This result is consistent with our previous study's data for Illinois and the national average.

Most plastic products are recovered at or below national average with the exception of HDPE products, where the HDPE material categories were each recovered at 35% compared to 21% to 28% for the U.S. Other Rigid Plastic Products are estimated to be recovered in Illinois at a higher rate (18%) than for the U.S. (7%).

The U.S. PET plastic container recycling is shown at 9% for both PET categories in Table 4-2. In reality, some PET containers are recycled at a higher rate than others. In the EPA report, PET bottles and jars are recovered at 30.8% and other PET packaging are recovered at 2.4% of generation, respectively. Since the IRA product categories do not follow this same structure, all PET container recovery at the national level was combined into one rate (9%).

Most inorganics are estimated to be recovered in Illinois at rates higher than the national average, with exception for White Goods – Not Refrigerated (89%) and Tires (92%). It is possible that these rates are inflated by the lack of large inorganic items in the loads sampled during the field sorting conducted in 2014. Items such as televisions that are a small percentage of the waste stream do not enter the waste stream as consistently as other products, such as newspapers or glass bottles. This can cause large variability in the composition estimates and an inflated recovery number. Recovery of lead-acid batteries and White Goods - Refrigerated are estimated to be similar to U.S. recovery. These products have well established recovery infrastructures that result in high recovery rates.

Recyclable glass bottles and jars, aluminum beverage containers, Ferrous Containers (Tin Cans), and food waste are all estimated to be recovered at levels that are below the U.S. average (i.e., $29\%/34\%=85\%$ for glass bottles).

Recovery of textiles are estimated to be recovered in Illinois at or above the U.S. average recovery, where clothing was most recovered in Illinois at 34%.

The only component of the C&D waste stream that could be directly compared to the U.S. is wood pallets. Illinois recovery is estimated at 31%, a little higher than the U.S. average of 25%. The pallet reuse market may be slightly more active in Illinois than other states. Other recovery markets such as chipping for land cover or fuel may also be more established in Illinois. Another explanation for the high recovery might be that the waste composition profile underestimated the quantity of wood pallets disposed.

4.4 MSW Recovery Rates

The following table summarizes the materials recovered in Illinois as estimated by this study. The list is organized by materials most recovered by percentage of generation in Illinois. The list illustrates material categories banned from landfilling and commonly collected in curbside recycling programs.

Table 4-3. Listing of Materials Recovered

	Generated tons	Disposed tons	Recovered tons	Recovery %
Lead-acid Batteries	117,750	-	117,750	100.0%
Automotive Fluids	17,100	20	17,080	99.9%
Reinforced Concrete	96,840	1,510	95,300	98.4%
HVAC Ducting	48,680	1,000	47,700	98.0%
White Goods - Refrigerated	66,990	7,160	59,800	89.3%
Tires	166,630	19,250	147,400	88.5%
Bricks	270,010	31,680	238,300	88.3%
Used Oil/Filters	104,380	15,080	89,300	85.6%
Other Metal + mixed C&D metals	420,430	82,960	337,500	80.3%
Rock & Other Aggregates	327,140	72,920	254,200	77.7%
Concrete	507,840	126,500	381,300	75.1%
White Goods - Not refrigerated	149,310	40,530	108,800	72.9%
Clean Dimensional Lumber	559,010	177,670	381,300	68.2%
Clean Engineered Wood	582,340	201,000	381,300	65.5%
Newsprint	561,670	227,170	334,500	59.6%
Yard Waste - Woody	149,930	62,070	87,900	58.6%
Yard Waste - Compostable	758,110	313,860	444,300	58.6%
Computer Equipment/Peripherals	45,860	19,020	26,800	58.4%
Plastic C&D Materials	274,950	116,060	158,900	57.8%
Other C&D	556,440	238,660	317,800	57.1%
Uncoated OCC/Kraft	2,470,980	1,070,350	1,400,600	56.7%
Gypsum Board	228,730	101,620	127,100	55.6%
Computer Monitors	20,530	9,290	11,200	54.6%
Other Ferrous	330,810	155,370	175,400	53.0%
Composition Shingles	385,570	185,570	200,000	51.9%

	Generated tons	Disposed tons	Recovered tons	Recovery %
High Grade Office Paper	325,390	161,030	164,400	50.5%
Televisions	32,490	19,030	13,500	41.6%
Aluminum Beverage Containers	99,340	60,470	38,900	39.2%
Other Aluminum	56,170	35,990	20,200	36.0%
Electronic Equipment	93,320	60,050	33,300	35.7%
#2 Other HDPE Containers	4,770	3,090	1,700	35.6%
#2 HDPE Bottles/Jars - Color	68,430	44,270	24,200	35.4%
#2 HDPE Bottles/Jars - Clear	74,040	47,900	26,100	35.3%
Magazines/Catalogs	192,990	125,620	67,400	34.9%
Clothing	342,120	224,360	117,800	34.4%
Wood Pallets	422,960	292,740	130,200	30.8%
Household Bulky Items	407,310	282,470	124,800	30.6%
Recyclable Glass Bottles & Jars	439,980	312,700	127,300	28.9%
Other Glass	50,200	37,030	13,200	26.3%
Ferrous Containers (Tin Cans)	147,410	108,860	38,600	26.2%
Boxboard	352,380	270,630	81,800	23.2%
Other Rigid Plastic Products	374,330	308,460	65,900	17.6%
Other Non-Ferrous	58,520	50,020	8,500	14.5%
Fluorescent Lights/Ballasts	2,870	2,520	400	13.9%
Commercial & Industrial Film	248,200	219,990	28,200	11.4%
#1 Other PET Containers	41,070	37,290	3,800	9.3%
#1 PET Bottles/Jars	146,510	133,050	13,500	9.2%
Carpet	157,960	146,290	11,700	7.4%
Milk & Juice Cartons/Boxes - Coated	37,020	34,610	2,400	6.5%
Carpet Padding	42,750	40,040	2,700	6.3%
Other Household Batteries	27,990	26,410	1,600	5.7%
Oil Paint	3,770	3,620	200	5.3%
Compostable Paper	471,650	450,220	21,400	4.5%

	Generated tons	Disposed tons	Recovered tons	Recovery %
Compostable Paper	471,650	450,220	21,400	4.5%
Other Paper	80,070	76,430	3,600	4.5%
Other Textiles	198,150	189,270	8,900	4.5%
Mixed Paper - Recyclable	343,790	330,190	13,600	4.0%
Other HHW	21,290	20,600	700	3.3%
Ash, Sludge, & Industrial Wastes	12,780	12,400	400	3.1%
Latex Paint	10,070	9,870	200	2.0%
Food Scraps	2,147,760	2,119,200	28,600	1.3%
#3-#7 Other - All	84,230	83,270	1,000	1.2%
#6 Exp. Polystyrene Packaging	118,620	117,260	1,400	1.2%
Grocery & Merchandise Bags	88,350	87,730	600	0.7%
Other Plastic	229,530	228,050	1,500	0.7%

Notes:

The 64 individual materials listed represent all of the total recovered materials, by weight.

The materials in bold and gray shaded cells represent items banned from landfilling.

The materials in green shaded cells are materials commonly accepted in curbside programs.

4.5 Market Values of Landfilled Commodities

One of the goals of this Study is to determine the estimated value of commodities that are landfilled and thus being lost to the overall economy – wasting jobs, natural resources, and contributing to negative environmental impacts. A comprehensive economic evaluation would include direct, indirect and induced economic values of all commodities being landfilled, and is a complete study in and of itself. In light of this, it was determined to focus on the “traditional” commodities typically collected in residential or commercial recycling programs. Recognizing that there are other significant quantities of commodities being recycled, the value presented here then should be viewed as a minimum. The market value was calculated based on the average 2014 commodity values from January 2014 through December 2014,^{17 18} obtained from market data detailed in Section 4.5 for the Midwest region.

Table 4-4 summarizes the market value of the commodities landfilled based on these values. **The direct market value is calculated at over \$360 Million.**

¹⁷ Recycling Manager Archives, www.amm.com/recman/archives, Cahners Business Information, American Metal Market LLC, a division of Metal Bulletin PLC.

¹⁸ Official Board Markets: The Yellow Sheet, <https://prices.packaging-online.com>.

Table 4-4. Market Value of Disposed Materials^{19 20 21}

	Tons	\$/Ton*	Value
Paper			
Newsprint	227,170	\$ 52.50	\$ 11,926,425
High Grade Office Paper	161,030	\$ 131.00	\$ 21,094,930
Magazines/Catalogs	125,620	\$ 82.00	\$ 10,300,840
Uncoated OCC/Kraft	1,070,350	\$ 80.50	\$ 86,163,175
Boxboard	270,630	\$ 37.50	\$ 10,148,625
Mixed Paper - Recyclable	330,190	\$ 37.50	\$ 12,382,125
Plastic			
#1 PET Bottles/Jars	133,050	\$ 335.00	\$ 44,571,750
#2 HDPE Bottles/Jars - Clear	47,900	\$ 893.00	\$ 42,774,700
#2 HDPE Bottles/Jars - Color	44,270	\$ 545.00	\$ 24,127,150
Glass			
Recyclable Glass Bottles & Jars	312,700	\$ (10.00)	\$ (3,127,000)
Metal			
Aluminum Beverage Containers	60,470	\$ 1,493.00	\$ 90,281,710
Ferrous Containers (Tin Cans)	108,860	\$ 110.00	\$ 11,974,600
Total	2,892,240	\$	\$ 362,619,030

* Market values are based on an annual average of Midwest markets from January 2014 through December 2014.

4.6 Greenhouse Gas Emissions

Global warming is an issue that has been steadily gaining national and worldwide attention and concern. It is widely agreed that greenhouse gases (GHG) that result from the burning of fossil fuels and other human activities, is contributing to climate change. Illinois has a sustainable energy plan and is a signatory to the Midwestern Greenhouse Gas Accord. Recovering commodities from discarded materials through recycling, composting and waste reduction strategies can play a significant role in reducing GHG's by reducing emissions. Recovering commodities:

1. Avoids emissions from raw material extraction and transport,
2. Avoids emissions from raw material processing into "manufacturing ready" feedstock,
3. Avoids emissions from landfilling (methane),
4. Sustains forest carbon sequestration,
5. Reuses carbon based plastics indefinitely, rather than one time btu value for combustion.

¹⁹ Recycling Manager Archives, www.amm.com/recman/archives, Cahners Business Information, American Metal Market LLC, a division of Metal Bulletin PLC.

²⁰ Official Board Markets: The Yellow Sheet, <https://prices.packaging-online.com>.

²¹ Elgin Recycling price quote: <http://www.elginrecycling.com/>

The Illinois MSW generation and recovery information from Table 4-1 was inputted into the U.S. Environmental Protection Agency (EPA) Waste Reduction Model (WARM)²², to determine equivalent greenhouse gas emissions resulting from the landfilling of MSW in Illinois and to determine the emission reductions resulting from the quantities estimated to be recovered. The WARM model was created by the U.S. EPA to help solid waste planners and organizations estimate greenhouse gas (GHG) emission reductions from several different waste management practices. WARM calculates GHG emissions for baseline and alternative waste management practices, including source reduction, recycling, combustion, composting, and landfilling. The model calculates emissions in metric tons of carbon dioxide equivalent (MTCO₂E) across a wide range of material types commonly found in municipal solid waste (MSW). The GHG emission factors were developed following a life-cycle assessment methodology using estimation techniques developed for national inventories of GHG emissions. Default values for all variables were used for this model. CDM Smith assumed the national landfill average for methane recovery for flare and assumed default transport distances for emissions that occur during transport to landfills.

The total GHG emissions produced from the annual landfilled MSW (12.1 million tons) is approximately 2,516,928 MTCO₂E. This is equivalent to the annual greenhouse gas emissions from approximately 461,000 passenger vehicles or the carbon sequestered annually by 17,600 acres of forest preserved from deforestation²³.

The total GHG emissions reduced from materials currently recycled (7.2 million tons) is 17,242,620 MTCO₂E, which is equivalent to the annual greenhouse gas emissions from approximately 3,158,000 passenger vehicles or the carbon sequestered annually by 120,600 acres of forest.

4.6.1 Limitations

The WARM is a tool used to estimate GHG emissions from waste management practices. It is not the definitive protocol for municipal solid waste GHG management and should only be expected to provide a rough approximation. There are notable challenges with the WARM. As listed in Table 4-5, The WARM recognizes 34 material categories whereas there are 79 Illinois material categories in this study. Consequently, the WARM combines Illinois disposal categories. Most of the Illinois categories logically fit into the WARM. The WARM material type “Mixed Recyclable” includes the Illinois disposal categories that do not clearly match a listed WARM material type and are defined as recoverable or potentially recoverable. Illinois disposal categories defined as non-recoverable are included in the WARM “Mixed MSW” material type. For example, painted and treated wood, oil paint, sewage solids, and mercury-containing items among other non-recoverable material are classified in “Mixed MSW.” Electronic equipment, wood pallets, clothing, and ceramics are included in “Mixed Recyclable.” GHG emissions may be highly variable due to differences in classification; however, understanding the limitations, and for purposes of this tool, the waste categorization is adequate in assessing the approximate GHG emissions from Illinois landfill waste. A more comprehensive model which takes into account actual landfill age, transportation of waste, could provide additional detail on the actual GHG emission that could be saved by reducing the amount of materials that are disposed in Illinois landfills.

²² EPA’s report Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks (EPA 530-R-06-004) describes this methodology in detail. visit <http://epa.gov/climatechange/wycd/waste/SWMGHGreport.html>
http://www.epa.gov/climatechange/wycd/waste/calculators/Warm_home.html.

²³ EPA. 2009. Greenhouse Gas Equivalencies Calculator. <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>

Table 4-5. WARM Material Types

WARM Material Type	Illinois Material Type
Aluminum Cans	Aluminum Beverage Containers
Steel Cans	Ferrous Containers (Tins Containers)
Copper Wire	N/A
Glass	Recyclable Glass Bottles & Jars Flat Glass Other Glass
HDPE	#2 HDPE Bottles/Jars – Clear #2 HDPE Bottles/Jars – Color #2 Other HDPE Containers
LDPE	N/A
PET	#1 PET Bottles/Jars #1 Other PET Containers
Corrugated Cardboard	Uncoated OCC/Kraft
Magazines/Third-class Mail	Magazines/Catalogs
Newspaper	Newsprint
Office Paper	High Grade Office Paper
Phonebooks	N/A
Textbooks	N/A
Dimensional Lumber	Clean Dimensional Lumber
Medium-density Fiberboard	Clean Engineered Wood
Food Scraps	Food Scraps
Yard Trimmings	Yard Waste-Compostable
Grass	N/A
Leaves	N/A
Branches	Yard Waste - Woody
Mixed Paper (general)	Boxboard Mixed Paper - Recyclable Compostable Paper Other paper Milk & Juice Cartons/Boxes - Coated
Mixed Paper (primarily residential)	N/A
Mixed Paper (primarily from offices)	N/A
Mixed Metals	Other Aluminum HVAC Ducting Other Ferrous Other Non-Ferrous Other Metal

WARM Material Type	Illinois Material Type
Mixed Plastics	#6 Exp. Polystyrene Packaging #3-7 Other - All Other Rigid Plastic Products Grocery & Merchandise Bags Trash Bags Commercial & Industrial Film Other Film Other Plastic
Mixed Recyclables	Electronic Equipment White Goods - Refrigerated White Goods - Not Refrigerated Lead-acid Batteries Televisions Household Bulky Items Fluorescent Lights/Ballasts Clothing Latex Paint Used Oil/Filters Wood Pallets Asphalt Paving Rock & Other Aggregates Gypsum Board Composition Shingles Other Roofing Plastic C&D Materials Ceramics/Porcelain
Mixed Organics	Bottom Fines Diapers Other Organic
Mixed MSW	Other Household Batteries Other Textiles Oil Paint Plan/Organisms/Pest Control Growth Other Automotive Fluids Mercury – Containing Items Sharps & Infectious Waste Ash/ Sludge & Industrial Wastes Sewage Solids Other HHW Painted Wood Treated Wood Other C&D Other MSW
Carpet	Carpet Carpet Padding
Personal Computers	Computer Monitors/Peripherals Electronic Equipment
Clay Bricks	Bricks
Concrete	Concrete Reinforced concrete
Fly Ash	N/A
Tires	Tires

Section 5

Comparison

5.1 Introduction

This section compares the results of the 2008 ICWGC study and the 2014 ICWGC study. DCEO and IRA commissioned the 2008 ICWGC Study and the 2014 ICWGC Study update to determine what differences have occurred during this time period for the estimated quantity and types of materials generated, landfilled, and recovered in Illinois. Every effort was made to repeat the 2008 ICWGC study as closely as possible using the same methods and data sources. Any changes to methodology due to availability or lack of data have been described in earlier sections of this report. This section provides a comparison of the results of the two studies. It provides comparisons of the Landfilled MSW Characterization and Generated MSW for totals statewide as well as residential, ICI, urban, rural and C&D waste sectors. It also provides comparison of material classes, summaries of commodity material categories, and/or summaries of the largest material categories by weight. Lastly, comparisons of statewide MSW Recovery/Diversion rates are presented.

5.2 MSW Characterization Comparisons

The landfilled MSW composition results are presented in Section 2. Total MSW, residential, ICI, urban, rural, and C&D disposal waste sector and subsector study comparisons are presented below in similar format as provided in Section 2. The same results from the studies and the 90% confidence intervals from the two studies are presented for comparability. Figures showing the 90% confidence intervals illustrate there is significant difference in the material class or category from the 2008 ICWGC Study results and the 2014 ICWGC Study results, where the error bars do not overlap. Where the error bars do overlap, no significant difference has been measured.

5.2.1 Landfilled Illinois MSW Composition

Figure 5-1 compares the waste composition profiles of total Illinois MSW for 2008 and 2014. The percentages of Beverage Containers, Glass, and HHW material classes are not statistically different between 2008 and 2014. There was significantly more Plastic, Organic, and Inorganics landfilled in 2014 than in 2008 and significantly less Paper, Metal, Textiles, and C&D landfilled in 2014 than in 2008.

Figure 5-1. Comparison of 2008 and 2014 Illinois Landfilled MSW

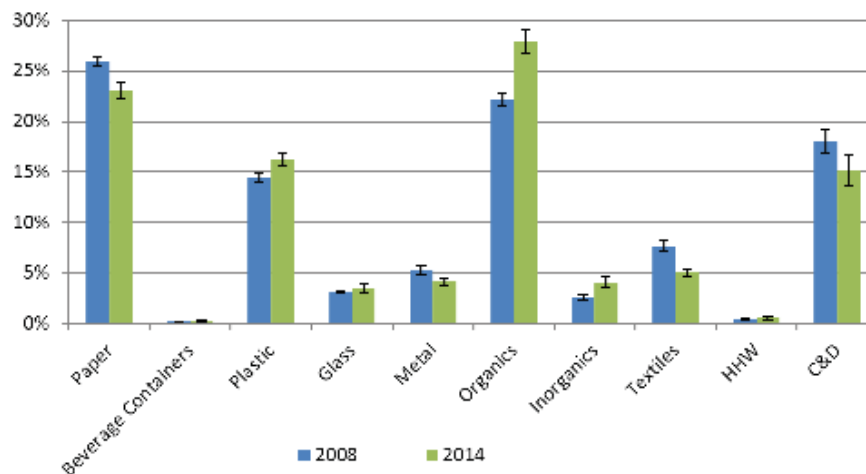


Figure 5-2 compares the top ten commodity products that were landfilled in Illinois. These ten material categories account for 34% and approximately 38% of the overall waste stream in 2008 and 2014, respectively. There was more High Grade Office Paper, Boxboard, Yard Waste – Compostable, and Food Scraps landfilled in 2014 than in 2008; and less Newsprint, Uncoated OCC/Kraft, and Aluminum Beverage Containers landfilled in 2014 than in 2008.

Figure 5-2. Comparison of 2008 and 2014 Illinois MSW Landfilled Commodity Materials

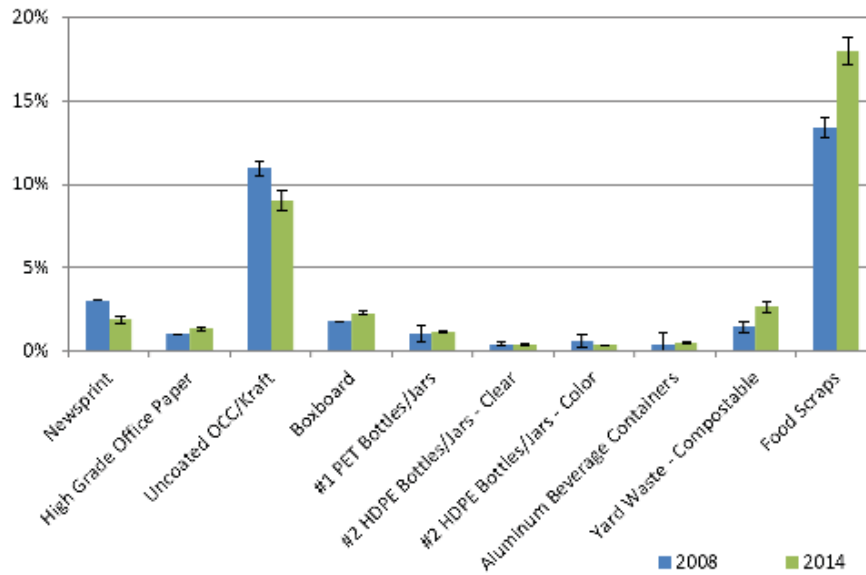


Table 5-1 provides the waste composition profiles of the landfilled total Illinois MSW for 2008 and 2014.

Table 5-1. Comparison of 2014 and 2008 Landfilled MSW Tonnages - Total Illinois MSW

	2008		2014		2008		2014		2008		2014		Difference
	Total Mean %	Total MSW +/-	Total MSW Mean %	Total MSW +/-	Total MSW Mean %	Total MSW +/-	Total MSW Mean %	Total MSW +/-	Total MSW Mean %	Total MSW +/-	Total MSW Mean %	Total MSW +/-	
Paper													
Newsprint	26.0%	0.43%	23.0%	0.51%	-2.96%				2.6%	0.35%	4.1%	0.50%	1.53%
High Grade Office Paper	3.1%	0.16%	1.9%	0.22%	-1.13%	Inorganics	Televisions		0.0%	0.00%	0.2%	0.08%	0.16%
Magazines/Catalogs	1.1%	0.13%	1.4%	0.13%	0.32%		Computer Monitors		0.2%	0.08%	0.1%	0.05%	-0.13%
Uncoated OCC/Kraft	1.8%	0.16%	1.1%	0.07%	-0.70%		Computer Equipment/Peripherals		0.2%	0.05%	0.2%	0.07%	-0.07%
Boxboard	11.0%	0.30%	9.1%	0.62%	-1.92%		Electronic Equipment		1.0%	0.16%	0.5%	0.08%	-0.46%
Mixed Paper - Recyclable	1.8%	0.11%	2.3%	0.09%	0.52%		White Goods - Refrigerated		0.0%	0.00%	0.1%	0.06%	0.06%
Compostable Paper	3.1%	0.12%	2.8%	0.16%	-0.25%		White Goods - Not Refrigerated		0.0%	0.01%	0.3%	0.13%	0.32%
Other Paper	3.3%	0.14%	3.8%	0.19%	0.53%		Lead-acid Batteries		0.0%	0.00%	0.0%	0.00%	0.00%
	1.0%	0.10%	0.6%	0.06%	-0.34%		Other Household Batteries		0.0%	0.01%	0.2%	0.08%	0.18%
							Tires		0.2%	0.05%	0.2%	0.08%	-0.05%
Beverage Containers	0.2%	0.02%	0.3%	0.06%	0.06%		Household Bulky Items		0.9%	0.31%	2.4%	0.44%	1.51%
Milk & Juice Cartons/Boxes - Coated	0.2%	0.02%	0.3%	0.06%	0.06%		Fluorescent Lights/Ballasts		0.0%	0.00%	0.0%	0.01%	0.02%
Plastic													
#1 PET Bottles/Jars	14.4%	0.50%	16.2%	0.63%	1.75%	Textiles	Carpet		7.7%	0.58%	5.1%	0.39%	-2.61%
#1 Other PET Containers	1.1%	0.05%	1.1%	0.07%	0.06%		Carpet Padding		1.7%	0.39%	1.2%	0.29%	-0.52%
#2 HDPE Bottles/Jars - Clear	0.1%	0.01%	0.3%	0.02%	0.23%		Clothing		0.3%	0.08%	0.3%	0.09%	0.08%
#2 HDPE Bottles/Jars - Color	0.4%	0.03%	0.4%	0.04%	-0.04%		Other Textiles		2.3%	0.16%	1.9%	0.16%	-0.40%
#2 Other HDPE Containers	0.6%	0.03%	0.4%	0.02%	-0.26%				3.4%	0.34%	1.6%	0.12%	-1.77%
#6 Exp. Polystyrene Packaging	0.1%	0.02%	0.0%	0.01%	-0.06%								
#3-#7 Other - All	0.9%	0.03%	1.0%	0.14%	0.14%	Household Hazardous Waste	Latex Paint		0.5%	0.07%	0.6%	0.11%	0.08%
Other Rigid Plastic Products	0.9%	0.05%	0.7%	0.04%	-0.16%		Oil Paint		0.1%	0.03%	0.1%	0.02%	0.00%
Grocery & Merchandise Bags	3.7%	0.31%	2.6%	0.27%	-1.04%		Plant/Organism/Pest Control/Growth		0.0%	0.01%	0.0%	0.02%	0.02%
Trash Bags	0.6%	0.02%	0.7%	0.04%	0.16%		Used Oil/Filters		0.0%	0.00%	0.0%	0.00%	0.00%
Commercial & Industrial Film	1.2%	0.05%	1.8%	0.10%	0.63%		Other Automotive Fluids		0.1%	0.02%	0.1%	0.05%	0.04%
Other Film	1.6%	0.18%	1.9%	0.44%	0.29%		Mercury-Containing Items		0.0%	0.00%	0.0%	0.00%	-0.01%
Other Plastic	1.4%	0.10%	3.2%	0.23%	1.81%		Sharps & Infectious Waste		0.0%	0.00%	0.0%	0.00%	0.00%
	1.9%	0.34%	1.9%	0.12%	-0.01%		Ash, Sludge, & Industrial Wastes		0.0%	0.01%	0.0%	0.01%	0.01%
							Sewage Solids		0.1%	0.04%	0.1%	0.06%	0.05%
Glass							Other HHW		0.0%	0.00%	0.0%	0.00%	0.00%
Recyclable Glass Bottles & Jars	3.2%	0.14%	3.5%	0.39%	0.35%				0.2%	0.05%	0.2%	0.07%	-0.02%
Flat Glass	2.9%	0.13%	2.7%	0.15%	-0.27%								
Other Glass	0.2%	0.07%	0.5%	0.32%	0.36%								
	0.1%	0.01%	0.3%	0.19%	0.26%	C&D							
							Clean Dimensional Lumber		18.0%	1.17%	15.2%	1.46%	-2.81%
Metal							Clean Engineered Wood		2.2%	0.16%	1.1%	0.23%	-1.06%
Aluminum Beverage Containers	5.3%	0.42%	4.2%	0.32%	-1.17%		Wood Pallets		2.1%	0.26%	1.5%	0.20%	-0.68%
Other Aluminum	0.4%	0.02%	0.5%	0.03%	0.09%		Painted Wood		1.0%	0.18%	2.4%	0.60%	1.44%
HVAC Ducting	0.5%	0.07%	0.3%	0.02%	-0.22%		Treated Wood		1.7%	0.20%	2.9%	0.50%	1.20%
Ferrous Containers (Tin Cans)	0.0%	0.02%	0.0%	0.00%	-0.03%		Concrete		3.0%	0.44%	0.1%	0.04%	-2.95%
Other Ferrous	1.0%	0.06%	0.9%	0.12%	-0.12%		Reinforced Concrete		1.5%	0.14%	0.9%	0.55%	-0.56%
Other Non-Ferrous	2.2%	0.36%	1.3%	0.18%	-0.90%		Asphalt Paving		0.0%	0.00%	0.0%	0.00%	-0.04%
Other Metal	0.2%	0.06%	0.4%	0.22%	0.17%		Rock & Other Aggregates		0.0%	0.00%	0.1%	0.05%	0.06%
	0.9%	0.13%	0.7%	0.08%	-0.16%		Bricks		0.3%	0.06%	0.5%	0.13%	0.22%
							Gypsum Board		0.4%	0.09%	0.1%	0.03%	-0.30%
Organics							Composition Shingles		2.6%	0.47%	0.6%	0.18%	-1.94%
Yard Waste - Compostable	22.2%	0.68%	27.9%	1.14%	5.78%		Other Roofing		0.9%	0.31%	1.3%	0.54%	0.41%
Yard Waste - Woody	1.5%	0.11%	2.7%	0.30%	1.21%		Plastic C&D Materials		0.1%	0.05%	0.3%	0.27%	0.16%
Food Scraps	1.3%	0.16%	0.4%	0.11%	-0.91%		Ceramics/Porcelain		0.1%	0.05%	0.9%	0.17%	0.77%
Bottom Fines & Dirt	13.4%	0.51%	18.0%	0.83%	4.63%		Other C&D		1.0%	0.49%	1.9%	0.12%	-0.52%
Diapers	0.9%	0.10%	2.5%	0.73%	1.54%				1.0%	0.12%	1.9%	0.42%	0.98%
Other Organic	2.2%	0.24%	2.0%	0.14%	-0.16%				1.0%	0.24%	1.9%	0.42%	0.98%
	2.8%	0.30%	2.3%	0.33%	-0.53%								
Total									100%		100%		

5.2.2 Landfilled Residential MSW Composition

Figure 5-3 compares the waste composition profiles of residential MSW for 2008 and 2014. When comparing residential landfilled waste, all of the material classes fall within the 90% confidence interval for 2008 and 2014, with the exception of organics. There was significantly more Organics landfilled from the residential sector in 2014 than in 2008.

Figure 5-3. Comparison of 2008 and 2014 Residential Landfilled MSW

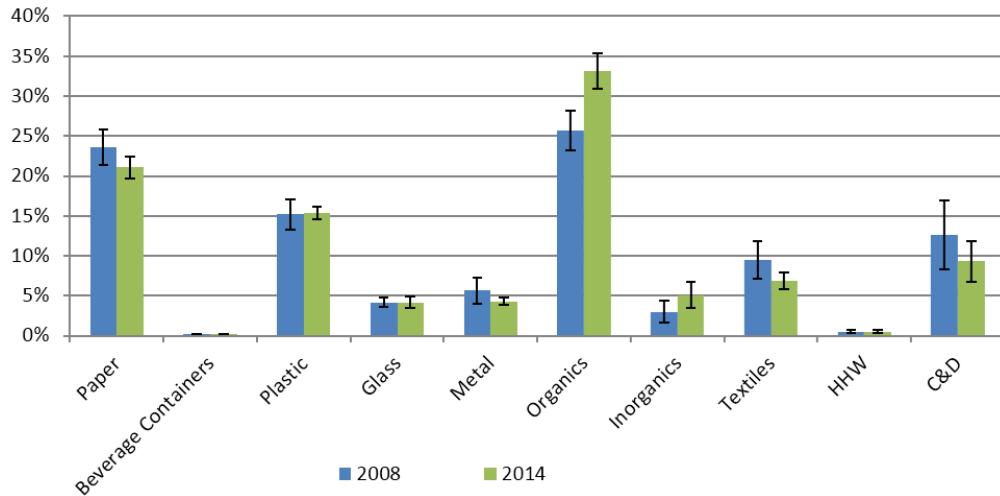


Figure 5-4 compares the top ten commodity products that were landfilled from the residential waste sector. These ten material categories account for approximately 33% and approximately 39% of the residential waste stream in 2008 and 2014, respectively. There was less Newsprint landfilled in 2014 than in 2008 and more Yard Waste – Compostable and Food Scraps landfilled in 2014 than in 2008.

Figure 5-4. Comparison of 2008 and 2014 Residential MSW Landfilled Commodity Materials

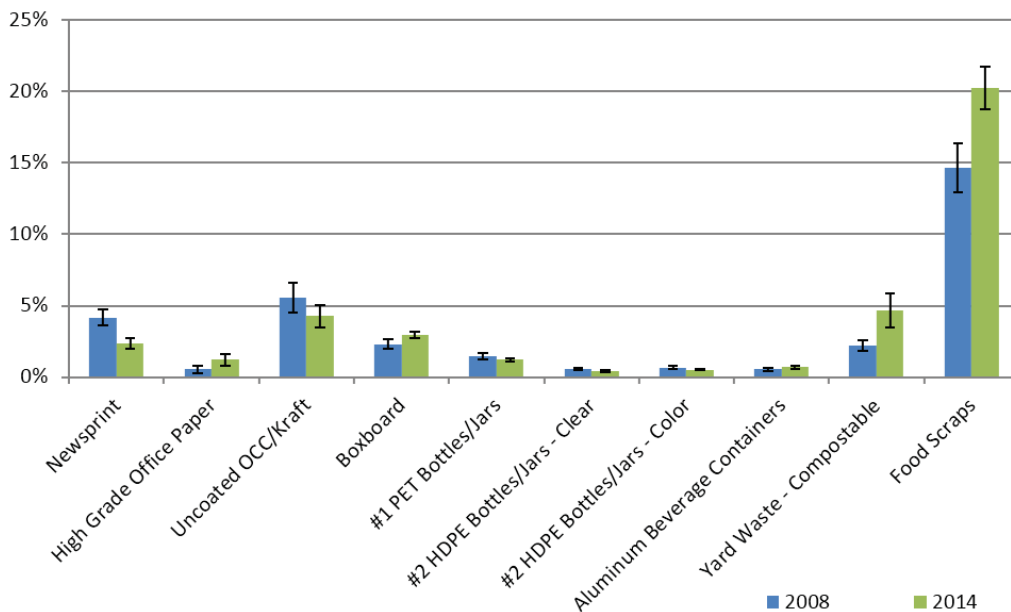


Table 5-2 provides the waste composition profiles of the landfilled residential MSW for 2008 and 2014.

Table 5-2. Comparison of 2014 and 2008 Landfilled MSW Tonnages - Residential

	2008		2014		Difference		2008		2014		Difference	
	RES MSW Mean %	RES MSW +/-	RES MSW Mean %	RES MSW +/-			RES MSW Mean %	RES MSW +/-	RES MSW Mean %	RES MSW +/-		
Paper	23.6%	2.20%	21.1%	1.38%	-2.48%		3.0%	1.36%	5.1%	1.56%	2.09%	
Newsprint	4.2%	0.58%	2.4%	0.38%	-1.81%	Inorganics	0.0%	0.00%	0.3%	0.41%	0.24%	
High Grade Office Paper	0.5%	0.28%	1.2%	0.41%	0.68%	Televisions	0.0%	0.00%	0.1%	0.14%	-0.12%	
Magazines/Catalogs	1.9%	0.62%	1.6%	0.24%	-0.23%	Computer Monitors	0.1%	0.16%	0.2%	0.20%	0.10%	
Uncoated OCC/Kraft	5.6%	1.01%	4.3%	0.78%	-1.28%	Computer Equipment/Peripherals	1.2%	0.54%	0.7%	0.27%	-0.54%	
Boxboard	2.3%	0.33%	3.0%	0.24%	0.65%	Electronic Equipment	0.0%	0.00%	0.0%	0.00%	0.00%	
Mixed Paper - Recyclable	3.8%	0.48%	3.8%	0.46%	0.01%	White Goods - Refrigerated	0.0%	0.00%	0.4%	0.26%	0.41%	
Compostable Paper	4.1%	0.46%	4.2%	0.27%	0.06%	White Goods - Not Refrigerated	0.0%	0.00%	0.0%	0.00%	0.00%	
Other Paper	1.2%	0.38%	0.6%	0.17%	-0.55%	Lead-acid Batteries	0.1%	0.04%	0.4%	0.43%	0.30%	
						Other Household Batteries	0.2%	0.20%	0.2%	0.19%	0.01%	
						Tires	1.3%	1.25%	2.9%	1.29%	1.68%	
						Household Bulky Items	0.0%	0.00%	0.0%	0.01%	0.01%	
						Fluorescent Lights/Ballasts						
Beverage Containers	0.2%	0.04%	0.2%	0.03%	0.01%							
Milk & Juice Cartons/Boxes - Coated	0.2%	0.04%	0.2%	0.03%	0.01%							
Plastic	15.2%	1.92%	15.4%	0.84%	0.18%	Textiles	9.4%	2.36%	6.9%	1.00%	-2.57%	
#1 PET Bottles/Jars	1.4%	0.20%	1.2%	0.11%	-0.23%	Carpet	2.5%	1.61%	1.3%	0.58%	-1.16%	
#1 Other PET Containers	0.1%	0.05%	0.5%	0.06%	0.37%	Carpet Padding	0.3%	0.25%	0.4%	0.32%	0.16%	
#2 HDPE Bottles/Jars - Clear	0.6%	0.09%	0.4%	0.05%	-0.14%	Clothing	3.0%	0.67%	2.8%	0.54%	-0.28%	
#2 HDPE Bottles/Jars - Color	0.7%	0.11%	0.5%	0.05%	-0.13%	Other Textiles	3.6%	1.39%	2.3%	0.38%	-1.30%	
#2 Other HDPE Containers	0.1%	0.06%	0.0%	0.02%	-0.04%							
#2 Exp. Polystyrene Packaging	0.8%	0.09%	1.0%	0.08%	0.16%	Household Hazardous Waste	0.5%	0.19%	0.5%	0.22%	0.01%	
#3 Other - All	1.1%	0.17%	0.9%	0.11%	-0.20%	Latex Paint	0.2%	0.13%	0.2%	0.09%	-0.01%	
Other Rigid Plastic Products	3.9%	1.27%	2.8%	0.50%	-1.15%	Oil Paint	0.0%	0.05%	0.0%	0.08%	0.02%	
Grocery & Merchandise Bags	0.9%	0.10%	1.1%	0.10%	0.25%	Plant/Organism/Pest Control/Growth	0.0%	0.00%	0.0%	0.00%	0.00%	
Trash Bags	1.2%	0.16%	1.5%	0.13%	0.30%	Used Oil/Filters	0.1%	0.06%	0.1%	0.06%	0.02%	
Commercial & Industrial Film	0.4%	0.19%	0.2%	0.11%	-0.21%	Other Automotive Fluids	0.0%	0.00%	0.0%	0.00%	-0.01%	
Other Film	1.6%	0.26%	3.0%	0.26%	1.39%	Mercury-Containing Items	0.0%	0.00%	0.0%	0.00%	0.00%	
Other Plastic	2.3%	1.38%	2.2%	0.31%	-0.18%	Sharps & Infectious Waste	0.0%	0.00%	0.0%	0.01%	0.02%	
						Ash, Sludge, & Industrial Wastes	0.0%	0.00%	0.1%	0.12%	0.07%	
						Sewage Solids	0.0%	0.00%	0.0%	0.00%	0.00%	
						Other HHW	0.2%	0.11%	0.1%	0.12%	-0.09%	
Glass	4.2%	0.56%	4.2%	0.69%	-0.02%							
Recyclable Glass Bottles & Jars	3.9%	0.51%	3.6%	0.44%	-0.24%							
Flat Glass	0.2%	0.30%	0.4%	0.55%	0.19%							
Other Glass	0.1%	0.05%	0.1%	0.05%	0.03%							
						C&D	12.6%	4.36%	9.3%	2.52%	-3.31%	
						Clean Dimensional Lumber	0.8%	0.40%	0.7%	0.24%	-0.09%	
						Clean Engineered Wood	1.3%	0.73%	1.2%	0.38%	-0.10%	
						Wood Pallets	0.2%	0.35%	0.1%	0.14%	-0.02%	
						Painted Wood	1.7%	0.77%	3.0%	1.26%	1.28%	
						Treated Wood	3.1%	1.58%	0.1%	0.06%	-3.07%	
						Concrete	0.2%	0.09%	0.3%	0.45%	0.14%	
						Reinforced Concrete	0.0%	0.00%	0.0%	0.00%	0.00%	
						Asphalt Paving	0.0%	0.00%	0.0%	0.01%	0.00%	
						Rock & Other Aggregates	0.2%	0.23%	0.6%	0.47%	0.45%	
						Bricks	0.2%	0.21%	0.0%	0.01%	-0.16%	
						Gypsum Board	1.7%	1.69%	0.5%	0.44%	-1.18%	
						Composition Shingles	0.5%	0.45%	1.2%	1.81%	0.74%	
						Other Roofing	0.2%	0.01%	0.0%	0.00%	-0.25%	
						Plastic C&D Materials	0.1%	0.09%	0.7%	0.33%	0.64%	
						Ceramics/Porcelain	1.9%	2.08%	1.9%	0.20%	-1.38%	
						Other C&D	0.7%	0.75%	0.3%	0.15%	-0.31%	
Organics	25.7%	2.46%	33.1%	2.20%	7.42%							
Yard Waste - Compostable	2.2%	0.38%	4.7%	1.21%	2.46%							
Yard Waste - Woody	0.9%	0.64%	0.4%	0.17%	-0.54%							
Food Scraps	14.6%	1.71%	20.2%	1.48%	5.60%							
Bottom Fines & Dirt	1.1%	0.39%	1.3%	0.36%	0.26%							
Diapers	3.6%	0.98%	3.2%	0.43%	-0.39%							
Other Organic	3.3%	0.98%	3.4%	0.65%	0.02%							
Total												
							100%					100%

5.2.3 Landfilled ICI MSW Composition

Figure 5-5 compares the waste composition profiles of ICI MSW for 2008 and 2014. When comparing ICI landfilled waste, all of the material classes fall within the 90% confidence interval for 2008 and 2014, so there is no significant difference in the ICI waste sector composition profile by material class.

Figure 5-5. Comparison of 2008 and 2014 ICI Landfilled MSW

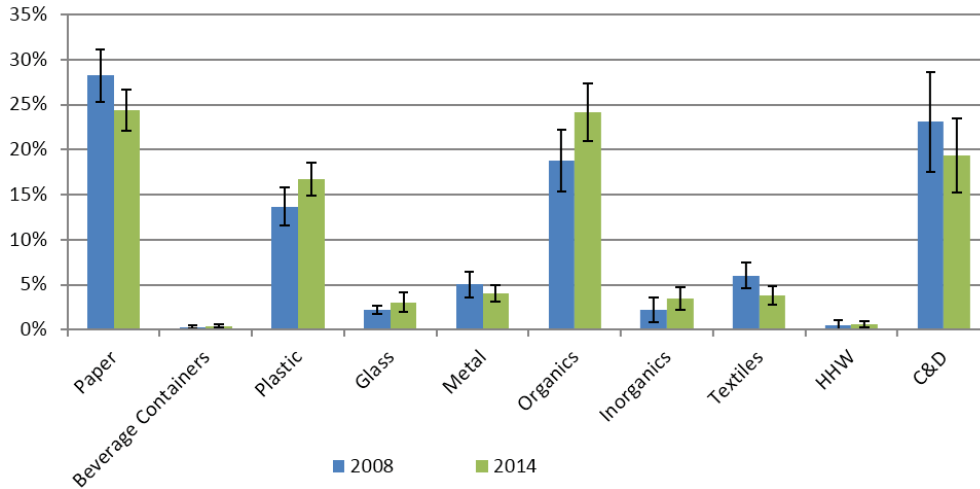


Figure 5-6 compares the top ten commodity products that were landfilled from the ICI waste sector. These ten material categories account for approximately 36% and over 37% of the ICI waste stream in 2008 and 2014, respectively. Half of the material categories were within the 90% confidence interval when comparing the 2008 and 2014 ICI waste sectors. There was less Uncoated OCC/Kraft and #2 HDPE Bottles/Jars - Color landfilled in 2014 and more Food Scraps and slightly more Boxboard and #1 PET Bottles/Jars landfilled in 2014.

Figure 5-6. Comparison of 2008 and 2014 ICI MSW Landfilled Commodity Materials

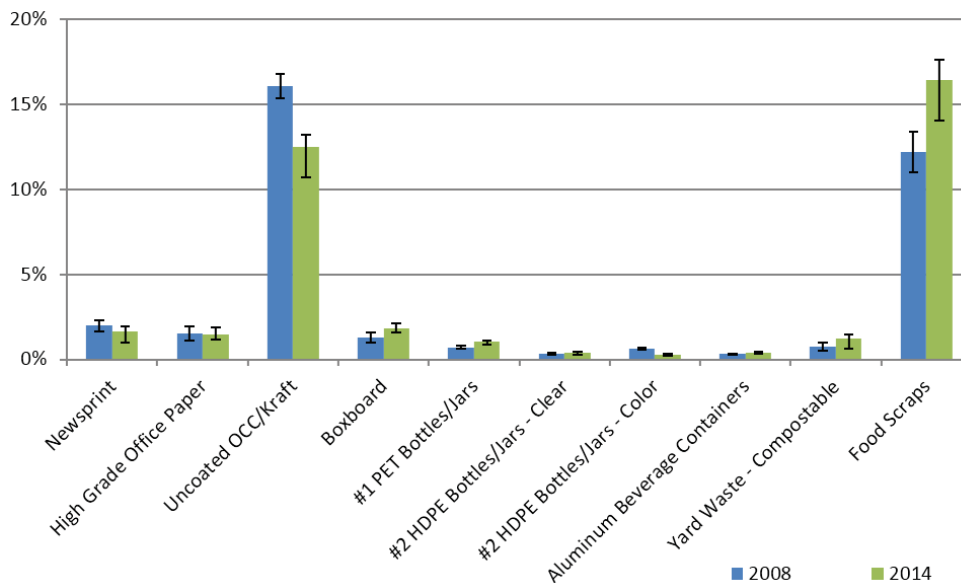


Table 5-3 provides the waste composition profiles of the landfilled ICI MSW for 2008 and 2014.

Table 5-3. Comparison of 2014 and 2008 Landfilled MSW Tonnages - ICI

	2008		2014		Difference	2008		2014		Difference
	ICI Mean %	ICI MSW +/-	ICI MSW Mean %	ICI MSW +/-		ICI MSW Mean %	ICI MSW +/-			
Paper										
Newsprint	28.2%	2.93%	24.4%	2.29%	-3.85%	2.2%	1.33%	3.4%	1.25%	1.22%
High Grade Office Paper	2.0%	0.33%	1.6%	0.61%	-0.38%	0.0%	0.01%	0.1%	0.13%	0.10%
Magazines/Catalogs	1.7%	0.41%	1.5%	0.30%	-0.06%	0.2%	0.17%	0.1%	0.12%	-0.15%
Uncoated OCC/Kraft	16.1%	0.27%	0.7%	0.18%	-1.01%	0.4%	0.11%	0.1%	0.17%	-0.22%
Boxboard	1.3%	0.72%	12.5%	1.78%	-3.60%	0.7%	0.34%	0.4%	0.19%	-0.35%
Mixed Paper - Recyclable	2.4%	1.8%	1.8%	0.24%	0.55%	0.0%	0.00%	0.1%	0.17%	0.10%
Compostable Paper	2.5%	0.17%	2.1%	0.40%	-0.26%	0.0%	0.05%	0.3%	0.37%	0.26%
Other Paper	0.8%	0.31%	3.6%	0.55%	1.06%	0.0%	0.00%	0.0%	0.00%	0.00%
		0.20%	0.6%	0.14%	-0.15%	0.0%	0.01%	0.1%	0.11%	0.09%
						0.3%	0.07%	0.2%	0.20%	-0.11%
						0.6%	0.32%	2.0%	1.13%	1.46%
Beverage Containers	0.3%	0.15%	0.4%	0.18%	0.08%	0.0%	0.00%	0.0%	0.02%	0.02%
Milk & Juice Cartons/Boxes - Coated	0.3%	0.06%	0.4%	0.18%	0.08%	0.0%	0.00%	0.0%	0.00%	0.00%
Plastic										
#1 PET Bottles/Jars	13.7%	2.11%	16.7%	1.82%	3.05%	6.0%	1.40%	3.8%	1.03%	-2.24%
#1 Other PET Containers	0.7%	0.06%	1.1%	0.19%	0.35%	1.1%	0.31%	1.2%	0.79%	0.10%
#2 HDPE Bottles/Jars - Clear	0.3%	0.02%	0.2%	0.05%	0.13%	0.2%	0.19%	0.3%	0.22%	0.03%
#2 HDPE Bottles/Jars - Color	0.6%	0.05%	0.4%	0.11%	0.07%	1.6%	0.17%	1.3%	0.38%	-0.32%
#2 Other HDPE Containers	0.1%	0.06%	0.3%	0.05%	-0.35%	3.1%	0.26%	1.1%	0.30%	-2.04%
#6 Exp. Polystyrene Packaging	0.9%	0.09%	0.0%	0.01%	-0.08%					
#3-#7 Other - All	0.6%	0.09%	1.0%	0.40%	0.12%	0.5%	0.10%	0.6%	0.58%	0.14%
Other Rigid Plastic Products	3.4%	0.33%	2.5%	0.75%	-0.06%	0.0%	0.02%	0.0%	0.00%	0.02%
Grocery & Merchandise Bags	0.3%	0.04%	0.5%	0.09%	0.15%	0.0%	0.00%	0.0%	0.00%	0.00%
Trash Bags	1.2%	0.14%	2.1%	0.30%	0.87%	0.1%	0.05%	0.2%	0.15%	0.05%
Commercial & Industrial Film	2.7%	0.64%	3.0%	1.28%	0.38%	0.0%	0.01%	0.0%	0.00%	0.00%
Other Film	1.2%	0.30%	3.4%	0.68%	2.17%	0.0%	0.00%	0.0%	0.00%	0.00%
Other Plastic	1.6%	0.34%	1.8%	0.33%	0.20%	0.0%	0.04%	0.0%	0.04%	0.00%
						0.1%	0.14%	0.1%	0.17%	0.02%
						0.0%	0.00%	0.0%	0.00%	0.00%
						0.2%	0.17%	0.2%	0.21%	0.03%
Glass										
Recyclable Glass Bottles & Jars	2.2%	0.46%	3.0%	1.10%	0.85%	0.0%	0.00%	0.0%	0.00%	0.00%
Flat Glass	2.0%	0.19%	2.0%	0.38%	-0.07%	0.2%	0.17%	0.2%	0.21%	0.03%
Other Glass	0.1%	0.08%	0.6%	0.91%	0.50%	0.2%	0.17%	0.2%	0.21%	0.03%
	0.0%	0.01%	0.5%	0.55%	0.43%					
Metal										
Aluminum Beverage Containers	5.0%	1.42%	4.1%	0.90%	-0.99%	23.1%	5.50%	19.4%	4.12%	-3.67%
Other Aluminum	0.3%	0.03%	0.4%	0.07%	0.08%	3.5%	1.27%	1.4%	0.66%	-2.06%
HVAC Ducting	0.5%	0.13%	0.2%	0.05%	-0.27%	3.0%	1.94%	1.7%	0.55%	-1.29%
Ferrous Containers (Tin Cans)	0.0%	0.01%	0.0%	0.01%	0.00%	1.7%	1.60%	4.0%	1.78%	2.30%
Other Ferrous	0.7%	0.12%	0.9%	0.34%	0.16%	1.8%	0.88%	2.9%	1.33%	1.13%
Other Non-Ferrous	2.2%	0.44%	1.4%	0.52%	-0.83%	2.9%	2.31%	0.1%	0.11%	-2.84%
Other Metal	0.2%	0.06%	0.5%	0.64%	0.36%	2.7%	1.30%	1.3%	1.62%	-1.36%
	1.1%	0.33%	0.6%	0.19%	-0.50%	0.1%	0.00%	0.0%	0.00%	-0.07%
						0.0%	0.00%	0.1%	0.15%	0.09%
						0.3%	0.06%	0.4%	0.29%	0.03%
						0.6%	0.79%	0.1%	0.10%	-0.44%
Organics										
Yard Waste - Compostable	18.8%	3.43%	24.2%	3.18%	5.41%	3.5%	2.46%	0.8%	0.48%	-2.70%
Yard Waste - Woody	0.8%	0.24%	1.2%	0.63%	0.47%	3.5%	2.83%	0.8%	1.28%	0.08%
Food Scraps	1.8%	0.25%	0.5%	0.31%	-1.28%	0.0%	0.00%	0.5%	0.79%	0.48%
Bottom Finest & Dirt	12.2%	1.19%	16.4%	2.34%	4.21%	0.2%	0.42%	1.0%	0.49%	0.84%
Diapers	0.8%	0.14%	3.3%	2.14%	2.49%	0.3%	0.18%	0.5%	0.33%	0.29%
Other Organic	0.9%	0.21%	1.2%	0.35%	0.32%	1.3%	1.56%	3.1%	1.23%	1.83%
	2.4%	0.73%	1.5%	0.93%	-0.81%					
Total						100%		100%		

5.2.4 Landfilled Urban MSW Composition

Figure 5-7 compares the waste composition profiles of Urban MSW for 2008 and 2014. When comparing Urban waste, there was less Paper, Metal, Textiles, and C&D landfilled in 2014 than in 2008, while there was more Plastic, Organics, and Inorganics landfilled in 2014.

Figure 5-7. Comparison of 2008 and 2014 Urban Landfilled MSW

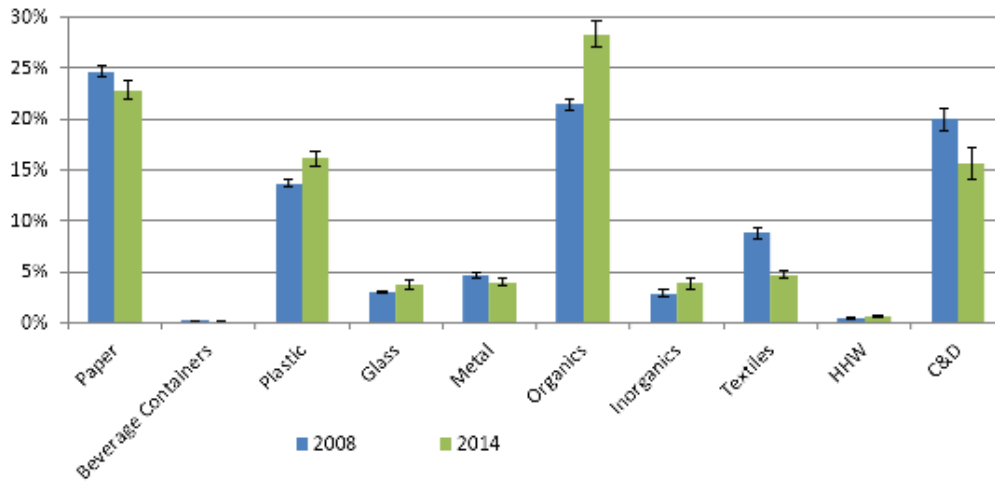


Table 5-4 provides the waste composition profiles of the Urban landfilled MSW for 2008 and 2014.

5.2.5 Landfilled Rural MSW Composition

Figure 5-8 compares the waste composition profiles of Rural MSW for 2008 and 2014. When comparing Rural waste, there was less Paper and Metal landfilled in 2014 than in 2008, while there was more Beverage Containers, Inorganics, and Textiles landfilled in 2014 than in 2008.

Figure 5-8. Comparison of 2008 and 2014 Rural Landfilled MSW

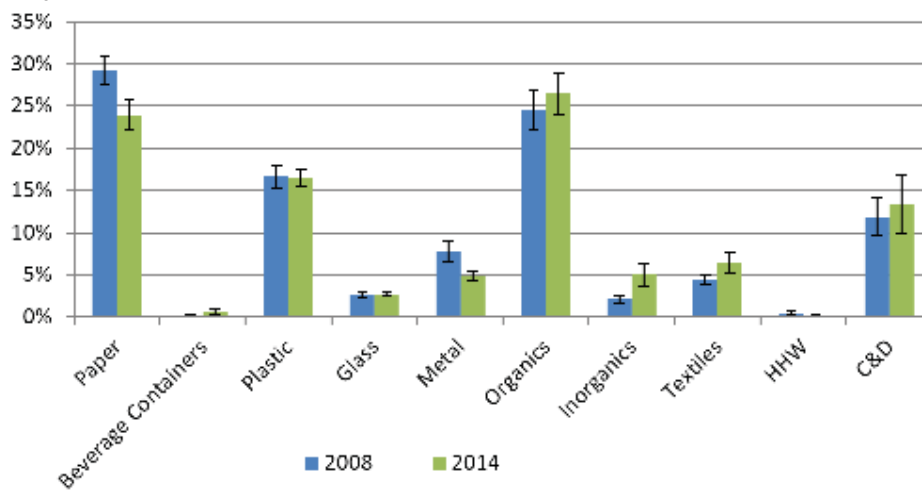


Table 5-5 provides the waste composition profiles of the Rural landfilled MSW for 2008 and 2014.

Table 5-5. Comparison of 2014 and 2008 Landfilled MSW Tonnages - Rural

Paper	2008		2014		2008		2014		2008		2014		Rural Difference
	Rural Mean	+/-	Rural Mean	+/-	Rural Mean	+/-	Rural Mean	+/-	Rural Mean	+/-	Rural Mean	+/-	
	29.2%	1.65%	23.9%	1.79%	-5.34%	2.1%	0.50%	5.0%	1.31%	2.93%			
Inorganics													
Newsprint	4.1%	0.65%	2.4%	0.71%	-1.71%	0.0%	0.00%	0.5%	0.35%	0.50%			
High Grade Office Paper	1.1%	0.25%	1.7%	0.35%	0.60%	0.4%	0.26%	0.0%	0.00%	-0.43%			
Magazines/Catalogs	2.0%	0.53%	1.3%	0.13%	-0.70%	0.1%	0.04%	0.0%	0.01%	-0.04%			
Uncoated OCC/Kraft	10.1%	1.17%	7.4%	0.97%	-2.71%	1.1%	0.34%	0.7%	0.23%	-0.40%			
Boxboard	3.3%	0.55%	2.8%	0.18%	-0.54%	0.0%	0.00%	0.3%	0.27%	0.28%			
Mixed Paper - Recyclable	3.3%	0.25%	4.0%	0.51%	0.65%	0.0%	0.00%	0.2%	0.10%	0.23%			
Compostable Paper	4.2%	0.57%	3.7%	0.26%	-0.43%	0.0%	0.00%	0.0%	0.00%	0.00%			
Other Paper	1.2%	0.23%	0.7%	0.15%	-0.49%	0.1%	0.02%	0.1%	0.02%	0.03%			
Beverage Containers	0.2%	0.11%	0.6%	0.26%	0.39%	0.3%	0.12%	2.9%	1.22%	2.61%			
Milk & Juice Cartons/Boxes - Coated	0.2%	0.11%	0.6%	0.26%	0.39%	0.0%	0.00%	0.0%	0.00%	0.01%			
Plastic	16.6%	1.32%	16.5%	0.95%	-0.17%	4.4%	0.59%	6.4%	1.19%	1.98%			
#1 PET Bottles/Jars	1.2%	0.11%	1.3%	0.12%	0.14%	1.0%	0.35%	1.4%	1.02%	0.38%			
#1 Other PET Containers	0.1%	0.03%	0.5%	0.05%	0.42%	0.2%	0.07%	0.2%	0.13%	0.04%			
#2 HDPE Bottles/Jars - Clear	0.5%	0.06%	0.6%	0.15%	0.16%	1.6%	0.26%	2.7%	0.56%	1.10%			
#2 HDPE Bottles/Jars - Color	0.6%	0.08%	0.5%	0.04%	-0.12%	1.6%	0.25%	2.1%	0.26%	0.45%			
#2 Other HDPE Containers	0.1%	0.05%	0.0%	0.01%	-0.09%	0.5%	0.16%	0.2%	0.12%	-0.24%			
#6 Exp. Polystyrene Packaging	1.0%	0.13%	1.2%	0.11%	0.25%	0.1%	0.05%	0.1%	0.02%	-0.01%			
#3-#7 Other - All	1.1%	0.18%	0.8%	0.07%	-0.31%	0.0%	0.00%	0.0%	0.00%	0.00%			
Other Rigid Plastic Products	2.7%	0.36%	2.8%	0.49%	0.04%	0.0%	0.00%	0.0%	0.00%	0.00%			
Grocery & Merchandise Bags	0.5%	0.05%	0.6%	0.05%	0.07%	0.0%	0.00%	0.0%	0.00%	0.00%			
Trash Bags	1.6%	0.16%	2.3%	0.22%	0.69%	0.2%	0.10%	0.0%	0.03%	-0.15%			
Commercial & Industrial Film	2.4%	0.71%	0.7%	0.28%	-1.67%	0.0%	0.00%	0.0%	0.00%	0.00%			
Other Film	2.6%	0.58%	3.6%	0.40%	1.00%	0.0%	0.00%	0.0%	0.00%	0.00%			
Other Plastic	2.3%	0.79%	1.6%	0.14%	-0.73%	0.0%	0.00%	0.0%	0.00%	0.02%			
Glass	2.6%	0.30%	2.7%	0.27%	0.11%	0.0%	0.00%	0.0%	0.00%	0.00%			
Recyclable Glass Bottles & Jars	2.4%	0.27%	2.4%	0.24%	0.06%	0.0%	0.00%	0.0%	0.00%	0.00%			
Flat Glass	0.2%	0.14%	0.1%	0.03%	-0.13%	0.0%	0.00%	0.0%	0.00%	0.00%			
Other Glass	0.0%	0.01%	0.2%	0.11%	0.17%	0.2%	0.09%	0.1%	0.12%	-0.09%			
Metal	7.8%	1.20%	4.8%	0.55%	-3.05%	11.9%	2.21%	13.4%	3.48%	1.51%			
Aluminum Beverage Containers	0.5%	0.05%	0.7%	0.07%	0.20%	1.4%	0.44%	0.6%	0.19%	-0.77%			
Other Aluminum	0.3%	0.05%	0.3%	0.03%	-0.01%	1.2%	0.37%	1.5%	0.54%	0.35%			
HVAC Ducting	0.0%	0.00%	0.0%	0.00%	0.00%	0.1%	0.07%	3.8%	2.02%	3.76%			
Ferrous Containers (Tin Cans)	1.3%	0.16%	1.9%	0.47%	0.63%	1.4%	0.36%	2.7%	1.29%	1.30%			
Other Ferrous	4.0%	0.99%	1.0%	0.25%	-3.01%	2.1%	0.77%	0.0%	0.00%	-2.09%			
Other Non-Ferrous	0.2%	0.11%	0.2%	0.04%	-0.03%	0.0%	0.00%	0.0%	0.00%	0.00%			
Other Metal	1.7%	0.67%	0.8%	0.15%	-0.84%	0.0%	0.00%	0.0%	0.00%	0.00%			
Organics	24.6%	2.31%	26.4%	2.37%	1.87%	0.0%	0.00%	0.0%	0.00%	0.00%			
Yard Waste - Compostable	0.8%	0.23%	1.1%	0.25%	0.25%	0.0%	0.00%	0.0%	0.00%	0.00%			
Yard Waste - Woody	0.3%	0.12%	0.0%	0.00%	-0.30%	0.4%	0.22%	1.9%	1.73%	1.53%			
Food Scraps	14.3%	1.97%	19.2%	2.10%	4.95%	0.0%	0.00%	0.0%	0.00%	0.00%			
Bottom Fines & Dirt	1.1%	0.23%	1.3%	0.61%	0.16%	0.0%	0.02%	0.7%	0.20%	0.68%			
Diapers	2.7%	0.45%	2.0%	0.30%	-0.69%	0.4%	0.19%	0.1%	0.02%	-0.26%			
Other Organic	5.3%	1.41%	2.8%	1.27%	-2.50%	1.3%	1.10%	0.8%	0.32%	-0.55%			
Total	100.0%		100.0%			100.0%		100.0%					

5.2.6 Landfilled C&D Composition

Table 5-9 lists the top ten material categories that were found in the 2014 landfilled C&D waste sector. These ten categories account for 69% and approximately 80% of the C&D waste streams in 2008 and 2014, respectively. The waste composition percentages for Clean Engineered Wood, Gypsum Board, Concrete, and Rock & Other Aggregates are not statistically different. There was more Clean Dimensional Lumber, Bricks, Painted Wood, and Asphalt Paving landfilled in 2014 than in 2008; there was less Composition Shingles landfilled in 2014 than in 2008. It should be noted that the C&D waste stream characterization has inherent greater variability than Residential or ICI waste streams and thus greater variability in the study results is expected, as noted by the larger error bars.

Figure 5-9. Comparison of 2008 and 2014 C&D Landfilled Waste

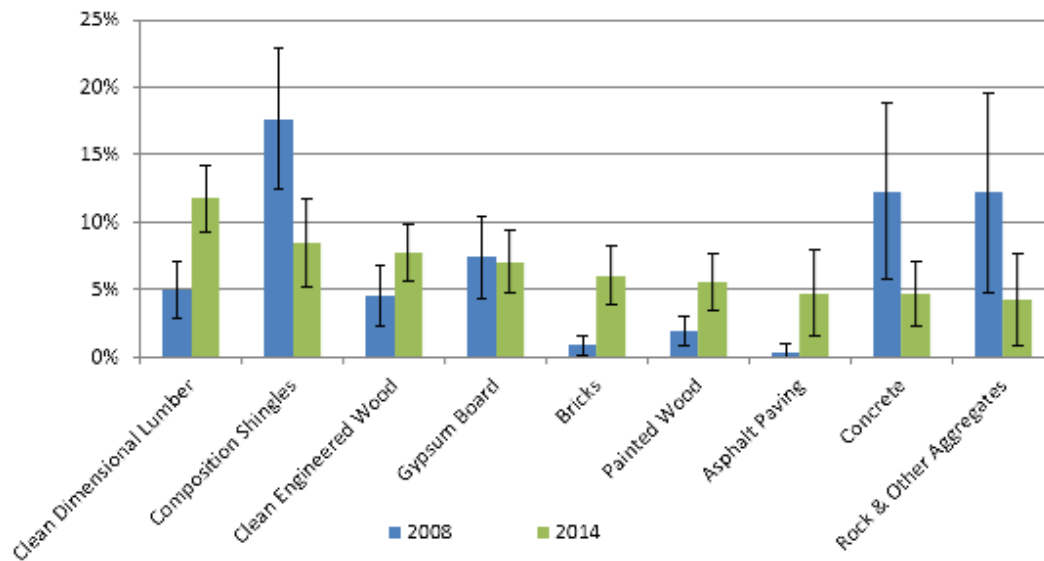


Table 5-6 provides the waste composition profiles of the C&D landfilled waste for 2008 and 2014.

5.3 MSW Generation

The statewide and regional MSW generation estimates are presented in Section 3. The tables and figures that follow summarize the waste generation, by material class, for Illinois statewide MSW, residential, ICI urban, and rural waste sectors and subsectors. MSW generated by IEPA Region summaries are provided as pounds per capita per year, pounds per person per day, and total tonnage. Total tonnage estimates can be useful information and planning tools, however, total MSW pounds per person per day are better estimates for comparing generation changes between 2008 and 2014.

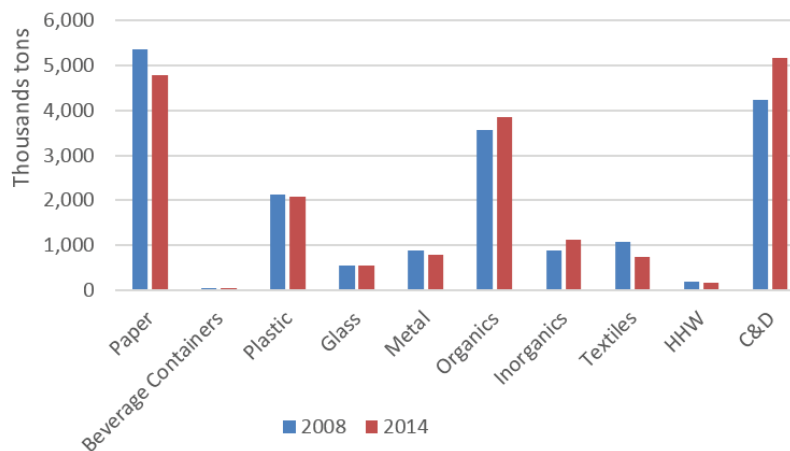
5.3.1 Total Statewide MSW Generation Comparison

Table 5-7 summarizes the ten material class generation estimates for 2008 and 2014. Figure 5-10 is a visual representation of these same estimates. Estimates indicate overall tonnage of waste produced in the state in 2014 has increased approximately 20% from 2008, much of that originating from increases in inorganics and the C&D waste sector. It should be noted again, that availability of data on C&D disposal, as well as recovery, has changed dramatically over the past few years and this comparison should be further assessed, in the future. Also, estimates indicate an approximate 30% reduction in Textiles generation in 2014 when compared to 2008. Total Illinois MSW pounds per person per year (ppy) generation is estimated at 2% higher in 2014 (2,993) than in 2008 (2,942). Expressed in pounds per person per day (ppd), Total Illinois MSW generation is estimated at 8.20 ppd in 2014 and 8.06 ppd in 2008.

Table 5-7. Comparison of 2014 and 2008 Statewide MSW Generation

	2008 Generation Tons	2014 Generation Tons
Paper	5,354,230	4,798,920
Beverage Containers	34,460	37,020
Plastic	2,120,170	2,073,870
Glass	554,150	554,980
Metal	887,890	794,900
Organics	3,560,120	3,858,530
Inorganics	877,570	1,131,050
Textiles	1,085,650	740,980
HHW	184,790	173,240
C&D	4,247,060	5,158,730
Total (tons)	18,906,090	19,322,220

Figure 5-10. Comparison of 2014 and 2008 Statewide MSW Generation



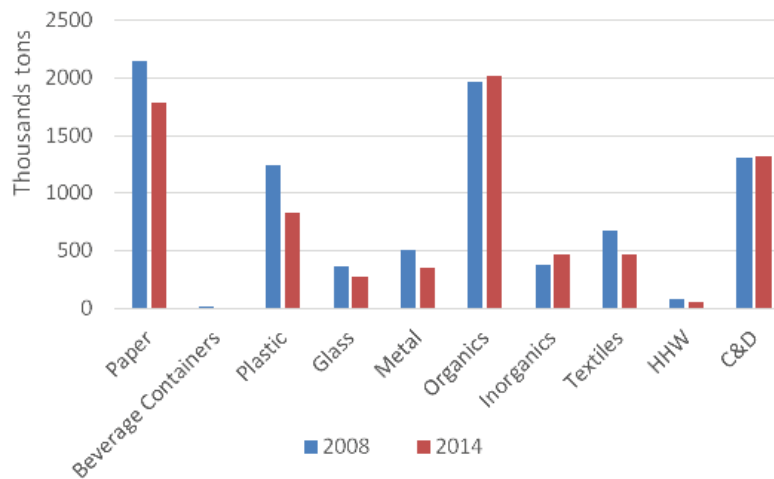
5.3.2 Residential Statewide MSW Generation Comparison

Table 5-8 summarizes the ten material class Residential generation estimates for 2008 and 2014. Figure 5-11 is a visual representation of these same estimates. Estimates indicate total tonnage waste produced within the Residential waste sector were generally lower in 2014 than 2008, where seven of the ten material classes and total waste were at least 10% less than the 2008 estimates (i.e., 2,153,700/ 1,786,220 = 17% decrease). Organics and C&D were similar to the 2008 estimates (within 3% difference). Similar to statewide MSW estimates, Inorganics generation estimates increased approximately 24% in 2014. Residential MSW generation is estimated at 13% lower in 2014 (1,175 ppy) than in 2008 (1,351 ppy). Expressed in ppd, Residential MSW generation is estimated at 3.22 ppd in 2014 and 3.70 ppd in 2008.

Table 5-8. Comparison of 2014 and 2008 Residential MSW Generation

	2008 RES Tons	2014 RES Tons
Paper	2,153,700	1,786,220
Beverage Containers	12,060	9,290
Plastic	1,239,080	824,570
Glass	360,040	280,350
Metal	504,800	355,700
Organics	1,970,080	2,019,860
Inorganics	382,610	473,620
Textiles	676,040	464,660
HHW	82,740	51,150
C&D	1,302,630	1,320,870
Total (tons)	8,683,780	7,586,290

Figure 5-11. Comparison of 2014 and 2008 Residential MSW Generation



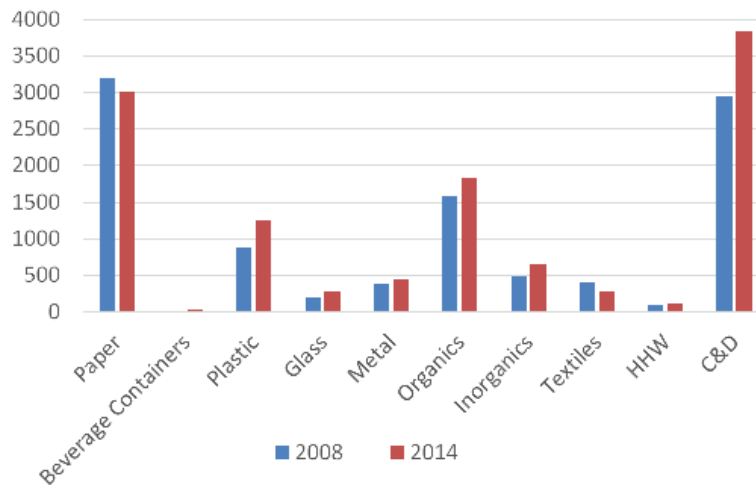
5.3.3 ICI Statewide MSW Generation Comparison

Table 5-9 summarizes the ten material class ICI generation estimates for 2008 and 2014. Figure 5-12 is a visual representation of these same estimates. Estimates indicate total tonnage waste produced within the ICI waste sector were generally higher in 2014 than 2008, where eight of the ten material classes and total waste were at least 15% greater than the 2008 estimates (i.e., 22,400/ 27,730 = 24% increase). Paper and Textiles generation estimates decreased by 6% and 33%, respectively. ICI MSW generation is estimated at 14% higher in 2014 (1,818 ppy) than in 2008 (1,591 ppy). Expressed in ppy, ICI MSW generation is estimated at 4.98 ppy in 2014 and 4.36 ppy in 2008.

Table 5-9. Comparison of 2014 and 2008 ICI MSW Generation

	2008 ICI Tons	2014 ICI Tons
Paper	3,200,530	3,012,700
Beverage Containers	22,400	27,730
Plastic	881,090	1,249,300
Glass	194,110	274,630
Metal	383,090	439,200
Organics	1,590,040	1,838,670
Inorganics	494,960	657,430
Textiles	409,610	276,320
HHW	102,050	122,090
C&D	2,944,430	3,837,860
Total (tons)	10,222,310	11,735,930

Figure 5-12. Comparison of 2014 and 2008 ICI MSW Generation



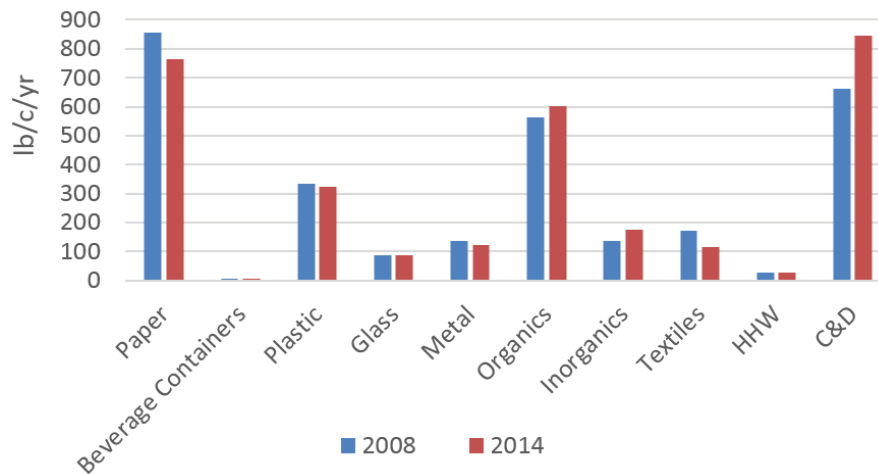
5.3.4 Urban Statewide MSW Generation Comparison

Table 5-10 summarizes the ten material class Urban generation estimates for 2008 and 2014. Figure 5-13 is a visual representation of these same estimates. Estimates indicate pounds per capita per year waste produced within the Urban communities was very similar in 2014 and 2008, where seven of the ten material classes and total waste were within 10% difference of the 2008 estimates (i.e., 2,982/ 3,064= 3% increase). Similar to statewide MSW estimates, Inorganics and C&D generation estimates increased approximately 28% in 2014 and Textiles generation has decreased approximately 33%. Total Urban MSW generation is estimated at 3% higher in 2014 (3,066 ppy) than in 2008 (2,982 ppy). Expressed in ppd, Total Urban MSW generation is estimated at 8.40 ppd in 2014 and 8.17 ppd in 2008.

Table 5-10. Comparison of 2014 and 2008 Statewide Urban MSW Generation

	2008 Urban (lb/c/yr)	2014 Urban (lb/c/yr)
Paper	855.5	762.4
Beverage Containers	5.4	5.8
Plastic	334.0	324.1
Glass	86.2	85.9
Metal	138.2	123.1
Organics	561.5	600.7
Inorganics	136.6	175.2
Textiles	173.2	116.7
HHW	28.8	26.8
C&D	662.9	843.6
Total (lb/c/yr)	2,982	3,064

Figure 5-13. Comparison of 2014 and 2008 Statewide Urban MSW Generation



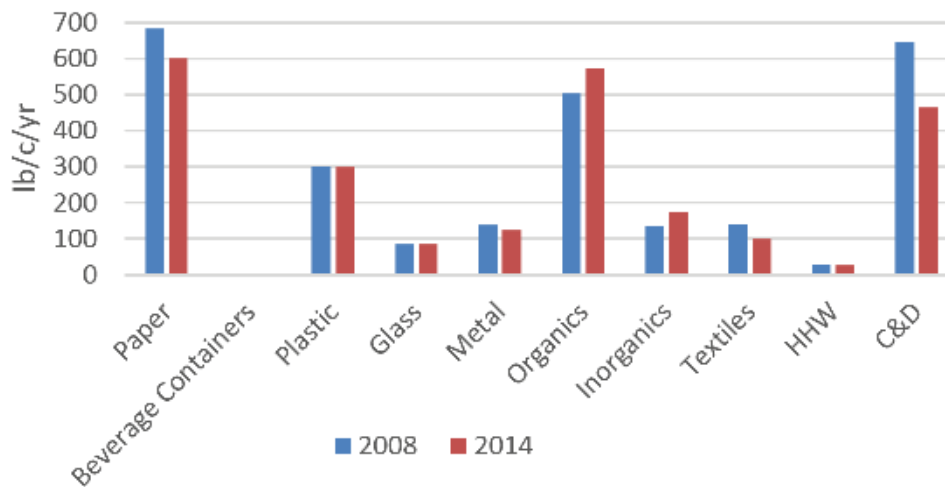
5.3.5 Rural Statewide MSW Generation Comparison

Table 5-11 summarizes the ten material class Rural generation estimates for 2008 and 2014. Figure 5-14 is a visual representation of these same estimates. Estimates indicate pounds per capita per year waste produced within the Rural communities were generally similar in 2014 and 2008, where five of the ten material classes and total waste were within 10% difference of the 2008 estimates (i.e., $2,672 / 2,455 = 8\%$ decrease). Estimates indicate generation of Organics and Inorganics increased by 14% and 28%, respectively, whereas Paper, Textiles, and C&D decreased in 2014 by 12%, 29% and 28%, respectively. Total Rural MSW generation is estimated at 8% lower in 2014 (2,456 ppy) than in 2008 (2,672 ppy). Expressed in ppd, Total Rural MSW generation is estimated at 6.73 ppd in 2014 and 7.32 ppd in 2008.

Table 5-11. Comparison of 2014 and 2008 Statewide Rural MSW Generation

	2008 Rural (lb/c/yr)	2014 Rural (lb/c/yr)
Paper	683.4	600.1
Beverage Containers	5.4	5.1
Plastic	302.6	299.6
Glass	86.2	86.0
Metal	138.1	123.2
Organics	503.8	574.5
Inorganics	136.4	175.2
Textiles	140.4	100.0
HHW	28.5	26.7
C&D	647.4	464.8
Total (lb/c/yr)	2,672	2,455

Figure 5-14. Comparison of 2014 and 2008 Statewide Rural MSW Generation



5.3.6 MSW Generation by IEPA Region Comparison

Figure 5-15 and Table 5-12 show that on a per capita basis, Region 2 is the only IEPA region to show increased MSW generation estimates between 2008 to 2014, at a rate of 5% increase (i.e., $8.72/8.31\% = 105\%$). The remaining regions show decreasing estimates of waste generation of between 4% and 7% reduction in 2014.

Figure 5-15. Comparison of 2014 and 2008 IEPA Region MSW Generation

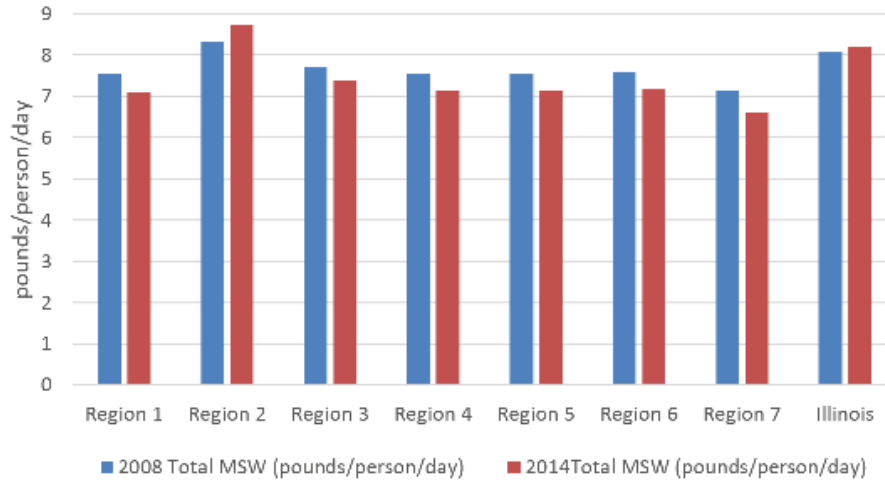


Table 5-12 provides generation profiles of the IEPA Regions MSW Generation for 2008 and 2014.

Table 5-12 Comparison of 2014 and 2008 Statewide MSW Generation - IEPA Regions

	Regional Generation			Regional Generation			Regional Generation			Regional Generation		
	2008 (lb/c/yr)	2014 (lb/c/yr)	Difference (lb/c/yr)	2008 (lb/c/yr)	2014 (lb/c/yr)	Difference (lb/c/yr)	2008 (lb/c/yr)	2014 (lb/c/yr)	Difference (lb/c/yr)	2008 (lb/c/yr)	2014 (lb/c/yr)	Difference (lb/c/yr)
Region 1	722.1	642.0	-80.0	886.2	793.2	-93.0	886.2	793.2	-93.0	13,146,170	13,808,940	662,770
Paper	5.4	5.0	-0.4	5.4	6.0	0.6	5.4	6.0	0.6	760.8	675.0	-85.8
Beverage	316.8	306.0	-10.8	339.0	328.5	-10.5	339.0	328.5	-10.5	312.6	316.6	3.9
Containers	86.2	86.0	-0.2	86.2	86.0	-0.3	86.2	86.0	-0.3	86.1	85.9	-0.2
Plastic	138.2	123.1	-15.0	138.2	123.1	-15.1	138.2	123.1	-15.1	138.2	123.2	-15.0
Glass	511.9	575.6	63.7	568.4	606.4	37.9	568.4	606.4	37.9	538.3	601.0	62.7
Metal	136.4	175.3	38.8	136.6	175.2	38.6	136.6	175.2	38.6	136.4	175.1	38.6
Organics	155.0	107.5	-47.5	178.5	123.8	-54.6	178.5	123.8	-54.6	150.9	107.8	-43.2
Inorganics	28.7	26.8	-1.8	28.8	26.9	-1.9	28.8	26.9	-1.9	28.7	26.8	-1.9
Textiles	654.3	545.7	-108.6	665.4	918.8	253.4	665.4	918.8	253.4	652.5	573.3	-79.2
HHW												
C&D												
Total MSW (tons)	1,162,770	1,087,560	-75,210	13,146,170	13,808,940	662,770	13,146,170	13,808,940	662,770	1,052,670	1,027,380	-25,290
Total MSW (pounds/person/day)	7.55	7.10	-0.44	8.31	8.72	0.41	8.31	8.72	0.41	7.70	7.37	-0.33
Region 2	727.8	640.4	-87.4	726.9	656.8	-70.1	726.9	656.8	-70.1	718.6	633.3	-85.3
Paper	5.4	5.2	-0.2	5.3	5.2	-0.1	5.3	5.2	-0.1	5.4	5.1	-0.3
Beverage	310.4	306.5	-3.9	311.2	307.6	-3.6	311.2	307.6	-3.6	315.7	307.3	-8.4
Containers	86.2	85.9	-0.3	86.3	85.9	-0.4	86.3	85.9	-0.4	86.2	86.0	-0.2
Plastic	138.3	123.1	-15.2	138.0	123.3	-14.7	138.0	123.3	-14.7	138.2	123.1	-15.2
Glass	527.9	578.5	50.5	521.7	577.7	55.9	521.7	577.7	55.9	534.9	578.7	43.8
Metal	136.5	175.1	38.7	136.4	175.6	39.2	136.4	175.6	39.2	136.5	175.0	38.5
Organics	148.8	106.1	-42.7	149.2	106.9	-42.3	149.2	106.9	-42.3	154.0	107.2	-46.7
Inorganics	28.6	26.8	-1.8	28.6	26.7	-1.9	28.6	26.7	-1.9	28.8	26.8	-1.9
Textiles	651.4	558.4	-93.0	651.4	537.0	-114.4	651.4	537.0	-114.4	653.9	581.6	-72.2
HHW												
C&D												
Total MSW (tons)	1,210,730	1,181,690	-29,040	767,740	731,970	-35,770	767,740	731,970	-35,770	1,003,780	961,410	-42,370
Total MSW (pounds/person/day)	7.57	7.14	-0.43	7.55	7.13	-0.42	7.55	7.13	-0.42	7.60	7.19	-0.41
Region 3	654.4	572.2	-82.1	833.2	743.2	-90.0	833.2	743.2	-90.0	833.2	743.2	-90.0
Paper	5.4	4.3	-1.0	5.4	5.7	0.3	5.4	5.7	0.3	5.4	5.7	0.3
Beverage	290.3	284.4	-5.9	329.9	321.2	-8.7	329.9	321.2	-8.7	329.9	321.2	-8.7
Containers	86.2	86.1	-0.1	86.2	86.0	-0.3	86.2	86.0	-0.3	86.2	86.0	-0.3
Plastic	137.9	123.1	-14.8	138.2	123.1	-15.1	138.2	123.1	-15.1	138.2	123.1	-15.1
Glass	500.6	556.7	56.1	554.0	597.6	43.6	554.0	597.6	43.6	554.0	597.6	43.6
Metal	136.3	175.0	38.7	136.6	175.2	38.6	136.6	175.2	38.6	136.6	175.2	38.6
Organics	127.7	91.0	-36.7	168.9	114.8	-54.1	168.9	114.8	-54.1	168.9	114.8	-54.1
Inorganics	28.5	26.5	-2.0	28.8	26.8	-2.0	28.8	26.8	-2.0	28.8	26.8	-2.0
Textiles	641.5	498.7	-142.8	660.9	799.0	138.1	660.9	799.0	138.1	660.9	799.0	138.1
HHW												
C&D												
Total MSW (tons)	562,230	523,260	-38,970	18,906,090	19,322,210	416,120	18,906,090	19,322,210	416,120	18,906,090	19,322,210	416,120
Total MSW (pounds/person/day)	7.15	6.62	-0.52	8.06	8.20	0.14	8.06	8.20	0.14	8.06	8.20	0.14

5.4 MSW Diversion

The total Illinois recovery of resources tonnage and rates are presented in Section 4. Estimates of Illinois material recovery for 2008 and 2014 are summarized in Figure 5-16 and Table 5-13, where recovery has been calculated by assuming the difference between the estimated generation quantities and landfilled quantities is the quantity of materials recovered. As stated in Section four, there is no mechanism in Illinois that establishes a protocol for or requires the type and quantity of materials recovered through programs and efforts throughout the state to be reported to a central entity. Therefore, Illinois cannot verify the estimated diversion rates calculated in both reports. **However, data indicates that diversion has increased from 19.1% to 37.3% in 2014.**

The studies indicate material recovery for six of the ten material classes remained relatively static, including Beverage Containers, Plastic, Glass, Organics, Inorganics, and HHW. The recovery estimates indicate Paper, Metal, Textiles, and C&D material recovery has substantially increased. However, some portion of the increase in C&D materials recovery may be attributed to quality of data available in 2014 vs 2008, as stated in Section 5.3.1.

Figure 5-16. Comparison of 2014 and 2008 Illinois Recovery/Diversion Rates

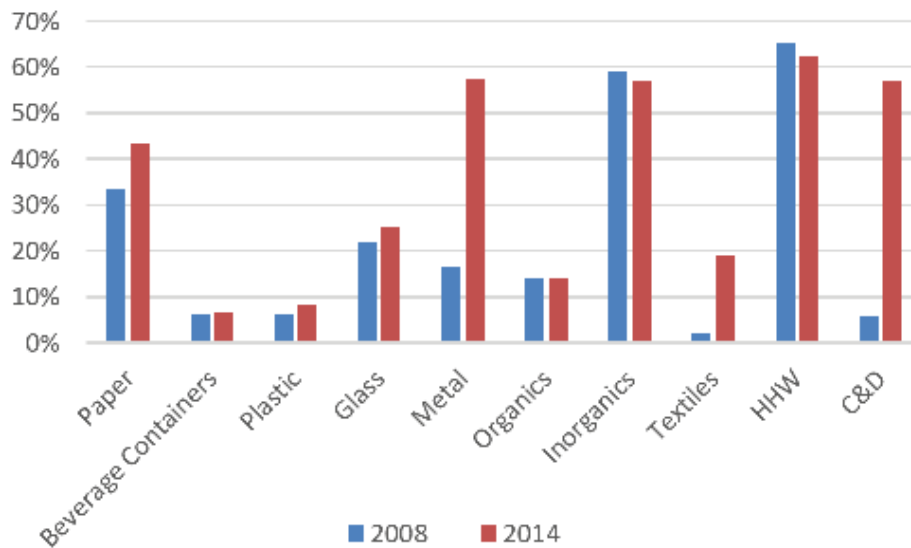


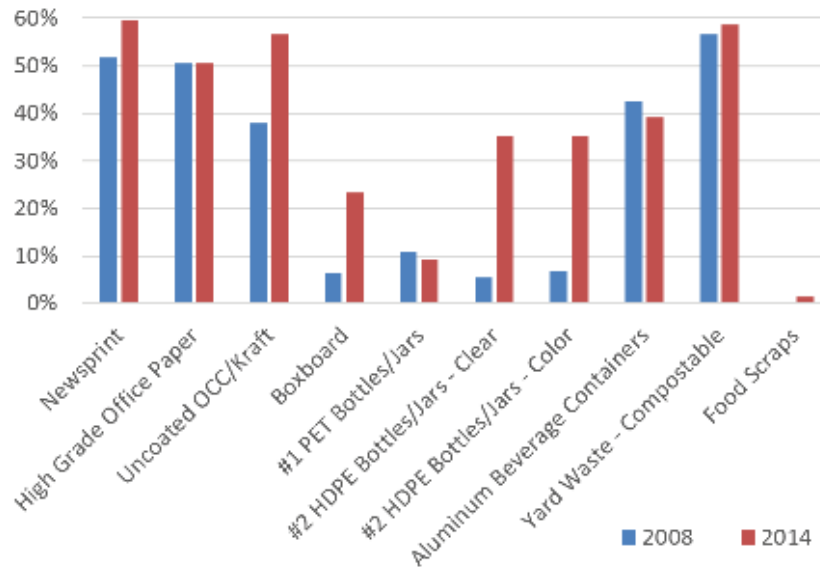
Table 5-13. Comparison of 2014 and 2008 Illinois Recovery/Diversion Rates

	2008 Recovery Tons ^a	2014 Recovery Tons ^a	2008 Recovery %	2014 Recovery %	Recovery Difference
Paper	1,790,500	2,087,200	33.3%	43.5%	10.2%
Beverage Containers	2,100	2,400	6.1%	6.5%	0.4%
Plastic	131,500	167,700	6.2%	8.1%	1.9%
Glass	120,500	140,500	21.7%	25.3%	3.6%
Metal	147,400	666,700	16.6%	57.4%	40.8%
Organics	516,400	560,700	14.0%	14.3%	0.2%
Inorganics	518,000	645,400	59.0%	57.1%	-2.0%
Textiles	21,900	141,100	2.0%	19.0%	17.0%
HHW	120,400	108,000	65.2%	62.3%	-2.8%
C&D	241,300	2,714,600	5.9%	56.9%	51.1%
Total^a	3,610,000	7,234,300	19.1%	37.3%	18.3%

^a Numbers rounded to nearest 100 Tons

Figure 5-17 compares the top ten commodity products discussed throughout this Section. The recovery rates of five of these commodity materials is similar in 2014 and 2008, including High Grade Office Paper, #1 PET Bottles/Jars, Aluminum Beverage Containers, Yard Waste - Compostable, and Food Scraps. There is increased recovery in 2014 for the other five commodity materials, including Newsprint, Boxboard, Uncoated OCC/Kraft, #2 HDPE Bottles/Jars - Clear, and #2 HDPE Bottles/Jars - Color.

Figure 5-17. Comparison of 2014 and 2008 Illinois Recovery/Diversion of Commodity Materials



Appendix A
Work Plan

**Illinois Commodity/Municipal Solid
Waste Disposal Characterization
Study**

WORK PLAN

Commissioned by:

**Illinois Department of Commerce &
Economic Opportunity**

Contracted by:

**Illinois Recycling Association and
Cook County Department of
Environmental Control**

August 2014

Prepared by:



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Section 1

Overview

1.1 Objective

This document is intended to serve as the sampling plan for the 2014 Illinois Recycling Association (IRA) Municipal Solid Waste (MSW) Disposal Characterization Study. It describes in detail the work required to provide IRA with a comprehensive and accurate waste composition of MSW disposed throughout the State of Illinois.

To develop precise waste composition estimates, CDM Smith Inc. (CDM Smith) will collect waste samples at 28 disposal facilities over one sampling season. Approximately 28 sampling days during September through November 2014 will be dedicated to hand-sorting and characterizing approximately 130 samples of residential waste, 130 samples of industrial/commercial/institutional (ICI) waste, as well as visual characterizations of approximately 150 loads of construction and demolition (C&D) waste.

Description and definitions of the waste sectors used to stratify data collection for the study are presented in the following sections. Detailed appendices follow.

1.2 Waste Sectors

Waste sampling will occur using a random sampling methodology. Waste will be sampled from the sectors listed below, in order to develop a waste composition profile for each sector. Then the sectors will be “added together” in a way that reflects each sector’s relative contribution to the overall waste stream, thus producing overall waste composition information.

For this study, a waste sector is identified by the particular generation characteristics that make it a unique portion of the total waste stream. This study will examine waste disposed by three distinct sectors:

1. Residential – waste generated by single and multifamily residences. This waste is primarily collected in packer trucks (e.g., side-loading or rear loading vehicles).
2. Industrial/Commercial/Institutional (ICI) – waste generated by fabricated manufacturing facilities, mills, and mines; businesses and institutions. This waste is collected in a variety of vehicles including loose and compactor drop boxes, and front-end loading trucks.
3. Construction and demolition (C&D) – waste generated from new construction, renovation activities, or demolition. This waste is collected in vehicles such as dump trucks, loose roll-off boxes, and end dump vehicles.

1.3 Facility Selection

CDM Smith researched Illinois Waste Generation and disposal by reviewing its 2008 state wide study, the 2013 Illinois Environmental Protection Agency (Illinois EPA) Landfill Capacity Report, lists of Illinois transfer stations and recycling facilities, conducting phone interviews with landfill and transfer station staff, and interviewing numerous waste management professionals to assess where waste from all the different Illinois communities is finally disposed, as well as where it is temporarily staged for sorting and transport purposes. Figures 1 and 2 show approximate MSW waste generation rates at a county level based on 2013 Census population and employment data in conjunction with typical unit waste generation rates, as well as location of urban areas and Illinois EPA region boundaries, for reference.

Figure 1. Waste Generation Rates, Urban Areas, and Illinois EPA Regions Map

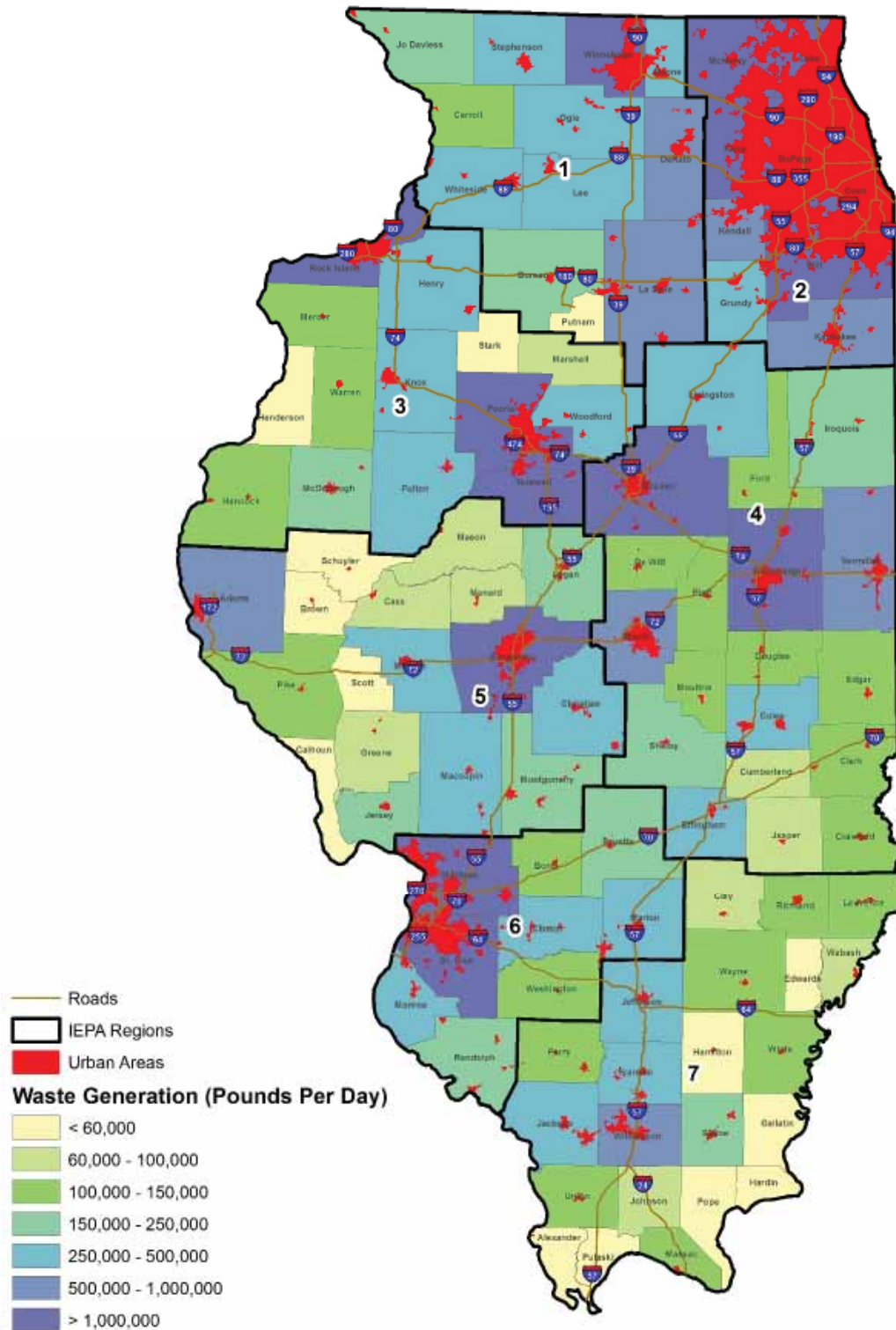
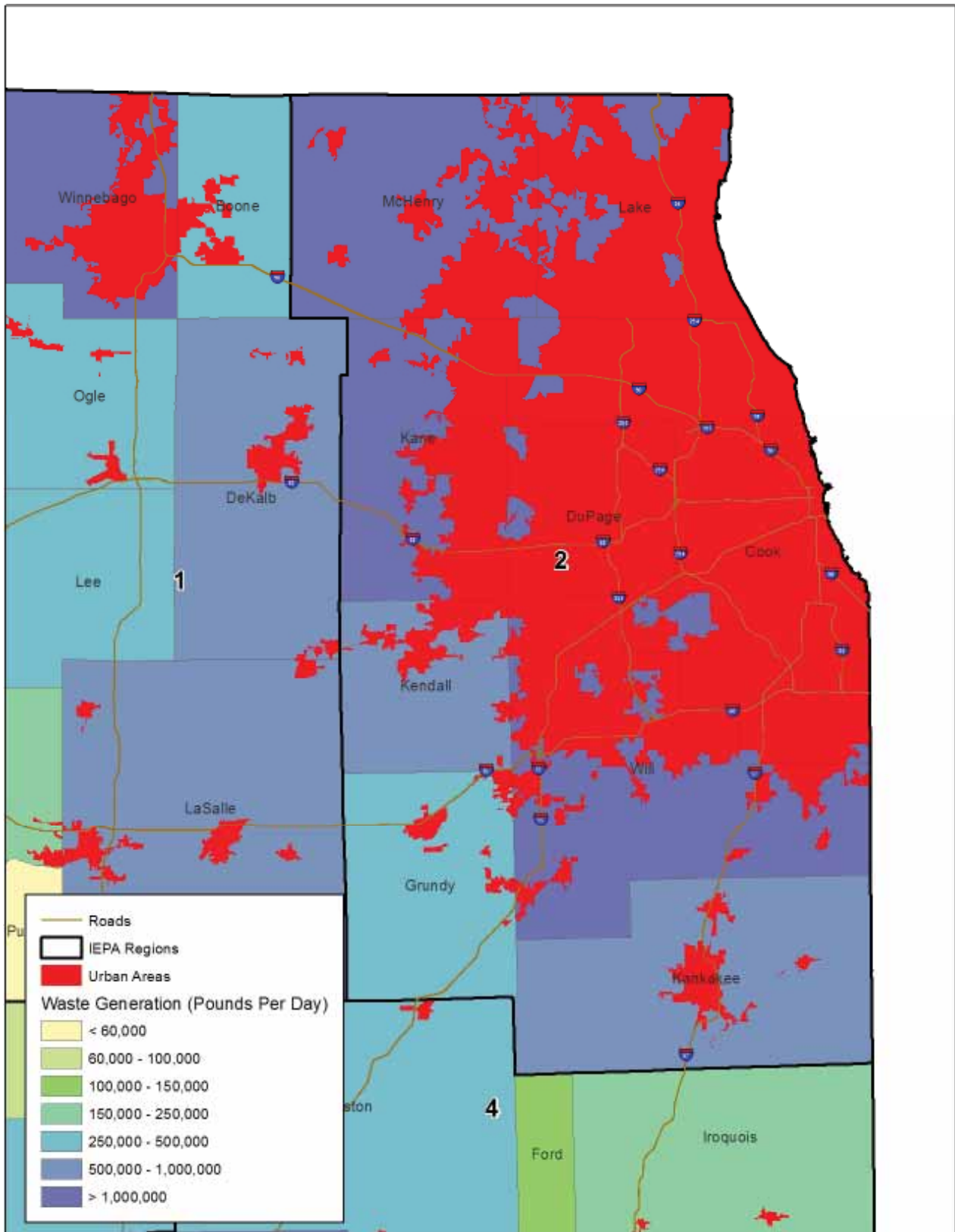


Figure 2. Waste Generation Rates, Urban Areas, and Illinois EPA Regions Map – Region 2



To ensure that samples are representative of Illinois' statewide waste stream, sampling will be conducted at 28 landfill facilities and transfer stations located throughout Illinois considering the facility selection criteria outlined below.

To adequately and efficiently sample waste sectors, preference was given to facilities that accept and receive sufficient amounts of all three selected waste sectors:

- Residential
- Industrial/Commercial/Institutional (ICI) and
- Construction and Demolition (C&D)

In addition to separating the Illinois MSW into the above waste sectors, the Illinois residential and ICI MSW was further evaluated at the rural and urban subsector level to provide additional planning information. The U.S. Department of Agriculture assigns each county a rural-urban continuum code (RUC), which identifies it as a metropolitan or nonmetropolitan county. A metropolitan area is defined by the federal Office of Management and Budget as a core area with a city of 50,000 or more inhabitants, plus adjacent communities having a high degree of economic and social integration with that core or an Urbanized Area (UA) and a total population of at least 100,000. The county or counties containing the largest city and surrounding densely settled territory are central counties of the metropolitan area. A non-metro area is any area located outside of the metropolitan areas as defined above. Selected facilities were distributed in both rural and urban counties of Illinois to provide data for urban and rural MSW sectors. Also, Transfer stations are preferred in urban areas, where waste sector and source (county/town/community) could be identified, rather than landfill facilities.

- Urban – waste generated by metropolitan counties
- Rural - waste generated by nonmetropolitan counties

For state wide geographic coverage, at least two facilities from each of the Illinois EPA's seven geographic regions were selected for sampling.

- Region 1 – 3 facilities
- Region 2 – 4 facilities
- Region 3 – 2 facilities
- Region 4 – 3 facilities
- Region 5 – 2 facilities
- Region 6 – 2 facilities
- Region 7 – 2 facilities

CDM Smith's team assessed what communities and municipalities each facility received waste from, to capture the majority of the waste stream.

- Four facilities selected from within City of Chicago
- Six facilities selected from the suburban Cook County
- Four facilities selected from collar communities
- Fourteen facilities selected from remainder of state

Similarly, facility selection to study the composition of suburban Cook County's MSW included the following considerations:

- Geographic distribution
 - Northern Cook County Suburbs – 2 facilities (20 samples total)
 - Western Cook County Suburbs – 2 facilities (20 samples total)
 - Southern Cook County Suburbs – 2 facilities (20 samples total)
- Waste sector
 - 50% of samples will be from residential sector
 - 50% of samples will be from ICI sector

In general, throughout the state waste is transported to and disposed of at nearby landfills. However, within the Chicago area waste is first delivered to transfer stations for sorting and redistributing into larger truck trailers and then transported to landfills further away in northwestern Illinois and Indiana. In the Chicago area, samples will be sorted at waste transfer stations, not at ultimate disposal locations. CDM Smith will not sample transferred trailers when sorting at facilities elsewhere in the state. Also, facility selection considered final disposal location as well as staging and sorting location, so that waste sector and municipality/service area would be known.

- Preferred transfer stations, MRRFs, and recycling facilities, where available.
- Selected landfills that accept minimum quantities of waste loads delivered directly from collection.

Facilities near the borders of Illinois can accept waste from neighboring state and likewise municipalities near the Illinois borders may dispose of waste out of state. This state wide waste study is focused on waste generated in Illinois and therefore geographic source of waste was collected through reported data and facility interviews.

- Prefer majority of accepted waste from within Illinois.
- Consideration given to facilities located outside of Illinois if most of accepted waste is from Illinois municipalities.

Finally, safety of work staff was assessed with input from facility managers.

- Prefer facilities that were comfortable identifying a safe space for sampling/sorting team's work area.
- Slight preference given to facilities that provided covered work areas (all other things considered equal).

1.4 Collecting Initial Data from Facilities

For each disposal facility included in the sampling schedule, information will be collected in order to prepare a unique sampling schedule and set of targets, as well as to prepare for the logistics of sampling. In addition to obtaining contact information for the staff who are able to assist in making arrangements for data collection at each facility, the following information will be requested or agreed upon with the facility:

- Written directions to the facility;
- The facility's days and hours of operation, and if they accept waste outside of these hours;
- Contact information for the owner of the facility, an employee who can provide permission to use the site, an on-site contact for logistics information, and a person who will be the point of contact on the day of sampling;

- A plan or agreement about the exact location of sampling and sorting operations at the facility;
- Confirmation of the facility's willingness to make a loader available for sample collection;
- A plan for the use of scales and the cooperation of gatehouse personnel to obtain vehicle net weights and assist in sample identification and collection;
- The number of scalehouses at the facility and the process by which vehicles are directed to the scalehouses (e.g., do ICI haulers use a separate gate from cash customers?);
- Approximate daily and weekly load counts by waste sector and total for the facility;
- Estimates regarding the vehicle traffic expected for each sector on each day of the week and the estimated peak time of day for each type of load;
- Specific information about numbers and types of vehicles arriving on weekend days;
- Any rules the facility follows in recording the net weight of vehicles and for recording alternate minimum weights for small vehicles;
- Information about existing recycling or recovery operations at the facility, and how the study team may obtain samples of waste after any recycling or recovery operations have already been applied to the waste;
- Tips about any unusual conditions (e.g., weather, anomalies in traffic patterns, etc.) that might affect data collection; and
- Information about the quantities and types of MRF residuals that the facility receives.

While administering the questionnaire, the study team will communicate the data collection crew's needs for space, their need for the assistance of a loader and operator, and the need for access to restrooms and shelter at the facility. A Facility Interview Questionnaire is provided in Appendix A.

1.5 Ongoing Communications with Disposal Sites

After a disposal facility has been recruited for participation in the study, a letter of confirmation will be sent to the facility's management via fax or email. The letter will summarize the crucial information that has been obtained through the recruitment and interview process, including the approximate dates of data collection activities, arrangements for the use of equipment such as a loader, arrangements for assistance of a loader and operator, arrangements for space in which to work, etc. The management of each facility will be asked to verify verbally the information summarized in the letter. Approximately a week prior to the scheduled visit, the management of each facility will be contacted by phone to remind them of the visit and their role in the sampling activities. An additional follow-up call will be conducted two days prior to the scheduled visit.

Section 2

Data Collection

This section provides a more detailed description of the sampling process. It includes plans for the collection of data to characterize residential, ICI, and C&D waste.

2.1 Numbers and Allocation of Waste Samples

To develop precise waste composition estimates for the State of Illinois, the consultants will collect waste samples at 28 solid waste facilities. The research team will obtain and hand-sort approximately 260 samples of disposed waste and visually characterize approximately 150 loads of disposed waste, as summarized below.

Table 1. Approximate Target Number of Samples

Sector or Subsector	Total Samples
Residential	130
ICI	130
C&D	150

The proposed solid waste facilities that are expected to be included in the study are listed Appendix B, along with secondary facilities that may be used as alternates.

2.2 Gatehouse Surveys

To determine the waste composition at each facility, CDM Smith will work with the scalehouse operators to conduct gatehouse surveys. These surveys will consist of a simple questionnaire that will ask what sector the waste is generated by (residential, ICI or C&D), the city or county that the waste comes from and the weight of the load. An example form is provided in Appendix C. This information will be used to determine an approximate distribution of waste disposed at each facility and to assist in collecting residential and ICI samples.

2.3 Sampling Residential and ICI Waste (Hand-Sorting)

The study will use slightly different methods for selecting vehicles to provide samples of residential waste versus ICI waste. However, the procedure for hand-sorting and characterizing residential and ICI waste samples will be the same. This section describes the distinct procedures for selecting vehicles from the residential and ICI sectors, as well as the procedure for obtaining and characterizing samples from selected vehicles from the residential and ICI sectors.

2.3.1 Obtaining Residential and ICI Waste Loads for Sampling

The samples collected will be allocated among the 7 Illinois EPA Regions as shown in Figures 3, 4 and Appendix B. A minimum of 2 sampling days will be spent in each Illinois EPA Region and approximately 9 samples will be collected per day (10 samples per day at the six suburban Cook County facilities). The samples will be split equally between residential waste and ICI waste. Figures 1 and 2 also show approximate MSW waste generation rates at a county level based on 2006 Census population and employment data in conjunction with typical unit waste generation rates. This information was used in the

Figure 3. Selected Facilities Map

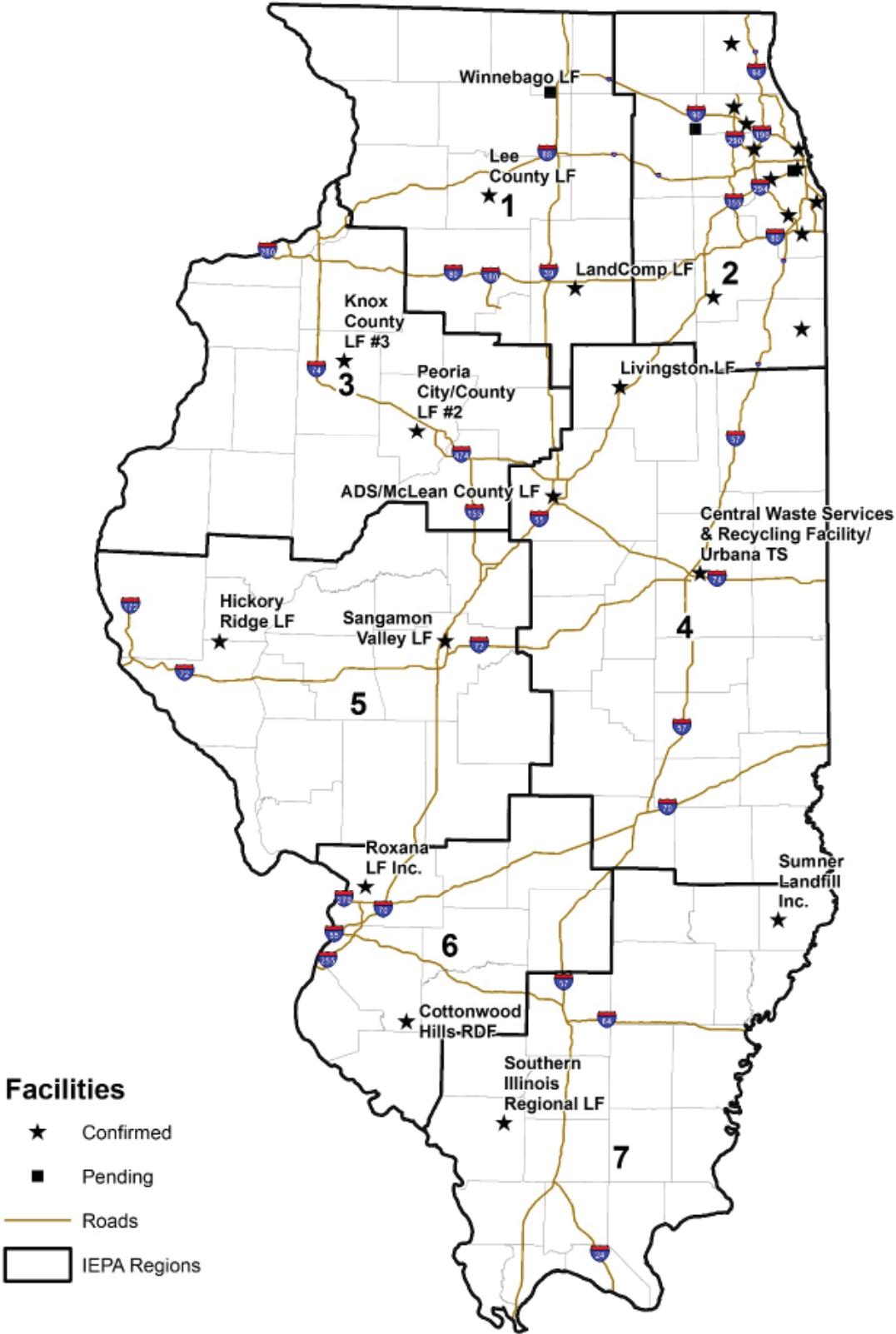
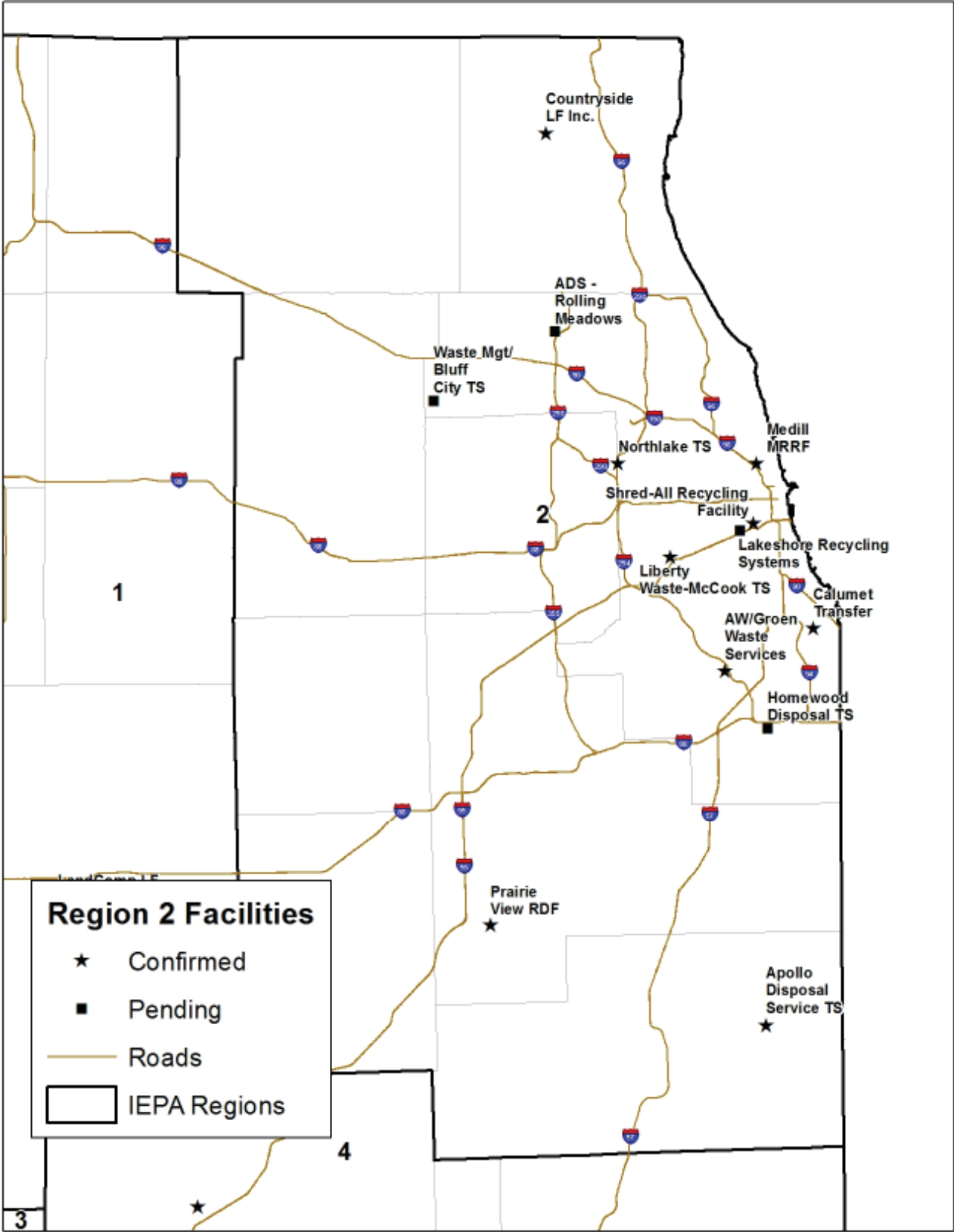


Figure 4. Selected Facilities Map – Region 2



selection of sampling locations to distribute the sample collection between rural and urban areas of the state as well as the 7 Illinois EPA Regions.

2.3.1.1 Developing a Procedure to Select Residential and ICI Waste Loads at Each Facility

CDM will determine the approximate number of residential and ICI waste loads that arrive at each participating facility on each day of the week. These estimates will be used to inform the selection procedure for residential and ICI waste vehicles (i.e., to determine the intervals at which vehicles are selected for sampling as they arrive at the facility entrances).

Other factors that affect the logistics of vehicle selection at each facility include the number of entrances used by waste vehicles, the hours of operation, and the peak times for arrival of waste (if applicable). All of this information will be gathered from each facility and will be used to create two unique *Vehicle Selection Forms* (one for residential samples and one for ICI samples) for each sampling day, as described in more detail below.

2.3.1.2 Selection and Diversion Loads of Residential and ICI Waste for Sampling

As discussed in Section 2.2, CDM will work with the scalehouse to identify the vehicles that are entering the facility and use that information to apply the vehicle selection procedure to identify and divert vehicles that will be used to provide samples of waste. The first step in this procedure will be to use the following screening criteria to determine whether the vehicle is eligible for sampling:

- The vehicle carries waste from the State of Illinois; and
- The vehicle carries mostly waste from ICI sources (i.e., it includes minimal waste from residential and C&D sources); or
- The vehicle carries mostly waste from residential sources (i.e., it includes minimal waste from ICI or C&D sources).

For vehicles that meet the screening criteria, the Sampling Coordinator, in coordination with the facility's scalehouse operator, will use a systematic selection procedure to identify the vehicles that will provide waste samples at each facility. Each facility was selected to provide a distribution throughout the State and between urban and rural areas of the State. The number of samples that can be collected at each facility is limited; therefore, the nth truck approach will be used to provide an unbiased selection of vehicles for sampling. A sampling interval (e.g., every 3rd residential vehicle or every 4th ICI vehicle) will be calculated for each facility and each sampling day, based on sampling quotas and based on the numbers of residential and ICI waste vehicles expected throughout the day.

The Sampling Coordinator or scalehouse operator will apply the sampling intervals by "checking off" eligible vehicles on the *Vehicle Selection Form* and directing selected vehicles to the Sorting Crew. An example of a *Vehicle Selection Form* is shown in Appendix A. Sampling intervals will be adjusted for any facility with multiple entrances, and facility staff at each entrance will be asked to select a portion of the vehicles to be sampled on that day.

To calculate vehicle sampling intervals for waste, CDM will divide the total number of available waste sector loads expected to arrive at the facility on a given day (to be estimated from disposal site interviews) by the number of each waste sector samples needed each day. The resulting number is the sampling interval and determines whether every third vehicle, every sixth vehicle, or every 20th vehicle is selected for sampling. Generally, waste vehicles will be selected during a six-hour to eight-hour period on each sampling day, such that the sampling period includes the "peak" arrival time for waste at that facility. On

the day of sampling, the sampling intervals may be adjusted at the discretion of the Sampling Coordinator in order to ensure that enough loads can be intercepted during the time available.

When a vehicle is selected for sampling, the gate keeper will record the following information about the vehicle on a sample placard:

- Unique sample number (i.e. RES1 or ICI2)
- Source Location
- Date and Time
- Vehicle type
- Hauler
- Truck number
- The Sample Placard will be placed on the vehicle's windshield or dashboard to identify it as a vehicle intended for sampling and the driver directed to the sampling area. Please see Appendix C for an example of a Sample Placard.

After the Sampling Coordinator identifies the designated vehicle, the facility forklift operator will be directed to collect a sample and the corresponding Sample Placard. The Crew Chief will instruct the operator as to where place the sample, collect the Sample Placard and record the information from the Sample Placard onto the Sample Characterization Form. The Crew Chief will also note any unusual circumstances associated with the load or the sample.

2.3.2 Obtaining and Sorting Samples from Residential and ICI Waste Loads

Samples of waste will be obtained from selected residential and ICI loads using the same procedure, which is described below.

1. The driver of each selected load will be instructed to tip the load onto the facility floor or landfill surface in an elongated pile. The Sampling Coordinator will instruct the loader operator to capture waste from a randomly selected location in the load. At disposal sites where there is no space to tip the waste, the Sampling Coordinator will work with the loader operator to grab a sample as the load is tipped onto the waste platform.
2. The loader operator will select a sample weighing at least 200 pounds from the pile. Material will be placed onto a tarpaulin or table for sorting. If a loader is not available, samples will be removed from the pile by hand.
3. Photographs of the sample when it is placed in the sampling area will be taken using a digital camera. The *Sample Placard* that identifies each sample will be positioned so it is visible in each photograph.

All samples of residential and ICI waste will be sorted according to the sorting procedures described below.

The Crew Chief will record composition weights and the information obtained from the *Sample Placard* on the *Hand Sort Characterization Form*, an example of which is shown in Appendix C. At the end of each week, copies of the *Hand Sort Characterization Forms* will be made, and the originals kept at CDMs office for data entry.

Waste from residential and ICI sectors will be sorted and weighed as outlined below. The sorting operation will proceed as follows:

- The sample will be selected as outlined in the previous sections.
- The Sampling Coordinator will provide the Crew Chief vehicle information of each sample for the sampling data form via the *Sampling Placard*. Data recorded will include the date, the time, the area where the waste was collected, and any identifying numbers on the truck.
- The sample will be unloaded from a front-end loader bucket onto a tarp in the sample storage area near the sorting table.
- Large items (e.g., corrugated cardboard, wood) and bags containing a single waste category (most often yard waste) will be removed from the sample and set aside for weighing, bypassing the sorting box.
- The remainder of the sample will be transferred by increments into the sorting box, using broad-bladed shovels to transfer loose material.
- Sample sorting will be conducted using a sorting box which has a ¼-inch screen on the bottom.
- Samples will be sorted until the material particle size ranges from ¼ to 2-inch. At that time the Crew Chief will apportion the material to the appropriate material categories. The residual fines that fall through the screen will be included in category 37 - Bottom fines and dirt, unless it can be visually categorized further (e.g. material is primarily food waste, etc.).
- The waste will be sorted into the containers surrounding the sorting box. The Crew Chief will check the containers periodically for accuracy of sorting.
- The containers will be brought to the scale, checked for accuracy of sorting by the Crew Chief, and weighed.
- The container number and weight of the waste in each container will be recorded in the appropriate space on the data form.
- Data quality control checks will be implemented which will include a secondary review of all data recorded and checks for missing data, categories without data, suspect weights, tare weights, and total sample weight.
- Once the data form has been checked the containers will be dumped in a designated area for disposal and recycling, if available, by the facility operator.

The containers used in sorting operations have individual tare weights that typically vary no more than 2 percent from their average tare weight; therefore, a representative tare weight will be used. The tare weight will be checked if containers become coated with food or other materials. If the sorted waste in a container weighs very little in proportion to the container, the waste will be removed from the container and weighed loose. The equipment used for the field activities is shown in the residential and ICI Hand Sort Equipment List provided below.

2.3.2.1 List of Equipment and Data Forms for Hand-Sorting

A list of equipment for hand-sorting is included below:

- Plastic bins/buckets
- Boots
- Gloves
- Hard hats
- Shovels
- Broom
- Tarps
- Scales
- Sorting tables
- Magnet
- Clipboards
- Hand wipes
- Calculator
- Rain gear
- Safety vests
- First aid kit
- 30-gallon garbage can
- Cell phone or two-way radio to communicate with scalehouse
- Field Forms
 - Hand Sort Characterization Form
 - Residential Sample Placard
 - ICI Sample Placard
 - Vehicle Selection and Quota Form

2.3.3 Staffing Plan, Training, and Supervision of Hand-Sorting Crew

The Field Manager is responsible for coordinating with the disposal facility, providing the quotas for sampling, supervising waste sorting, reviewing data quality on-site, and will also serve as a crew Chief or Sampling Coordinator. The field team will consist of a total of 6 personnel, a Crew Chief, a Sampling Coordinator, and 4 crew members who will serve as sorters. The Sampling Coordinator is responsible for coordinating with the scale house to select the designated samples, interviewing the vehicle driver, and providing the Crew Chief with the sample information. The Crew Chief is responsible for supervising waste sorting, logging the sample weights, and reviewing data quality on-site. The waste sorters will consist of personnel who have experience sorting waste.

To ensure data quality, the field crew will review the work plan/ health and safety plan, be trained to identify all 79 categories (Appendix D), and be trained in all data quality control measures that will be implemented in the field, prior to each period of field work. The team will have a kickoff meeting to train the sorting crew, discuss safety, and teach the proper procedures for sample collection and sorting. Daily

meetings will also be held during the sort to revisit the health and safety plan and ensure quality standards are met.

2.4 Sampling C&D Waste (Visual Characterization)

Construction and demolition (C&D) waste will be characterized at each facility. This section describes how vehicles will be selected and how loads will be characterized.

2.4.1 Obtaining C&D Loads

2.4.1.1 Developing a Procedure to Select C&D Loads at Each Facility

The consultant team will determine the approximate number of C&D waste loads that arrive at each participating facility on each day of the week. These estimates will be used to determine the selection procedure for C&D waste vehicles (i.e., to determine the intervals at which vehicles are selected for sampling as they arrive at the facility entrances).

Other factors that affect the logistics of vehicle selection at each facility include the number of entrances used by C&D waste vehicles, the hours of operation, and the peak times for arrival of C&D waste (if applicable). All of this information will be gathered from each facility and will be used to create a unique *C&D vehicle selection form* for each sampling day, as described in more detail below.

2.4.1.2 Selecting and Diverting C&D Loads

The consultant team will work with the scalehouse operators at each facility to apply the vehicle selection procedure in order to identify and divert vehicles that are to provide samples of industrial and C&D waste. The first step in this procedure will be to use the following screening criteria to determine whether the vehicle is eligible for sampling:

- The vehicle carries waste from the State of Illinois; and
- The vehicle carries mostly waste from C&D sources (small private contractor loads are permitted for C&D waste).

A sampling interval (e.g., every 3rd vehicle) will be calculated for each facility for each sampling day, based on sampling quotas and based on the numbers of C&D waste vehicles expected throughout the day. The purpose of using sampling intervals is to ensure an unbiased selection of C&D vehicles to provide waste samples. For vehicles that meet the screening criteria of C&D waste, the scalehouse operator will use CDM's selection procedure (every *n*th vehicle) to direct the vehicles to the visual characterization area.

The scalehouse operator will apply the sampling intervals by "checking off" eligible vehicles on the *C&D vehicle selection forms* and directing selected vehicles to the sampling area. An example of a *C&D vehicle selection form* is shown in Appendix C.

To calculate vehicle sampling intervals for C&D waste, the consultant team will divide the total number of C&D waste loads expected to arrive at the facility on a given day (to be estimated from disposal site interviews) by the number of C&D samples desired each day. The resulting number is the sampling interval and determines whether every third vehicle, every sixth vehicle, or every 20th vehicle is selected for sampling. Generally, C&D waste vehicles will be selected during an eight-hour period on each sampling day, such that the sampling period includes the "peak" arrival time for C&D waste at that facility. On the day of sampling, the sampling intervals may be adjusted at the discretion of the Sampling Coordinator in order to ensure that enough loads can be intercepted during the time available.

When a vehicle is selected for sampling, the scalehouse operator will place the *C&D Sample Placard* on the vehicle's windshield or dashboard to identify it as a vehicle intended for sampling and direct the driver to the sampling area. Please see Appendix C for an example of a *C&D Sample Placard*.

When the Sampling Coordinator identifies the designated vehicle, they will gather information from the driver such as vehicle type, hauler, truck number, etc. and will assign that load a sample number. The Sampling Coordinator will also note any unusual circumstances associated with the load sample and will instruct the driver as to where to tip the load.

2.4.2 Characterizing C&D Waste Loads

Visual estimation is the preferred method for characterizing solid waste that is relatively homogeneous in composition, or that contains predominantly large, bulky items. CDM will gather volume-based estimates of composition data in the field, and then convert to weight during data analysis, using volume-to-weight conversion factors. The Field Manager/Sampling Coordinator will work with the scalehouse to interview haulers to determine the source and type of waste material, along with other information on sampled loads, and will conduct the visual characterizations/field observations of each load sampled.

When a truckload that has been selected for observation arrives at the facility, the basic data for the truck, including (but not limited to) the hauler's name, origin of the load, type of material in the load, and size of the will be recorded. The Field Manager will also work with the scalehouse to select the loads to be visually characterized and determine where to observe the tipped load. After the visual observations of each load have been completed, the loader operator will be notified that that material is no longer needed.

Where the logistics of each facility allow, the field team will determine the actual weight of sample. For loads that are weighed by the facility, the Field Manager will collect weight information from the scalehouse as determined during the facility interviews.

The consultant team proposes the following visual characterization methods for each sample designated for evaluation:

1. **Estimate total volume of load:** The first step in the observation process is to estimate the total volume of each load. This is accomplished by estimating three basic dimensions: length, width, and height of the load after it has been tipped, or by using the size of the vehicle.
2. **Identify and record material categories in load:** Pictures of the load will be taken as it is tipped for reference. The load will be observed as it is tipped so that the load can be estimated from a distance.
3. **Estimate composition by volume of load:** Beginning with the largest material category by volume, estimate the volumetric percentage of this material to the nearest 5% and record it on the Visual Characterization Form. Repeat this process (for the next most common material) until the percentage of each material that represents at least 5% of the load has been estimated.
4. Review the estimated volume of each component material in relation to other material types (i.e., if wood is 15%, is there more or less drywall?).
5. Check and reconcile percentage data. Make sure that the volumetric estimates of each material category add up to 100%. If they do not, adjust proportionally so that the total equals 100%.

2.4.2.1 List of Equipment and Data Forms for Visual Characterization

A list of equipment for visual characterizations is included below:

- Boots
- Gloves
- Hard hats
- Dust masks
- Safety glasses
- Clipboards
- Hand wipes
- Calculator
- Rain gear
- Safety vests
- First aid kit
- Cell phone or two-way radioto communicate with gatehouse
- Field Forms
 - Visual Characterization Form
 - C&D Vehicle Selection Form
 - C&D Sample Placard

2.4.3 Staffing Plan, Training, and Supervision of Visual Characterization Crew

The Field Manager/Sampling Coordinator will be responsible for coordinating with the scalehouse to interview haulers and to determine the source and type of waste material, along with other information on sampled loads, and performing/recording the visual characterizations/field observations of each load sampled. The Field Manager/Sampling Coordinator will be experienced in visually characterizing C&D Materials.

2.5 Health and Safety Plan

The Health and Safety Plan for the IRA MSW Disposed Characterization Study is provided in Appendix E.

2.6 General Contingency Measures

For hand-sorted samples, in the case that an insufficient number of vehicles is available for sampling at a disposal facility to reach the day's sampling goal, the sorting crew may resort to obtaining two samples from the same load, or electing to process additional samples from a different waste sector and make up the absent samples. This strategy may also be used when samples are missed for other unforeseen reasons. In all cases, the sampling plan will assign the frequencies of vehicles to be selected in such a way as to minimize the chance of "running out" of vehicles to represent a particular waste sector at a disposal facility.

Section 3

Data Management Plan

This section discusses how the sample and survey data will be stored and the analysis method that will be used to determine waste composition profiles for each subsector.

3.1 Data Entry and QA/QC

After the field forms are checked by the Field Manager/ Crew Chief and entered into the required data format, copies of the field forms will be taken to the CDM office where the Project Manager/ task manager will verify that all required data is recorded properly, that the targeted numbers of samples are obtained, and oversee data entry. CDM will provide IRA with a summary of sampling activities weekly during the field activities.

The compiled characterization data from individual samples will be entered into an analytical database, from which waste composition estimates will be calculated. In the analytical database, there will be a unique record for each sample of waste that is sorted. Throughout the waste results section, confidence intervals will be calculated at a 90% level of confidence, meaning that we can be 90% sure that the population mean falls within the upper and lower confidence intervals shown.

3.2 Waste Composition Calculations

3.2.1 Visually Characterized Loads

The composition calculations rely on the availability of individual material weights for each sample. The data collected during visual characterizations in this study are volume estimates. CDM will convert volume estimates to weights using waste density conversion factors.

Using volume-to-weight conversion factors and the volume estimates obtained during the characterization of each sample, individual material weights were calculated using the following formula:

$$c = m \times s \times v \times d$$

where:

c = the total weight of the specific material in the sample

m = percentage estimate of the material, as a portion of the material class (e.g., the extent to which *newspaper* constitutes all of the **Paper** in the sample)

s = percentage estimate of the material class, as a portion of all the material in the sample (e.g., the extent to which **Paper** constitutes all of the material in the sample)

v = total volume of the sample (in cubic yards)

d = density conversion of the material (in pounds/cubic yard)

3.2.2 Calculating Waste Composition Estimates

The following method will be used to estimate the composition of waste belonging to each waste sector or sub-sector. For a given sector (that is, for the samples belonging to the same waste sector within the same region), the composition estimate denoted by r_j represents the ratio of the components' weight to the total

weight of all the samples in the stratum. It will be derived by summing each component's weight across all of the selected samples belonging to a given stratum and dividing by the sum of the total weight of waste for all of the samples in that stratum, as shown in the following equation:

$$r_j = \frac{\sum_i c_{ij}}{\sum_i w_i}$$

where:

c = weight of particular component

w = sum of all component weights

for $i = 1$ to n , where n = number of selected samples

for $j = 1$ to m , where m = number of components

For example, the following simplified scenario involves three samples. For the purposes of this example, only the weights of the component *carpet* are shown.

	Sample 1	Sample 2	Sample 3
Weight (c) of carpet	5	3	4
Total Sample Weight (w)	80	70	90

$$r_{Carpet} = \sum \frac{5 + 3 + 4}{80 + 70 + 90} = 0.05$$

To find the composition estimate for the component *carpet*, the weights for that material are added for all selected samples and divided by the total sample weights of those samples. The resulting composition is 0.05, or 5 percent. In other words, 5 percent of the sampled material, by weight, is *carpet*. This finding is then projected onto the stratum being examined in this step of the analysis.

The confidence interval for this estimate will be derived in two steps. First, the variance around the estimate will be calculated, accounting for the fact that the ratio included two random variables (the component and total sample weights). The variance of the ratio estimator equation follows:

$$\text{Var}(r_j) \approx \left(\frac{1}{n} \right) \left(\frac{1}{\bar{w}^2} \right) \left(\frac{\sum_i (c_{ij} - r_j w_i)^2}{n-1} \right)$$

where:

$$\bar{w} = \frac{\sum_i w_i}{n}$$

(For more information regarding Equation 2, please refer to Sampling Techniques, 3rd Edition by William G. Cochran [John Wiley & Sons, Inc., 1977].)

Second, precision levels at the 90 percent confidence level will be calculated for a component's mean as follows:

$$r_j \pm (z\sqrt{\text{Var}(r_j)})$$

where z = the value of the z-statistic (1.645) corresponding to a 90 percent confidence level.

Composition results for strata will then be combined, using a weighted averaging method, to estimate the composition of larger portions of the waste stream. The relative tonnages associated with each stratum serve as the weighting factors. The calculation will be performed as follows:

$$O_j = (p_1 * r_{j1}) + (p_2 * r_{j2}) + (p_3 * r_{j3}) + \dots$$

where:

p = the proportion of tonnage contributed by the noted waste stratum (that is, the weighting factor)

r = ratio of component weight to total waste weight in the noted waste stratum (that is, the composition percent for the given material component)

for j = 1 to m, where m = number of material components

For example, the above equation is illustrated here using three waste strata.

	Stratum 1	Stratum 2	Stratum 3
Ratio (r) of carpet	5%	10%	10%
Tonnage	25,000	100,000	50,000
Proportion of tonnage (p)	14.3%	57.1%	28.6%

To estimate the portion of larger portions of the waste stream, the composition results for the three strata are combined as follows.

$$O_{\text{Carpet}} = (0.143 * 0.05) + (0.571 * 0.10) + (0.286 * 0.10) = 0.092 = 9.2\%$$

Therefore, 9.2 percent of this examined portion of the waste stream is *carpet*.

The variance of the weighted average will be calculated as follows:

$$\text{Var}(O_j) = (p_1^2 \text{Var}(r_{j1})) + (p_2^2 \text{Var}(r_{j2})) + (p_3^2 \text{Var}(r_{j3})) + \dots$$

Appendix A

Facility Interview Questionnaire

Each site selected for sampling will be interviewed prior to sorting waste at the facility. The purpose of each site interview is to obtain information for 1) creating sampling intervals and conducting data analysis following the sampling; and 2) arranging on-site logistics (e.g., designating an area for waste sorting).

A copy of the interview form is provided below.

IRA Waste Characterization Study 2014 Facilities Interview

Study background, including:

- Potentially sorting in September/October (September 10 - October 30th) 1 day at the facility.
- Letter of Support provided by the State of Illinois
- We will sort about **9 loads** of waste entering the site per day.

Facility Information

Facility Name _____

Facility Address _____

Owner of facility _____ Phone # _____

On-site Logistics Contact _____ Phone # _____

e-mail address _____

Primary Field Contact _____ Phone # _____

Additional Information _____

1. During a typical week, what is the # of loads you receive? _____
Total weekly tonnage? _____
2. Does the facility weigh all vehicles? Yes No In not, which vehicles does it weigh?
 - a. Can the facility provide actual net weights for every load? If not, what types of loads are estimated?
 - b. Will drivers know their net weight by the time they arrive at the tipping floor/face or not until they scale out?
3. How many entrances are there into the facility? Who uses each? (e.g., are commercial accounts different than cash customers?)
4. What time do you begin accepting garbage and what time do you normally close/reach your daily tonnage limit?
 - a. Do you have separate hours for commercial haulers? If yes, what are they?
5. Are vehicle net weights printed on customer receipts upon exiting the facility?
 - a. Yes No

6. Do you have a space that we can use?
Space requirements are equivalent to 2-3 truck bays adjacent to the working face/tip area of the facility. Samples will be collected from the working face/tip area so the area should be convenient for sample transport.
7. Can you provide me with a map of the site?
 - a. If so please send to fax # 312-346-5228 or coxca@cdm.com
 - b. Please indicate on the map or otherwise let us know where you would like us to set-up at the facility.
8. We would need your assistance in the following: a front-end loader or bobcat and operator who could collect ~9 200lb-samples throughout the day from the working face and transport it to our working area. Is this possible?
9. We would also need to develop a plan for the use of scales and the cooperation of gatehouse personnel to obtain vehicle net weights and selecting samples
 - a. Are there any rules that may be used for recording the net weight of vehicles and for recording alternate minimum weights for small vehicles?
 - b. Would we be able to have the scale house person assist us in obtaining load specific information through a brief ~ 3 question survey? The purpose of the survey is to determine the distribution of waste between the three categories (see definitions at the end of the survey) and waste source locations.
10. Are there any limits on your facility? i.e. types of waste you receive or accept waste only from certain cities, counties
11. Please share any information about existing recycling or recovery operations at the facility and quantities of materials recovered.
 - a. Magnitude (tons etc.)?
 - b. Materials recycled?
12. Do you have any tips about any unusual conditions (e.g., weather, anomalies in traffic patterns, etc.) that might affect data collection?
13. Can you provide me with written directions and/or a map to the site (such as used for directing tour groups)? Please send to fax # 312-346-5228 or coxca@cdm.com.
14. Please complete the following table for waste accepted during a typical week:

Waste Stream Definitions:

- Residential – waste generated by single-family and multiple-family dwellings. This waste is primarily collected in packer trucks (e.g., rear loading vehicles).
- Commercial – waste generated by businesses and institutions. This waste is collected in a variety of vehicles including loose and compactor drop boxes, and front-end loading trucks.
- Industrial – waste generated by industrial activity, such as that of primary and fabricated manufacturing facilities, mills, and mines. Unlike regular MSW which is primarily food, packaging

and disposed products, industrial waste is the material disposed from the production of commercial and consumer goods or the treatment and disposal of waste and sewage.

- Construction and demolition (C&D) – waste generated from new construction, renovation activities, or demolition. This waste is collected in vehicles such as dump trucks, loose roll-off boxes, and end dump vehicles.

Please use % or you best guess if total number of trucks is known but number not per category.

	Weekdays		Weekends	
	# of trucks	Peak hours	# of trucks	Peak hours
Residential				
Commercial/Institutional				
Industrial				
C&D				
Total				

15. We will use this information to finalize the facilities that we would like to sample from and we will follow-up to schedule a day for sampling in the time period outlined above. Please let us know if there are any days that would not work due to vacations, etc.

Thank you for your time!

Appendix B

Facility Information

IEPA Region	Primary (P) / Secondary (S)	Landfill or Transfer Station (TS)	County	Facility Address	Operator
1	P	Winnebago Landfill	Winnebago	8403 Lindenwood Road, Rockford	Winnebago Reclamation Service
	P	Lee County Landfill Inc.	Lee	1214 S. Bataan Road, Dixon	Republic Services
	P	LandComp LF	La Salle	2840 E. 13th Road, Ottawa	Republic Services
	S	Veolia (now ADS) ES Orchard Hills LF	Ogle	8290 Highway 251 South, Davis Junction	Advanced Disposal
	S	Prairie Hill Recycling and Disposal Facility	Whiteside	18762 Lincoln Road, Morrison	WMI
2	P	Liberty Waste-McCook TS	Cook	5100 South Lawndale Avenue, McCook	Liberty Waste Services
	P	Shred-All Recycling Facility	Cook	2608 S Damen Ave, Chicago	Republic Services
	P	Apollo Disposal Service TS - Momenca Kankakee	Cook	120 E Industrial Drive, Momenca	Republic Services
	P	Calumet Transfer	Cook	2040 E. 106th St, Chicago	Republic Services
	P	AW/Groen Waste Services	Cook	13701 S. Kostner Ave, Crestwood	Republic Services
	P	Northlake TS	Cook	605 Northwest Ave, Northlake	Republic Services
	P	ARC Disposal & Recycling Mt.	Cook	2101 S. Busse Road, Mt. Prospect	Republic Services
	P	Waste Mgt/ Bluff City TS	Cook	1225 Gifford Rd, Elgin	Waste Management
	P	Medill MRRF	Cook	1633 W Medill, Chicago	Allied Waste
	P	Lakeshore Recycling Systems	Cook	3152 S California Ave, Chicago	Lake Shore
	P	Homewood Disposal TS	Cook	1501 175th St, Homewood	Homewood Disposal
	P	Veolia (now ADS) Rolling Meadows	Cook	3851 Berdnick St, Rolling Meadows	Advanced Disposal
	P	Prairie View RDF	Will	29755 S. Prairie View Dr., Wilmington	Waste Management
	P	Countryside LF Inc.	Lake	31725 N. Route 83, Grayslake	Waste Management
	S	Loop Transfer - Laflin	Cook	Laflin - 2464 S Laflin St, Chicago	Republic
	S	West Cook Transfer Station	Cook	6201 W Canal Bank Rd, Forest View	Lake Shore
S	Laraway Recycling and Disposal Facility	Will	21233 W. Laraway Road, Joliet	WMI	
3	P	Peoria City/County LF #2	Peoria	11501 W. Cottonwood Road, Brimfield	Waste Management
	P	Knox County LF #3	Knox	996 Knox Road 2150 North, Oneida	Knox County
	S	Quad Cities Landfill, Phase IV	Rock Island	13606 Knoxville Road, Milan	
	S	Indian Creek Landfill No. 2	Tazewell	24501 McMullen Road, Hopedale	
4	P	Livingston LF	Livingston	14206 East 2100 North Road, Pontiac	Republic Services
	P	Central Waste Services & Recycling Facility/Urbana TS	Champaign	915 W. Saline Ct., Urbana	Republic Services
	P	ADS/McLean County Landfill #2	McLean	2105 W. Oakland Ave., Bloomington	Republic Services
	S	Brickyard Disposal and Recycling Inc.	Vermillion	601 E. Brickyard Road, Danville	Republic
	S	Clinton Landfill #3	De Witt	9550 Heritage Road, Clinton	
5	P	Hickory Ridge Landfill (Formerly Pike)	Pike	32246 375th Street, Baylis	Peoria Disposal Company
	P	Sangamon Valley LF	Sangamon	2565 Sand Hill Road, Springfield	Republic Services
	S	Five Oaks Recycling and Disposal Facility	Christian	890 E. 1500 North Road, Taylorville	WMI
	S	Backridge Landfill	*Services Adams County	26265 State Highway B, LaGrange, Missouri	Republic
6	P	Roxana LF Inc.	Madison	4601 Cahokia Creek Road, Edwardsville	Republic Services
	P	Cottonwood Hills RDF	St. Clair	10400 Hillstown Road, Marissa	Waste Management
	S	North Milam Landfill	St. Clair	601 Madison Road, East St. Louis	WMI
7	P	Southern Illinois Regional LF	Jackson	1540 Landfill Road, DeSoto	Republic Services
	P	Sumner Landfill Inc.	Lawrence	10054 4H Road, Sumner	Republic Services
	S	Perry Ridge Landfill Inc.	Perry	6305 Sacred Heart Road, DuQuoin	
	S	Herrin Solid Waste TS	Williamson	1410 W. Longstreet Road, Marion	Republic

P - Indicates Primary Sampling Location

S - Indicates Secondary Sampling Location

Appendix C

Field Forms

The field forms for this study are included in the following order:

- Vehicle selection forms (number of loads required per facility, waste sector, and sub-stream)
 - Residential vehicle selection form
 - ICI vehicle selection form
 - C&D vehicle selection form
- Sample identification placards
 - Residential Sample Placard
 - ICI Sample Placard
 - C&D Sample Placard
- Waste Characterization forms
 - Hand Sort Characterization Form
 - Visual Characterization Form

Vehicle Selection and Quota Form – Example

Note: The following form is only an example. When we receive the total numbers of loads expected at each facility, this form will be customized and replicated for each sampling day at a given facility.

Waste Characterization Study Vehicle Selection Form																																										
Site:	<u>34th Street MRRF</u>																																									
Date:	<u>8/28/2008</u>	Goal: <u>15</u> Samples Total																																								
DSS RESIDENTIAL: (Sample IDs RES 1-15)		NEED 15 TOTAL																																								
<i>*Must be at least 80% residential waste.</i>																																										
<i>Wards needed today:</i> _____																																										
<p>Each number below represents an expected vehicle based on the available data. If driver answers "yes" to any of the above wards, then cross off one number below for that driver's vehicle as it enters the landfill. When you reach a circled number, give the vehicle a placard and ask the vehicle to go to the sorting area.</p>																																										
<table style="margin: auto; border: none;"> <tr> <td style="padding: 0 10px;">①</td> <td style="padding: 0 10px;">2</td> <td style="padding: 0 10px;">3</td> <td style="padding: 0 10px;">④</td> <td style="padding: 0 10px;">5</td> <td style="padding: 0 10px;">6</td> <td style="padding: 0 10px;">⑦</td> <td style="padding: 0 10px;">8</td> <td style="padding: 0 10px;">9</td> <td style="padding: 0 10px;">⑩</td> </tr> <tr> <td style="padding: 0 10px;">11</td> <td style="padding: 0 10px;">⑫</td> <td style="padding: 0 10px;">13</td> <td style="padding: 0 10px;">14</td> <td style="padding: 0 10px;">⑮</td> <td style="padding: 0 10px;">16</td> <td style="padding: 0 10px;">17</td> <td style="padding: 0 10px;">⑱</td> <td style="padding: 0 10px;">19</td> <td style="padding: 0 10px;">20</td> </tr> <tr> <td style="padding: 0 10px;">⑳</td> <td style="padding: 0 10px;">22</td> <td style="padding: 0 10px;">23</td> <td style="padding: 0 10px;">㉔</td> <td style="padding: 0 10px;">25</td> <td style="padding: 0 10px;">26</td> <td style="padding: 0 10px;">㉗</td> <td style="padding: 0 10px;">28</td> <td style="padding: 0 10px;">29</td> <td style="padding: 0 10px;">㉓</td> </tr> <tr> <td style="padding: 0 10px;">31</td> <td style="padding: 0 10px;">㉒</td> <td style="padding: 0 10px;">33</td> <td style="padding: 0 10px;">34</td> <td style="padding: 0 10px;">㉕</td> <td style="padding: 0 10px;">36</td> <td style="padding: 0 10px;">37</td> <td style="padding: 0 10px;">㉘</td> <td style="padding: 0 10px;">39</td> <td style="padding: 0 10px;">㉙</td> </tr> </table>	①	2	3	④	5	6	⑦	8	9	⑩	11	⑫	13	14	⑮	16	17	⑱	19	20	⑳	22	23	㉔	25	26	㉗	28	29	㉓	31	㉒	33	34	㉕	36	37	㉘	39	㉙	(expect 40)	
①	2	3	④	5	6	⑦	8	9	⑩																																	
11	⑫	13	14	⑮	16	17	⑱	19	20																																	
⑳	22	23	㉔	25	26	㉗	28	29	㉓																																	
31	㉒	33	34	㉕	36	37	㉘	39	㉙																																	

Sample Placard

«SAMPLE_ID»	
DATE/TIME:	LOCATION:
HAULER:	TRUCK #:
VEHICLE TYPE:	

Waste Characterization Form - Hand Sort

IRA Hand Sort - Waste Characterization Form								
Waste Stream: RES ICI	Sample ID: _____			Location: _____				
Total Sample Weight: _____	Date: _____			Truck #: _____				
Does load contain C&D? Y N	Time: _____			County/City _____				
Photo taken: <input type="checkbox"/>				Hauler: _____				
Vehicle type: front loader / side loader / rear loader / loose drop box / compacted drop box / other: _____								
PAPER	Weight 1	Weight 2	Weight 3	CONSTRUCTION & DEMOLITION	Weight 1	Weight 2	Weight 3	
Newsprint				Clean Dimensional Lumber				
High Grade Office Paper				Clean Engineered Wood				
Magazines/Catalogs				Wood Pallets				
Cardboard/Kraft				Painted Wood				
Boxboard				Treated Wood				
Mixed Paper - Recyclable				Concrete				
Compostable Paper				Reinforced Concrete				
Other Paper- Nonrecyclable				Asphalt Paving				
BEVERAGE CONTAINERS				Rock & Other Aggregates				
Milk and Juice cartons/Aseptic				Bricks				
PLASTIC				Gypsum Board				
#1 PET Bottles/Jars				Composition Shingles				
#1 Other PET Containers & Packaging				Other Roofing				
#2 HDPE Bottles/Jars - Clear				Plastic C&D materials				
#2 HDPE Bottles/Jars - Color				Ceramics/Porcelain				
#2 Other HDPE Containers & Packaging				Other C&D				
#6 Styrofoam/Polystyrene Packaging								
#3 #7 Other- All				INORGANICS				
Other Rigid Plastic Products				Televisions				
Grocery & Merchandise Bags				Computer Monitors				
Trash Bags				Computer Equipment/Peripherals				
Commercial & Industrial Film				Electronic Equipment				
Other Film				White Goods - refrigerated				
Remainder/ Composite Plastic				White Goods - not refrigerated				
GLASS				Lead-acid Batteries				
Recyclable Glass Bottles and Jars				Other Household Batteries				
Flat Glass				Tires				
Other Glass				Household Bulky Items				
METAL				Fluorescent Lights/Ballasts				
Aluminum Beverage Containers				HOUSEHOLD HAZARDOUS				
Other Aluminum				Latex Paint				
HVAC Ducting				Oil Paint				
Ferrous containers (tin cans)				Plant/Organism/Pest Control/Growth				
Other Ferrous				Used Oil/Filters				
Other Non-Ferrous				Other Automotive Fluids				
Other Metal				Mercury-Containing Items				
ORGANIC				Sharps & Infectious Waste				
Yard Waste - Compostable				Asst, Sludge, & Other Industrial Processed Wastes				
Yard Waste - Woody				Sewage Solids				
Food Scraps				Other HHW				
Bottom Fines and Dirt				TEXTILES				
Diapers				Carpet				
Other Organic				Carpet Padding				
				Clothing				
				Other Textiles				

If found please call 312-346-5000. Reward offered.

Visual Sort - Waste Characterization Form				
Sample ID: _____		Field Supervisor: _____		
<input type="checkbox"/> Labeled & Photographed		Facility Name: _____		
Date: _____	Time: _____	Location: _____		
Hauler: _____		Load Weight: _____ pounds or tons		
Container Yardage: _____	Percent Full: _____	Load Dump Dimensions: _____ x _____ x _____		
Material Group	% By Volume	% By Volume	Notes	
PAPER	Boxboard	<input type="checkbox"/>		
	Compostable Paper			
	High Grade Office Paper			
	Magazines/Catalogs			
	Mixed Paper - Recyclable			
	Newsprint			
	Uncoated OCC/Kraft			
	Other Paper		Subtotal must equal 100%	
GLASS	Milk and Juice cartons/boxes, coated	<input type="checkbox"/>		
	Recyclable Glass Bottles and Jars	<input type="checkbox"/>		
	Flat Glass			
PLASTIC	Other Glass		Subtotal must equal 100%	
	#1 PET Bottles/Jars	<input type="checkbox"/>		
	#1 Other PET Containers & Packaging			
	#2 HDPE Bottles/Jars - Clear			
	#2 HDPE Bottles/Jars - Color			
	#2 Other HDPE Containers & Packaging			
	#6 Expanded Polystyrene Packaging (EPS)			
	#3-#7 Other - all			
	Other Rigid Plastic Products			
	Grocery & Merchandise Bags			
	Trash Bags			
	Commercial & Industrial Film			
	Other Film			
	Remainder/ Composite Plastic		Subtotal must equal 100%	
	METAL	Aluminum Beverage Containers	<input type="checkbox"/>	
Ferrous containers (tin cans)				
HVAC Ducting				
Other Aluminum				
Other Ferrous				
Other Non-Ferrous				
ORGANIC	Other Metal		Subtotal must equal 100%	
	Yard Waste - Compostable	<input type="checkbox"/>		
	Yard Waste - Woody			
	Food Scraps			
	Bottom Fines and Dirt			
	Diapers			
	Other Organic		Subtotal must equal 100%	
	C&D MATERIALS	Clean Dimensional Lumber	<input type="checkbox"/>	
		Clean Engineered Wood		
		Wood Pallets		
Painted Wood				
Treated Wood				
Concrete				
Reinforced Concrete				
Asphalt Paving				
Rock & Other Aggregates				
Bricks				
Gypsum Board				
Composition Shingles				
Other Roofing				
Plastic C&D materials				
Ceramics/Porcelain				
Other C&D			Subtotal must equal 100%	
INORGANICS		Televisions	<input type="checkbox"/>	
		Computer Monitors		
		Computer Equipment/Peripherals		
		Electronic Equipment		
	White Goods - refrigerated			
	White Goods - not refrigerated			
	Lead-acid Batteries			
	Other Household Batteries			
	Tires			
	Household Bulky Items			
	Fluorescent Lights/Ballasts			
	Other Inorganics		Subtotal must equal 100%	
HHW	Latex Paint	<input type="checkbox"/>		
	Oil Paint			
	Plant/Organism/Pest Control/Growth			
	Used Oil/Filters			
	Other Automotive Fluids			
	Mercury-Containing Items			
	Sharps & Infectious Waste			
	Ash, Sludge, & Other Industrial Processed Wastes			
	Sewage Solids			
Other HHW		Subtotal must equal 100%		
TEXTILES	Carpet	<input type="checkbox"/>		
	Carpet Padding			
	Clothing			
	Other Textiles		Subtotal must equal 100%	
Total category must equal 100%				
Notes				

Waste Characterization Form - Hand Sort



Appendix D
Materials List and Definitions

IRA Proposed Material List

	Material Group	Divertibility	Notes/Examples
P A P E R	1 Newsprint	Recoverable	Includes newspaper and glossy inserts, and all items made from newsprint, such as free advertising guides, election guides, plain news packing paper, stapled college schedules of classes, and tax instruction booklets.
	2 High Grade Office Paper	Recoverable	Includes white and pastel bond, rag, or stationary grade paper, with or without ink. Examples include photocopy, laser print, letter paper, computer paper used for computer printouts, notebook or ledger paper, and index cards.
	3 Magazines/Catalogs	Recoverable	Includes magazines and catalogs and other items made of glossy coated paper. This paper is usually slick, smooth to the touch, and reflects light. Does not include phone books.
	4 Uncoated OCC/Kraft	Recoverable	Includes uncoated cardboard items with a waxy core, without wax coating on the inside or outside. Examples include shipping and moving boxes, computer packaging cartons, sheets and pieces of boxes and cartons, Kraft paper bags, and other Kraft paper. Does not include chipboard.
	5 Boxboard	Recoverable	Includes chipboard not coated with wax, metal, or plastic. Also includes paperboard such as cereal and tissue boxes.
	6 Mixed Paper - Recyclable	Recoverable	Includes all other recyclable papers not elsewhere described. Includes phone books and directories, junk mail, envelopes, brightly colored ledger paper and other dry paper, manila folders, index cards, carbonless forms, and egg cartons. Mixed Recyclable Paper may be combined with minor amounts of other materials such as wax or glues.
	7 Compostable Paper	Compostable	Includes low grade and food contaminated paper which is compostable. Examples include paper towels, paper plates, waxed papers, and tissues.
	8 Other Paper	Non-recoverable	Includes items made mostly of paper but combined with large amounts of other materials such as wax, plastic, glues, foil, wire, food and moisture. Examples include blueprints, septa, onion skin, foiled lined fast food wrappers, carbon paper, coated OCC, and photographs.
	9 Milk and Juice cartons/boxes, coated	Recoverable	Includes aseptic packages and polycoated (gable top) cartons.
	10 #1 PET Bottles/Jars	Recoverable	Includes clear or colored PET bottles (i.e., narrow neck containers) and jars marked with a #1. May also bear the letters "PETE" or "PET." The color is usually transparent green or clear, and does not turn white when bent. Examples include soft drink bottles, some liquor bottles, and cooking oil containers.
	11 #1 Other PET Containers & Packaging	Potentially Recoverable	Includes PET containers and packaging marked with a #1 and potentially bearing the letters "PETE" or "PET."
	12 #2 HDPE Bottles/Jars - Clear	Recoverable	Includes bottles (i.e., narrow neck containers) and jars marked with #2 that are cloudy white, allowing light to pass through it (natural). Examples include milk jugs, water jugs, some hair-care bottles, and other clear empty fluid containers marked with #2 or "HDPE."

IRA Proposed Material List

	Material Group	Divertibility	Notes/Examples
13	#2 HDPE Bottles/Jars - Color	Recoverable	Includes bottles (i.e., narrow neck containers) and jars marked with #2 that are a solid color, preventing light from passing through it (pigmented). Examples include detergent bottles, some hair-care bottles, empty motor oil, empty antifreeze, and other empty vehicle and equipment fluid containers marked with #2 or "HDPE."
14	#2 Other HDPE Containers & Packaging	Potentially Recoverable	Includes HDPE containers and packaging marked with a #2 and potentially bearing the letters "HDPE."
15	#6 Expanded Polystyrene Packaging (EPS)	Recoverable	Includes formed or sheet expanded polystyrene (EPS) items marked with a PS or a #6, used for packaging and shipping. Examples include items used for food packaging or food service, food trays, egg cartons, packaging peanuts, packaging blocks, and coolers.
16	#3-#7 Other - All	Potentially Recoverable	Includes bottles, jars, and containers marked #3-#7 or unmarked that are made of types of plastic other than HDPE (high-density polyethylene) or PETE (polyethylene terephthalate). Examples include syrup bottles, salad dressing bottles, clamshells, salad trays, lids, cookie tray inserts, plastic spoons, plastic frozen food trays, yogurt cups and lids, margarine tubs, clamshell-shaped fast food containers, shampoo containers, vitamin bottles, and toothpaste tubes. Also includes toxic product containers, such as for oil or antifreeze.
17	Other Rigid Plastic Products	Potentially Recoverable	Includes plastic items other than containers, film plastic, HDPE buckets, or #3-#7 buckets that are often made to last for more than one use. These items may bear the numbers 3 through 7 in the triangular recycling symbol. Examples include plastic outdoor furniture, plastic toys and sporting goods, CDs, and plastic house wares, such as mop buckets, dishes, cups, cutlery, fan blades, impact-resistant cases such as tool boxes and first aid boxes, and HDPE 5 gallon buckets.
18	Grocery & Merchandise Bags	Recoverable	Includes labeled grocery and merchandise, dry cleaner, and newspaper polyethylene film bags that were not contaminated with food, liquid or grit during use.
19	Trash Bags	Non-recoverable	Includes polyethylene film bags that were used to contain garbage such as black or transparent trash bags.
20	Commercial & Industrial Film	Recoverable	Includes film plastic used for large-scale packaging or transport packaging, such as industrial film, wrappings, plastic strapping, other thin flexible plastic packaging, plastic sheeting, and shrink wrap.
21	Other Film	Non-recoverable	Includes film packaging not defined above, such as film that is woven together (e.g., grain bags); contains multiple layers of film or other materials that have been fused together (e.g., potato chip bags); is used to contain food or liquid (e.g., produce and bread bags); plastic sheeting, photographic negatives, and shower curtains.
22	Remainder/ Composite Plastic	Non-recoverable	Includes plastic items not elsewhere classified, as well as items made mostly of plastic but combined with other materials. Examples include disposable razors, pens, lighters, 3-ring binders, auto parts made of plastic attached to metal, plastic outdoor furniture, and other objects that contain more than 50% plastic, etc.

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IRA Proposed Material List

	Material Group	Divertibility	Notes/Examples	
G L A S S	Recyclable Glass Bottles and Jars	Recoverable	Includes clear, green, brown, and other colored glass bottles and jars containing beverages, food, or consumable liquids. Examples include whole or broken clear or colored soda, beer bottles, fruit juice bottles, peanut butter jars, mayonnaise jars, wine bottles, cosmetic jars and non-prescription medical bottles.	
	Flat Glass	Potentially Recoverable	Includes clear or tinted glass that is flat, such as glass window panes, doors, table tops, flat automotive window glass (side windows), safety glass, and architectural glass. This category does not include windshields, laminated glass, or any curved glass.	
	Other Glass	Non-recoverable	Includes glass that cannot be put in any other type or subtype. It includes items made mostly of glass but combined with other materials, such as Pyrex, crystal and other glass tableware, auto windshields, and incandescent light bulbs.	
	Aluminum Beverage Containers	Recoverable	Includes any food or beverage container made mainly of aluminum, such as aluminum soda or beer cans and some pet food cans. This does not include bimetal containers with steel sides and aluminum ends.	
	Other Aluminum	Potentially Recoverable	Includes items such as aluminum foil, pie plates, trays, siding, and furniture.	
M E T A L S	HVAC Ducting	Recoverable	Includes sheet metal tubing, typically galvanized, used for conveying ventilation air.	
	Ferrous containers (tin cans)	Recoverable	Includes rigid containers made mainly of steel, such as items that will stick to a magnet and may be tin-coated. This subtype is used to store food, beverages, paint, and a variety of other household and consumer products. Examples include canned food and beverage containers, empty metal paint cans, empty spray paint and other aerosol containers, and bimetal containers with steel sides and aluminum ends.	
	Other Ferrous	Recoverable	Includes iron or steel that is magnetic or any stainless steel item, other than ferrous/bimetal cans. Examples include structural steel beams, boilers, metal clothes hangers, metal pipes, rebar, stainless steel cookware, security bars, scrap ferrous items, and galvanized items such as nails and flashing.	
	Other Non-Ferrous	Recoverable	Includes any metal item, other than aluminum cans, that is not magnetic. These items may be made of copper, brass, aluminum, bronze, lead, zinc, or other metals. Examples include aluminum window frames, aluminum siding, copper wire, shell casings, brass pipe, and aluminum foil.	
	Other Metal	Non-recoverable	Includes metal that cannot be put in any other category. This category includes items made mostly of metal but combined with other materials and items made of both ferrous metals and non-ferrous metal combined. Examples include small non-electronic appliances such as toasters and hair dryers, motors, insulated wire, and finished products that contain a mixture of metals, or metals and other materials, whose weight is derived significantly from the metal portion of its construction.	

IRA Proposed Material List

	Material Group	Divertibility	Notes/Examples
O R G A N I C S	Yard Waste - Compostable	Compostable	Includes leaves, grass clippings, garden debris, pruning, shrubs, and small branches up to 2 inches in diameter from any public or private landscapes.
	Yard Waste - Woody	Compostable	Includes vegetative woody plant material, branches, shrubs, and stumps that exceed 2 inches in diameter from any public or private landscape.
	Food Scraps	Compostable	Includes food material capable of being composted (including scrap animal parts). This type includes materials resulting from the processing, storage, preparation, cooking, handling or consumption of food and material from industrial, commercial or residential sources. Examples include discarded meat scraps, dairy products, egg shells, fruit or vegetable peels, and other food items from homes, stores, and restaurants. This type includes grape pomace and other processed residues or material from canneries, wineries, or other industrial sources.
	Bottom Fines and Dirt	Non-recoverable	Includes fragments that pass through 1/4 inch screen. Examples include mixed residue, sand, soil, clay, and dirt.
	Diapers	Non-recoverable	Diapers made from a combination of fibers, synthetic, and/or natural, and made for the purpose of single use. This includes disposable baby diapers and adult protective undergarments.
	Other Organic	Non-recoverable	Includes organic material that cannot be put in any other category such as items made mostly of organic materials but combined with other materials. Examples include cork, hemp rope, rubber/vinyl garden hoses, hair, cigarette butts, full vacuum bags, sawdust, and animal feces.
	Clean Dimensional Lumber	Recoverable	Includes unpainted, non-treated processed wood for building, manufacturing, landscaping, packaging, and from demolition. Examples include dimensional lumber, lumber cutoffs, wood scraps, and wood siding, materials such as 2 x 4s, 2 x 6s, 2 x 12s, and other residual materials from framing and related construction activities. May contain nails or other trace contaminants.
	Clean Engineered Wood	Recoverable	Includes unpainted, non-treated wood such as sheathed goods like plywood, particleboard, wafer board, oriented strand board, and other residual materials used for sheathing and related construction uses. May contain nails or other trace contaminants.
	Wood Pallets	Recoverable	Includes unpainted wood pallets, crates, and packaging made of lumber/engineered wood.
	Painted Wood	Non-recoverable	Includes wood that has been painted or stained like handrails or finished furniture. May contain nails or other contaminants.
	Treated Wood	Non-recoverable	Includes wood that has been treated with a chemical preservative for purposes of protecting the wood against attacks from insects, microorganisms, fungi, and other environmental conditions that can lead to decay of the wood. Examples include wood that has been pressure treated, chemically treated (with copper, etc.) or treated with creosote (e.g. railroad ties, marine timbers and pilings, landscape timbers, and telephone poles).

IRA Proposed Material List

	Material Group	Divertibility	Notes/Examples
C & D	Concrete	Recoverable	Includes materials made of concrete, a hard material made from sand, gravel, aggregate, cement mix, and water. Examples include pieces of building foundations, concrete paving, cinder blocks, and man-made paving stones.
	44	Potentially Recoverable	Includes concrete with a steel internal structure composed of reinforcing bars (re-bar) or metal mesh.
	Reinforced Concrete	Recoverable	Includes black or brown, tar-like material mixed with aggregate used as a paving material.
	45	Potentially Recoverable	Includes aggregates (other than concrete and asphalt paving) such as masonry tile, clay roofing tiles, rock, stones, and materials made of rock.
	Asphalt Paving	Potentially Recoverable	Includes bricks and materials made of bricks.
	46	Potentially Recoverable	Includes gypsum interior wall covering made of a sheet of gypsum sandwiched between paper layers. This category includes used or unused, broken or whole sheets. Gypsum board may also be called sheetrock, drywall, plasterboard, gybboard, gyproc, or wallboard.
	Rock & Other Aggregates	Potentially Recoverable	Includes composite shingles composed of fiberglass or organic felts saturated with asphalt and covered with inert aggregates as well as attached roofing tar and tar paper. Does not include built-up roofing. Commonly known as three tab roofing. Examples include asphalt shingles and attached roofing tar and tar paper.
	47	Potentially Recoverable	Includes other roofing material made with layers of felt, asphalt, aggregates, and attached roofing tar and tar paper normally used on flat/low pitched roofs usually on commercial buildings. Commonly known as built-up roofing.
	Bricks	Potentially Recoverable	Includes plastics such as piping, siding, drainage, and windows.
	48	Potentially Recoverable	Includes inorganic non-metallic materials which are formed by the action of heat. Examples include clay pottery, tiles, stoneware, dishes, toilets, and other cement glasses.
	Gypsum Board	Potentially Recoverable	Includes construction and demolition material that cannot be put in any other type or subtype. This type may include items from different categories combined, which would be very hard to separate, such as metal sinks, fiberglass insulation, inoleum, nails, and cabinets.
	49	Potentially Recoverable	
	Composition Shingles	Potentially Recoverable	
	50	Potentially Recoverable	
Other Roofing	Potentially Recoverable		
51	Potentially Recoverable		
Plastic C&D materials	Potentially Recoverable		
52	Potentially Recoverable		
Ceramics/Porcelain	Potentially Recoverable		
53	Non-recoverable		
Other C&D	Non-recoverable		
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IRA Proposed Material List

	Material Group	Divertibility	Notes/Examples
55	Televisions	Recoverable	Includes televisions.
56	Computer Monitors	Recoverable	Includes computer monitors containing a cathode ray tube (CRT), including oscilloscopes. Does not include laptops and LCD monitors.
57	Computer Equipment/Peripherals	Recoverable	Includes keyboards, printers, modems, etc.
58	Electronic Equipment	Recoverable	Means large and small electronic goods that have circuitry. Examples include microwaves, stereos, VCRs, DVD players, radios, audio/visual equipment, and non-CRT televisions (such as LCD televisions); computer related electronics such as processors, mice, keyboards, laptops, disk drives, printers, modems, and fax machines; and other small consumer goods such as personal digital assistants (PDAs), cell phones, phone systems, phone answering machines, computer games and other electronic toys, portable CD players, camcorders, and digital cameras.
59	White Goods - refrigerated	Recoverable	Includes goods made mostly of metal but combined with other materials and items made of both ferrous and non-ferrous metals combined. Examples include large appliances such as refrigerators, freezers, and dehumidifiers.
60	White Goods - not refrigerated	Recoverable	Includes goods made mostly of metal but combined with other materials and items made of both ferrous and non-ferrous metals combined. Examples include large appliances and parts thereof such as stoves, washers, dryers, and water heaters; as well as small appliances such as fans, irons, and hair dryers.
61	Lead-acid Batteries	Recoverable	Includes batteries with liquid acid and lead cells, such as car, truck, lawn mower, and other batteries used to store power.
62	Other Household Batteries	Non-recoverable	Includes any type of dry cell battery, such as flashlight, small appliance, watch, cell phone, and hearing aid batteries.
63	Tires	Recoverable	Includes whole tires from automobiles, trucks, motorcycles, bicycles, wagons, and other transport vehicles.
64	Household Bulky Items	Potentially Recoverable	Includes multi-material furniture items such as couches, chairs, hutches, tables, entertainment centers, fragments of furniture items, and mattresses (fabric coated framed or unframed wire coil bulky item used for sleeping).
65	Fluorescent Lights/Ballasts	Recoverable	Includes a lamp tube that is able to be screwed or plugged in to a lamp or over head light that produces visible light by fluorescence, especially a glass tube whose inner wall is coated with a material that fluoresces when an electrical current causes a vapor within the tube to discharge electrons. Includes fluorescent lights, ballasts, and compact fluorescent bulbs (CFL).

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IRA Proposed Material List

	Material Group	Divertibility	Notes/Examples
	66 Latex Paint	Recoverable	Includes wet water-based paints and similar products.
	67 Oil Paint	Non-recoverable	Includes wet and dry solvent-based paints, varnishes, and similar products.
	68 Plant/Organism/Pest Control/Growth	Non-recoverable	Includes a variety of chemicals such as fertilizers to encourage growth; herbicides and pesticides whose purpose is to discourage pests, weeds, or microorganisms; and fungicides and wood preservatives, such as pentachlorophenol.
	69 Used Oil/Filters	Recoverable	Includes used lubricating oils, primarily used in cars but including other types with similar characteristics and oil filters.
	70 Other Automotive Fluids	Non-recoverable	Includes automobile and other antifreeze mixtures based on ethylene or propylene glycol. Also includes brake and other automotive fluids, such as antifreeze, brake fluid, windshield wiper fluid, gasoline, and diesel fuel. Does not include motor oil.
	71 Mercury-Containing Items	Non-recoverable	Includes barometers, thermostat switches, thermometer. Does not include electrical ballasts.
H	72 Sharps & Infectious Waste	Non-recoverable	Includes any prescription medications and sharp objects used for medical procedures such as needles.
H	73 Ash, Sludge, & Other Industrial Processed Wastes	Non-recoverable	Includes material remaining after the combustion process, present in the waste stream as ash from fireplaces and wood stoves, used charcoal from grills. Also includes sludge and other industrial processed wastewater or treatment wastes.
W	74 Sewage Solids	Non-recoverable	Includes residuals from the sewage treatment process.
	75 Other HHW	Non-recoverable	Includes any household hazardous material (HHW) that cannot be put in the other HHW subtypes. This type also includes HHW that is mixed, such as waste which if improperly put in the solid waste stream may present handling problems or other hazards. Additional examples include cleaners and corrosives (various acids and bases whose primary purpose is to clean surfaces, unclog drains, or perform other actions) and solvents (including chlorinated and flammable solvents, paint strippers, solvents contaminated with other products such as paints, degreasers and some other cleaners if the primary ingredient is (or was) a solvent, and alcohols such as methanol and isopropanol).
T	76 Carpet	Potentially Recoverable	Includes material consisting mainly of carpet flooring applications consisting of various natural or synthetic fibers bonded to some type of backing material.
E	77 Carpet Padding	Potentially Recoverable	Includes plastic, foam, felt, and other materials used under carpet to provide insulation and padding.
X	78 Clothing	Potentially Recoverable	Includes items made of thread, yarn, fabric, cloth, clothes, natural and synthetic cloth fibers, and leather clothing goods.
T	79 Other Textiles	Non-recoverable	Includes drapes, curtains, bedding, blankets, upholstery, shoes, and other products comprised mostly of textiles and leather.

Appendix E
Health and Safety Plan

STANDARD HEALTH & SAFETY PLAN
for
FIELD SAMPLING AND SORTING FOR
SOLID WASTE CHARACTERIZATION ANALYSIS

CDM Smith
125 S. Wacker Drive, Suite 600
Chicago, IL 60606
312-346-5000

EMERGENCY CONTACT: Chris Marlowe
732-590-4632
732-539-8128 (24 hour)

1. A copy of this Health and Safety Plan must be kept on site during the entire sampling and sorting event.
2. All field sampling and sorting staff must complete two copies of the emergency contact form, Appendix A to this Plan. One copy of the emergency contact form for each staff person must be attached to this Plan and kept on site during the entire sampling and sorting event. The second copy of the form must be left with the CDM Smith emergency contact staff at the local CDM Smith office.
3. The following information, for each field site, must be completed prior to beginning the sampling and sorting event.

Name of Project	Illinois Commodity/Municipal Solid Waste Disposal Characterization Study
Client/No:	IRA/DCEO 67680-105176
Fire Dept. Phone Number:	911
Ambulance Phone Number:	911
Police Phone Number:	911
Nearest Hospital and Directions:	See Appendix B
CDM Smith Field Supervisor:	Catherine Cox 312-523-9258
CDM Smith Chicago Contact:	Pam Johnson 312-346-5000
CDM Smith Emergency Contact:	Chris Marlowe 732-590-4632
CDM Smith Local Office Phone:	312-346-5000

APPROVED

**HEALTH & SAFETY PLAN
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HEALTH & SAFETY PLAN

FIELD SAMPLING AND SORTING FOR SOLID WASTE CHARACTERIZATION ANALYSIS

1.0 INTRODUCTION

The health and safety of field workers is a primary concern of CDM Smith. This document was developed to present guidelines for personal safety during solid waste characterization studies (also known as "trash sorts") at solid waste management facilities. This document will be reviewed by CDM Smith staff responsible for the field sampling and sorting events and the Field Supervisor. The guidelines in this document will be reviewed during the safety and training session required of all field staff. This document is not intended for sites containing hazardous or toxic wastes regulated under federal or state laws.

2.0 OVERVIEW OF FIELD SAMPLING AND SORTING SAFETY

CDM Smith is committed to implement all reasonable precautions to:

- eliminate or reduce the potential for body contact with solid waste and airborne or "flying" waste;
- anticipate potential threats to field worker safety;
- permit visual observation of the solid waste prior to handling or sorting;
- provide adequate information and training to enable field workers and CDM Smith supervisory staff to perform the sampling and sorting in a safe and responsible manner; and,
- provide procedures for responding to emergencies.

3.0 REDUCING THE POTENTIAL FOR BODY CONTACT

Due to the presence of bacteria, sharps, and other potentially dangerous materials in solid waste, the following precautions and procedures will be followed by all field workers during all solid waste sampling and sorting events. These are intended to minimize field workers coming in contact with solid waste and airborne solids.

3.1 Site Orientation

CDM Smith's Field Supervisor will participate in a site orientation provided by a representative from each facility to identify site hazards, work zones, restrooms, emergency procedures, evacuation route and gathering area, and any additional safety

procedures required by the facility. The Field Supervisor will communicate this information to the sampling and sorting staff daily.

3.2 Clothing

Personal Clothing: All field workers are to wear ankle length pants; socks; sturdy boots or shoes with reinforced toes, and long sleeved shirts. No sandals or canvas shoes without safety toe caps will be worn during sampling and sorting.

Safety Clothing: CDM Smith will supply the safety equipment described below:

- dust masks (optional),
- hard hats (required if near tipping floor),
- safety glasses,
- safety vests,
- disposable or other coveralls,
- disposable latex gloves, and
- puncture-resistant outer gloves

Sturdy boots or shoes with reinforced toes are required for all personnel working at the facility. The hard hats and safety vests will be brightly colored to increase visibility of workers in the sampling and sorting areas. Safety vests and hard hats must be worn whenever a sampler or sorter is on the tipping floor or near the path of site traffic. Once safely in the sorting area both can be removed. Disposable latex inner gloves are provided to reduce contact between hands and dirty outer gloves during removal. Low-resistance respiratory protection (dust masks) will be provided if conditions cause waste material to become airborne. It is not anticipated that conditions shall cause material to become airborne, but if so other controls will be evaluated prior to implementing use of dust masks.

3.3 Hand-to-Mouth Contact

No eating, smoking, drinking, or application of cosmetics will be permitted during the sampling or sorting. To reduce hand to mouth contact, chewing gum and chewing tobacco are also restricted. The crew may do these things on breaks after washing their hands and, if required by the field supervisor, their faces.

Fresh water for drinking and hand washing will be kept at the site at all times. Breaks will be taken regularly as indicated by weather conditions. Gloves will be removed before pouring or drinking water.

3.4 Accidental Exposure to Waste

No crew will handle any solid waste without gloves. Accidental skin contact with waste will require cleansing with soap and water. A wash-up station will be available at the site.

All crew members must have had a tetanus shot within 5 years. If necessary, CDM Smith will cover the cost of the shot for all field workers prior to beginning the field work.

Permanent CDM Smith employees who participate in sampling and sorting activities must complete a 6-month hepatitis B vaccination program before or during the sorting program. Similarly, per diem (temporary) employees will be encouraged to get the hepatitis B vaccination. Per diem employee who don't participate in the vaccination and may have been exposed to bloodborne pathogens during sampling or sorting (for example, by being pricked by a hypodermic needle) must be offered an HB-Ig immunization immediately. If the employee refuses immunization, he or she must sign a form to that effect before resuming sampling or sorting work.

4.0 ANTICIPATION OF POTENTIAL THREATS

Working in an active solid waste management facility presents a variety of potential dangers. The following procedures are intended to improve field worker safety.

4.1 Heat Stress

Sampling and sorting will be conducted under cover, where available, however conditions may have limited ventilation and work could occur during higher temperatures. Fresh water and cups for drinking will be available at all times. An ice chest with cold, wet towels will be available at the sorting site. Vehicles with air conditioning will be utilized for breaks, if needed. Any field worker exhibiting signs of heat cramps or heat exhaustion will be immediately required to take a break and will be monitored until symptoms are gone.

4.1 Crew Visibility

The CDM Smith field supervisor and the facility supervisor will jointly agree on the sorting site. The sorting site is located in an area out of the routes taken by waste hauling vehicles and facility equipment. Regardless of task, sorter or sampler, all field workers will wear steel toe boots, brightly colored hard hats and high-visibility vests when on the tipping floor.

4.2 Crew Behavior

As a condition of employment, crew members will observe the following rules for site behavior.

- All field workers will complete the CDM Smith solid waste sampling and sorting safety training.
- No field workers may work under the influence of recreational drugs or alcohol.
- All field workers will wear personal and safety clothing as described in Section 3.1 above.
- No throwing or tossing of waste towards a person will be permitted during the sampling or sorting. Personnel may place waste within the volume of the sorting table towards the crew member closest to the appropriate collection barrel.

4.3 Rejecting a Sample

The field supervisor will be responsible for determining if samples are potentially hazardous. Samples will be rejected if they: contain potentially infectious hospital or medical waste; are soaked in a liquid other than water; contain unidentifiable contents; contain hazardous waste or materials posing a safety hazard; or have an unusual odor not like other solid waste. If such a load is identified, it will be reported to the facility supervisor for removal from the sorting area.

4.4 Evacuation

The field supervisor will determine routes for evacuation from the site and describe them to the work force at the initial site safety meeting. The field supervisor will be responsible for determining if circumstances warrant evacuation of the site.

4.5 Ergonomics Issues

The sorting will occur on a sorting table that holds the waste at a height between 33" and 40". This table should have sturdy support and sides (between 3" and 12" high) to reduce spillage.

If a crew member determines that a trash container is too heavy for one person to lift comfortably (this often happens with containers of food waste), another crew member should help with the lift. Any items weighing over 50 pounds require the individual to obtain assistance.

5.0 VISUAL OBSERVATION OF WASTE

To reduce the potential for cuts or puncture wounds, all waste will be spread out and viewed prior to handling or sorting. The selected waste sample will be extracted or loosened from a truckload at the site via a front end loader or similar machine. It will be transported to the sorting area and deposited on a tarp or a paved surface. Sampling

and sorting personnel will inform the field supervisor of any potentially dangerous materials observed in the sample.

Bags will be carefully lifted to the sorting table and cut open. Loose waste from the sample will be put onto the sorting table with a shovel. The crew will spread the waste out with hand tools such as gardening trowels or hand hoes so that contents can be visually examined prior to handling.

No crew member will pick up an armload of waste. No crew member will grasp or "hug" an unopened bag of waste. Such bags may be grasped only at the knot or the free edges.

6.0 STAFF TRAINING

Understanding the procedures necessary to promote safety, and knowing how to respond to an emergency before it happens, are essential to ensuring worker safety. All field staff will participate in a waste characterization training prior to beginning the sampling or sorting. The training will be held as close as possible to the actual field work and may take place during the first part of the day the sampling and sorting begins. The training session will require approximately 1 hour.

6.1 Training Session

Training for field workers will include:

- Introduction
 - purpose for waste characterization study
 - intended use
 - method of compensation (if using outside help)
 - dates of sorting and rain dates (if planned)
 - supervisory responsibility at site
- Sampling and Sorting Procedures
- Health and Safety Plan (specifics described in this plan)

6.2 Responsible Individual/CDM Smith Field Supervisor

Safety during the field work is the responsibility of the CDM Smith Field Supervisor. The supervisor must have previous solid waste sampling and sorting experience. The Supervisor will make project level decisions regarding compliance with this Health and Safety Plan during field operations. The Supervisor may temporarily suspend work if there appears to be a threat to health and safety. The Supervisor, or one crew member, will have a current Red Cross First Aid Certificate. An individual who has a current First Aid Certificate will act as the project safety coordinator.

The Field Supervisor will work with project safety coordinator to:

- Ensure that appropriate personal protective equipment is available and properly utilized by all field staff during the sampling and sorting activities;
- Ensure that field staff are familiar with the Health and Safety Plan and trained in the work practices necessary for safe and efficient data collection;
- Ensure that field staff are aware of potential hazards associated with site operations, such as broken glass, heavy equipment, etc.; and,
- Be responsible for correcting any work practices or conditions that may result in injury to personnel or exposure to hazardous substances.

7.0 EMERGENCY PROCEDURES

Most solid waste management facilities have safety plans and procedures for the site. Prior to beginning the sampling and sorting event, the facility supervisor will be contacted to deliver site specific safety procedures. CDM Smith staff will follow the existing procedure for handling an emergency on site. In addition, the following CDM Smith emergency procedures will be followed.

For the purpose of this plan, an emergency is a situation or condition which could require temporary suspension of field work. This includes but is not limited to: adverse weather conditions, fires, accidents or injuries to field staff, and discovery of waste samples that contain materials which are potentially hazardous.

In the event of a site emergency, such as a fire or release of hazardous chemicals, the facility's safety coordinator or the field supervisor will instruct the crew to leave the area by the pre-planned evacuation route. In general, CDM Smith personnel will not participate in efforts to control facility emergencies.

7.1 Responsible Party

The Field Supervisor is responsible for deciding whether a situation or condition is an emergency. The Supervisor is responsible for deciding whether the situation requires evacuation, on-site medical attention, adjustments in procedures, or off-site medical attention.

7.2 Safety Equipment on Site

The safety equipment listed in Table 7-1 will be kept on site throughout the sampling and sorting. Plans to maintain less equipment than the table describes must be approved by the divisional health and safety coordinator.

7.3 Onsite Treatment

Minor injuries such as cuts, scrapes, and the initial stages of heat exposure, will be treated on site by the Safety Coordinator or Field Supervisor who is trained in First Aid.

7.4 Offsite and Professional Medical Treatment

Unless the injury definitely requires first-aid only, the Field Supervisor will seek professional medical assistance. If such an injury occurs the following procedure will be followed.

- Immediate emergency first aid treatment will be given at the site.
- CDM Smith's project health and safety coordinator will notify the appropriate agencies listed in Appendix B.
- For non-emergency medical situations, contact the HSM for the nearest designated clinic.
- If necessary, the injured party will be transported immediately to the nearest emergency facility as identified on the front cover of this Plan.
- The supervisor or a member of the sort crew as designated by the Field Supervisor will call the emergency facility to inform them of the injury and that personnel are approaching for treatment.
- The CDM Smith staff emergency contact will be called and asked to contact the person, on the emergency contact form (APPENDIX A), identified by the injured party, to be called in case of an emergency. The CDM Smith emergency contact is a designated individual or individuals at the local CDM Smith office who is available during the sampling and sorting event to receive and make emergency phone calls for the sorting crew.
- If the injury was the result of a cut or puncture from a sharp or needle, the item will be retrieved and placed in a zip-lock plastic bag for further examination or testing.
- A report explaining the incident will be submitted to all interested parties including but not limited to: CDM Smith client officer, CDM Smith health and safety group, CDM Smith client contracting for the sampling and sorting, facility owner, and the injured party. Accident reports will be filled out where necessary.

NOTE: If the supervisor must leave the site, all field staff will stop work until a responsible CDM Smith substitute can arrive to supervise the sampling and sorting.

Table 7-1
Equipment for Solid Waste Characterization Sampling and Sorting

Required Personal Protective Equipment:

Dust masks (user's option)
Hard hats (required if near tipping floor)
Coveralls (cloth or disposable)
Safety vests
Safety glasses
Disposable undergloves
Overgloves, puncture resistant
Field boots

Site Safety Equipment:

Copy of Health and Safety Plan with cover sheet completed
Copy of Emergency Contact Form for each field worker
First Aid Kit containing at a minimum:
 eye wash, compresses, antiseptic wipes and spray, band-aids, gauze, tape, tweezers;
Vehicle to permit immediate site evacuation
Clean water and cups for drinking
Clean water, wipes and antibacterial soap for washing
Ice chest with cold water towels (to be wetted for heat stress conditions)
Zip-lock plastic bags
Paper towels, rags, or tissues
Portable phone (if the sort area has no permanent phone)

Sampling and Sorting Equipment:

Sorting table
Sorting buckets/pails/tubs
Shovels, hoes, gardening hand tools
Broom

APPENDIX A
Site Location and Contact Information

Update with Selected Facility Info

APPENDIX B
Nearest Hospital and Driving Directions

Update with Selected Facility Info

APPENDIX C

Emergency Contact Form

NOTE: Two copies of this form are to be completed by every field worker. One copy is to be kept at the site during the sampling and sorting event. One copy is to be left with the CDM Smith emergency contact person at the local CDM Smith office.

Name: _____

Home Phone: _____

Blood Type: _____

Date of Last Tetanus Shot: _____

Date of hepatitis vaccination, if any: _____

Medications Currently Taking: _____

Allergies to Medication: _____

If an emergency occurs during sampling or sorting, please contact

Name: _____

Phone: _____

Date Completed: _____

Signature: _____

APPENDIX D
Emergency Telephone Numbers

<u>Emergency Service</u>	<u>Provider</u>	<u>Telephone Number</u>
CDM Smith 24 hour Emergency	CDM Smith CHSO	800-313-5593
Health and Safety Manager	Paul Opem	303-383-2483
Project Manager	Chris Martel	312-346-5000
Project Safety Coordinator	Catherine Cox	cell: 312-523-9258
Client Contact	Rod Fletcher	217-384-2381
State Environmental Agency	IEPA	1-800-782-7860
Fire Department	Chicago	911
Police Department	Chicago	911
24-hour ambulance	Chicago	911
Health Department	Chicago	212-788-5261
Poison Control Center	Nationwide	1-800-222-1222
Illinois Poison Center	1-800-222-1222	

H&S Plan APPROVED: _____
Health and Safety Manager Date

Appendix B
MSW Characterization Data

Appendix B
Residential MSW Characterization Data

Appendix B
Residential Waste Composition Sample Data
(Data Shown in Pounds)

Sample ID	City	County	Urban or Rural	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8	CH9	CH10	CH11	CH12	CH13	CH14	CH15	CH16	CH17	CH18	CH19	CH20	CH21	CH22	CH23	CH24	CH25	CH26	CH27	CH28	CH29	CH30	CH31	CH32	CH33	CH34	CH35	CH36	CH37	CH38	CH39	CH40	CH41	CH42	CH43	CH44	CH45	CH46	CH47	CH48	CH49	CH50	CH51	CH52	CH53	CH54	CH55	CH56	CH57	CH58	CH59	CH60	CH61	CH62	CH63	CH64	CH65	CH66	CH67	CH68	CH69	CH70	CH71	CH72	CH73	CH74	CH75	CH76	CH77	CH78	CH79	CH80	CH81	CH82	CH83	CH84	CH85	CH86	CH87	CH88	CH89	CH90	CH91	CH92	CH93	CH94	CH95	CH96	CH97	CH98	CH99	CH100	CH101	CH102	CH103	CH104	CH105	CH106	CH107	CH108	CH109	CH110	CH111	CH112	CH113	CH114	CH115	CH116	CH117	CH118	CH119	CH120	CH121	CH122	CH123	CH124	CH125	CH126	CH127	CH128	CH129	CH130	CH131	CH132	CH133	CH134	CH135	CH136	CH137	CH138	CH139	CH140	CH141	CH142	CH143	CH144	CH145	CH146	CH147	CH148	CH149	CH150	CH151	CH152	CH153	CH154	CH155	CH156	CH157	CH158	CH159	CH160	CH161	CH162	CH163	CH164	CH165	CH166	CH167	CH168	CH169	CH170	CH171	CH172	CH173	CH174	CH175	CH176	CH177	CH178	CH179	CH180	CH181	CH182	CH183	CH184	CH185	CH186	CH187	CH188	CH189	CH190	CH191	CH192	CH193	CH194	CH195	CH196	CH197	CH198	CH199	CH200	CH201	CH202	CH203	CH204	CH205	CH206	CH207	CH208	CH209	CH210	CH211	CH212	CH213	CH214	CH215	CH216	CH217	CH218	CH219	CH220	CH221	CH222	CH223	CH224	CH225	CH226	CH227	CH228	CH229	CH230	CH231	CH232	CH233	CH234	CH235	CH236	CH237	CH238	CH239	CH240	CH241	CH242	CH243	CH244	CH245	CH246	CH247	CH248	CH249	CH250	CH251	CH252	CH253	CH254	CH255	CH256	CH257	CH258	CH259	CH260	CH261	CH262	CH263	CH264	CH265	CH266	CH267	CH268	CH269	CH270	CH271	CH272	CH273	CH274	CH275	CH276	CH277	CH278	CH279	CH280	CH281	CH282	CH283	CH284	CH285	CH286	CH287	CH288	CH289	CH290	CH291	CH292	CH293	CH294	CH295	CH296	CH297	CH298	CH299	CH300	CH301	CH302	CH303	CH304	CH305	CH306	CH307	CH308	CH309	CH310	CH311	CH312	CH313	CH314	CH315	CH316	CH317	CH318	CH319	CH320	CH321	CH322	CH323	CH324	CH325	CH326	CH327	CH328	CH329	CH330	CH331	CH332	CH333	CH334	CH335	CH336	CH337	CH338	CH339	CH340	CH341	CH342	CH343	CH344	CH345	CH346	CH347	CH348	CH349	CH350	CH351	CH352	CH353	CH354	CH355	CH356	CH357	CH358	CH359	CH360	CH361	CH362	CH363	CH364	CH365	CH366	CH367	CH368	CH369	CH370	CH371	CH372	CH373	CH374	CH375	CH376	CH377	CH378	CH379	CH380	CH381	CH382	CH383	CH384	CH385	CH386	CH387	CH388	CH389	CH390	CH391	CH392	CH393	CH394	CH395	CH396	CH397	CH398	CH399	CH400	CH401	CH402	CH403	CH404	CH405	CH406	CH407	CH408	CH409	CH410	CH411	CH412	CH413	CH414	CH415	CH416	CH417	CH418	CH419	CH420	CH421	CH422	CH423	CH424	CH425	CH426	CH427	CH428	CH429	CH430	CH431	CH432	CH433	CH434	CH435	CH436	CH437	CH438	CH439	CH440	CH441	CH442	CH443	CH444	CH445	CH446	CH447	CH448	CH449	CH450	CH451	CH452	CH453	CH454	CH455	CH456	CH457	CH458	CH459	CH460	CH461	CH462	CH463	CH464	CH465	CH466	CH467	CH468	CH469	CH470	CH471	CH472	CH473	CH474	CH475	CH476	CH477	CH478	CH479	CH480	CH481	CH482	CH483	CH484	CH485	CH486	CH487	CH488	CH489	CH490	CH491	CH492	CH493	CH494	CH495	CH496	CH497	CH498	CH499	CH500	CH501	CH502	CH503	CH504	CH505	CH506	CH507	CH508	CH509	CH510	CH511	CH512	CH513	CH514	CH515	CH516	CH517	CH518	CH519	CH520	CH521	CH522	CH523	CH524	CH525	CH526	CH527	CH528	CH529	CH530	CH531	CH532	CH533	CH534	CH535	CH536	CH537	CH538	CH539	CH540	CH541	CH542	CH543	CH544	CH545	CH546	CH547	CH548	CH549	CH550	CH551	CH552	CH553	CH554	CH555	CH556	CH557	CH558	CH559	CH560	CH561	CH562	CH563	CH564	CH565	CH566	CH567	CH568	CH569	CH570	CH571	CH572	CH573	CH574	CH575	CH576	CH577	CH578	CH579	CH580	CH581	CH582	CH583	CH584	CH585	CH586	CH587	CH588	CH589	CH590	CH591	CH592	CH593	CH594	CH595	CH596	CH597	CH598	CH599	CH600	CH601	CH602	CH603	CH604	CH605	CH606	CH607	CH608	CH609	CH610	CH611	CH612	CH613	CH614	CH615	CH616	CH617	CH618	CH619	CH620	CH621	CH622	CH623	CH624	CH625	CH626	CH627	CH628	CH629	CH630	CH631	CH632	CH633	CH634	CH635	CH636	CH637	CH638	CH639	CH640	CH641	CH642	CH643	CH644	CH645	CH646	CH647	CH648	CH649	CH650	CH651	CH652	CH653	CH654	CH655	CH656	CH657	CH658	CH659	CH660	CH661	CH662	CH663	CH664	CH665	CH666	CH667	CH668	CH669	CH670	CH671	CH672	CH673	CH674	CH675	CH676	CH677	CH678	CH679	CH680	CH681	CH682	CH683	CH684	CH685	CH686	CH687	CH688	CH689	CH690	CH691	CH692	CH693	CH694	CH695	CH696	CH697	CH698	CH699	CH700	CH701	CH702	CH703	CH704	CH705	CH706	CH707	CH708	CH709	CH710	CH711	CH712	CH713	CH714	CH715	CH716	CH717	CH718	CH719	CH720	CH721	CH722	CH723	CH724	CH725	CH726	CH727	CH728	CH729	CH730	CH731	CH732	CH733	CH734	CH735	CH736	CH737	CH738	CH739	CH740	CH741	CH742	CH743	CH744	CH745	CH746	CH747	CH748	CH749	CH750	CH751	CH752	CH753	CH754	CH755	CH756	CH757	CH758	CH759	CH760	CH761	CH762	CH763	CH764	CH765	CH766	CH767	CH768	CH769	CH770	CH771	CH772	CH773	CH774	CH775	CH776	CH777	CH778	CH779	CH780	CH781	CH782	CH783	CH784	CH785	CH786	CH787	CH788	CH789	CH790	CH791	CH792	CH793	CH794	CH795	CH796	CH797	CH798	CH799	CH800	CH801	CH802	CH803	CH804	CH805	CH806	CH807	CH808	CH809	CH810	CH811	CH812	CH813	CH814	CH815	CH816	CH817	CH818	CH819	CH820	CH821	CH822	CH823	CH824	CH825	CH826	CH827	CH828	CH829	CH830	CH831	CH832	CH833	CH834	CH835	CH836	CH837	CH838	CH839	CH840	CH841	CH842	CH843	CH844	CH845	CH846	CH847	CH848	CH849	CH850	CH851	CH852	CH853	CH854	CH855	CH856	CH857	CH858	CH859	CH860	CH861	CH862	CH863	CH864	CH865	CH866	CH867	CH868	CH869	CH870	CH871	CH872	CH873	CH874	CH875	CH876	CH877	CH878	CH879	CH880	CH881	CH882	CH883	CH884	CH885	CH886	CH887	CH888	CH889	CH890	CH891	CH892	CH893	CH894	CH895	CH896	CH897	CH898	CH899	CH900	CH901	CH902	CH903	CH904	CH905	CH906	CH907	CH908	CH909	CH910	CH911	CH912	CH913	CH914	CH915	CH916	CH917	CH918	CH919	CH920	CH921	CH922	CH923	CH924	CH925	CH926	CH927	CH928	CH929	CH930	CH931	CH932	CH933	CH934	CH935	CH936	CH937	CH938	CH939	CH940	CH941	CH942	CH943	CH944	CH945	CH946	CH947	CH948	CH949	CH950	CH951	CH952	CH953	CH954	CH955	CH956	CH957	CH958	CH959	CH960	CH961	CH962	CH963	CH964	CH965	CH966	CH967	CH968	CH969	CH970	CH971	CH972	CH973	CH974	CH975	CH976	CH977	CH978	CH979	CH980	CH981	CH982	CH983	CH984	CH985	CH986	CH987	CH988	CH989	CH990	CH991	CH992	CH993	CH994	CH995	CH996	CH997	CH998	CH999	CH1000	CH1001	CH1002	CH1003	CH1004	CH1005	CH1006	CH1007	CH1008	CH1009	CH1010	CH1011	CH1012	CH1013	CH1014	CH1015	CH1016	CH1017	CH1018	CH1019	CH1020	CH1021	CH1022	CH1023	CH1024	CH1025	CH1026	CH1027	CH1028	CH1029	CH1030	CH1031	CH1032	CH1033	CH1034	CH1035	CH1036	CH1037	CH1038	CH1039	CH1040	CH1041	CH1042	CH1043	CH1044	CH1045	CH1046	CH1047	CH1048	CH1049	CH1050	CH1051	CH1052	CH1053	CH1054	CH1055	CH1056	CH1057	CH1058	CH1059	CH1060	CH1061	CH1062	CH1063	CH1064	CH1065	CH1066	CH1067	CH1068	CH1069	CH1070	CH1071	CH1072	CH1073	CH1074	CH1075	CH1076	CH1077	CH1078	CH1079	CH1080	CH1081	CH1082	CH1083	CH1084	CH1085	CH1086	CH1087	CH1088	CH1089	CH1090	CH1091	CH1092	CH1093	CH1094	CH1095	CH1096	CH1097	CH1098	CH1099	CH1100	CH1101	CH1102	CH1103	CH1104	CH1105	CH1106	CH1107	CH1108	CH1109	CH1110	CH1111	CH1112	CH1113	CH1114	CH1115	CH1116	CH1117	CH1118	CH1119	CH1120	CH1121	CH1122	CH1123	CH1124	CH1125	CH1126	CH1127	CH1128	CH1129	CH1130	CH1131	CH1132	CH1133	CH1134	CH1135	CH1136	CH1137	CH1138	CH1139	CH1140	CH1141	CH1142	CH1143	CH1144	CH1145	CH1146	CH1147	CH1148	CH1149	CH1150	CH1151	CH1152	CH1153	CH1154	CH1155	CH1156	CH1157	CH1158	CH1159	CH1160	CH1161	CH1162	CH1163	CH1164	CH1165	CH1166	CH1167	CH1168	CH1169	CH1170	CH1171	CH1172	CH1173	CH1174	CH1175	CH1176	CH1177	CH1178	CH1179	CH1180	CH1181	CH1182	CH1183	CH1184	CH1185	CH1186	CH1187	CH1188	CH1189	CH1190	CH1191	CH1192	CH1193	CH1194	CH1195	CH1196	CH1197	CH1198	CH1199	CH1200	CH1201	CH1202	CH1203	CH1204	CH1205	CH1206	CH1207	CH1208	CH1209	CH1210	CH1211	CH1212	CH1213	CH1214	CH1215	CH1216	CH1217	CH1218	CH1219	CH1220	CH1221	CH1222	CH1223	CH1224	CH1225	CH1226	CH1227	CH1228	CH1229	CH1230	CH1231	CH1232	CH1233	CH1234	CH1235	CH1236	CH1237	CH1238	CH1239	CH1240	CH1241	CH1242	CH1243	CH1244	CH1245	CH1246	CH1247	CH1248	CH1249	CH1250	CH1251	CH1252	CH1253	CH1254	CH1255	CH1256	CH1257	CH1258	CH1259	CH1260	CH1261	CH1262	CH1263	CH1264	CH1265	CH1266	CH1267	CH1268	CH1269	CH1270	CH1271	CH1272	CH1273	CH1274	CH1275	CH1276	CH1277	CH1278	CH1279	CH1280	CH1281	CH1282	CH1283	CH1284	CH1285	CH1286	CH1287	CH1288	CH1289	CH1290	CH1291	CH1292	CH1293	CH1294	CH1295	CH1296	CH1297	CH1298	CH1299	CH1300	CH1301	CH1302	CH1303	CH1304	CH1305	CH1306	CH1307	CH1308	CH1309	CH1310	CH1311	CH1312	CH1313	CH1314	CH1315	CH1316	CH1317	CH1318	CH1319	CH1320	CH1321	CH1322	CH1323	CH1324	CH1325	CH1326	CH1327	CH1328	CH1329	CH1330	CH1331	CH1332	CH1333	CH1334	CH1335	CH1336	CH1337	CH
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Appendix B
ICI MSW Characterization Data

Appendix B
ICI Waste Composition Sample Data
(Data Shown in Pounds)

Sample ID	VICR	VIC5	VICR	VIC7	WIC1	WIC3	WIC4	XIC1	XIC2	XIC3	XIC4	XIC5	XIC7	YIC1	YIC2	YIC3	YIC4	YIC5	
City	County	McLean	McLean	Normal	Dwight	Pontic	Stratford	Quincy	Quincy	Morgan	Quincy	Quincy	Griggsville	Griggsville	Galesburg	Nemours	Galesburg	Macomb	
Urban or Rural	U	U	U	U	U	R	R	R	R	R	R	R	R	R	R	R	R	R	
Paper	0	0	1	2	13	0	1	0	1	0	0	0	0	0	0	0	0	0	0
High Grade Office Paper	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Magazines/Catalogs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Newsprint	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Paper	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plastic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDPE Bottles/Jars - clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDPE Bottles/Jars - color	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HDPE Bottles/Jars	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Plastic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Film	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Rigid Plastic Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Non-Ferrous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Ferrous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Wood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Composites	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Glass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Textiles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Rubber	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Unrecyclable	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Organic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Inorganic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Hazardous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Weight	289.9	206.5	171.5	196.2	241.9	241.3	247.3	236.1	191.8	202.6	185.3	221.2	214.4	222.2	219.9	151.7	225.6	160.1	

Appendix B
C&D MSW Characterization Data

Appendix C

Generation Results

Appendix C
Regional Generation Results

Region 1 Municipal Solid Waste (MSW) Generation

	Generation (lb/c/yr)	Total Generation (tons)		Generation (lb/c/yr)	Total Generation (tons)
Paper	642.0	269,290	Metal		
Newsprint	63.2	26,500	Other Ferrous	51.2	21,490
High Grade Office Paper	44.6	18,720	Other Non-Ferrous	9.0	3,790
Magazines/Catalogs	31.6	13,260	Other Metal	15.9	6,680
Uncoated OCC/Kraft	309.4	129,750			
Boxboard	54.6	22,890	Organics	575.6	241,410
Mixed Paper - Recyclable	53.2	22,330	Yard Waste - Compostable	117.4	49,250
Compostable Paper	73.1	30,640	Yard Waste - Woody	23.2	9,750
Other Paper	12.4	5,200	Food Scraps	310.5	130,250
			Bottom Fines & Dirt	45.2	18,970
Beverage Containers	5.0	2,090	Diapers	37.1	15,550
Milk & Juice Cartons/Boxes - Coated	5.0	2,090	Other Organic	42.1	17,640
Plastic	306.0	128,350	Inorganics	175.3	73,520
#1 PET Bottles/Jars	19.6	8,220	Televisions	5.1	2,130
#1 Other PET Containers	5.5	2,300	Computer Monitors	3.2	1,340
#2 HDPE Bottles/Jars - Clear	9.9	4,140	Computer Equipment/Peripherals	7.1	2,990
#2 HDPE Bottles/Jars - Color	9.1	3,830	Electronic Equipment	14.4	6,050
#2 Other HDPE Containers	0.6	260	White Goods - Refrigerated	10.4	4,360
#6 Exp. Polystyrene Packaging	18.4	7,700	White Goods - Not refrigerated	23.1	9,700
#3-#7 Other - All	13.1	5,480	Lead-acid Batteries	18.2	7,650
Other Rigid Plastic Products	58.0	24,310	Other Household Batteries	4.3	1,820
Grocery & Merchandise Bags	12.4	5,220	Tires	25.8	10,830
Trash Bags	33.5	14,050	Household Bulky Items	63.1	26,460
Commercial & Industrial Film	34.9	14,630	Fluorescent Lights/Ballasts	0.5	190
Other Film	58.8	24,660			
Other Plastic	32.3	13,550	Textiles	107.5	45,080
			Carpet	24.5	10,270
Glass	86.0	36,050	Carpet Padding	6.6	2,780
Recyclable Glass Bottles & Jars	68.1	28,570	Clothing	48.4	20,280
Flat Glass	10.1	4,220	Other Textiles	28.0	11,750
Other Glass	7.8	3,260			
			Household Hazardous Waste	26.8	11,260
Metal	123.1	51,640	Construction and Demolition Debris (C&D)	545.7	228,870
Aluminum Beverage Containers	15.4	6,440			
Other Aluminum	8.7	3,660	Total MSW (tons)		1,087,560
HVAC Ducting	0.0	0	Total MSW (pounds/person/day)		7.10
Ferrous Containers (Tin Cans)	22.8	9,580			

2014 population 838,855

Boone, Bureau, Carroll, DeKalb, Jo Daviess, LaSalle, Lee, Ogle, Putnam, Stephenson, Whiteside, Winnebago Counties.

Source: County MSW Generation Appendix Tables

Region 2 Municipal Solid Waste (MSW) Generation

	Generation (lb/cy/yr)	Total Generation (tons)		Generation (lb/cy/yr)	Total Generation (tons)
Paper	793.2	3,440,930	Metal		
Newsprint	100.2	434,750	Other Ferrous	51.2	222,260
High Grade Office Paper	52.9	229,570	Other Non-Ferrous	9.1	39,280
Magazines/Catalogs	29.3	127,160	Other Metal	15.9	68,960
Uncoated OCC/Kraft	417.5	1,811,000			
Boxboard	54.6	236,750	Organics	606.4	2,630,390
Mixed Paper - Recyclable	53.2	230,990	Yard Waste - Compostable	117.4	509,320
Compostable Paper	73.1	316,900	Yard Waste - Woody	23.2	100,740
Other Paper	12.4	53,810	Food Scraps	341.4	1,481,040
			Bottom Fines & Dirt	45.2	196,210
Beverage Containers	6.0	26,030	Diapers	37.1	160,750
Milk & Juice Cartons/Boxes - Coated	6.0	26,030	Other Organic	42.0	182,330
Plastic	328.5	1,425,010	Inorganics	175.2	759,880
#1 PET Bottles/Jars	23.8	103,120	Televisions	5.0	21,800
#1 Other PET Containers	6.7	28,910	Computer Monitors	3.2	13,770
#2 HDPE Bottles/Jars - Clear	12.0	52,120	Computer Equipment/Peripherals	7.1	30,790
#2 HDPE Bottles/Jars - Color	11.1	48,160	Electronic Equipment	14.5	62,690
#2 Other HDPE Containers	0.8	3,370	White Goods - Refrigerated	10.4	45,000
#6 Exp. Polystyrene Packaging	18.4	79,670	White Goods - Not refrigerated	23.1	100,310
#3-#7 Other - All	13.0	56,560	Lead-acid Batteries	18.2	79,120
Other Rigid Plastic Products	58.0	251,470	Other Household Batteries	4.3	18,770
Grocery & Merchandise Bags	14.4	62,590	Tires	25.8	111,980
Trash Bags	33.5	145,310	Household Bulky Items	63.1	273,670
Commercial & Industrial Film	40.6	175,960	Fluorescent Lights/Ballasts	0.5	1,980
Other Film	58.8	254,980			
Other Plastic	37.5	162,790	Textiles	119.3	517,580
			Carpet	24.5	106,120
Glass	86.0	372,860	Carpet Padding	6.6	28,710
Recyclable Glass Bottles & Jars	68.1	295,610	Clothing	55.9	242,390
Flat Glass	10.0	43,530	Other Textiles	32.4	140,360
Other Glass	7.8	33,720			
			Household Hazardous Waste	26.9	116,530
Metal	123.1	534,010	Construction and Demolition Debris (C&D)	918.8	3,985,720
Aluminum Beverage Containers	15.4	66,730			
Other Aluminum	8.7	37,740	Total MSW (tons)		13,808,940
HVAC Ducting	0.0	0	Total MSW (pounds/person/day)		8.72
Ferrous Containers (Tin Cans)	22.8	99,040			

2014 population

8,676,137

Cook, DuPage, Grundy, Kane, Kankakee, Kendall, Lake, McHenry, Will Counties.

Source: County MSW Generation Appendix Tables

Region 3 Municipal Solid Waste (MSW) Generation

	Generation (lb/c/yr)	Total Generation (tons)	Generation (lb/c/yr)	Total Generation (tons)
Paper	675.0	257,730	51.2	19,550
Newsprint	64.0	24,430	Other Ferrous	19,550
High Grade Office Paper	49.6	18,920	Other Non-Ferrous	3,490
Magazines/Catalogs	31.3	11,940	Other Metal	6,070
Uncoated OCC/Kraft	336.9	128,630		
Boxboard	54.6	20,850	Organics	229,480
Mixed Paper - Recyclable	53.2	20,330	Yard Waste - Compostable	44,830
Compostable Paper	73.0	27,890	Yard Waste - Woody	8,870
Other Paper	12.4	4,740	Food Scraps	128,320
			Bottom Fines & Dirt	17,260
Beverage Containers	6.0	2,290	Diapers	14,150
Milk & Juice Cartons/Boxes - Coated	6.0	2,290	Other Organic	16,050
Plastic	316.6	120,880	175.1	66,850
#1 PET Bottles/Jars	23.7	9,050	Televisions	1,920
#1 Other PET Containers	6.7	2,540	Computer Monitors	1,210
#2 HDPE Bottles/Jars - Clear	12.0	4,570	Computer Equipment/Peripherals	2,700
#2 HDPE Bottles/Jars - Color	11.1	4,220	Electronic Equipment	5,530
#2 Other HDPE Containers	0.8	300	White Goods - Refrigerated	3,960
#6 Exp. Polystyrene Packaging	18.4	7,010	White Goods - Not refrigerated	8,830
#3-#7 Other - All	13.1	5,010	Lead-acid Batteries	6,960
Other Rigid Plastic Products	58.0	22,150	Other Household Batteries	1,670
Grocery & Merchandise Bags	12.6	4,800	Tires	9,840
Trash Bags	33.5	12,800	Household Bulky Items	24,080
Commercial & Industrial Film	35.3	13,480	Fluorescent Lights/Ballasts	150
Other Film	58.8	22,440		
Other Plastic	32.8	12,510	Textiles	41,150
			Carpet	9,320
Glass	85.9	32,810	Carpet Padding	2,520
Recyclable Glass Bottles & Jars	68.1	26,020	Clothing	18,570
Flat Glass	10.0	3,830	Other Textiles	10,740
Other Glass	7.8	2,960		
			Household Hazardous Waste	10,250
Metal	123.2	47,030	Construction and Demolition Debris (C&D)	218,910
Aluminum Beverage Containers	15.5	5,900	Total MSW (tons)	1,027,380
Other Aluminum	8.7	3,310	Total MSW (pounds/person/day)	7.37
HVAC Ducting	0.0	0		
Ferrous Containers (Tin Cans)	22.8	8,710		

2014 population

763,673

Fulton, Hancock, Henderson, Henry, Know, Marshall, McDonough, Mercer, Peoria, Rock Island, Stark, Tazewell, Warren, and Woodford Counties.
Source: County MSW Generation Appendix Tables

Region 4 Municipal Solid Waste (MSW) Generation

	Generation (lb/c/yr)	Total Generation (tons)	Generation (lb/c/yr)	Total Generation (tons)
Paper	640.4	290,400	51.2	23,230
Newsprint	59.1	26,820	9.0	4,100
High Grade Office Paper	45.8	20,790	15.9	7,220
Magazines/Catalogs	30.6	13,860		
Uncoated OCC/Kraft	311.7	141,320		
Boxboard	54.6	24,750	578.5	262,300
Mixed Paper - Recyclable	53.2	24,140	117.4	53,230
Compostable Paper	73.0	33,120	23.2	10,520
Other Paper	12.3	5,600	313.5	142,170
Beverage Containers	5.2	2,340	45.3	20,520
Milk & Juice Cartons/Boxes - Coated	5.2	2,340	37.0	16,800
			42.0	19,060
Plastic	306.5	138,990	175.1	79,420
#1 PET Bottles/Jars	20.3	9,220	5.1	2,290
#1 Other PET Containers	5.7	2,590	3.2	1,460
#2 HDPE Bottles/Jars - Clear	10.3	4,660	7.1	3,220
#2 HDPE Bottles/Jars - Color	9.5	4,330	14.5	6,560
#2 Other HDPE Containers	0.7	310	10.4	4,700
#6 Exp. Polystyrene Packaging	18.4	8,340	23.1	10,480
#3-#7 Other - All	13.1	5,950	18.2	8,260
Other Rigid Plastic Products	58.0	26,290	4.3	1,970
Grocery & Merchandise Bags	12.2	5,550	25.8	11,680
Trash Bags	33.5	15,210	63.1	28,610
Commercial & Industrial Film	34.4	15,600	0.4	190
Other Film	58.8	26,660		
Other Plastic	31.5	14,280	106.1	48,120
Glass	85.9	38,970	24.5	11,100
Recyclable Glass Bottles & Jars	68.1	30,880	6.7	3,020
Flat Glass	10.0	4,540	47.5	21,530
Other Glass	7.8	3,550	27.5	12,470
Metal	123.1	55,810	26.8	12,140
Aluminum Beverage Containers	15.4	6,970	558.4	253,200
Other Aluminum	8.7	3,950		
HVAC Ducting	0.0	0		
Ferrous Containers (Tin Cans)	22.8	10,340		
Total				1,181,690
				7.14
Construction and Demolition Debris (C&D)				
Total MSW (tons)				1,181,690
Total MSW (pounds/person/day)				7.14

2014 population 906,891

Champaign, Clark, Coles, Crawford, Cumberland, DeWitt, Coughlas, Edgar, Effingham, Ford, Iroquois, Jasper, Livingston, Macon, McLean, Moultrie, Piatt, Shelby, Vermilion Counties.

Source: County MSW Generation Appendix Tables

Region 5 Municipal Solid Waste (MSW) Generation

	Generation (lb/c/yr)	Total Generation (tons)	Generation (lb/c/yr)	Total Generation (tons)
Paper	656.8	184,720	Metal	
Newsprint	60.1	16,900	Other Ferrous	51.3
High Grade Office Paper	49.0	13,780	Other Non-Ferrous	9.1
Magazines/Catalogs	31.9	8,980	Other Metal	15.9
Uncoated OCC/Kraft	322.6	90,730		
Boxboard	54.5	15,340	Organics	577.7
Mixed Paper - Recyclable	53.2	14,960	Yard Waste - Compostable	117.4
Compostable Paper	73.1	20,550	Yard Waste - Woody	23.3
Other Paper	12.4	3,480	Food Scraps	312.7
			Bottom Fines & Dirt	45.3
Beverage Containers	5.2	1,460	Diapers	37.1
Milk & Juice Cartons/Boxes - Coated	5.2	1,460	Other Organic	42.0
Plastic	307.6	86,510	Inorganics	175.6
#1 PET Bottles/Jars	20.4	5,740	Televisions	5.0
#1 Other PET Containers	5.7	1,610	Computer Monitors	3.3
#2 HDPE Bottles/Jars - Clear	10.3	2,910	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	9.5	2,680	Electronic Equipment	14.5
#2 Other HDPE Containers	0.7	190	White Goods - Refrigerated	10.4
#6 Exp. Polystyrene Packaging	18.4	5,180	White Goods - Not refrigerated	23.2
#3-#7 Other - All	12.9	3,640	Lead-acid Batteries	18.2
Other Rigid Plastic Products	58.0	16,300	Other Household Batteries	4.4
Grocery & Merchandise Bags	12.4	3,490	Tires	25.8
Trash Bags	33.5	9,410	Household Bulky Items	63.1
Commercial & Industrial Film	34.8	9,780	Fluorescent Lights/Ballasts	0.5
Other Film	58.8	16,540		
Other Plastic	32.1	9,040	Textiles	106.9
			Carpet	24.5
Glass	85.9	24,150	Carpet Padding	6.6
Recyclable Glass Bottles & Jars	68.1	19,140	Clothing	48.0
Flat Glass	10.1	2,830	Other Textiles	27.8
Other Glass	7.8	2,180		
			Household Hazardous Waste	26.7
Metal	123.3	34,680	Construction and Demolition Debris (C&D)	537.0
Aluminum Beverage Containers	15.4	4,340		
Other Aluminum	8.7	2,440	Total MSW (tons)	731,970
HVAC Ducting	0.0	0	Total MSW (pounds/person/day)	7.13
Ferrous Containers (Tin Cans)	22.9	6,430		

2014 population

562,476

Adams, Brown, Calhoun, Cass, Christian, Greene, Jersey, Logan, Macoupin, Mason, Menard, Montgomery, Morgan, Pike, Sangamon, Schuyler, Scott Counties.

Source: County MSW Generation Appendix Tables

Region 6 Municipal Solid Waste (MSW) Generation

	Generation (lb/c/yr)	Total Generation (tons)		Generation (lb/c/yr)	Total Generation (tons)
Paper	633.3	232,020	Metal		
Newsprint	58.6	21,480	Other Ferrous	51.2	18,760
High Grade Office Paper	43.3	15,870	Other Non-Ferrous	9.1	3,320
Magazines/Catalogs	30.8	11,290	Other Metal	15.9	5,820
Uncoated OCC/Kraft	307.3	112,570			
Boxboard	54.6	20,000	Organics	578.7	212,010
Mixed Paper - Recyclable	53.3	19,510	Yard Waste - Compostable	117.5	43,030
Compostable Paper	73.0	26,750	Yard Waste - Woody	23.2	8,490
Other Paper	12.4	4,550	Food Scraps	313.7	114,930
			Bottom Fines & Dirt	45.3	16,580
Beverage Containers	5.1	1,870	Diapers	37.1	13,580
Milk & Juice Cartons/Boxes - Coated	5.1	1,870	Other Organic	42.0	15,400
Plastic	307.3	112,590	Inorganics	175.0	64,130
#1 PET Bottles/Jars	20.1	7,360	Televisions	5.0	1,840
#1 Other PET Containers	5.6	2,060	Computer Monitors	3.1	1,140
#2 HDPE Bottles/Jars - Clear	10.2	3,720	Computer Equipment/Peripherals	7.1	2,610
#2 HDPE Bottles/Jars - Color	9.4	3,440	Electronic Equipment	14.5	5,300
#2 Other HDPE Containers	0.7	240	White Goods - Refrigerated	10.4	3,800
#6 Exp. Polystyrene Packaging	18.3	6,720	White Goods - Not refrigerated	23.1	8,460
#3-#7 Other - All	13.0	4,780	Lead-acid Batteries	18.3	6,690
Other Rigid Plastic Products	58.0	21,250	Other Household Batteries	4.3	1,580
Grocery & Merchandise Bags	12.5	4,570	Tires	25.8	9,450
Trash Bags	33.5	12,260	Household Bulky Items	63.1	23,100
Commercial & Industrial Film	35.0	12,810	Fluorescent Lights/Ballasts	0.4	160
Other Film	58.8	21,540			
Other Plastic	32.3	11,840	Textiles	107.2	39,290
			Carpet	24.5	8,960
Glass	86.0	31,500	Carpet Padding	6.6	2,430
Recyclable Glass Bottles & Jars	68.1	24,960	Clothing	48.2	17,670
Flat Glass	10.0	3,680	Other Textiles	27.9	10,230
Other Glass	7.8	2,860			
			Household Hazardous Waste	26.8	9,820
Metal	123.1	45,090	Construction and Demolition Debris (C&D)	581.6	213,090
Aluminum Beverage Containers	15.4	5,630			
Other Aluminum	8.7	3,190	Total MSW (tons)		961,410
HVAC Ducting	0.0	0	Total MSW (pounds/person/day)		7.19
Ferrous Containers (Tin Cans)	22.8	8,370			

2014 population 732,728

Bond, Clinton, Fayette, Madison, Marion, Monroe, Randolph, St. Clair, Washington Counties.

Source: County MSW Generation Appendix Tables

Region 7 Municipal Solid Waste (MSW) Generation

	Generation (lb/c/yr)	Total Generation (tons)		Generation (lb/c/yr)	Total Generation (tons)
Paper	572.2	123,830	Metal		
Newsprint	49.9	10,790	Other Ferrous	51.2	11,090
High Grade Office Paper	35.8	7,740	Other Non-Ferrous	9.2	1,980
Magazines/Catalogs	30.0	6,500	Other Metal	15.8	3,420
Uncoated OCC/Kraft	263.3	56,980			
Boxboard	54.5	11,800	Organics	556.7	120,470
Mixed Paper - Recyclable	53.3	11,530	Yard Waste - Compostable	117.6	25,440
Compostable Paper	73.0	15,800	Yard Waste - Woody	23.2	5,020
Other Paper	12.4	2,690	Food Scraps	291.6	63,110
			Bottom Fines & Dirt	45.3	9,810
Beverage Containers	4.3	940	Diapers	37.0	8,000
Milk & Juice Cartons/Boxes - Coated	4.3	940	Other Organic	42.0	9,090
Plastic	284.4	61,540	Inorganics	175.0	37,860
#1 PET Bottles/Jars	17.6	3,800	Televisions	5.0	1,090
#1 Other PET Containers	4.9	1,060	Computer Monitors	3.2	690
#2 HDPE Bottles/Jars - Clear	8.9	1,920	Computer Equipment/Peripherals	7.1	1,540
#2 HDPE Bottles/Jars - Color	8.2	1,770	Electronic Equipment	14.4	3,120
#2 Other HDPE Containers	0.5	100	White Goods - Refrigerated	10.4	2,240
#6 Exp. Polystyrene Packaging	18.4	3,990	White Goods - Not refrigerated	23.2	5,010
#3-#7 Other - All	13.0	2,820	Lead-acid Batteries	18.2	3,940
Other Rigid Plastic Products	58.0	12,560	Other Household Batteries	4.3	930
Grocery & Merchandise Bags	9.8	2,130	Tires	25.8	5,590
Trash Bags	33.4	7,220	Household Bulky Items	63.0	13,640
Commercial & Industrial Film	27.5	5,940	Fluorescent Lights/Ballasts	0.3	70
Other Film	58.7	12,710			
Other Plastic	25.5	5,520	Textiles	91.0	19,690
			Carpet	24.5	5,300
Glass	86.1	18,640	Carpet Padding	6.6	1,430
Recyclable Glass Bottles & Jars	68.4	14,800	Clothing	37.8	8,190
Flat Glass	10.0	2,170	Other Textiles	22.0	4,770
Other Glass	7.7	1,670			
			Household Hazardous Waste	26.5	5,740
Metal	123.1	26,640	Construction and Demolition Debris (C&D)	498.7	107,910
Aluminum Beverage Containers	15.4	3,330			
Other Aluminum	8.7	1,880	Total MSW (tons)		523,260
HVAC Ducting	0.0	0	Total MSW (pounds/person/day)		6.62
Ferrous Containers (Tin Cans)	22.8	4,940			

2014 population 432,784

Alexander, Clay, Edwards, Franklin, Gallatin, Hamilton, Hardin, Jackson, Jefferson, Johnson, Lawrence, Massac, Perry, Pope, Pulaski, Richland, Saline, Union, Wabash, Wayne, White, Williamson Counties.

Source: County MSW Generation Appendix Tables

Appendix C
County Generation Results

Adams County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	769.3	26,020	51.1	1,730
Newsprint	45.2	1,530	Other Ferrous	1,730
High Grade Office Paper	53.2	1,800	Other Non-Ferrous	310
Magazines/Catalogs	31.9	1,080	Other Metal	540
Uncoated OCC/Kraft	445.5	15,070		
Boxboard	54.7	1,850	Organics	19,160
Mixed Paper - Recyclable	53.2	1,800	Yard Waste - Compostable	3,970
Compostable Paper	73.0	2,470	Yard Waste - Woody	790
Other Paper	12.4	420	Food Scraps	10,200
			Bottom Fines & Dirt	1,530
Beverage Containers	4.7	160	Diapers	1,250
Milk & Juice Cartons/Boxes - Coated	4.7	160	Other Organic	1,420
Plastic	298.0	10,080	Inorganics	5,930
#1 PET Bottles/Jars	18.6	630	Televisions	170
#1 Other PET Containers	5.3	180	Computer Monitors	110
#2 HDPE Bottles/Jars - Clear	9.5	320	Computer Equipment/Peripherals	240
#2 HDPE Bottles/Jars - Color	8.6	290	Electronic Equipment	490
#2 Other HDPE Containers	0.6	20	White Goods - Refrigerated	350
#6 Exp. Polystyrene Packaging	18.6	630	White Goods - Not refrigerated	780
#3-#7 Other - All	13.0	440	Lead-acid Batteries	620
Other Rigid Plastic Products	57.9	1,960	Other Household Batteries	150
Grocery & Merchandise Bags	11.5	390	Tires	870
Trash Bags	33.4	1,130	Household Bulky Items	2,130
Commercial & Industrial Film	32.2	1,090	Fluorescent Lights/Ballasts	20
Other Film	58.8	1,990		
Other Plastic	29.9	1,010	Textiles	3,430
			Carpet	830
Glass	85.7	2,900	Carpet Padding	220
Recyclable Glass Bottles & Jars	68.0	2,300	Clothing	1,510
Flat Glass	10.1	340	Other Textiles	870
Other Glass	7.7	260		
			Household Hazardous Waste	910
Metal	123.0	4,160	Construction and Demolition Debris (C&D)	15,750
Aluminum Beverage Containers	15.4	520	Total MSW (tons)	88,500
Other Aluminum	8.6	290	Total MSW (pounds/person/day)	7.17
Ferrous Containers (Tin Cans)	22.8	770		

2014 population

67,648

Alexander County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	417.5	1,660	Metal	
Newsprint	22.6	90	Other Ferrous	50.3
High Grade Office Paper	25.1	100	Other Non-Ferrous	10.1
Magazines/Catalogs	27.7	110	Other Metal	15.1
Uncoated OCC/Kraft	148.4	590		
Boxboard	55.3	220	Organics	538.2
Mixed Paper - Recyclable	52.8	210	Yard Waste - Compostable	118.2
Compostable Paper	72.9	290	Yard Waste - Woody	22.6
Other Paper	12.6	50	Food Scraps	271.6
			Bottom Fines & Dirt	45.3
Beverage Containers	2.5	10	Diapers	37.7
Milk & Juice Cartons/Boxes - Coated	2.5	10	Other Organic	42.8
Plastic	266.6	1,060	Inorganics	173.5
#1 PET Bottles/Jars	17.6	70	Televisions	5.0
#1 Other PET Containers	5.0	20	Computer Monitors	2.5
#2 HDPE Bottles/Jars - Clear	7.5	30	Computer Equipment/Peripherals	7.5
#2 HDPE Bottles/Jars - Color	7.5	30	Electronic Equipment	15.1
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	10.1
#6 Exp. Polystyrene Packaging	20.1	80	White Goods - Not refrigerated	22.6
#3-#7 Other - All	12.6	50	Lead-acid Batteries	17.6
Other Rigid Plastic Products	57.8	230	Other Household Batteries	5.0
Grocery & Merchandise Bags	7.5	30	Tires	25.1
Trash Bags	32.7	130	Household Bulky Items	62.9
Commercial & Industrial Film	20.1	80	Fluorescent Lights/Ballasts	<0.1
Other Film	57.8	230		
Other Plastic	20.1	80	Textiles	75.4
			Carpet	25.1
Glass	88.0	350	Carpet Padding	7.5
Recyclable Glass Bottles & Jars	70.4	280	Clothing	27.7
Flat Glass	10.1	40	Other Textiles	15.1
Other Glass	7.5	30		
			Household Hazardous Waste	25.1
Metal	120.7	480		
Aluminum Beverage Containers	15.1	60	Construction and Demolition Debris (C&D)	570.9
Other Aluminum	7.5	30		
Ferrous Containers (Tin Cans)	22.6	90	Total MSW (tons)	9,060
			Total MSW (pounds/person/day)	6.24

Bond County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	491.3	4,310	51.3	450
Newsprint	31.9	280	Other Ferrous	450
High Grade Office Paper	29.6	260	Other Non-Ferrous	80
Magazines/Catalogs	29.6	260	Other Metal	140
Uncoated OCC/Kraft	206.3	1,810		
Boxboard	54.7	480	Organics	4,880
Mixed Paper - Recyclable	53.6	470	Yard Waste - Compostable	1,030
Compostable Paper	73.0	640	Yard Waste - Woody	200
Other Paper	12.5	110	Food Scraps	2,550
			Bottom Fines & Dirt	400
Beverage Containers	4.6	40	Diapers	330
Milk & Juice Cartons/Boxes - Coated	4.6	40	Other Organic	370
Plastic	295.2	2,590	174.4	1,530
#1 PET Bottles/Jars	17.1	150	Inorganics	
#1 Other PET Containers	4.6	40	Televisions	40
#2 HDPE Bottles/Jars - Clear	9.1	80	Computer Monitors	30
#2 HDPE Bottles/Jars - Color	8.0	70	Computer Equipment/Peripherals	60
#2 Other HDPE Containers	<1	<5	Electronic Equipment	130
#6 Exp. Polystyrene Packaging	18.2	160	White Goods - Refrigerated	90
#3-#7 Other - All	13.7	120	White Goods - Not refrigerated	200
Other Rigid Plastic Products	58.1	510	Lead-acid Batteries	160
Grocery & Merchandise Bags	11.4	100	Other Household Batteries	40
Trash Bags	33.1	290	Tires	230
Commercial & Industrial Film	33.1	290	Household Bulky Items	550
Other Film	59.3	520	Fluorescent Lights/Ballasts	<1
Other Plastic	29.6	260		
			Textiles	900
Glass	85.5	750	Carpet	210
Recyclable Glass Bottles & Jars	67.3	590	Carpet Padding	60
Flat Glass	10.3	90	Clothing	400
Other Glass	8.0	70	Other Textiles	230
Metal	123.1	1,080	26.2	230
Aluminum Beverage Containers	14.8	130	Household Hazardous Waste	
Other Aluminum	9.1	80	Construction and Demolition Debris (C&D)	597.3
Ferrous Containers (Tin Cans)	22.8	200		
			Total MSW (tons)	21,550
			Total MSW (pounds/person/day)	6.73

2014 population

17,546

Boone County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	574.9	15,830	574.9	15,830
Newsprint	68.3	1,880	68.3	1,880
High Grade Office Paper	50.5	1,390	50.5	1,390
Magazines/Catalogs	29.4	810	29.4	810
Uncoated OCC/Kraft	233.5	6,430	233.5	6,430
Boxboard	54.5	1,500	54.5	1,500
Mixed Paper - Recyclable	53.4	1,470	53.4	1,470
Compostable Paper	73.0	2,010	73.0	2,010
Other Paper	12.3	340	12.3	340
Beverage Containers	5.4	150	5.4	150
Milk & Juice Cartons/Boxes - Coated	5.4	150	5.4	150
Plastic	327.6	9,020	327.6	9,020
#1 PET Bottles/Jars	21.8	600	21.8	600
#1 Other PET Containers	6.2	170	6.2	170
#2 HDPE Bottles/Jars - Clear	11.3	310	11.3	310
#2 HDPE Bottles/Jars - Color	10.2	280	10.2	280
#2 Other HDPE Containers	0.7	20	0.7	20
#6 Exp. Polystyrene Packaging	18.5	510	18.5	510
#3-#7 Other - All	13.1	360	13.1	360
Other Rigid Plastic Products	58.1	1,600	58.1	1,600
Grocery & Merchandise Bags	14.9	410	14.9	410
Trash Bags	33.4	920	33.4	920
Commercial & Industrial Film	41.8	1,150	41.8	1,150
Other Film	58.8	1,620	58.8	1,620
Other Plastic	38.9	1,070	38.9	1,070
Glass	85.7	2,360	85.7	2,360
Recyclable Glass Bottles & Jars	67.9	1,870	67.9	1,870
Flat Glass	10.2	280	10.2	280
Other Glass	7.6	210	7.6	210
Metal	123.1	3,390	123.1	3,390
Aluminum Beverage Containers	15.3	420	15.3	420
Other Aluminum	8.7	240	8.7	240
Ferrous Containers (Tin Cans)	22.9	630	22.9	630
Metal	15.830	43,830	15.830	43,830
Other Ferrous	51.2	1,410	51.2	1,410
Other Non-Ferrous	9.1	250	9.1	250
Other Metal	16.0	440	16.0	440
Organics	590.9	16,270	590.9	16,270
Yard Waste - Compostable	117.3	3,230	117.3	3,230
Yard Waste - Woody	23.2	640	23.2	640
Food Scraps	325.8	8,970	325.8	8,970
Bottom Fines & Dirt	45.4	1,250	45.4	1,250
Diapers	37.0	1,020	37.0	1,020
Other Organic	42.1	1,160	42.1	1,160
Inorganics	175.8	4,840	175.8	4,840
Televisions	5.1	140	5.1	140
Computer Monitors	3.3	90	3.3	90
Computer Equipment/Peripherals	7.3	200	7.3	200
Electronic Equipment	14.5	400	14.5	400
White Goods - Refrigerated	10.5	290	10.5	290
White Goods - Not refrigerated	23.2	640	23.2	640
Lead-acid Batteries	18.2	500	18.2	500
Other Household Batteries	4.4	120	4.4	120
Tires	25.8	710	25.8	710
Household Bulky Items	63.2	1,740	63.2	1,740
Fluorescent Lights/Ballasts	0.4	10	0.4	10
Textiles	121.7	3,350	121.7	3,350
Carpet	24.3	670	24.3	670
Carpet Padding	6.5	180	6.5	180
Clothing	57.4	1,580	57.4	1,580
Other Textiles	33.4	920	33.4	920
Household Hazardous Waste	26.9	740	26.9	740
Construction and Demolition Debris (C&D)	612.3	16,860	612.3	16,860
Total MSW (tons)		72,810		72,810
Total MSW (pounds/person/day)		7.24		7.24

Brown County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	714.6	2,500	51.5	180
Newsprint	31.4	110	Other Ferrous	180
High Grade Office Paper	60.0	210	Other Non-Ferrous	30
Magazines/Catalogs	25.7	90	Other Metal	60
Uncoated OCC/Kraft	403.0	1,410		
Boxboard	54.3	190	Organics	1,880
Mixed Paper - Recyclable	54.3	190	Yard Waste - Compostable	410
Compostable Paper	74.3	260	Yard Waste - Woody	80
Other Paper	11.4	40	Food Scraps	950
			Bottom Fines & Dirt	160
			Diapers	130
			Other Organic	150
Beverage Containers	2.9	10		
Milk & Juice Cartons/Boxes - Coated	2.9	10		
Plastic	288.7	1,010	174.4	610
#1 PET Bottles/Jars	14.3	50	Inorganics	610
#1 Other PET Containers	2.9	10	Televisions	20
#2 HDPE Bottles/Jars - Clear	8.6	30	Computer Monitors	10
#2 HDPE Bottles/Jars - Color	5.7	20	Computer Equipment/Peripherals	20
#2 Other HDPE Containers	<1	<5	Electronic Equipment	50
#6 Exp. Polystyrene Packaging	17.2	60	White Goods - Refrigerated	40
#3-#7 Other - All	14.3	50	White Goods - Not refrigerated	80
Other Rigid Plastic Products	57.2	200	Lead-acid Batteries	60
Grocery & Merchandise Bags	11.4	40	Other Household Batteries	20
Trash Bags	34.3	120	Tires	90
Commercial & Industrial Film	31.4	110	Household Bulky Items	220
Other Film	60.0	210	Fluorescent Lights/Ballasts	<1
Other Plastic	31.4	110		
			Textiles	360
			Carpet	90
			Carpet Padding	20
			Clothing	160
			Other Textiles	90
Glass	88.6	310		
Recyclable Glass Bottles & Jars	68.6	240	Household Hazardous Waste	100
Flat Glass	11.4	40		
Other Glass	8.6	30		
Metal	122.9	430	463.1	1,620
Aluminum Beverage Containers	14.3	50	Construction and Demolition Debris (C&D)	1,620
Other Aluminum	8.6	30		
Ferrous Containers (Tin Cans)	22.9	80	Total MSW (tons)	8,830
			Total MSW (pounds/person/day)	6.91

Calhoun County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	399.9	1,000	Metal	
Newsprint	16.0	40	Other Ferrous	52.0
High Grade Office Paper	24.0	60	Other Non-Ferrous	8.0
Magazines/Catalogs	32.0	80	Other Metal	16.0
Uncoated OCC/Kraft	136.0	340		
Boxboard	56.0	140	Organics	567.9
Mixed Paper - Recyclable	52.0	130	Yard Waste - Compostable	116.0
Compostable Paper	72.0	180	Yard Waste - Woody	24.0
Other Paper	12.0	30	Food Scraps	303.9
			Bottom Fines & Dirt	44.0
			Diapers	36.0
			Other Organic	44.0
Beverage Containers	4.0	10		
Milk & Juice Cartons/Boxes - Coated	4.0	10		
Plastic	299.9	750	Inorganics	180.0
#1 PET Bottles/Jars	20.0	50	Televisions	4.0
#1 Other PET Containers	4.0	10	Computer Monitors	4.0
#2 HDPE Bottles/Jars - Clear	12.0	30	Computer Equipment/Peripherals	8.0
#2 HDPE Bottles/Jars - Color	8.0	20	Electronic Equipment	16.0
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	12.0
#6 Exp. Polystyrene Packaging	20.0	50	White Goods - Not refrigerated	24.0
#3-#7 Other - All	12.0	30	Lead-acid Batteries	20.0
Other Rigid Plastic Products	56.0	140	Other Household Batteries	4.0
Grocery & Merchandise Bags	12.0	30	Tires	24.0
Trash Bags	32.0	80	Household Bulky Items	64.0
Commercial & Industrial Film	32.0	80	Fluorescent Lights/Ballasts	<0.1
Other Film	60.0	150		
Other Plastic	32.0	80	Textiles	104.0
			Carpet	24.0
			Carpet Padding	8.0
			Clothing	44.0
			Other Textiles	28.0
Glass	88.0	220	Household Hazardous Waste	24.0
Recyclable Glass Bottles & Jars	68.0	170		
Flat Glass	12.0	30	Construction and Demolition Debris (C&D)	599.9
Other Glass	8.0	20		
Metal	124.0	310		
Aluminum Beverage Containers	16.0	40		
Other Aluminum	8.0	20		
Ferrous Containers (Tin Cans)	24.0	60		
			Total MSW (tons)	5,980
			Total MSW (pounds/person/day)	6.55

Carroll County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	546.8	4,140	589.1	4,460
Newsprint	64.7	490	Other Ferrous	390
High Grade Office Paper	29.1	220	Other Non-Ferrous	70
Magazines/Catalogs	35.7	270	Other Metal	120
Uncoated OCC/Kraft	225.9	1,710		
Boxboard	54.2	410	Organics	4,460
Mixed Paper - Recyclable	52.8	400	Yard Waste - Compostable	890
Compostable Paper	72.6	550	Yard Waste - Woody	180
Other Paper	11.9	90	Food Scraps	2,450
			Bottom Fines & Dirt	340
Beverage Containers	6.6	50	Diapers	280
Milk & Juice Cartons/Boxes - Coated	6.6	50	Other Organic	320
Plastic	311.7	2,360	175.7	1,330
#1 PET Bottles/Jars	23.8	180	Inorganics	1,330
#1 Other PET Containers	6.6	50	Televisions	40
#2 HDPE Bottles/Jars - Clear	11.9	90	Computer Monitors	20
#2 HDPE Bottles/Jars - Color	10.6	80	Computer Equipment/Peripherals	50
#2 Other HDPE Containers	1.3	10	Electronic Equipment	110
#6 Exp. Polystyrene Packaging	18.5	140	White Goods - Refrigerated	80
#3-#7 Other - All	13.2	100	White Goods - Not refrigerated	180
Other Rigid Plastic Products	58.1	440	Lead-acid Batteries	140
Grocery & Merchandise Bags	11.9	90	Other Household Batteries	30
Trash Bags	33.0	250	Tires	200
Commercial & Industrial Film	59.4	450	Household Bulky Items	480
Other Film	30.4	230	Fluorescent Lights/Ballasts	<1
Other Plastic				
			Textiles	790
Glass	85.9	650	Carpet	190
Recyclable Glass Bottles & Jars	67.4	510	Carpet Padding	50
Flat Glass	10.6	80	Clothing	350
Other Glass	7.9	60	Other Textiles	200
Metal	124.2	940	23.8	180
Aluminum Beverage Containers	15.8	120	Household Hazardous Waste	180
Other Aluminum	9.2	70		
Ferrous Containers (Tin Cans)	22.5	170	Construction and Demolition Debris (C&D)	3,540
			Total MSW (tons)	18,440
			Total MSW (pounds/person/day)	6.67

2014 population 15,142

Cass County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	655.1	4,430	51.8	350
Newsprint	51.8	350	Other Ferrous	350
High Grade Office Paper	45.8	310	Other Non-Ferrous	60
Magazines/Catalogs	29.6	200	Other Metal	110
Uncoated OCC/Kraft	335.7	2,270		
Boxboard	54.7	370	Organics	3,800
Mixed Paper - Recyclable	53.2	360	Yard Waste - Compostable	790
Compostable Paper	72.5	490	Yard Waste - Woody	160
Other Paper	11.8	80	Food Scraps	2,010
			Bottom Fines & Dirt	310
Beverage Containers	4.4	30	Diapers	250
Milk & Juice Cartons/Boxes - Coated	4.4	30	Other Organic	280
Plastic	295.7	2,000	Inorganics	1,180
#1 PET Bottles/Jars	17.7	120	Televisions	30
#1 Other PET Containers	4.4	30	Computer Monitors	20
#2 HDPE Bottles/Jars - Clear	8.9	60	Computer Equipment/Peripherals	30
#2 HDPE Bottles/Jars - Color	8.9	60	Electronic Equipment	50
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	100
#6 Exp. Polystyrene Packaging	19.2	130	White Goods - Not refrigerated	70
#3-#7 Other - All	13.3	90	Lead-acid Batteries	160
Other Rigid Plastic Products	57.7	390	Other Household Batteries	120
Grocery & Merchandise Bags	11.8	80	Tires	30
Trash Bags	34.0	230	Household Bulky Items	170
Commercial & Industrial Film	31.1	210	Fluorescent Lights/Ballasts	430
Other Film	59.1	400		<1
Other Plastic	29.6	200	Textiles	670
			Carpet	170
Glass	85.8	580	Carpet Padding	170
Recyclable Glass Bottles & Jars	68.0	460	Clothing	40
Flat Glass	10.4	70	Other Textiles	290
Other Glass	7.4	50		170
			Household Hazardous Waste	170
Metal	122.7	830		
Aluminum Beverage Containers	14.8	100	Construction and Demolition Debris (C&D)	3,150
Other Aluminum	8.9	60		
Ferrous Containers (Tin Cans)	22.2	150	Total MSW (tons)	16,840
			Total MSW (pounds/person/day)	6.82

2014 population

13,525

Champaign County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	654.2	66,770		
Newsprint	50.6	5,160	51.2	5,230
High Grade Office Paper	47.5	4,850	9.0	920
Magazines/Catalogs	29.0	2,960	15.9	1,620
Uncoated OCC/Kraft	333.8	34,070		
Boxboard	54.6	5,570		
Mixed Paper - Recyclable	53.2	5,430		
Compostable Paper	73.1	7,460		
Other Paper	12.4	1,270		
Beverage Containers	5.1	520		
Milk & Juice Cartons/Boxes - Coated	5.1	520		
Plastic	301.7	30,790	175.1	17,870
#1 PET Bottles/Jars	20.1	2,050	5.0	510
#1 Other PET Containers	5.7	580	3.1	320
#2 HDPE Bottles/Jars - Clear	10.2	1,040	7.1	720
#2 HDPE Bottles/Jars - Color	9.4	960	14.5	1,480
#2 Other HDPE Containers	0.7	70	10.4	1,060
#6 Exp. Polystyrene Packaging	18.4	1,880	23.1	2,360
#3-#7 Other - All	13.1	1,340	18.2	1,860
Other Rigid Plastic Products	58.0	5,920	4.3	440
Grocery & Merchandise Bags	11.5	1,170	25.8	2,630
Trash Bags	33.5	3,420	63.1	6,440
Commercial & Industrial Film	32.3	3,300	0.5	50
Other Film	58.8	6,000		
Other Plastic	30.0	3,060		
Glass	85.8	8,760	101.6	10,370
Recyclable Glass Bottles & Jars	68.1	6,950	24.5	2,500
Flat Glass	10.0	1,020	6.7	680
Other Glass	7.7	790	44.6	4,550
Metal	123.1	12,560	26.9	2,750
Aluminum Beverage Containers	15.4	1,570		
Other Aluminum	8.7	890		
Ferrous Containers (Tin Cans)	22.8	2,330		
Construction and Demolition Debris (C&D)			596.6	60,900
Total MSW (tons)				270,520
Total MSW (pounds/person/day)				7.26

Christian County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	604.3	10,490	51.3	890
Newsprint	75.5	1,310	Other Ferrous	160
High Grade Office Paper	34.6	600	Other Non-Ferrous	280
Magazines/Catalogs	32.8	570	Other Metal	
Uncoated OCC/Kraft	267.9	4,650		
Boxboard	54.7	950	Organics	9,750
Mixed Paper - Recyclable	53.0	920	Yard Waste - Compostable	2,040
Compostable Paper	73.2	1,270	Yard Waste - Woody	400
Other Paper	12.7	220	Food Scraps	5,150
			Bottom Fines & Dirt	790
Beverage Containers	4.6	80	Diapers	640
Milk & Juice Cartons/Boxes - Coated	4.6	80	Other Organic	730
Plastic	292.7	5,080	Inorganics	3,050
#1 PET Bottles/Jars	18.4	320	Televisions	90
#1 Other PET Containers	5.2	90	Computer Monitors	60
#2 HDPE Bottles/Jars - Clear	9.2	160	Computer Equipment/Peripherals	120
#2 HDPE Bottles/Jars - Color	8.6	150	Electronic Equipment	250
#2 Other HDPE Containers	0.6	10	White Goods - Refrigerated	180
#6 Exp. Polystyrene Packaging	17.9	310	White Goods - Not refrigerated	400
#3-#7 Other - All	13.3	230	Lead-acid Batteries	320
Other Rigid Plastic Products	58.2	1,010	Other Household Batteries	80
Grocery & Merchandise Bags	10.9	190	Tires	450
Trash Bags	33.4	580	Household Bulky Items	1,090
Commercial & Industrial Film	30.0	520	Fluorescent Lights/Ballasts	10
Other Film	58.8	1,020		
Other Plastic	28.2	490	Textiles	1,670
			Carpet	420
Glass	84.7	1,470	Carpet Padding	110
Recyclable Glass Bottles & Jars	67.4	1,170	Clothing	720
Flat Glass	9.8	170	Other Textiles	420
Other Glass	7.5	130		
			Household Hazardous Waste	470
Metal	123.9	2,150	Construction and Demolition Debris (C&D)	8,020
Aluminum Beverage Containers	15.6	270		
Other Aluminum	8.6	150	Total MSW (tons)	42,230
Ferrous Containers (Tin Cans)	23.0	400	Total MSW (pounds/person/day)	6.67

2014 population 34,715

Clark County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	515.9	4,180	Metal	
Newsprint	32.1	260	Other Ferrous	420
High Grade Office Paper	30.9	250	Other Non-Ferrous	70
Magazines/Catalogs	32.1	260	Other Metal	130
Uncoated OCC/Kraft	228.3	1,850		
Boxboard	54.3	440	Organics	4,670
Mixed Paper - Recyclable	53.1	430	Yard Waste - Compostable	950
Compostable Paper	72.8	590	Yard Waste - Woody	190
Other Paper	12.3	100	Food Scraps	2,520
			Bottom Fines & Dirt	370
Beverage Containers	4.9	40	Diapers	300
Milk & Juice Cartons/Boxes - Coated	4.9	40	Other Organic	340
Plastic	307.3	2,490	Inorganics	1,430
#1 PET Bottles/Jars	21.0	170	Televisions	40
#1 Other PET Containers	6.2	50	Computer Monitors	30
#2 HDPE Bottles/Jars - Clear	11.1	90	Computer Equipment/Peripherals	60
#2 HDPE Bottles/Jars - Color	9.9	80	Electronic Equipment	120
#2 Other HDPE Containers	1.2	10	White Goods - Refrigerated	80
#6 Exp. Polystyrene Packaging	18.5	150	White Goods - Not refrigerated	190
#3-#7 Other - All	12.3	100	Lead-acid Batteries	150
Other Rigid Plastic Products	58.0	470	Other Household Batteries	40
Grocery & Merchandise Bags	12.3	100	Tires	210
Trash Bags	33.3	270	Household Bulky Items	510
Commercial & Industrial Film	33.3	270	Fluorescent Lights/Ballasts	<1
Other Film	59.2	480		
Other Plastic	30.9	250	Textiles	830
			Carpet	200
Glass	85.2	690	Carpet Padding	50
Recyclable Glass Bottles & Jars	67.9	550	Clothing	370
Flat Glass	9.9	80	Other Textiles	210
Other Glass	7.4	60		
			Household Hazardous Waste	210
Metal	122.2	990	Construction and Demolition Debris (C&D)	3,780
Aluminum Beverage Containers	14.8	120	Total MSW (tons)	19,310
Other Aluminum	8.6	70	Total MSW (pounds/person/day)	6.53
Ferrous Containers (Tin Cans)	22.2	180		

2014 population 16,205

Clay County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	545.7	3,750	558.8	3,840
Newsprint	16.0	110	Other Ferrous	50.9
High Grade Office Paper	39.3	270	Other Non-Ferrous	8.7
Magazines/Catalogs	30.6	210	Other Metal	16.0
Uncoated OCC/Kraft	264.9	1,820	Organics	558.8
Boxboard	55.3	380	Yard Waste - Compostable	117.9
Mixed Paper - Recyclable	53.8	370	Yard Waste - Woody	23.3
Compostable Paper	72.8	500	Food Scraps	294.0
Other Paper	13.1	90	Bottom Fines & Dirt	45.1
Beverage Containers	4.4	30	Diapers	36.4
Milk & Juice Cartons/Boxes - Coated	4.4	30	Other Organic	42.2
Plastic	289.6	1,990	Inorganics	174.6
#1 PET Bottles/Jars	18.9	130	Televisions	4.4
#1 Other PET Containers	5.8	40	Computer Monitors	2.9
#2 HDPE Bottles/Jars - Clear	8.7	60	Computer Equipment/Peripherals	7.3
#2 HDPE Bottles/Jars - Color	8.7	60	Electronic Equipment	14.6
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	10.2
#6 Exp. Polystyrene Packaging	18.9	130	White Goods - Not refrigerated	23.3
#3-#7 Other - All	13.1	90	Lead-acid Batteries	18.9
Other Rigid Plastic Products	58.2	400	Other Household Batteries	4.4
Grocery & Merchandise Bags	10.2	70	Tires	26.2
Trash Bags	33.5	230	Household Bulky Items	62.6
Commercial & Industrial Film	29.1	200	Fluorescent Lights/Ballasts	<0.1
Other Film	58.2	400	Textiles	94.6
Other Plastic	26.2	180	Carpet	24.7
Glass	84.4	580	Carpet Padding	7.3
Recyclable Glass Bottles & Jars	66.9	460	Clothing	39.3
Flat Glass	10.2	70	Other Textiles	23.3
Other Glass	7.3	50	Household Hazardous Waste	24.7
Metal	123.7	850	Construction and Demolition Debris (C&D)	458.4
Aluminum Beverage Containers	16.0	110	Total MSW (tons)	16,210
Other Aluminum	8.7	60	Total MSW (pounds/person/day)	6.46
Ferrous Containers (Tin Cans)	23.3	160		

2014 population 13,743

Clinton County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	620.2	11,830	580.4	11,070
Newsprint	58.2	1,110	51.4	980
High Grade Office Paper	50.3	960	8.9	170
Magazines/Catalogs	29.9	570	15.7	300
Uncoated OCC/Kraft	288.4	5,500		
Boxboard	54.5	1,040		
Mixed Paper - Recyclable	53.5	1,020		
Compostable Paper	72.9	1,390		
Other Paper	12.6	240		
Beverage Containers	5.2	100		
Milk & Juice Cartons/Boxes - Coated	5.2	100		800
Plastic	325.6	6,210	175.6	3,350
#1 PET Bottles/Jars	20.4	390	5.2	100
#1 Other PET Containers	5.8	110	3.1	60
#2 HDPE Bottles/Jars - Clear	10.5	200	7.3	140
#2 HDPE Bottles/Jars - Color	9.4	180	14.7	280
#2 Other HDPE Containers	0.5	10	10.5	200
#6 Exp. Polystyrene Packaging	18.9	360	23.1	440
#3-#7 Other - All	13.1	250	18.4	350
Other Rigid Plastic Products	58.2	1,110	4.2	80
Grocery & Merchandise Bags	15.2	290	25.7	490
Trash Bags	33.6	640	62.9	1,200
Commercial & Industrial Film	42.5	810	0.5	10
Other Film	58.7	1,120		
Other Plastic	38.8	740		
Glass	85.5	1,630	124.3	2,370
Recyclable Glass Bottles & Jars	67.6	1,290	24.6	470
Flat Glass	10.0	190	6.8	130
Other Glass	7.9	150	58.7	1,120
Metal	123.2	2,350	26.7	510
Aluminum Beverage Containers	15.2	290		
Other Aluminum	8.9	170		
Ferrous Containers (Tin Cans)	23.1	440		
Household Hazardous Waste				
Construction and Demolition Debris (C&D)				
Total MSW (tons)				51,120
Total MSW (pounds/person/day)				7.34

2014 population 38,147

Coles County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	669.1	17,990		
Newsprint	40.2	1,080	51.3	1,380
High Grade Office Paper	46.5	1,250	8.9	240
Magazines/Catalogs	29.4	790	16.0	430
Uncoated OCC/Kraft	360.0	9,680		
Boxboard	54.7	1,470		
Mixed Paper - Recyclable	53.2	1,430		
Compostable Paper	72.9	1,960		
Other Paper	12.3	330		
Beverage Containers	4.1	110		
Milk & Juice Cartons/Boxes - Coated	4.1	110		
Plastic	277.1	7,450		
#1 PET Bottles/Jars	16.4	440		
#1 Other PET Containers	4.5	120		
#2 HDPE Bottles/Jars - Clear	8.2	220		
#2 HDPE Bottles/Jars - Color	7.8	210		
#2 Other HDPE Containers	0.4	10		
#6 Exp. Polystyrene Packaging	18.6	500		
#3-#7 Other - All	13.4	360		
Other Rigid Plastic Products	58.0	1,560		
Grocery & Merchandise Bags	8.9	240		
Trash Bags	33.5	900		
Commercial & Industrial Film	25.3	680		
Other Film	58.8	1,580		
Other Plastic	23.4	630		
Glass	85.9	2,310		
Recyclable Glass Bottles & Jars	68.1	1,830		
Flat Glass	10.0	270		
Other Glass	7.8	210		
Metal	122.7	3,300		
Aluminum Beverage Containers	15.2	410		
Other Aluminum	8.6	230		
Ferrous Containers (Tin Cans)	22.7	610		
Other				
Metal				
Other Ferrous				
Other Non-Ferrous				
Other Metal				
Organics	555.3	14,930		
Yard Waste - Compostable	117.5	3,160		
Yard Waste - Woody	23.1	620		
Food Scraps	290.1	7,800		
Bottom Fines & Dirt	45.4	1,220		
Diapers	37.2	1,000		
Other Organic	42.0	1,130		
Inorganics	175.5	4,720		
Televisions	5.2	140		
Computer Monitors	3.3	90		
Computer Equipment/Peripherals	7.1	190		
Electronic Equipment	14.5	390		
White Goods - Refrigerated	10.4	280		
White Goods - Not refrigerated	23.1	620		
Lead-acid Batteries	18.2	490		
Other Household Batteries	4.5	120		
Tires	25.7	690		
Household Bulky Items	63.2	1,700		
Fluorescent Lights/Ballasts	0.4	10		
Textiles	85.9	2,310		
Carpet	24.5	660		
Carpet Padding	6.7	180		
Clothing	34.6	930		
Other Textiles	20.1	540		
Household Hazardous Waste	26.8	720		
Construction and Demolition Debris (C&D)	454.1	12,210		
Total MSW (tons)				
Total MSW (pounds/person/day)				

Cook County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)		County Generation (lb/c/yr)	Total Generation (tons)
Paper	799.6	2,096,500	Metal		
Newsprint	103.5	271,450	Other Ferrous	51.2	134,320
High Grade Office Paper	51.3	134,410	Other Non-Ferrous	9.1	23,740
Magazines/Catalogs	28.1	73,720	Other Metal	15.9	41,680
Uncoated OCC/Kraft	423.4	1,110,180			
Boxboard	54.6	143,090	Organics	596.1	1,562,990
Mixed Paper - Recyclable	53.2	139,610	Yard Waste - Compostable	117.4	307,830
Compostable Paper	73.0	191,520	Yard Waste - Woody	23.2	60,890
Other Paper	12.4	32,520	Food Scraps	331.2	868,330
			Bottom Fines & Dirt	45.2	118,590
Beverage Containers	5.7	14,910	Diapers	37.1	97,150
Milk & Juice Cartons/Boxes - Coated	5.7	14,910	Other Organic	42.0	110,200
Plastic	314.7	825,050	Inorganics	175.2	459,260
#1 PET Bottles/Jars	22.5	59,040	Televisions	5.0	13,180
#1 Other PET Containers	6.3	16,550	Computer Monitors	3.2	8,320
#2 HDPE Bottles/Jars - Clear	11.4	29,850	Computer Equipment/Peripherals	7.1	18,610
#2 HDPE Bottles/Jars - Color	10.5	27,570	Electronic Equipment	14.5	37,890
#2 Other HDPE Containers	0.7	1,930	White Goods - Refrigerated	10.4	27,200
#6 Exp. Polystyrene Packaging	18.4	48,160	White Goods - Not refrigerated	23.1	60,630
#3-#7 Other - All	13.0	34,190	Lead-acid Batteries	18.2	47,820
Other Rigid Plastic Products	58.0	151,990	Other Household Batteries	4.3	11,350
Grocery & Merchandise Bags	12.7	33,190	Tires	25.8	67,670
Trash Bags	33.5	87,820	Household Bulky Items	63.1	165,400
Commercial & Industrial Film	35.7	93,490	Fluorescent Lights/Ballasts	0.5	1,190
Other Film	58.8	154,110			
Other Plastic	33.2	87,160	Textiles	108.6	284,630
			Carpet	24.5	64,130
Glass	86.0	225,350	Carpet Padding	6.6	17,350
Recyclable Glass Bottles & Jars	68.1	178,660	Clothing	49.1	128,650
Flat Glass	10.0	26,310	Other Textiles	28.4	74,500
Other Glass	7.8	20,380			
			Household Hazardous Waste	26.9	70,430
Metal	123.1	322,740	Construction and Demolition Debris (C&D)	1102.3	2,890,010
Aluminum Beverage Containers	15.4	40,330			
Other Aluminum	8.7	22,820	Total MSW (tons)		8,751,870
Ferrous Containers (Tin Cans)	22.8	59,850	Total MSW (pounds/person/day)		9.15

Crawford County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	639.3	6,260	51.1	500
Newsprint	57.2	560	Other Ferrous	90
High Grade Office Paper	43.9	430	Other Non-Ferrous	160
Magazines/Catalogs	31.7	310	Other Metal	
Uncoated OCC/Kraft	313.5	3,070		
Boxboard	54.1	530	Organics	5,540
Mixed Paper - Recyclable	53.1	520	Yard Waste - Compostable	1,150
Compostable Paper	73.5	720	Yard Waste - Woody	230
Other Paper	12.3	120	Food Scraps	2,950
			Bottom Fines & Dirt	440
Beverage Containers	5.1	50	Diapers	360
Milk & Juice Cartons/Boxes - Coated	5.1	50	Other Organic	410
Plastic	298.2	2,920	174.6	1,710
#1 PET Bottles/Jars	19.4	190	Inorganics	
#1 Other PET Containers	5.1	50	Televisions	50
#2 HDPE Bottles/Jars - Clear	10.2	100	Computer Monitors	30
#2 HDPE Bottles/Jars - Color	9.2	90	Computer Equipment/Peripherals	70
#2 Other HDPE Containers	1.0	10	Electronic Equipment	140
#6 Exp. Polystyrene Packaging	18.4	180	White Goods - Refrigerated	100
#3-#7 Other - All	13.3	130	White Goods - Not refrigerated	230
Other Rigid Plastic Products	58.2	570	Lead-acid Batteries	180
Grocery & Merchandise Bags	11.2	110	Other Household Batteries	40
Trash Bags	33.7	330	Tires	250
Commercial & Industrial Film	30.6	300	Household Bulky Items	620
Other Film	59.2	580	Fluorescent Lights/Ballasts	<1
Other Plastic	28.6	280		
			Textiles	960
Glass	86.8	850	Carpet	240
Recyclable Glass Bottles & Jars	68.4	670	Carpet Padding	60
Flat Glass	10.2	100	Clothing	420
Other Glass	8.2	80	Other Textiles	240
			Household Hazardous Waste	280
Metal	123.6	1,210		
Aluminum Beverage Containers	15.3	150	Construction and Demolition Debris (C&D)	4,540
Other Aluminum	9.2	90		
Ferrous Containers (Tin Cans)	22.5	220	Total MSW (tons)	24,320
			Total MSW (pounds/person/day)	6.80

2014 population 19,585

Cumberland County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	495.4	2,780	Metal	
Newsprint	53.5	300	Other Ferrous	51.7
High Grade Office Paper	23.2	130	Other Non-Ferrous	8.9
Magazines/Catalogs	42.8	240	Other Metal	16.0
Uncoated OCC/Kraft	181.8	1,020		
Boxboard	55.2	310	Organics	563.1
Mixed Paper - Recyclable	53.5	300	Yard Waste - Compostable	117.6
Compostable Paper	73.1	410	Yard Waste - Woody	23.2
Other Paper	12.5	70	Food Scraps	297.6
			Bottom Fines & Dirt	44.5
Beverage Containers	5.3	30	Diapers	37.4
Milk & Juice Cartons/Boxes - Coated	5.3	30	Other Organic	42.8
Plastic	295.8	1,660	Inorganics	172.8
#1 PET Bottles/Jars	19.6	110	Televisions	5.3
#1 Other PET Containers	5.3	30	Computer Monitors	3.6
#2 HDPE Bottles/Jars - Clear	8.9	50	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	8.9	50	Electronic Equipment	14.3
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	10.7
#6 Exp. Polystyrene Packaging	17.8	100	White Goods - Not refrigerated	23.2
#3-#7 Other - All	14.3	80	Lead-acid Batteries	17.8
Other Rigid Plastic Products	58.8	330	Other Household Batteries	3.6
Grocery & Merchandise Bags	10.7	60	Tires	24.9
Trash Bags	33.9	190	Household Bulky Items	62.4
Commercial & Industrial Film	30.3	170	Fluorescent Lights/Ballasts	<0.1
Other Film	58.8	330		
Other Plastic	28.5	160	Textiles	99.8
			Carpet	24.9
Glass	85.5	480	Carpet Padding	7.1
Recyclable Glass Bottles & Jars	67.7	380	Clothing	42.8
Flat Glass	10.7	60	Other Textiles	24.9
Other Glass	7.1	40		
			Household Hazardous Waste	24.9
Metal	124.7	700		
Aluminum Beverage Containers	16.0	90	Construction and Demolition Debris (C&D)	463.3
Other Aluminum	8.9	50		
Ferrous Containers (Tin Cans)	23.2	130	Total MSW (tons)	13,080
			Total MSW (pounds/person/day)	6.39

DeKalb County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	507.0	26,790	580.3	30,660
Newsprint	71.7	3,790	Other Ferrous	51.3
High Grade Office Paper	50.3	2,660	Other Non-Ferrous	9.1
Magazines/Catalogs	30.7	1,620	Other Metal	15.9
Uncoated OCC/Kraft	161.1	8,510		
Boxboard	54.5	2,880	Organics	580.3
Mixed Paper - Recyclable	53.2	2,810	Yard Waste - Compostable	117.3
Compostable Paper	73.1	3,860	Yard Waste - Woody	23.3
Other Paper	12.5	660	Food Scraps	315.3
			Bottom Fines & Dirt	45.2
Beverage Containers	4.9	260	Diapers	37.1
Milk & Juice Cartons/Boxes - Coated	4.9	260	Other Organic	42.0
Plastic	306.4	16,190	Inorganics	175.1
#1 PET Bottles/Jars	19.5	1,030	Televisions	5.1
#1 Other PET Containers	5.5	290	Computer Monitors	3.2
#2 HDPE Bottles/Jars - Clear	9.8	520	Computer Equipment/Peripherals	7.2
#2 HDPE Bottles/Jars - Color	9.1	480	Electronic Equipment	14.4
#2 Other HDPE Containers	0.6	30	White Goods - Refrigerated	10.4
#6 Exp. Polystyrene Packaging	18.4	970	White Goods - Not refrigerated	23.1
#3-#7 Other - All	13.1	690	Lead-acid Batteries	18.2
Other Rigid Plastic Products	57.9	3,060	Other Household Batteries	4.4
Grocery & Merchandise Bags	12.5	660	Tires	25.7
Trash Bags	33.5	1,770	Household Bulky Items	63.0
Commercial & Industrial Film	35.2	1,860	Fluorescent Lights/Ballasts	0.4
Other Film	58.9	3,110		
Other Plastic	32.6	1,720	Textiles	110.0
			Carpet	24.4
Glass	85.9	4,540	Carpet Padding	6.6
Recyclable Glass Bottles & Jars	68.1	3,600	Clothing	50.0
Flat Glass	10.0	530	Other Textiles	29.0
Other Glass	7.8	410		
			Household Hazardous Waste	26.5
Metal	123.2	6,510	Construction and Demolition Debris (C&D)	639.1
Aluminum Beverage Containers	15.3	810		
Other Aluminum	8.7	460	Total MSW (tons)	135,180
Ferrous Containers (Tin Cans)	22.9	1,210	Total MSW (pounds/person/day)	7.01

DeWitt County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	466.3	3,890	Metal	
Newsprint	49.1	410	Other Ferrous	51.5
High Grade Office Paper	50.3	420	Other Non-Ferrous	9.6
Magazines/Catalogs	31.2	260	Other Metal	15.6
Uncoated OCC/Kraft	142.6	1,190		
Boxboard	55.1	460	Organics	587.3
Mixed Paper - Recyclable	52.7	440	Yard Waste - Compostable	117.5
Compostable Paper	73.1	610	Yard Waste - Woody	22.8
Other Paper	12.0	100	Food Scraps	322.4
			Bottom Fines & Dirt	45.5
Beverage Containers	6.0	50	Diapers	37.2
Milk & Juice Cartons/Boxes - Coated	6.0	50	Other Organic	42.0
Plastic	315.2	2,630	Inorganics	176.2
#1 PET Bottles/Jars	21.6	180	Televisions	4.8
#1 Other PET Containers	6.0	50	Computer Monitors	3.6
#2 HDPE Bottles/Jars - Clear	10.8	90	Computer Equipment/Peripherals	7.2
#2 HDPE Bottles/Jars - Color	10.8	90	Electronic Equipment	14.4
#2 Other HDPE Containers	1.2	10	White Goods - Refrigerated	10.8
#6 Exp. Polystyrene Packaging	18.0	150	White Goods - Not refrigerated	22.8
#3-#7 Other - All	14.4	120	Lead-acid Batteries	18.0
Other Rigid Plastic Products	57.5	480	Other Household Batteries	4.8
Grocery & Merchandise Bags	13.2	110	Tires	26.4
Trash Bags	33.6	280	Household Bulky Items	63.5
Commercial & Industrial Film	36.0	300	Fluorescent Lights/Ballasts	<0.1
Other Film	58.7	490		
Other Plastic	33.6	280	Textiles	110.3
			Carpet	24.0
Glass	85.1	710	Carpet Padding	7.2
Recyclable Glass Bottles & Jars	68.3	570	Clothing	50.3
Flat Glass	9.6	80	Other Textiles	28.8
Other Glass	7.2	60		
			Household Hazardous Waste	25.2
Metal	123.5	1,030		
Aluminum Beverage Containers	15.6	130	Construction and Demolition Debris (C&D)	602.9
Other Aluminum	8.4	70		
Ferrous Containers (Tin Cans)	22.8	190	Total MSW (tons)	20,840
			Total MSW (pounds/person/day)	6.84

2014 population 16,686

Douglas County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	632.3	6,350	Metal	
Newsprint	56.8	570	Other Ferrous	510
High Grade Office Paper	50.8	510	Other Non-Ferrous	90
Magazines/Catalogs	30.9	310	Other Metal	160
Uncoated OCC/Kraft	301.7	3,030		
Boxboard	54.8	550	Organics	5,750
Mixed Paper - Recyclable	52.8	530	Yard Waste - Compostable	1,180
Compostable Paper	72.7	730	Yard Waste - Woody	230
Other Paper	11.9	120	Food Scraps	3,100
			Bottom Fines & Dirt	450
Beverage Containers	5.0	50	Diapers	370
Milk & Juice Cartons/Boxes - Coated	5.0	50	Other Organic	420
Plastic	313.7	3,150	Inorganics	1,740
#1 PET Bottles/Jars	20.9	210	Televisions	50
#1 Other PET Containers	6.0	60	Computer Monitors	30
#2 HDPE Bottles/Jars - Clear	10.0	100	Computer Equipment/Peripherals	70
#2 HDPE Bottles/Jars - Color	10.0	100	Electronic Equipment	150
#2 Other HDPE Containers	1.0	10	White Goods - Refrigerated	100
#6 Exp. Polystyrene Packaging	18.9	190	White Goods - Not refrigerated	230
#3-#7 Other - All	12.9	130	Lead-acid Batteries	180
Other Rigid Plastic Products	57.8	580	Other Household Batteries	40
Grocery & Merchandise Bags	12.9	130	Tires	260
Trash Bags	33.9	340	Household Bulky Items	630
Commercial & Industrial Film	36.8	370	Fluorescent Lights/Ballasts	<1
Other Film	58.8	590		
Other Plastic	33.9	340	Textiles	1,130
			Carpet	250
Glass	85.6	860	Carpet Padding	70
Recyclable Glass Bottles & Jars	67.7	680	Clothing	510
Flat Glass	10.0	100	Other Textiles	300
Other Glass	8.0	80		
			Household Hazardous Waste	280
Metal	122.5	1,230		
Aluminum Beverage Containers	14.9	150	Construction and Demolition Debris (C&D)	4,770
Other Aluminum	9.0	90		
Ferrous Containers (Tin Cans)	22.9	230	Total MSW (tons)	25,310
			Total MSW (pounds/person/day)	6.90

DuPage County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	1,004.0	461,610	Metal	
Newsprint	107.1	49,230	Other Ferrous	51.2
High Grade Office Paper	69.6	32,000	Other Non-Ferrous	9.0
Magazines/Catalogs	33.3	15,330	Other Metal	15.9
Uncoated OCC/Kraft	600.7	276,190		
Boxboard	54.6	25,090	Organics	641.3
Mixed Paper - Recyclable	53.2	24,480	Yard Waste - Compostable	117.4
Compostable Paper	73.1	33,590	Yard Waste - Woody	23.2
Other Paper	12.4	5,700	Food Scraps	376.4
			Bottom Fines & Dirt	45.2
Beverage Containers	7.2	3,320	Diapers	37.1
Milk & Juice Cartons/Boxes - Coated	7.2	3,320	Other Organic	42.0
Plastic	361.1	166,020	Inorganics	175.2
#1 PET Bottles/Jars	28.6	13,150	Televisions	5.0
#1 Other PET Containers	8.0	3,690	Computer Monitors	3.2
#2 HDPE Bottles/Jars - Clear	14.5	6,650	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	13.4	6,140	Electronic Equipment	14.5
#2 Other HDPE Containers	0.9	430	White Goods - Refrigerated	10.4
#6 Exp. Polystyrene Packaging	18.4	8,440	White Goods - Not refrigerated	23.1
#3-#7 Other - All	13.1	6,000	Lead-acid Batteries	18.2
Other Rigid Plastic Products	58.0	26,650	Other Household Batteries	4.3
Grocery & Merchandise Bags	18.6	8,530	Tires	25.8
Trash Bags	33.5	15,400	Household Bulky Items	63.1
Commercial & Industrial Film	52.1	23,960	Fluorescent Lights/Ballasts	0.5
Other Film	58.8	27,020		
Other Plastic	43.4	19,960	Textiles	144.6
			Carpet	24.5
Glass	85.9	39,510	Carpet Padding	6.6
Recyclable Glass Bottles & Jars	68.1	31,330	Clothing	71.9
Flat Glass	10.0	4,610	Other Textiles	41.6
Other Glass	7.8	3,570		
			Household Hazardous Waste	26.9
Metal	123.1	56,600		
Aluminum Beverage Containers	15.4	7,070	Construction and Demolition Debris (C&D)	630.1
Other Aluminum	8.7	4,000		
Ferrous Containers (Tin Cans)	22.8	10,500	Total MSW (tons)	1,470,970
			Total MSW (pounds/person/day)	8.77

Edgar County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	597.6	5,450	Metal	
Newsprint	64.0	590	Other Ferrous	470
High Grade Office Paper	40.2	370	Other Non-Ferrous	80
Magazines/Catalogs	31.5	290	Other Metal	150
Uncoated OCC/Kraft	263.8	2,430		
Boxboard	54.3	500	Organics	5,250
Mixed Paper - Recyclable	53.2	490	Yard Waste - Compostable	1,080
Compostable Paper	72.7	670	Yard Waste - Woody	210
Other Paper	11.9	110	Food Scraps	2,810
			Bottom Fines & Dirt	420
Beverage Containers	5.4	50	Diapers	340
Milk & Juice Cartons/Boxes - Coated	5.4	50	Other Organic	390
Plastic	293.1	2,700	Inorganics	1,620
#1 PET Bottles/Jars	19.5	180	Televisions	50
#1 Other PET Containers	5.4	50	Computer Monitors	30
#2 HDPE Bottles/Jars - Clear	9.8	90	Computer Equipment/Peripherals	70
#2 HDPE Bottles/Jars - Color	9.8	90	Electronic Equipment	130
#2 Other HDPE Containers	1.1	10	White Goods - Refrigerated	100
#6 Exp. Polystyrene Packaging	17.4	160	White Goods - Not refrigerated	210
#3-#7 Other - All	13.0	120	Lead-acid Batteries	170
Other Rigid Plastic Products	57.5	530	Other Household Batteries	40
Grocery & Merchandise Bags	10.9	100	Tires	240
Trash Bags	33.6	310	Household Bulky Items	580
Commercial & Industrial Film	29.3	270	Fluorescent Lights/Ballasts	<0.1
Other Film	58.6	540		
Other Plastic	27.1	250	Textiles	890
			Carpet	230
Glass	85.8	790	Carpet Padding	60
Recyclable Glass Bottles & Jars	68.4	630	Clothing	380
Flat Glass	9.8	90	Other Textiles	220
Other Glass	7.6	70		
			Household Hazardous Waste	250
Metal	122.7	1,130		
Aluminum Beverage Containers	15.2	140	Construction and Demolition Debris (C&D)	4,280
Other Aluminum	8.7	80		
Ferrous Containers (Tin Cans)	22.8	210	Total MSW (tons)	22,410
			Total MSW (pounds/person/day)	6.66

2014 population 18,425

Edwards County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	634.9	2,140	Metal	
Newsprint	65.3	220	Other Ferrous	50.4
High Grade Office Paper	35.6	120	Other Non-Ferrous	8.9
Magazines/Catalogs	29.7	100	Other Metal	14.8
Uncoated OCC/Kraft	311.5	1,050		
Boxboard	53.4	180	Organics	563.7
Mixed Paper - Recyclable	53.4	180	Yard Waste - Compostable	118.7
Compostable Paper	74.2	250	Yard Waste - Woody	23.7
Other Paper	11.9	40	Food Scraps	299.7
			Bottom Fines & Dirt	44.5
Beverage Containers	5.9	20	Diapers	35.6
Milk & Juice Cartons/Boxes - Coated	5.9	20	Other Organic	41.5
				140
Plastic	296.7	1,000	Inorganics	172.1
#1 PET Bottles/Jars	20.8	70	Televisions	5.9
#1 Other PET Containers	5.9	20	Computer Monitors	3.0
#2 HDPE Bottles/Jars - Clear	8.9	30	Computer Equipment/Peripherals	5.9
#2 HDPE Bottles/Jars - Color	8.9	30	Electronic Equipment	14.8
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	8.9
#6 Exp. Polystyrene Packaging	17.8	60	White Goods - Not refrigerated	23.7
#3-#7 Other - All	11.9	40	Lead-acid Batteries	17.8
Other Rigid Plastic Products	59.3	200	Other Household Batteries	3.0
Grocery & Merchandise Bags	11.9	40	Tires	26.7
Trash Bags	32.6	110	Household Bulky Items	62.3
Commercial & Industrial Film	29.7	100	Fluorescent Lights/Ballasts	<0.1
Other Film	59.3	200		
Other Plastic	29.7	100	Textiles	94.9
			Carpet	23.7
Glass	86.0	290	Carpet Padding	5.9
Recyclable Glass Bottles & Jars	68.2	230	Clothing	41.5
Flat Glass	8.9	30	Other Textiles	23.7
Other Glass	8.9	30		
			Household Hazardous Waste	26.7
Metal	121.6	410		
Aluminum Beverage Containers	14.8	50	Construction and Demolition Debris (C&D)	459.9
Other Aluminum	8.9	30		
Ferrous Containers (Tin Cans)	23.7	80	Total MSW (tons)	8,300
			Total MSW (pounds/person/day)	6.75

2014 population 6,741

Effingham County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	922.2	16,200		
Newsprint	77.4	1,360	Other Ferrous	51.2
High Grade Office Paper	58.1	1,020	Other Non-Ferrous	9.1
Magazines/Catalogs	32.4	570	Other Metal	15.9
Uncoated OCC/Kraft	560.7	9,850		
Boxboard	54.6	960	Organics	576.6
Mixed Paper - Recyclable	53.5	940	Yard Waste - Compostable	117.3
Compostable Paper	72.9	1,280	Yard Waste - Woody	23.3
Other Paper	12.5	220	Food Scraps	311.9
			Bottom Fines & Dirt	45.0
Beverage Containers	5.1	90	Diapers	37.0
Milk & Juice Cartons/Boxes - Coated	5.1	90	Other Organic	42.1
Plastic	309.7	5,440	Inorganics	175.3
#1 PET Bottles/Jars	19.9	350	Televisions	5.1
#1 Other PET Containers	5.7	100	Computer Monitors	3.4
#2 HDPE Bottles/Jars - Clear	10.2	180	Computer Equipment/Peripherals	6.8
#2 HDPE Bottles/Jars - Color	9.7	170	Electronic Equipment	14.2
#2 Other HDPE Containers	0.6	10	White Goods - Refrigerated	10.2
#6 Exp. Polystyrene Packaging	18.2	320	White Goods - Not refrigerated	23.3
#3-#7 Other - All	13.1	230	Lead-acid Batteries	18.2
Other Rigid Plastic Products	58.1	1,020	Other Household Batteries	4.6
Grocery & Merchandise Bags	12.5	220	Tires	25.6
Trash Bags	33.6	590	Household Bulky Items	63.2
Commercial & Industrial Film	35.9	630	Fluorescent Lights/Ballasts	0.6
Other Film	58.6	1,030		
Other Plastic	33.6	590	Textiles	109.3
			Carpet	24.5
Glass	86.5	1,520	Carpet Padding	6.8
Recyclable Glass Bottles & Jars	68.3	1,200	Clothing	49.5
Flat Glass	10.2	180	Other Textiles	28.5
Other Glass	8.0	140		
			Household Hazardous Waste	26.8
Metal	123.0	2,160		
Aluminum Beverage Containers	15.4	270	Construction and Demolition Debris (C&D)	472.5
Other Aluminum	8.5	150		
Ferrous Containers (Tin Cans)	22.8	400	Total MSW (tons)	49,310
			Total MSW (pounds/person/day)	7.69

Fayette County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	493.1	5,410	Metal	
Newsprint	29.2	320	Other Ferrous	51.0
High Grade Office Paper	27.3	300	Other Non-Ferrous	9.1
Magazines/Catalogs	28.3	310	Other Metal	15.5
Uncoated OCC/Kraft	215.1	2,360		
Boxboard	54.7	600	Organics	6,080
Mixed Paper - Recyclable	52.9	580	Yard Waste - Compostable	117.6
Compostable Paper	72.9	800	Yard Waste - Woody	22.8
Other Paper	12.8	140	Food Scraps	288.9
			Bottom Fines & Dirt	45.6
Beverage Containers	4.6	50	Diapers	37.4
Milk & Juice Cartons/Boxes - Coated	4.6	50	Other Organic	41.9
Plastic	288.0	3,160	Inorganics	174.1
#1 PET Bottles/Jars	17.3	190	Televisions	5.5
#1 Other PET Containers	4.6	50	Computer Monitors	2.7
#2 HDPE Bottles/Jars - Clear	8.2	90	Computer Equipment/Peripherals	7.3
#2 HDPE Bottles/Jars - Color	8.2	90	Electronic Equipment	14.6
#2 Other HDPE Containers	0.9	10	White Goods - Refrigerated	10.0
#6 Exp. Polystyrene Packaging	18.2	200	White Goods - Not refrigerated	22.8
#3-#7 Other - All	12.8	140	Lead-acid Batteries	18.2
Other Rigid Plastic Products	58.3	640	Other Household Batteries	4.6
Grocery & Merchandise Bags	10.9	120	Tires	25.5
Trash Bags	33.7	370	Household Bulky Items	62.9
Commercial & Industrial Film	29.2	320	Fluorescent Lights/Ballasts	<0.1
Other Film	58.3	640		
Other Plastic	27.3	300	Textiles	1,050
			Carpet	24.6
Glass	86.6	950	Carpet Padding	6.4
Recyclable Glass Bottles & Jars	68.4	750	Clothing	41.0
Flat Glass	10.0	110	Other Textiles	23.7
Other Glass	8.2	90		
			Household Hazardous Waste	310
Metal	123.1	1,350	Construction and Demolition Debris (C&D)	460.3
Aluminum Beverage Containers	15.5	170		
Other Aluminum	9.1	100	Total MSW (tons)	25,320
Ferrous Containers (Tin Cans)	22.8	250	Total MSW (pounds/person/day)	6.32

2014 population

21,942

Ford County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	597.6	4,230	576.4	4,080
Newsprint	59.3	420	50.9	360
High Grade Office Paper	35.3	250	8.5	60
Magazines/Catalogs	32.5	230	15.5	110
Uncoated OCC/Kraft	275.5	1,950		
Boxboard	55.1	390		
Mixed Paper - Recyclable	53.7	380		
Compostable Paper	73.5	520		
Other Paper	12.7	90		
Beverage Containers	5.7	40	42.4	300
Milk & Juice Cartons/Boxes - Coated	5.7	40		
Plastic	309.4	2,190	173.8	1,230
#1 PET Bottles/Jars	21.2	150	5.7	40
#1 Other PET Containers	5.7	40	2.8	20
#2 HDPE Bottles/Jars - Clear	11.3	80	7.1	50
#2 HDPE Bottles/Jars - Color	9.9	70	14.1	100
#2 Other HDPE Containers	<1	<5	9.9	70
#6 Exp. Polystyrene Packaging	18.4	130	22.6	160
#3-#7 Other - All	12.7	90	18.4	130
Other Rigid Plastic Products	57.9	410	4.2	30
Grocery & Merchandise Bags	12.7	90	25.4	180
Trash Bags	33.9	240	63.6	450
Commercial & Industrial Film	33.9	240	<0.1	<1
Other Film	59.3	420		
Other Plastic	32.5	230		
Glass	86.2	610	104.5	740
Recyclable Glass Bottles & Jars	67.8	480	24.0	170
Flat Glass	9.9	70	7.1	50
Other Glass	8.5	60	46.6	330
			26.8	190
Metal	121.5	860	24.0	170
Aluminum Beverage Containers	15.5	110		
Other Aluminum	8.5	60		
Ferrous Containers (Tin Cans)	22.6	160		
Construction and Demolition Debris (C&D)			600.5	4,250
Total MSW (tons)				18,400
Total MSW (pounds/person/day)				7.12

2014 population 14,156

Franklin County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	507.2	10,070	Metal	
Newsprint	64.0	1,270	Other Ferrous	51.4
High Grade Office Paper	24.2	480	Other Non-Ferrous	9.1
Magazines/Catalogs	29.7	590	Other Metal	16.1
Uncoated OCC/Kraft	195.9	3,890		
Boxboard	54.4	1,080	Organics	548.0
Mixed Paper - Recyclable	53.4	1,060	Yard Waste - Compostable	117.4
Compostable Paper	73.0	1,450	Yard Waste - Woody	23.2
Other Paper	12.6	250	Food Scraps	283.1
			Bottom Fines & Dirt	45.3
Beverage Containers	4.0	80	Diapers	37.3
Milk & Juice Cartons/Boxes - Coated	4.0	80	Other Organic	41.8
Plastic	281.6	5,590	Inorganics	175.3
#1 PET Bottles/Jars	16.6	330	Televisions	5.0
#1 Other PET Containers	4.5	90	Computer Monitors	3.0
#2 HDPE Bottles/Jars - Clear	8.6	170	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	7.6	150	Electronic Equipment	14.6
#2 Other HDPE Containers	0.5	10	White Goods - Refrigerated	10.6
#6 Exp. Polystyrene Packaging	18.6	370	White Goods - Not refrigerated	23.2
#3-#7 Other - All	13.1	260	Lead-acid Batteries	18.1
Other Rigid Plastic Products	57.9	1,150	Other Household Batteries	4.5
Grocery & Merchandise Bags	9.6	190	Tires	25.7
Trash Bags	33.2	660	Household Bulky Items	63.0
Commercial & Industrial Film	27.2	540	Fluorescent Lights/Ballasts	0.5
Other Film	58.9	1,170		
Other Plastic	25.2	500	Textiles	90.7
			Carpet	24.7
Glass	85.6	1,700	Carpet Padding	6.5
Recyclable Glass Bottles & Jars	68.0	1,350	Clothing	37.8
Flat Glass	10.1	200	Other Textiles	21.7
Other Glass	7.6	150		
			Household Hazardous Waste	26.7
Metal	123.4	2,450		
Aluminum Beverage Containers	15.6	310	Construction and Demolition Debris (C&D)	456.8
Other Aluminum	8.6	170		
Ferrous Containers (Tin Cans)	22.7	450	Total MSW (tons)	45,650
			Total MSW (pounds/person/day)	6.30

Fulton County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	504.4	9,270	Metal	
Newsprint	64.2	1,180	Other Ferrous	51.1
High Grade Office Paper	23.9	440	Other Non-Ferrous	9.3
Magazines/Catalogs	31.6	580	Other Metal	15.8
Uncoated OCC/Kraft	191.5	3,520		
Boxboard	54.4	1,000	Organics	553.9
Mixed Paper - Recyclable	53.3	980	Yard Waste - Compostable	117.5
Compostable Paper	72.9	1,340	Yard Waste - Woody	23.4
Other Paper	12.5	230	Food Scraps	288.9
			Bottom Fines & Dirt	45.2
Beverage Containers	4.4	80	Diapers	37.0
Milk & Juice Cartons/Boxes - Coated	4.4	80	Other Organic	41.9
				770
Plastic	288.9	5,310	Inorganics	175.2
#1 PET Bottles/Jars	17.4	320	Televisions	4.9
#1 Other PET Containers	4.9	90	Computer Monitors	3.3
#2 HDPE Bottles/Jars - Clear	8.7	160	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	8.2	150	Electronic Equipment	14.7
#2 Other HDPE Containers	0.5	10	White Goods - Refrigerated	10.3
#6 Exp. Polystyrene Packaging	18.5	340	White Goods - Not refrigerated	22.9
#3-#7 Other - All	13.1	240	Lead-acid Batteries	18.5
Other Rigid Plastic Products	58.2	1,070	Other Household Batteries	4.4
Grocery & Merchandise Bags	10.3	190	Tires	25.6
Trash Bags	33.7	620	Household Bulky Items	63.1
Commercial & Industrial Film	29.4	540	Fluorescent Lights/Ballasts	0.5
Other Film	58.8	1,080		
Other Plastic	27.2	500	Textiles	95.2
			Carpet	24.5
Glass	85.4	1,570	Carpet Padding	6.5
Recyclable Glass Bottles & Jars	68.0	1,250	Clothing	40.8
Flat Glass	9.8	180	Other Textiles	23.4
Other Glass	7.6	140		
			Household Hazardous Waste	27.2
Metal	123.0	2,260		
Aluminum Beverage Containers	15.2	280	Construction and Demolition Debris (C&D)	460.9
Other Aluminum	8.7	160		
Ferrous Containers (Tin Cans)	22.9	420	Total MSW (tons)	42,610
			Total MSW (pounds/person/day)	6.35

Gallatin County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	444.4	1,230	Metal	
Newsprint	25.3	70	Other Ferrous	50.6
High Grade Office Paper	25.3	70	Other Non-Ferrous	10.8
Magazines/Catalogs	32.5	90	Other Metal	14.5
Uncoated OCC/Kraft	169.8	470		
Boxboard	54.2	150	Organics	563.7
Mixed Paper - Recyclable	54.2	150	Yard Waste - Compostable	115.6
Compostable Paper	72.3	200	Yard Waste - Woody	21.7
Other Paper	10.8	30	Food Scraps	299.9
			Bottom Fines & Dirt	47.0
Beverage Containers	3.6	10	Diapers	36.1
Milk & Juice Cartons/Boxes - Coated	3.6	10	Other Organic	43.4
Plastic	292.7	810	Inorganics	169.8
#1 PET Bottles/Jars	21.7	60	Televisions	3.6
#1 Other PET Containers	7.2	20	Computer Monitors	3.6
#2 HDPE Bottles/Jars - Clear	10.8	30	Computer Equipment/Peripherals	7.2
#2 HDPE Bottles/Jars - Color	10.8	30	Electronic Equipment	14.5
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	10.8
#6 Exp. Polystyrene Packaging	18.1	50	White Goods - Not refrigerated	21.7
#3-#7 Other - All	14.5	40	Lead-acid Batteries	18.1
Other Rigid Plastic Products	57.8	160	Other Household Batteries	3.6
Grocery & Merchandise Bags	10.8	30	Tires	25.3
Trash Bags	32.5	90	Household Bulky Items	61.4
Commercial & Industrial Film	25.3	70	Fluorescent Lights/Ballasts	<0.1
Other Film	57.8	160		
Other Plastic	25.3	70	Textiles	90.3
			Carpet	25.3
Glass	86.7	240	Carpet Padding	7.2
Recyclable Glass Bottles & Jars	68.7	190	Clothing	36.1
Flat Glass	10.8	30	Other Textiles	21.7
Other Glass	7.2	20		
			Household Hazardous Waste	25.3
Metal	119.2	330		
Aluminum Beverage Containers	14.5	40	Construction and Demolition Debris (C&D)	455.3
Other Aluminum	7.2	20		
Ferrous Containers (Tin Cans)	21.7	60	Total MSW (tons)	6,230
			Total MSW (pounds/person/day)	6.17

Greene County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	460.1	3,150	51.1	350
Newsprint	48.2	330	Other Ferrous	51.1
High Grade Office Paper	23.4	160	Other Non-Ferrous	8.8
Magazines/Catalogs	30.7	210	Other Metal	16.1
Uncoated OCC/Kraft	166.5	1,140		
Boxboard	54.0	370	Organics	3,810
Mixed Paper - Recyclable	52.6	360	Yard Waste - Compostable	800
Compostable Paper	73.0	500	Yard Waste - Woody	160
Other Paper	11.7	80	Food Scraps	2,000
			Bottom Fines & Dirt	310
Beverage Containers	4.4	30	Diapers	250
Milk & Juice Cartons/Boxes - Coated	4.4	30	Other Organic	290
Plastic	290.7	1,990	173.8	1,190
#1 PET Bottles/Jars	19.0	130	Inorganics	
#1 Other PET Containers	5.8	40	Televisions	4.4
#2 HDPE Bottles/Jars - Clear	8.8	60	Computer Monitors	2.9
#2 HDPE Bottles/Jars - Color	8.8	60	Computer Equipment/Peripherals	7.3
#2 Other HDPE Containers	<1	<5	Electronic Equipment	14.6
#6 Exp. Polystyrene Packaging	19.0	130	White Goods - Refrigerated	10.2
#3-#7 Other - All	13.1	90	White Goods - Not refrigerated	23.4
Other Rigid Plastic Products	58.4	400	Lead-acid Batteries	17.5
Grocery & Merchandise Bags	10.2	70	Other Household Batteries	4.4
Trash Bags	33.6	230	Tires	26.3
Commercial & Industrial Film	29.2	200	Household Bulky Items	62.8
Other Film	58.4	400	Fluorescent Lights/Ballasts	<0.1
Other Plastic	26.3	180		
			Textiles	650
Glass	84.7	580	Carpet	170
Recyclable Glass Bottles & Jars	67.2	460	Carpet Padding	7.3
Flat Glass	10.2	70	Clothing	39.4
Other Glass	7.3	50	Other Textiles	23.4
			Household Hazardous Waste	170
Metal	124.2	850		
Aluminum Beverage Containers	16.1	110	Construction and Demolition Debris (C&D)	3,150
Other Aluminum	8.8	60		
Ferrous Containers (Tin Cans)	23.4	160	Total MSW (tons)	15,570
			Total MSW (pounds/person/day)	6.23

Grundy County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	688.6	17,680		
Newsprint	87.2	2,240	Other Ferrous	51.4
High Grade Office Paper	50.2	1,290	Other Non-Ferrous	9.0
Magazines/Catalogs	31.9	820	Other Metal	16.0
Uncoated OCC/Kraft	325.6	8,360		
Boxboard	54.5	1,400	Organics	597.4
Mixed Paper - Recyclable	53.4	1,370	Yard Waste - Compostable	117.2
Compostable Paper	73.2	1,880	Yard Waste - Woody	23.4
Other Paper	12.5	320	Food Scraps	332.6
			Bottom Fines & Dirt	45.2
Beverage Containers	5.5	140	Diapers	37.0
Milk & Juice Cartons/Boxes - Coated	5.5	140	Other Organic	42.1
				1,080
Plastic	332.6	8,540	Inorganics	174.9
#1 PET Bottles/Jars	22.2	570	Televisions	5.1
#1 Other PET Containers	6.2	160	Computer Monitors	3.1
#2 HDPE Bottles/Jars - Clear	11.3	290	Computer Equipment/Peripherals	7.0
#2 HDPE Bottles/Jars - Color	10.5	270	Electronic Equipment	14.4
#2 Other HDPE Containers	0.8	20	White Goods - Refrigerated	10.5
#6 Exp. Polystyrene Packaging	18.3	470	White Goods - Not refrigerated	23.0
#3-#7 Other - All	12.9	330	Lead-acid Batteries	18.3
Other Rigid Plastic Products	58.0	1,490	Other Household Batteries	4.3
Grocery & Merchandise Bags	15.6	400	Tires	25.7
Trash Bags	33.5	860	Household Bulky Items	63.1
Commercial & Industrial Film	44.0	1,130	Fluorescent Lights/Ballasts	0.4
Other Film	58.8	1,510		
Other Plastic	40.5	1,040	Textiles	127.7
			Carpet	24.5
Glass	86.1	2,210	Carpet Padding	6.6
Recyclable Glass Bottles & Jars	68.2	1,750	Clothing	61.1
Flat Glass	10.1	260	Other Textiles	35.4
Other Glass	7.8	200		
			Household Hazardous Waste	26.9
Metal	123.1	3,160		
Aluminum Beverage Containers	15.2	390	Construction and Demolition Debris (C&D)	616.1
Other Aluminum	8.6	220		
Ferrous Containers (Tin Cans)	23.0	590	Total MSW (tons)	71,350
			Total MSW (pounds/person/day)	7.61

Hamilton County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	429.8	1,840	Metal	
Newsprint	16.4	70	Other Ferrous	51.4
High Grade Office Paper	23.4	100	Other Non-Ferrous	9.3
Magazines/Catalogs	30.4	130	Other Metal	16.4
Uncoated OCC/Kraft	168.2	720		
Boxboard	53.7	230	Organics	555.9
Mixed Paper - Recyclable	53.7	230	Yard Waste - Compostable	116.8
Compostable Paper	72.4	310	Yard Waste - Woody	23.4
Other Paper	11.7	50	Food Scraps	292.0
			Bottom Fines & Dirt	44.4
Beverage Containers	4.7	20	Diapers	37.4
Milk & Juice Cartons/Boxes - Coated	4.7	20	Other Organic	42.0
				180
Plastic	292.0	1,250	Inorganics	172.9
#1 PET Bottles/Jars	18.7	80	Televisions	4.7
#1 Other PET Containers	4.7	20	Computer Monitors	2.3
#2 HDPE Bottles/Jars - Clear	9.3	40	Computer Equipment/Peripherals	7.0
#2 HDPE Bottles/Jars - Color	9.3	40	Electronic Equipment	14.0
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	9.3
#6 Exp. Polystyrene Packaging	18.7	80	White Goods - Not refrigerated	23.4
#3-#7 Other - All	11.7	50	Lead-acid Batteries	18.7
Other Rigid Plastic Products	58.4	250	Other Household Batteries	4.7
Grocery & Merchandise Bags	11.7	50	Tires	25.7
Trash Bags	32.7	140	Household Bulky Items	63.1
Commercial & Industrial Film	30.4	130	Fluorescent Lights/Ballasts	<0.1
Other Film	58.4	250		
Other Plastic	28.0	120	Textiles	95.8
			Carpet	23.4
Glass	84.1	360	Carpet Padding	7.0
Recyclable Glass Bottles & Jars	67.7	290	Clothing	42.0
Flat Glass	9.3	40	Other Textiles	23.4
Other Glass	7.0	30		
			Household Hazardous Waste	25.7
Metal	126.1	540		
Aluminum Beverage Containers	16.4	70	Construction and Demolition Debris (C&D)	467.2
Other Aluminum	9.3	40		
Ferrous Containers (Tin Cans)	23.4	100	Total MSW (tons)	9,650
			Total MSW (pounds/person/day)	6.18

Hancock County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	448.3	4,250		
Newsprint	40.1	380	Other Ferrous	51.7
High Grade Office Paper	24.3	230	Other Non-Ferrous	9.5
Magazines/Catalogs	32.7	310	Other Metal	15.8
Uncoated OCC/Kraft	158.2	1,500		
Boxboard	54.8	520	Organics	572.8
Mixed Paper - Recyclable	52.7	500	Yard Waste - Compostable	117.1
Compostable Paper	72.8	690	Yard Waste - Woody	23.2
Other Paper	12.7	120	Food Scraps	308.0
			Bottom Fines & Dirt	45.4
Beverage Containers	5.3	50	Diapers	36.9
Milk & Juice Cartons/Boxes - Coated	5.3	50	Other Organic	42.2
				400
Plastic	303.8	2,880	Inorganics	175.1
#1 PET Bottles/Jars	21.1	200	Televisions	5.3
#1 Other PET Containers	6.3	60	Computer Monitors	3.2
#2 HDPE Bottles/Jars - Clear	10.5	100	Computer Equipment/Peripherals	7.4
#2 HDPE Bottles/Jars - Color	9.5	90	Electronic Equipment	14.8
#2 Other HDPE Containers	1.1	10	White Goods - Refrigerated	10.5
#6 Exp. Polystyrene Packaging	17.9	170	White Goods - Not refrigerated	23.2
#3-#7 Other - All	13.7	130	Lead-acid Batteries	17.9
Other Rigid Plastic Products	58.0	550	Other Household Batteries	4.2
Grocery & Merchandise Bags	11.6	110	Tires	25.3
Trash Bags	33.8	320	Household Bulky Items	63.3
Commercial & Industrial Film	31.6	300	Fluorescent Lights/Ballasts	<0.1
Other Film	59.1	560		
Other Plastic	29.5	280	Textiles	99.2
			Carpet	24.3
Glass	86.5	820	Carpet Padding	6.3
Recyclable Glass Bottles & Jars	68.6	650	Clothing	43.2
Flat Glass	10.5	100	Other Textiles	25.3
Other Glass	7.4	70		
			Household Hazardous Waste	27.4
Metal	124.5	1,180		
Aluminum Beverage Containers	15.8	150	Construction and Demolition Debris (C&D)	466.2
Other Aluminum	8.4	80		
Ferrous Containers (Tin Cans)	23.2	220	Total MSW (tons)	21,890
			Total MSW (pounds/person/day)	6.33

2014 population 18,961

Hardin County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	445.6	960	Metal	
Newsprint	13.9	30	Other Ferrous	51.1
High Grade Office Paper	23.2	50	Other Non-Ferrous	9.3
Magazines/Catalogs	27.8	60	Other Metal	13.9
Uncoated OCC/Kraft	185.7	400		
Boxboard	55.7	120	Organics	561.6
Mixed Paper - Recyclable	51.1	110	Yard Waste - Compostable	116.0
Compostable Paper	74.3	160	Yard Waste - Woody	23.2
Other Paper	13.9	30	Food Scraps	297.1
			Bottom Fines & Dirt	46.4
Beverage Containers	4.6	10	Diapers	37.1
Milk & Juice Cartons/Boxes - Coated	4.6	10	Other Organic	41.8
Plastic	273.8	590	Inorganics	181.0
#1 PET Bottles/Jars	18.6	40	Televisions	4.6
#1 Other PET Containers	4.6	10	Computer Monitors	4.6
#2 HDPE Bottles/Jars - Clear	9.3	20	Computer Equipment/Peripherals	9.3
#2 HDPE Bottles/Jars - Color	9.3	20	Electronic Equipment	13.9
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	9.3
#6 Exp. Polystyrene Packaging	18.6	40	White Goods - Not refrigerated	23.2
#3-#7 Other - All	9.3	20	Lead-acid Batteries	18.6
Other Rigid Plastic Products	55.7	120	Other Household Batteries	4.6
Grocery & Merchandise Bags	9.3	20	Tires	27.8
Trash Bags	32.5	70	Household Bulky Items	65.0
Commercial & Industrial Film	23.2	50	Fluorescent Lights/Ballasts	<0.1
Other Film	60.3	130		
Other Plastic	23.2	50	Textiles	83.5
			Carpet	23.2
Glass	92.8	200	Carpet Padding	4.6
Recyclable Glass Bottles & Jars	74.3	160	Clothing	37.1
Flat Glass	9.3	20	Other Textiles	18.6
Other Glass	9.3	20		
			Household Hazardous Waste	23.2
Metal	120.7	260		
Aluminum Beverage Containers	13.9	30	Construction and Demolition Debris (C&D)	440.9
Other Aluminum	9.3	20		
Ferrous Containers (Tin Cans)	23.2	50	Total MSW (tons)	4,800
			Total MSW (pounds/person/day)	6.10

Henderson County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	390.0	1,400	Metal	
Newsprint	30.6	110	Other Ferrous	50.1
High Grade Office Paper	25.1	90	Other Non-Ferrous	8.4
Magazines/Catalogs	30.6	110	Other Metal	16.7
Uncoated OCC/Kraft	111.4	400		
Boxboard	55.7	200	Organics	573.8
Mixed Paper - Recyclable	52.9	190	Yard Waste - Compostable	117.0
Compostable Paper	72.4	260	Yard Waste - Woody	22.3
Other Paper	11.1	40	Food Scraps	312.0
			Bottom Fines & Dirt	44.6
Beverage Containers	5.6	20	Diapers	36.2
Milk & Juice Cartons/Boxes - Coated	5.6	20	Other Organic	41.8
				150
Plastic	306.4	1,100	Inorganics	178.3
#1 PET Bottles/Jars	22.3	80	Televisions	5.6
#1 Other PET Containers	5.6	20	Computer Monitors	2.8
#2 HDPE Bottles/Jars - Clear	11.1	40	Computer Equipment/Peripherals	8.4
#2 HDPE Bottles/Jars - Color	11.1	40	Electronic Equipment	13.9
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	11.1
#6 Exp. Polystyrene Packaging	16.7	60	White Goods - Not refrigerated	22.3
#3-#7 Other - All	13.9	50	Lead-acid Batteries	19.5
Other Rigid Plastic Products	58.5	210	Other Household Batteries	5.6
Grocery & Merchandise Bags	11.1	40	Tires	25.1
Trash Bags	33.4	120	Household Bulky Items	64.1
Commercial & Industrial Film	33.4	120	Fluorescent Lights/Ballasts	<0.1
Other Film	58.5	210		
Other Plastic	30.6	110	Textiles	100.3
			Carpet	25.1
Glass	86.4	310	Carpet Padding	5.6
Recyclable Glass Bottles & Jars	66.9	240	Clothing	44.6
Flat Glass	11.1	40	Other Textiles	25.1
Other Glass	8.4	30		
			Household Hazardous Waste	27.9
Metal	122.6	440		
Aluminum Beverage Containers	16.7	60	Construction and Demolition Debris (C&D)	462.4
Other Aluminum	8.4	30		
Ferrous Containers (Tin Cans)	22.3	80	Total MSW (tons)	8,090
			Total MSW (pounds/person/day)	6.17

2014 population 7,180

Iroquois County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	460.2	6,810	Metal	
Newsprint	66.2	980	Other Ferrous	51.4
High Grade Office Paper	31.1	460	Other Non-Ferrous	8.8
Magazines/Catalogs	32.4	480	Other Metal	16.2
Uncoated OCC/Kraft	137.2	2,030		
Boxboard	54.7	810	Organics	574.4
Mixed Paper - Recyclable	53.4	790	Yard Waste - Compostable	117.6
Compostable Paper	73.0	1,080	Yard Waste - Woody	23.0
Other Paper	12.2	180	Food Scraps	309.5
			Bottom Fines & Dirt	45.3
Beverage Containers	5.4	80	Diapers	37.2
Milk & Juice Cartons/Boxes - Coated	5.4	80	Other Organic	41.9
Plastic	304.8	4,510	Inorganics	174.3
#1 PET Bottles/Jars	20.9	310	Televisions	4.7
#1 Other PET Containers	6.1	90	Computer Monitors	3.4
#2 HDPE Bottles/Jars - Clear	10.8	160	Computer Equipment/Peripherals	7.4
#2 HDPE Bottles/Jars - Color	9.5	140	Electronic Equipment	14.2
#2 Other HDPE Containers	0.7	10	White Goods - Refrigerated	10.1
#6 Exp. Polystyrene Packaging	18.2	270	White Goods - Not refrigerated	23.0
#3-#7 Other - All	12.8	190	Lead-acid Batteries	18.2
Other Rigid Plastic Products	58.1	860	Other Household Batteries	4.1
Grocery & Merchandise Bags	11.5	170	Tires	25.7
Trash Bags	33.8	500	Household Bulky Items	62.8
Commercial & Industrial Film	33.1	490	Fluorescent Lights/Ballasts	0.7
Other Film	58.8	870		
Other Plastic	30.4	450	Textiles	102.7
			Carpet	24.3
Glass	85.8	1,270	Carpet Padding	6.8
Recyclable Glass Bottles & Jars	67.6	1,000	Clothing	45.3
Flat Glass	10.1	150	Other Textiles	26.4
Other Glass	8.1	120		
			Household Hazardous Waste	27.0
Metal	123.7	1,830	Construction and Demolition Debris (C&D)	466.3
Aluminum Beverage Containers	15.5	230		
Other Aluminum	8.8	130	Total MSW (tons)	34,400
Ferrous Containers (Tin Cans)	23.0	340	Total MSW (pounds/person/day)	6.37

Jackson County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	635.8	18,930		
Newsprint	43.0	1,280	Other Ferrous	51.4
High Grade Office Paper	45.7	1,360	Other Non-Ferrous	9.1
Magazines/Catalogs	28.9	860	Other Metal	15.8
Uncoated OCC/Kraft	325.1	9,680		
Boxboard	54.4	1,620	Organics	555.2
Mixed Paper - Recyclable	53.4	1,590	Yard Waste - Compostable	117.6
Compostable Paper	72.9	2,170	Yard Waste - Woody	23.2
Other Paper	12.4	370	Food Scraps	290.2
			Bottom Fines & Dirt	45.3
Beverage Containers	4.0	120	Diapers	36.9
Milk & Juice Cartons/Boxes - Coated	4.0	120	Other Organic	42.0
Plastic	269.7	8,030	Inorganics	175.0
#1 PET Bottles/Jars	16.1	480	Televisions	5.0
#1 Other PET Containers	4.4	130	Computer Monitors	3.0
#2 HDPE Bottles/Jars - Clear	8.1	240	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	7.4	220	Electronic Equipment	14.4
#2 Other HDPE Containers	0.7	20	White Goods - Refrigerated	10.4
#6 Exp. Polystyrene Packaging	18.5	550	White Goods - Not refrigerated	23.2
#3-#7 Other - All	13.1	390	Lead-acid Batteries	18.1
Other Rigid Plastic Products	58.1	1,730	Other Household Batteries	4.4
Grocery & Merchandise Bags	8.1	240	Tires	25.9
Trash Bags	33.6	1,000	Household Bulky Items	63.1
Commercial & Industrial Film	22.2	660	Fluorescent Lights/Ballasts	0.3
Other Film	58.8	1,750		
Other Plastic	20.8	620	Textiles	79.6
			Carpet	24.5
Glass	86.0	2,560	Carpet Padding	6.7
Recyclable Glass Bottles & Jars	68.2	2,030	Clothing	30.6
Flat Glass	10.1	300	Other Textiles	17.8
Other Glass	7.7	230		
			Household Hazardous Waste	27.2
Metal	123.3	3,670		
Aluminum Beverage Containers	15.5	460	Construction and Demolition Debris (C&D)	579.4
Other Aluminum	8.7	260		
Ferrous Containers (Tin Cans)	22.8	680	Total MSW (tons)	75,480
			Total MSW (pounds/person/day)	6.95

Jasper County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	456.4	2,190	566.8	2,720
Newsprint	39.6	190	52.1	250
High Grade Office Paper	25.0	120	8.3	40
Magazines/Catalogs	31.3	150	16.7	80
Uncoated OCC/Kraft	166.7	800		
Boxboard	54.2	260		
Mixed Paper - Recyclable	54.2	260		
Compostable Paper	72.9	350		
Other Paper	12.5	60		
Beverage Containers	4.2	20	41.7	200
Milk & Juice Cartons/Boxes - Coated	4.2	20		
Plastic	304.3	1,460	173.0	830
#1 PET Bottles/Jars	20.8	100	4.2	20
#1 Other PET Containers	6.3	30	4.2	20
#2 HDPE Bottles/Jars - Clear	10.4	50	6.3	30
#2 HDPE Bottles/Jars - Color	8.3	40	14.6	70
#2 Other HDPE Containers	<1	<5	10.4	50
#6 Exp. Polystyrene Packaging	18.8	90	22.9	110
#3-#7 Other - All	12.5	60	18.8	90
Other Rigid Plastic Products	58.4	280	4.2	20
Grocery & Merchandise Bags	12.5	60	25.0	120
Trash Bags	33.3	160	62.5	300
Commercial & Industrial Film	33.3	160	<0.1	<1
Other Film	58.4	280		
Other Plastic	31.3	150		
Glass	87.5	420	106.3	510
Recyclable Glass Bottles & Jars	68.8	330	25.0	120
Flat Glass	10.4	50	6.3	30
Other Glass	8.3	40	47.9	230
Metal	123.0	590	27.1	130
Aluminum Beverage Containers	14.6	70		
Other Aluminum	8.3	40		
Ferrous Containers (Tin Cans)	22.9	110		
Construction and Demolition Debris (C&D)			466.8	2,240
Total MSW (tons)		11,110		11,110
Total MSW (pounds/person/day)				6.34

Jefferson County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	792.0	15,390	557.3	10,830
Newsprint	75.7	1,470	51.5	1,000
High Grade Office Paper	53.5	1,040	9.3	180
Magazines/Catalogs	30.9	600	16.0	310
Uncoated OCC/Kraft	439.0	8,530		
Boxboard	54.6	1,060		
Mixed Paper - Recyclable	53.0	1,030		
Compostable Paper	73.1	1,420		
Other Paper	12.4	240		
Beverage Containers	4.1	80		
Milk & Juice Cartons/Boxes - Coated	4.1	80		
Plastic	286.1	5,560	175.0	3,400
#1 PET Bottles/Jars	17.0	330	5.1	100
#1 Other PET Containers	4.6	90	3.1	60
#2 HDPE Bottles/Jars - Clear	8.7	170	7.2	140
#2 HDPE Bottles/Jars - Color	8.2	160	14.4	280
#2 Other HDPE Containers	0.5	10	10.3	200
#6 Exp. Polystyrene Packaging	18.5	360	23.2	450
#3-#7 Other - All	13.4	260	18.0	350
Other Rigid Plastic Products	58.2	1,130	4.1	80
Grocery & Merchandise Bags	10.3	200	25.7	500
Trash Bags	33.5	650	63.3	1,230
Commercial & Industrial Film	28.3	550	0.5	10
Other Film	58.7	1,140		
Other Plastic	26.2	510		
Glass	86.5	1,680	93.1	1,810
Recyclable Glass Bottles & Jars	68.4	1,330	24.7	480
Flat Glass	10.3	200	6.7	130
Other Glass	7.7	150	39.1	760
Metal	123.5	2,400	26.2	510
Aluminum Beverage Containers	15.4	300		
Other Aluminum	8.7	170		
Ferrous Containers (Tin Cans)	22.6	440		
Construction and Demolition Debris (C&D)			459.6	8,930
Total MSW (tons)				50,590
Total MSW (pounds/person/day)				7.13

Jersey County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	507.1	5,900		
Newsprint	36.1	420	Other Ferrous	51.6
High Grade Office Paper	50.7	590	Other Non-Ferrous	9.5
Magazines/Catalogs	29.2	340	Other Metal	15.5
Uncoated OCC/Kraft	198.6	2,310		
Boxboard	54.2	630	Organics	578.5
Mixed Paper - Recyclable	53.3	620	Yard Waste - Compostable	117.8
Compostable Paper	73.1	850	Yard Waste - Woody	23.2
Other Paper	12.0	140	Food Scraps	312.9
			Bottom Fines & Dirt	45.6
Beverage Containers	5.2	60	Diapers	37.0
Milk & Juice Cartons/Boxes - Coated	5.2	60	Other Organic	42.1
				490
Plastic	311.2	3,620	Inorganics	175.3
#1 PET Bottles/Jars	20.6	240	Televisions	5.2
#1 Other PET Containers	6.0	70	Computer Monitors	3.4
#2 HDPE Bottles/Jars - Clear	10.3	120	Computer Equipment/Peripherals	6.9
#2 HDPE Bottles/Jars - Color	9.5	110	Electronic Equipment	14.6
#2 Other HDPE Containers	0.9	10	White Goods - Refrigerated	10.3
#6 Exp. Polystyrene Packaging	18.9	220	White Goods - Not refrigerated	23.2
#3-#7 Other - All	12.9	150	Lead-acid Batteries	18.1
Other Rigid Plastic Products	57.6	670	Other Household Batteries	4.3
Grocery & Merchandise Bags	12.9	150	Tires	25.8
Trash Bags	33.5	390	Household Bulky Items	62.7
Commercial & Industrial Film	36.1	420	Fluorescent Lights/Ballasts	0.9
Other Film	58.4	680		
Other Plastic	33.5	390	Textiles	110.0
			Carpet	24.1
Glass	86.0	1,000	Carpet Padding	6.9
Recyclable Glass Bottles & Jars	67.9	790	Clothing	49.9
Flat Glass	10.3	120	Other Textiles	29.2
Other Glass	7.7	90		
			Household Hazardous Waste	27.5
Metal	123.8	1,440		
Aluminum Beverage Containers	15.5	180	Construction and Demolition Debris (C&D)	602.5
Other Aluminum	8.6	100		
Ferrous Containers (Tin Cans)	23.2	270	Total MSW (tons)	29,400
			Total MSW (pounds/person/day)	6.92

Jo Daviess County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	638.1	7,200	Metal	
Newsprint	49.6	560	Other Ferrous	51.4
High Grade Office Paper	37.2	420	Other Non-Ferrous	8.9
Magazines/Catalogs	36.3	410	Other Metal	16.0
Uncoated OCC/Kraft	321.7	3,630		
Boxboard	54.9	620	Organics	587.6
Mixed Paper - Recyclable	53.2	600	Yard Waste - Compostable	117.0
Compostable Paper	72.7	820	Yard Waste - Woody	23.0
Other Paper	12.4	140	Food Scraps	323.5
			Bottom Fines & Dirt	45.2
Beverage Containers	6.2	70	Diapers	37.2
Milk & Juice Cartons/Boxes - Coated	6.2	70	Other Organic	41.7
Plastic	313.7	3,540	Inorganics	176.4
#1 PET Bottles/Jars	23.0	260	Televisions	5.3
#1 Other PET Containers	6.2	70	Computer Monitors	3.5
#2 HDPE Bottles/Jars - Clear	11.5	130	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	10.6	120	Electronic Equipment	14.2
#2 Other HDPE Containers	0.9	10	White Goods - Refrigerated	10.6
#6 Exp. Polystyrene Packaging	18.6	210	White Goods - Not refrigerated	23.0
#3-#7 Other - All	13.3	150	Lead-acid Batteries	18.6
Other Rigid Plastic Products	57.6	650	Other Household Batteries	4.4
Grocery & Merchandise Bags	12.4	140	Tires	25.7
Trash Bags	33.7	380	Household Bulky Items	62.9
Commercial & Industrial Film	34.6	390	Fluorescent Lights/Ballasts	0.9
Other Film	58.5	660		
Other Plastic	32.8	370	Textiles	106.3
			Carpet	24.8
Glass	86.0	970	Carpet Padding	6.2
Recyclable Glass Bottles & Jars	68.2	770	Clothing	47.9
Flat Glass	9.7	110	Other Textiles	27.5
Other Glass	8.0	90		
			Household Hazardous Waste	27.5
Metal	123.2	1,390		
Aluminum Beverage Containers	15.1	170	Construction and Demolition Debris (C&D)	469.7
Other Aluminum	8.9	100		
Ferrous Containers (Tin Cans)	23.0	260	Total MSW (tons)	28,600
			Total MSW (pounds/person/day)	6.94

Johnson County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	387.3	2,490	551.3	3,600
Newsprint	26.0	170	50.5	330
High Grade Office Paper	24.5	160	9.2	60
Magazines/Catalogs	30.6	200	15.3	100
Uncoated OCC/Kraft	105.7	690		
Boxboard	55.1	360		
Mixed Paper - Recyclable	53.6	350		
Compostable Paper	73.5	480		
Other Paper	12.3	80		
			Organics	3,600
			Yard Waste - Compostable	770
			Yard Waste - Woody	150
			Food Scraps	1,870
			Bottom Fines & Dirt	300
			Diapers	240
			Other Organic	270
Beverage Containers	4.6	30		
Milk & Juice Cartons/Boxes - Coated	4.6	30		
Plastic	289.4	1,890	174.6	1,140
#1 PET Bottles/Jars	16.8	110	4.6	30
#1 Other PET Containers	4.6	30	3.1	20
#2 HDPE Bottles/Jars - Clear	9.2	60	7.7	50
#2 HDPE Bottles/Jars - Color	7.7	50	13.8	90
#2 Other HDPE Containers	<1	<5	10.7	70
#6 Exp. Polystyrene Packaging	18.4	120	23.0	150
#3-#7 Other - All	13.8	90	18.4	120
Other Rigid Plastic Products	58.2	380	4.6	30
Grocery & Merchandise Bags	10.7	70	26.0	170
Trash Bags	33.7	220	62.8	410
Commercial & Industrial Film	30.6	200	<0.1	<1
Other Film	58.2	380		
Other Plastic	27.6	180		
			Inorganics	1,140
			Televisions	30
			Computer Monitors	20
			Computer Equipment/Peripherals	50
			Electronic Equipment	90
			White Goods - Refrigerated	70
			White Goods - Not refrigerated	150
			Lead-acid Batteries	120
			Other Household Batteries	30
			Tires	170
			Household Bulky Items	410
			Fluorescent Lights/Ballasts	<1
			Textiles	630
			Carpet	160
			Carpet Padding	40
			Clothing	270
			Other Textiles	160
			Household Hazardous Waste	170
Glass	87.3	570	465.5	3,040
Recyclable Glass Bottles & Jars	68.9	450		
Flat Glass	10.7	70		
Other Glass	7.7	50		
			Construction and Demolition Debris (C&D)	3,040
Metal	122.5	800		
Aluminum Beverage Containers	15.3	100		
Other Aluminum	9.2	60		
Ferrous Containers (Tin Cans)	23.0	150		
			Total MSW (tons)	14,360
			Total MSW (pounds/person/day)	6.02

2014 population 13,060

Kane County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	697.6	183,640	Metal	
Newsprint	87.1	22,920	Other Ferrous	51.2
High Grade Office Paper	50.3	13,250	Other Non-Ferrous	9.0
Magazines/Catalogs	28.6	7,520	Other Metal	15.9
Uncoated OCC/Kraft	338.3	89,060		
Boxboard	54.6	14,370	Organics	609.1
Mixed Paper - Recyclable	53.3	14,020	Yard Waste - Compostable	117.4
Compostable Paper	73.0	19,230	Yard Waste - Woody	23.2
Other Paper	12.4	3,270	Food Scraps	344.1
			Bottom Fines & Dirt	45.2
Beverage Containers	6.0	1,580	Diapers	37.1
Milk & Juice Cartons/Boxes - Coated	6.0	1,580	Other Organic	42.0
Plastic	337.0	88,730	Inorganics	175.2
#1 PET Bottles/Jars	23.7	6,250	Televisions	5.0
#1 Other PET Containers	6.6	1,750	Computer Monitors	3.2
#2 HDPE Bottles/Jars - Clear	12.0	3,160	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	11.1	2,920	Electronic Equipment	14.4
#2 Other HDPE Containers	0.8	200	White Goods - Refrigerated	10.4
#6 Exp. Polystyrene Packaging	18.3	4,830	White Goods - Not refrigerated	23.1
#3-#7 Other - All	13.0	3,430	Lead-acid Batteries	18.2
Other Rigid Plastic Products	58.0	15,260	Other Household Batteries	4.3
Grocery & Merchandise Bags	15.7	4,140	Tires	25.8
Trash Bags	33.5	8,820	Household Bulky Items	63.1
Commercial & Industrial Film	44.2	11,640	Fluorescent Lights/Ballasts	0.5
Other Film	58.8	15,470		
Other Plastic	41.3	10,860	Textiles	127.3
			Carpet	24.5
Glass	86.0	22,630	Carpet Padding	6.6
Recyclable Glass Bottles & Jars	68.1	17,940	Clothing	61.0
Flat Glass	10.0	2,640	Other Textiles	35.3
Other Glass	7.8	2,050		
			Household Hazardous Waste	26.9
Metal	123.1	32,400		
Aluminum Beverage Containers	15.4	4,050	Construction and Demolition Debris (C&D)	616.5
Other Aluminum	8.7	2,290		
Ferrous Containers (Tin Cans)	22.8	6,010	Total MSW (tons)	738,370
			Total MSW (pounds/person/day)	7.68

Kankakee County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	696.4	39,280		
Newsprint	74.1	4,180	Other Ferrous	51.2
High Grade Office Paper	43.3	2,440	Other Non-Ferrous	9.0
Magazines/Catalogs	30.1	1,700	Other Metal	16.0
Uncoated OCC/Kraft	355.6	20,060		
Boxboard	54.6	3,080	Organics	564.1
Mixed Paper - Recyclable	53.2	3,000	Yard Waste - Compostable	117.4
Compostable Paper	73.0	4,120	Yard Waste - Woody	23.2
Other Paper	12.4	700	Food Scraps	299.3
			Bottom Fines & Dirt	45.2
Beverage Containers	4.4	250	Diapers	37.1
Milk & Juice Cartons/Boxes - Coated	4.4	250	Other Organic	42.0
Plastic	303.0	17,090	Inorganics	175.3
#1 PET Bottles/Jars	17.7	1,000	Televisions	5.0
#1 Other PET Containers	5.0	280	Computer Monitors	3.2
#2 HDPE Bottles/Jars - Clear	8.9	500	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	8.2	460	Electronic Equipment	14.5
#2 Other HDPE Containers	0.5	30	White Goods - Refrigerated	10.5
#6 Exp. Polystyrene Packaging	18.4	1,040	White Goods - Not refrigerated	23.0
#3-#7 Other - All	12.9	730	Lead-acid Batteries	18.3
Other Rigid Plastic Products	58.0	3,270	Other Household Batteries	4.3
Grocery & Merchandise Bags	12.6	710	Tires	25.9
Trash Bags	33.5	1,890	Household Bulky Items	63.1
Commercial & Industrial Film	35.6	2,010	Fluorescent Lights/Ballasts	0.5
Other Film	58.9	3,320		
Other Plastic	32.8	1,850	Textiles	108.5
			Carpet	24.5
Glass	86.0	4,850	Carpet Padding	6.6
Recyclable Glass Bottles & Jars	68.1	3,840	Clothing	49.1
Flat Glass	10.1	570	Other Textiles	28.4
Other Glass	7.8	440		
			Household Hazardous Waste	26.8
Metal	123.2	6,950	Construction and Demolition Debris (C&D)	601.7
Aluminum Beverage Containers	15.4	870		
Other Aluminum	8.7	490	Total MSW (tons)	151,700
Ferrous Containers (Tin Cans)	22.9	1,290	Total MSW (pounds/person/day)	7.37

Kendall County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)		County Generation (lb/c/yr)	Total Generation (tons)
Paper	539.8	32,510	Metal		
Newsprint	64.1	3,860	Other Ferrous	51.3	3,090
High Grade Office Paper	50.3	3,030	Other Non-Ferrous	9.1	550
Magazines/Catalogs	28.9	1,740	Other Metal	15.9	960
Uncoated OCC/Kraft	203.1	12,230			
Boxboard	54.6	3,290	Organics	498.4	30,020
Mixed Paper - Recyclable	53.3	3,210	Yard Waste - Compostable	117.4	7,070
Compostable Paper	73.1	4,400	Yard Waste - Woody	23.2	1,400
Other Paper	12.5	750	Food Scraps	233.6	14,070
			Bottom Fines & Dirt	45.2	2,720
Beverage Containers	1.8	110	Diapers	37.0	2,230
Milk & Juice Cartons/Boxes - Coated	1.8	110	Other Organic	42.0	2,530
Plastic	319.8	19,260	Inorganics	175.0	10,540
#1 PET Bottles/Jars	7.3	440	Televisions	5.0	300
#1 Other PET Containers	2.0	120	Computer Monitors	3.2	190
#2 HDPE Bottles/Jars - Clear	3.7	220	Computer Equipment/Peripherals	7.1	430
#2 HDPE Bottles/Jars - Color	3.5	210	Electronic Equipment	14.4	870
#2 Other HDPE Containers	0.2	10	White Goods - Refrigerated	10.3	620
#6 Exp. Polystyrene Packaging	18.3	1,100	White Goods - Not refrigerated	23.1	1,390
#3-#7 Other - All	13.1	790	Lead-acid Batteries	18.3	1,100
Other Rigid Plastic Products	57.9	3,490	Other Household Batteries	4.3	260
Grocery & Merchandise Bags	17.9	1,080	Tires	25.7	1,550
Trash Bags	33.5	2,020	Household Bulky Items	63.1	3,800
Commercial & Industrial Film	50.3	3,030	Fluorescent Lights/Ballasts	0.5	30
Other Film	58.8	3,540			
Other Plastic	53.3	3,210	Textiles	140.6	8,470
			Carpet	24.4	1,470
Glass	86.0	5,180	Carpet Padding	6.6	400
Recyclable Glass Bottles & Jars	68.2	4,110	Clothing	69.4	4,180
Flat Glass	10.0	600	Other Textiles	40.2	2,420
Other Glass	7.8	470			
			Household Hazardous Waste	26.7	1,610
Metal	123.4	7,430			
Aluminum Beverage Containers	15.4	930	Construction and Demolition Debris (C&D)	627.4	37,790
Other Aluminum	8.6	520			
Ferrous Containers (Tin Cans)	22.9	1,380	Total MSW (tons)		152,920
			Total MSW (pounds/person/day)		6.96

Knox County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	668.5	17,640		
Newsprint	50.0	1,320	Other Ferrous	51.2
High Grade Office Paper	40.6	1,070	Other Non-Ferrous	9.1
Magazines/Catalogs	31.1	820	Other Metal	15.9
Uncoated OCC/Kraft	353.2	9,320		
Boxboard	54.6	1,440	Organics	849.7
Mixed Paper - Recyclable	53.4	1,410	Yard Waste - Compostable	117.5
Compostable Paper	73.1	1,930	Yard Waste - Woody	23.1
Other Paper	12.5	330	Food Scraps	584.8
			Bottom Fines & Dirt	45.1
Beverage Containers	15.2	400	Diapers	37.1
Milk & Juice Cartons/Boxes - Coated	15.2	400	Other Organic	42.1
Plastic	383.2	10,110	Inorganics	174.3
#1 PET Bottles/Jars	59.5	1,570	Televisions	4.9
#1 Other PET Containers	16.7	440	Computer Monitors	3.0
#2 HDPE Bottles/Jars - Clear	29.9	790	Computer Equipment/Peripherals	7.2
#2 HDPE Bottles/Jars - Color	27.7	730	Electronic Equipment	14.4
#2 Other HDPE Containers	1.9	50	White Goods - Refrigerated	10.2
#6 Exp. Polystyrene Packaging	18.6	490	White Goods - Not refrigerated	23.1
#3-#7 Other - All	13.3	350	Lead-acid Batteries	18.2
Other Rigid Plastic Products	58.0	1,530	Other Household Batteries	4.2
Grocery & Merchandise Bags	10.2	270	Tires	25.8
Trash Bags	33.4	880	Household Bulky Items	62.9
Commercial & Industrial Film	28.8	760	Fluorescent Lights/Ballasts	0.4
Other Film	58.7	1,550		
Other Plastic	26.5	700	Textiles	94.0
			Carpet	24.6
Glass	85.6	2,260	Carpet Padding	6.4
Recyclable Glass Bottles & Jars	67.8	1,790	Clothing	39.8
Flat Glass	9.9	260	Other Textiles	23.1
Other Glass	8.0	210		
			Household Hazardous Waste	27.3
Metal	123.2	3,250		
Aluminum Beverage Containers	15.5	410	Construction and Demolition Debris (C&D)	459.7
Other Aluminum	8.7	230		
Ferrous Containers (Tin Cans)	22.7	600	Total MSW (tons)	76,010
			Total MSW (pounds/person/day)	7.89

2014 population

52,773

Lake County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	802.0	283,220	Metal	
Newsprint	103.5	36,560	Other Ferrous	51.2
High Grade Office Paper	51.3	18,100	Other Non-Ferrous	9.1
Magazines/Catalogs	32.4	11,460	Other Metal	15.9
Uncoated OCC/Kraft	421.5	148,850		
Boxboard	54.6	19,270	Organics	645.9
Mixed Paper - Recyclable	53.2	18,800	Yard Waste - Compostable	117.4
Compostable Paper	73.1	25,800	Yard Waste - Woody	23.2
Other Paper	12.4	4,380	Food Scraps	381.0
			Bottom Fines & Dirt	45.2
Beverage Containers	7.4	2,600	Diapers	37.1
Milk & Juice Cartons/Boxes - Coated	7.4	2,600	Other Organic	42.0
Plastic	365.2	128,990	Inorganics	175.2
#1 PET Bottles/Jars	29.2	10,300	Televisions	5.0
#1 Other PET Containers	8.2	2,890	Computer Monitors	3.2
#2 HDPE Bottles/Jars - Clear	14.7	5,200	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	13.6	4,810	Electronic Equipment	14.4
#2 Other HDPE Containers	1.0	340	White Goods - Refrigerated	10.4
#6 Exp. Polystyrene Packaging	18.4	6,490	White Goods - Not refrigerated	23.1
#3-#7 Other - All	13.0	4,600	Lead-acid Batteries	18.2
Other Rigid Plastic Products	58.0	20,470	Other Household Batteries	4.3
Grocery & Merchandise Bags	18.5	6,550	Tires	25.8
Trash Bags	33.5	11,830	Household Bulky Items	63.1
Commercial & Industrial Film	52.1	18,400	Fluorescent Lights/Ballasts	0.5
Other Film	58.8	20,760		
Other Plastic	46.3	16,350	Textiles	144.6
			Carpet	24.5
Glass	85.9	30,340	Carpet Padding	6.6
Recyclable Glass Bottles & Jars	68.1	24,060	Clothing	71.9
Flat Glass	10.0	3,540	Other Textiles	41.6
Other Glass	7.8	2,740		
			Household Hazardous Waste	26.8
Metal	123.1	43,460		
Aluminum Beverage Containers	15.4	5,430	Construction and Demolition Debris (C&D)	668.1
Other Aluminum	8.7	3,070		
Ferrous Containers (Tin Cans)	22.8	8,060	Total MSW (tons)	1,075,090
			Total MSW (pounds/person/day)	8.34

LaSalle County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	701.7	39,360		
Newsprint	80.0	4,490	Other Ferrous	51.2
High Grade Office Paper	41.9	2,350	Other Non-Ferrous	9.1
Magazines/Catalogs	32.8	1,840	Other Metal	15.9
Uncoated OCC/Kraft	353.5	19,830		
Boxboard	54.6	3,060	Organics	570.1
Mixed Paper - Recyclable	53.3	2,990	Yard Waste - Compostable	117.5
Compostable Paper	73.1	4,100	Yard Waste - Woody	23.2
Other Paper	12.5	700	Food Scraps	305.0
			Bottom Fines & Dirt	45.3
Beverage Containers	4.5	250	Diapers	37.1
Milk & Juice Cartons/Boxes - Coated	4.5	250	Other Organic	42.1
Plastic	300.2	16,840	Inorganics	175.2
#1 PET Bottles/Jars	17.5	980	Televisions	5.0
#1 Other PET Containers	4.8	270	Computer Monitors	3.2
#2 HDPE Bottles/Jars - Clear	8.7	490	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	8.2	460	Electronic Equipment	14.4
#2 Other HDPE Containers	0.5	30	White Goods - Refrigerated	10.3
#6 Exp. Polystyrene Packaging	18.4	1,030	White Goods - Not refrigerated	23.2
#3-#7 Other - All	13.0	730	Lead-acid Batteries	18.2
Other Rigid Plastic Products	57.9	3,250	Other Household Batteries	4.3
Grocery & Merchandise Bags	12.3	690	Tires	25.9
Trash Bags	33.5	1,880	Household Bulky Items	63.1
Commercial & Industrial Film	34.6	1,940	Fluorescent Lights/Ballasts	0.5
Other Film	58.8	3,300		
Other Plastic	31.9	1,790	Textiles	106.3
			Carpet	24.4
Glass	85.9	4,820	Carpet Padding	6.6
Recyclable Glass Bottles & Jars	68.1	3,820	Clothing	47.6
Flat Glass	10.0	560	Other Textiles	27.6
Other Glass	7.8	440		
			Household Hazardous Waste	26.7
Metal	123.0	6,900		
Aluminum Beverage Containers	15.3	860	Construction and Demolition Debris (C&D)	470.1
Other Aluminum	8.7	490		
Ferrous Containers (Tin Cans)	22.8	1,280	Total MSW (tons)	143,810
			Total MSW (pounds/person/day)	7.02

Lawrence County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	509.6	4,300	Metal	
Newsprint	42.7	360	Other Ferrous	51.0
High Grade Office Paper	29.6	250	Other Non-Ferrous	9.5
Magazines/Catalogs	29.6	250	Other Metal	15.4
Uncoated OCC/Kraft	214.5	1,810		
Boxboard	54.5	460	Organics	541.6
Mixed Paper - Recyclable	53.3	450	Yard Waste - Compostable	117.3
Compostable Paper	73.5	620	Yard Waste - Woody	23.7
Other Paper	11.9	100	Food Scraps	277.3
			Bottom Fines & Dirt	45.0
Beverage Containers	3.6	30	Diapers	36.7
Milk & Juice Cartons/Boxes - Coated	3.6	30	Other Organic	41.5
Plastic	280.9	2,370	Inorganics	175.4
#1 PET Bottles/Jars	15.4	130	Televisions	4.7
#1 Other PET Containers	4.7	40	Computer Monitors	3.6
#2 HDPE Bottles/Jars - Clear	8.3	70	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	7.1	60	Electronic Equipment	14.2
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	10.7
#6 Exp. Polystyrene Packaging	17.8	150	White Goods - Not refrigerated	23.7
#3-#7 Other - All	14.2	120	Lead-acid Batteries	17.8
Other Rigid Plastic Products	58.1	490	Other Household Batteries	4.7
Grocery & Merchandise Bags	9.5	80	Tires	26.1
Trash Bags	33.2	280	Household Bulky Items	62.8
Commercial & Industrial Film	27.3	230	Fluorescent Lights/Ballasts	<0.1
Other Film	59.3	500		
Other Plastic	26.1	220	Textiles	92.4
			Carpet	24.9
Glass	86.5	730	Carpet Padding	7.1
Recyclable Glass Bottles & Jars	68.7	580	Clothing	37.9
Flat Glass	9.5	80	Other Textiles	22.5
Other Glass	8.3	70		
			Household Hazardous Waste	27.3
Metal	122.1	1,030		
Aluminum Beverage Containers	15.4	130	Construction and Demolition Debris (C&D)	459.9
Other Aluminum	8.3	70		
Ferrous Containers (Tin Cans)	22.5	190	Total MSW (tons)	19,400
			Total MSW (pounds/person/day)	6.30

2014 population 16,875

Livingston County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	637.3	12,350		
Newsprint	87.2	1,690	Other Ferrous	51.1
High Grade Office Paper	50.6	980	Other Non-Ferrous	9.3
Magazines/Catalogs	31.0	600	Other Metal	16.0
Uncoated OCC/Kraft	275.0	5,330		
Boxboard	54.7	1,060	Organics	566.6
Mixed Paper - Recyclable	53.2	1,030	Yard Waste - Compostable	117.7
Compostable Paper	73.3	1,420	Yard Waste - Woody	23.2
Other Paper	12.4	240	Food Scraps	301.4
			Bottom Fines & Dirt	45.4
Beverage Containers	5.2	100	Diapers	37.2
Milk & Juice Cartons/Boxes - Coated	5.2	100	Other Organic	41.8
				810
Plastic	314.8	6,100	Inorganics	174.9
#1 PET Bottles/Jars	19.6	380	Televisions	5.2
#1 Other PET Containers	5.7	110	Computer Monitors	3.1
#2 HDPE Bottles/Jars - Clear	9.8	190	Computer Equipment/Peripherals	7.2
#2 HDPE Bottles/Jars - Color	9.3	180	Electronic Equipment	14.4
#2 Other HDPE Containers	0.5	10	White Goods - Refrigerated	10.3
#6 Exp. Polystyrene Packaging	18.6	360	White Goods - Not refrigerated	23.2
#3-#7 Other - All	13.4	260	Lead-acid Batteries	18.1
Other Rigid Plastic Products	57.8	1,120	Other Household Batteries	4.1
Grocery & Merchandise Bags	13.9	270	Tires	25.8
Trash Bags	33.5	650	Household Bulky Items	63.0
Commercial & Industrial Film	38.7	750	Fluorescent Lights/Ballasts	0.5
Other Film	58.8	1,140		
Other Plastic	35.1	680	Textiles	115.1
			Carpet	24.3
Glass	85.7	1,660	Carpet Padding	6.7
Recyclable Glass Bottles & Jars	68.1	1,320	Clothing	53.2
Flat Glass	9.8	190	Other Textiles	31.0
Other Glass	7.7	150		
			Household Hazardous Waste	26.3
Metal	123.3	2,390		
Aluminum Beverage Containers	15.5	300	Construction and Demolition Debris (C&D)	475.8
Other Aluminum	8.8	170		
Ferrous Containers (Tin Cans)	22.7	440	Total MSW (tons)	48,930
			Total MSW (pounds/person/day)	6.92

Logan County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	557.0	8,360	559.0	8,390
Newsprint	41.3	620	Other Ferrous	51.3
High Grade Office Paper	32.6	490	Other Non-Ferrous	9.3
Magazines/Catalogs	32.0	480	Other Metal	16.0
Uncoated OCC/Kraft	257.2	3,860		
Boxboard	54.6	820	Organics	559.0
Mixed Paper - Recyclable	53.3	800	Yard Waste - Compostable	117.3
Compostable Paper	73.3	1,100	Yard Waste - Woody	23.3
Other Paper	12.7	190	Food Scraps	293.8
			Bottom Fines & Dirt	45.3
Beverage Containers	4.7	70	Diapers	37.3
Milk & Juice Cartons/Boxes - Coated	4.7	70	Other Organic	42.0
Plastic	296.5	4,450	Inorganics	177.2
#1 PET Bottles/Jars	17.3	260	Televisions	5.3
#1 Other PET Containers	4.7	70	Computer Monitors	3.3
#2 HDPE Bottles/Jars - Clear	8.7	130	Computer Equipment/Peripherals	7.3
#2 HDPE Bottles/Jars - Color	8.0	120	Electronic Equipment	14.7
#2 Other HDPE Containers	0.7	10	White Goods - Refrigerated	10.7
#6 Exp. Polystyrene Packaging	18.7	280	White Goods - Not refrigerated	23.3
#3-#7 Other - All	12.7	190	Lead-acid Batteries	18.0
Other Rigid Plastic Products	58.0	870	Other Household Batteries	4.7
Grocery & Merchandise Bags	12.0	180	Tires	26.0
Trash Bags	33.3	500	Household Bulky Items	63.3
Commercial & Industrial Film	33.3	500	Fluorescent Lights/Ballasts	0.7
Other Film	58.6	880		
Other Plastic	30.6	460	Textiles	103.3
			Carpet	24.7
Glass	86.6	1,300	Carpet Padding	6.7
Recyclable Glass Bottles & Jars	68.6	1,030	Clothing	45.3
Flat Glass	10.0	150	Other Textiles	26.6
Other Glass	8.0	120		
			Household Hazardous Waste	26.6
Metal	123.3	1,850	Construction and Demolition Debris (C&D)	468.4
Aluminum Beverage Containers	15.3	230		
Other Aluminum	8.7	130	Total MSW (tons)	36,060
Ferrous Containers (Tin Cans)	22.7	340	Total MSW (pounds/person/day)	6.58

2014 population 30,020

Macon County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	563.7	31,060	577.0	31,790
Newsprint	64.8	3,570	51.2	2,820
High Grade Office Paper	48.5	2,670	9.1	500
Magazines/Catalogs	30.9	1,700	16.0	880
Uncoated OCC/Kraft	226.5	12,480		
Boxboard	54.6	3,010		
Mixed Paper - Recyclable	53.2	2,930		
Compostable Paper	73.0	4,020		
Other Paper	12.3	680		
Beverage Containers	5.1	280		
Milk & Juice Cartons/Boxes - Coated	5.1	280		
Plastic	298.9	16,470	175.1	9,650
#1 PET Bottles/Jars	20.1	1,110	5.1	280
#1 Other PET Containers	5.6	310	3.1	170
#2 HDPE Bottles/Jars - Clear	10.2	560	7.1	390
#2 HDPE Bottles/Jars - Color	9.4	520	14.5	800
#2 Other HDPE Containers	0.7	40	10.3	570
#6 Exp. Polystyrene Packaging	18.3	1,010	23.1	1,270
#3-#7 Other - All	13.1	720	18.2	1,000
Other Rigid Plastic Products	57.9	3,190	4.4	240
Grocery & Merchandise Bags	11.1	610	25.8	1,420
Trash Bags	33.6	1,850	63.2	3,480
Commercial & Industrial Film	31.2	1,720	0.5	30
Other Film	58.8	3,240		
Other Plastic	28.9	1,590		
Glass	85.9	4,730	99.3	5,470
Recyclable Glass Bottles & Jars	68.1	3,750	24.5	1,350
Flat Glass	10.0	550	6.5	360
Other Glass	7.8	430	43.2	2,380
Metal	123.2	6,790	26.9	1,480
Aluminum Beverage Containers	15.4	850		
Other Aluminum	8.7	480		
Ferrous Containers (Tin Cans)	22.9	1,260		
Construction and Demolition Debris (C&D)			594.4	32,750
Total MSW (tons)				140,470
Total MSW (pounds/person/day)				6.99

2014 population

110,192

Macoupin County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	410.1	9,740	Metal	
Newsprint	51.8	1,230	Other Ferrous	51.4
High Grade Office Paper	24.0	570	Other Non-Ferrous	9.3
Magazines/Catalogs	32.4	770	Other Metal	16.0
Uncoated OCC/Kraft	108.6	2,580		
Boxboard	54.7	1,300	Organics	567.5
Mixed Paper - Recyclable	53.0	1,260	Yard Waste - Compostable	117.5
Compostable Paper	73.3	1,740	Yard Waste - Woody	23.2
Other Paper	12.2	290	Food Scraps	302.7
			Bottom Fines & Dirt	45.0
Beverage Containers	5.1	120	Diapers	37.1
Milk & Juice Cartons/Boxes - Coated	5.1	120	Other Organic	42.1
Plastic	303.1	7,200	Inorganics	175.1
#1 PET Bottles/Jars	19.4	460	Televisions	5.1
#1 Other PET Containers	5.5	130	Computer Monitors	3.4
#2 HDPE Bottles/Jars - Clear	9.7	230	Computer Equipment/Peripherals	7.2
#2 HDPE Bottles/Jars - Color	9.3	220	Electronic Equipment	14.3
#2 Other HDPE Containers	0.8	20	White Goods - Refrigerated	10.5
#6 Exp. Polystyrene Packaging	18.1	430	White Goods - Not refrigerated	23.2
#3-#7 Other - All	12.6	300	Lead-acid Batteries	18.1
Other Rigid Plastic Products	58.1	1,380	Other Household Batteries	4.2
Grocery & Merchandise Bags	12.2	290	Tires	25.7
Trash Bags	33.7	800	Household Bulky Items	63.2
Commercial & Industrial Film	33.7	800	Fluorescent Lights/Ballasts	0.4
Other Film	58.9	1,400		
Other Plastic	31.2	740	Textiles	104.8
			Carpet	24.4
Glass	85.9	2,040	Carpet Padding	6.7
Recyclable Glass Bottles & Jars	68.2	1,620	Clothing	46.7
Flat Glass	10.1	240	Other Textiles	26.9
Other Glass	7.6	180		
			Household Hazardous Waste	26.5
Metal	123.8	2,940		
Aluminum Beverage Containers	15.6	370	Construction and Demolition Debris (C&D)	599.1
Other Aluminum	8.8	210		
Ferrous Containers (Tin Cans)	22.7	540	Total MSW (tons)	57,030
			Total MSW (pounds/person/day)	6.58

Madison County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	673.0	89,950		
Newsprint	70.6	9,440	51.3	6,850
High Grade Office Paper	50.4	6,730	9.1	1,210
Magazines/Catalogs	31.5	4,210	15.9	2,120
Uncoated OCC/Kraft	327.3	43,740		
Boxboard	54.5	7,290	582.6	77,870
Mixed Paper - Recyclable	53.3	7,120	117.4	15,690
Compostable Paper	73.0	9,760	23.2	3,100
Other Paper	12.4	1,660	317.7	42,460
Beverage Containers	5.2	700	45.3	6,050
Milk & Juice Cartons/Boxes - Coated	5.2	700	37.0	4,950
			42.0	5,620
Plastic	311.4	41,620	175.2	23,410
#1 PET Bottles/Jars	20.6	2,760	5.0	670
#1 Other PET Containers	5.8	770	3.1	420
#2 HDPE Bottles/Jars - Clear	10.5	1,400	7.1	950
#2 HDPE Bottles/Jars - Color	9.7	1,290	14.4	1,930
#2 Other HDPE Containers	0.7	90	10.4	1,390
#6 Exp. Polystyrene Packaging	18.3	2,450	23.1	3,090
#3-#7 Other - All	13.0	1,740	18.3	2,440
Other Rigid Plastic Products	58.0	7,750	4.3	580
Grocery & Merchandise Bags	12.9	1,730	25.8	3,450
Trash Bags	33.5	4,480	63.1	8,430
Commercial & Industrial Film	36.3	4,850	0.4	60
Other Film	58.8	7,860		
Other Plastic	33.3	4,450	110.1	14,710
Glass	86.0	11,490	24.5	3,270
Recyclable Glass Bottles & Jars	68.2	9,110	6.6	880
Flat Glass	10.0	1,340	50.1	6,690
Other Glass	7.8	1,040	29.0	3,870
Metal	123.1	16,450	26.9	3,590
Aluminum Beverage Containers	15.4	2,060	603.3	80,630
Other Aluminum	8.7	1,160		
Ferrous Containers (Tin Cans)	22.8	3,050		
Total MSW (tons)				360,420
Total MSW (pounds/person/day)				7.39
Construction and Demolition Debris (C&D)				
Household Hazardous Waste				
Textiles				
Carpet				
Carpet Padding				
Clothing				
Other Textiles				
Fluorescent Lights/Ballasts				
Other Household Batteries				
Tires				
Household Bulky Items				
Televisions				
Computer Monitors				
Computer Equipment/Peripherals				
Electronic Equipment				
White Goods - Refrigerated				
White Goods - Not refrigerated				
Lead-acid Batteries				
Other Organic				
Diapers				
Bottom Fines & Dirt				
Food Scraps				
Yard Waste - Woody				
Yard Waste - Compostable				
Other Ferrous				
Other Non-Ferrous				
Other Metal				
Organics				
Metal				

Marshall County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	521.6	3,260	Metal	
Newsprint	52.8	330	Other Ferrous	51.2
High Grade Office Paper	49.6	310	Other Non-Ferrous	9.6
Magazines/Catalogs	33.6	210	Other Metal	16.0
Uncoated OCC/Kraft	192.0	1,200		
Boxboard	54.4	340	Organics	579.2
Mixed Paper - Recyclable	52.8	330	Yard Waste - Compostable	116.8
Compostable Paper	73.6	460	Yard Waste - Woody	24.0
Other Paper	12.8	80	Food Scraps	315.2
			Bottom Fines & Dirt	44.8
Beverage Containers	4.8	30	Diapers	36.8
Milk & Juice Cartons/Boxes - Coated	4.8	30	Other Organic	41.6
				260
Plastic	316.8	1,980	Inorganics	171.2
#1 PET Bottles/Jars	22.4	140	Televisions	4.8
#1 Other PET Containers	6.4	40	Computer Monitors	3.2
#2 HDPE Bottles/Jars - Clear	11.2	70	Computer Equipment/Peripherals	6.4
#2 HDPE Bottles/Jars - Color	9.6	60	Electronic Equipment	14.4
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	9.6
#6 Exp. Polystyrene Packaging	19.2	120	White Goods - Not refrigerated	22.4
#3-#7 Other - All	12.8	80	Lead-acid Batteries	17.6
Other Rigid Plastic Products	57.6	360	Other Household Batteries	4.8
Grocery & Merchandise Bags	12.8	80	Tires	25.6
Trash Bags	33.6	210	Household Bulky Items	62.4
Commercial & Industrial Film	36.8	230	Fluorescent Lights/Ballasts	<0.1
Other Film	59.2	370		
Other Plastic	35.2	220	Textiles	110.4
			Carpet	24.0
Glass	84.8	530	Carpet Padding	6.4
Recyclable Glass Bottles & Jars	67.2	420	Clothing	51.2
Flat Glass	9.6	60	Other Textiles	28.8
Other Glass	8.0	50		
			Household Hazardous Waste	25.6
Metal	123.2	770		
Aluminum Beverage Containers	16.0	100	Construction and Demolition Debris (C&D)	603.2
Other Aluminum	8.0	50		
Ferrous Containers (Tin Cans)	22.4	140	Total MSW (tons)	15,880
			Total MSW (pounds/person/day)	6.96

2014 population 12,500

Mason County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	471.1	3,400	576.5	4,160
Newsprint	47.1	340	51.3	370
High Grade Office Paper	23.6	170	9.7	70
Magazines/Catalogs	33.3	240	15.2	110
Uncoated OCC/Kraft	174.6	1,260		
Boxboard	54.0	390		
Mixed Paper - Recyclable	52.7	380		
Compostable Paper	73.4	530		
Other Paper	12.5	90		
Beverage Containers	5.5	40	41.6	300
Milk & Juice Cartons/Boxes - Coated	5.5	40		
Plastic	299.3	2,160	174.6	1,260
#1 PET Bottles/Jars	20.8	150	5.5	40
#1 Other PET Containers	5.5	40	2.8	20
#2 HDPE Bottles/Jars - Clear	11.1	80	6.9	50
#2 HDPE Bottles/Jars - Color	9.7	70	13.9	100
#2 Other HDPE Containers	<1	<5	9.7	70
#6 Exp. Polystyrene Packaging	18.0	130	23.6	170
#3-#7 Other - All	12.5	90	18.0	130
Other Rigid Plastic Products	58.2	420	4.2	30
Grocery & Merchandise Bags	11.1	80	26.3	190
Trash Bags	33.3	240	63.7	460
Commercial & Industrial Film	31.9	230	<0.1	<1
Other Film	58.2	420		
Other Plastic	29.1	210		
Glass	87.3	630	99.8	720
Recyclable Glass Bottles & Jars	69.3	500	24.9	180
Flat Glass	9.7	70	6.9	50
Other Glass	8.3	60	43.0	310
Metal	121.9	880	24.9	180
Aluminum Beverage Containers	15.2	110		
Other Aluminum	8.3	60		
Ferrous Containers (Tin Cans)	22.2	160		
Construction and Demolition Debris (C&D)			464.2	3,350
Total MSW (tons)				16,780
Total MSW (pounds/person/day)				6.37

2014 population

14,433

McDonough County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	593.2	9,540	Metal	
Newsprint	76.5	1,230	Other Ferrous	51.0
High Grade Office Paper	39.2	630	Other Non-Ferrous	9.3
Magazines/Catalogs	31.1	500	Other Metal	16.2
Uncoated OCC/Kraft	253.1	4,070		
Boxboard	54.7	880	Organics	8,860
Mixed Paper - Recyclable	53.5	860	Yard Waste - Compostable	117.5
Compostable Paper	72.7	1,170	Yard Waste - Woody	23.0
Other Paper	12.4	200	Food Scraps	285.4
			Bottom Fines & Dirt	45.4
			Diapers	37.3
			Other Organic	42.3
Beverage Containers	3.7	60		
Milk & Juice Cartons/Boxes - Coated	3.7	60		
Plastic	282.9	4,550	Inorganics	174.7
#1 PET Bottles/Jars	15.5	250	Televisions	5.0
#1 Other PET Containers	4.4	70	Computer Monitors	3.1
#2 HDPE Bottles/Jars - Clear	8.1	130	Computer Equipment/Peripherals	6.8
#2 HDPE Bottles/Jars - Color	7.5	120	Electronic Equipment	14.3
#2 Other HDPE Containers	0.6	10	White Goods - Refrigerated	10.6
#6 Exp. Polystyrene Packaging	18.0	290	White Goods - Not refrigerated	23.0
#3-#7 Other - All	13.7	220	Lead-acid Batteries	18.0
Other Rigid Plastic Products	57.8	930	Other Household Batteries	4.4
Grocery & Merchandise Bags	9.9	160	Tires	26.1
Trash Bags	33.6	540	Household Bulky Items	62.8
Commercial & Industrial Film	28.6	460	Fluorescent Lights/Ballasts	0.6
Other Film	59.1	950		
Other Plastic	26.1	420	Textiles	92.6
			Carpet	24.2
			Carpet Padding	6.8
			Clothing	39.2
			Other Textiles	22.4
Glass	85.8	1,380	Household Hazardous Waste	26.7
Recyclable Glass Bottles & Jars	67.8	1,090		
Flat Glass	9.9	160		
Other Glass	8.1	130		
Metal	123.7	1,990	Construction and Demolition Debris (C&D)	460.1
Aluminum Beverage Containers	15.5	250		
Other Aluminum	8.7	140		
Ferrous Containers (Tin Cans)	23.0	370	Total MSW (tons)	38,510
			Total MSW (pounds/person/day)	6.56

McLean County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)		County Generation (lb/c/yr)	Total Generation (tons)
Paper	768.3	66,780	Metal		
Newsprint	70.0	6,080	Other Ferrous	51.2	4,450
High Grade Office Paper	53.2	4,620	Other Non-Ferrous	9.1	790
Magazines/Catalogs	30.7	2,670	Other Metal	15.9	1,380
Uncoated OCC/Kraft	421.2	36,610			
Boxboard	54.5	4,740	Organics	603.2	52,430
Mixed Paper - Recyclable	53.3	4,630	Yard Waste - Compostable	117.4	10,200
Compostable Paper	73.1	6,350	Yard Waste - Woody	23.2	2,020
Other Paper	12.4	1,080	Food Scraps	338.4	29,410
			Bottom Fines & Dirt	45.2	3,930
Beverage Containers	5.9	510	Diapers	37.0	3,220
Milk & Juice Cartons/Boxes - Coated	5.9	510	Other Organic	42.0	3,650
Plastic	332.4	28,890	Inorganics	175.3	15,240
#1 PET Bottles/Jars	23.4	2,030	Televisions	5.1	440
#1 Other PET Containers	6.6	570	Computer Monitors	3.2	280
#2 HDPE Bottles/Jars - Clear	11.9	1,030	Computer Equipment/Peripherals	7.1	620
#2 HDPE Bottles/Jars - Color	10.9	950	Electronic Equipment	14.5	1,260
#2 Other HDPE Containers	0.8	70	White Goods - Refrigerated	10.4	900
#6 Exp. Polystyrene Packaging	18.4	1,600	White Goods - Not refrigerated	23.1	2,010
#3-#7 Other - All	13.0	1,130	Lead-acid Batteries	18.3	1,590
Other Rigid Plastic Products	58.0	5,040	Other Household Batteries	4.4	380
Grocery & Merchandise Bags	15.4	1,340	Tires	25.8	2,240
Trash Bags	33.5	2,910	Household Bulky Items	63.0	5,480
Commercial & Industrial Film	43.5	3,780	Fluorescent Lights/Ballasts	0.5	40
Other Film	58.8	5,110			
Other Plastic	38.3	3,330	Textiles	125.9	10,940
			Carpet	24.5	2,130
Glass	85.9	7,470	Carpet Padding	6.7	580
Recyclable Glass Bottles & Jars	68.1	5,920	Clothing	59.9	5,210
Flat Glass	10.0	870	Other Textiles	34.7	3,020
Other Glass	7.8	680			
			Household Hazardous Waste	26.9	2,340
Metal	123.1	10,700			
Aluminum Beverage Containers	15.4	1,340	Construction and Demolition Debris (C&D)	615.5	53,500
Other Aluminum	8.7	760			
Ferrous Containers (Tin Cans)	22.8	1,980	Total MSW (tons)		248,800
			Total MSW (pounds/person/day)		7.84

Menard County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	449.7	2,870	Metal	
Newsprint	59.5	380	Other Ferrous	51.7
High Grade Office Paper	50.1	320	Other Non-Ferrous	9.4
Magazines/Catalogs	31.3	200	Other Metal	15.7
Uncoated OCC/Kraft	114.4	730		
Boxboard	54.8	350	Organics	600.1
Mixed Paper - Recyclable	53.3	340	Yard Waste - Compostable	117.5
Compostable Paper	73.6	470	Yard Waste - Woody	23.5
Other Paper	12.5	80	Food Scraps	333.7
			Bottom Fines & Dirt	45.4
Beverage Containers	6.3	40	Diapers	37.6
Milk & Juice Cartons/Boxes - Coated	6.3	40	Other Organic	42.3
Plastic	335.3	2,140	Inorganics	175.5
#1 PET Bottles/Jars	23.5	150	Televisions	4.7
#1 Other PET Containers	6.3	40	Computer Monitors	3.1
#2 HDPE Bottles/Jars - Clear	12.5	80	Computer Equipment/Peripherals	7.8
#2 HDPE Bottles/Jars - Color	11.0	70	Electronic Equipment	14.1
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	11.0
#6 Exp. Polystyrene Packaging	18.8	120	White Goods - Not refrigerated	23.5
#3-#7 Other - All	14.1	90	Lead-acid Batteries	18.8
Other Rigid Plastic Products	58.0	370	Other Household Batteries	4.7
Grocery & Merchandise Bags	15.7	100	Tires	25.1
Trash Bags	32.9	210	Household Bulky Items	62.7
Commercial & Industrial Film	43.9	280	Fluorescent Lights/Ballasts	<0.1
Other Film	59.5	380		
Other Plastic	39.2	250	Textiles	125.3
			Carpet	25.1
Glass	84.6	540	Carpet Padding	6.3
Recyclable Glass Bottles & Jars	67.4	430	Clothing	59.5
Flat Glass	9.4	60	Other Textiles	34.5
Other Glass	7.8	50		
			Household Hazardous Waste	25.1
Metal	125.3	800		
Aluminum Beverage Containers	15.7	100	Construction and Demolition Debris (C&D)	617.3
Other Aluminum	9.4	60		
Ferrous Containers (Tin Cans)	23.5	150	Total MSW (tons)	16,240
			Total MSW (pounds/person/day)	6.97

2014 population 12,765

Mercer County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	428.3	3,550	Metal	
Newsprint	14.5	120	Other Ferrous	50.7
High Grade Office Paper	50.7	420	Other Non-Ferrous	9.7
Magazines/Catalogs	31.4	260	Other Metal	15.7
Uncoated OCC/Kraft	138.8	1,150		
Boxboard	54.3	450	Organics	581.6
Mixed Paper - Recyclable	53.1	440	Yard Waste - Compostable	117.0
Compostable Paper	73.6	610	Yard Waste - Woody	22.9
Other Paper	12.1	100	Food Scraps	317.3
			Bottom Fines & Dirt	44.6
Beverage Containers	6.0	50	Diapers	37.4
Milk & Juice Cartons/Boxes - Coated	6.0	50	Other Organic	42.2
Plastic	316.1	2,620	Inorganics	175.0
#1 PET Bottles/Jars	21.7	180	Televisions	4.8
#1 Other PET Containers	6.0	50	Computer Monitors	3.6
#2 HDPE Bottles/Jars - Clear	10.9	90	Computer Equipment/Peripherals	7.2
#2 HDPE Bottles/Jars - Color	9.7	80	Electronic Equipment	14.5
#2 Other HDPE Containers	1.2	10	White Goods - Refrigerated	10.9
#6 Exp. Polystyrene Packaging	18.1	150	White Goods - Not refrigerated	22.9
#3-#7 Other - All	14.5	120	Lead-acid Batteries	18.1
Other Rigid Plastic Products	57.9	480	Other Household Batteries	4.8
Grocery & Merchandise Bags	13.3	110	Tires	25.3
Trash Bags	33.8	280	Household Bulky Items	62.7
Commercial & Industrial Film	36.2	300	Fluorescent Lights/Ballasts	<0.1
Other Film	59.1	490		
Other Plastic	33.8	280	Textiles	109.8
			Carpet	24.1
Glass	85.7	710	Carpet Padding	6.0
Recyclable Glass Bottles & Jars	68.8	570	Clothing	50.7
Flat Glass	9.7	80	Other Textiles	29.0
Other Glass	7.2	60		
			Household Hazardous Waste	25.3
Metal	123.1	1,020		
Aluminum Beverage Containers	15.7	130	Construction and Demolition Debris (C&D)	605.7
Other Aluminum	8.4	70		
Ferrous Containers (Tin Cans)	22.9	190	Total MSW (tons)	20,360
			Total MSW (pounds/person/day)	6.73

2014 population

16,576

Monroe County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	564.3	9,470	Metal	
Newsprint	58.4	980	Other Ferrous	51.2
High Grade Office Paper	50.1	840	Other Non-Ferrous	8.9
Magazines/Catalogs	33.4	560	Other Metal	16.1
Uncoated OCC/Kraft	228.8	3,840		
Boxboard	54.8	920	Organics	10,320
Mixed Paper - Recyclable	53.0	890	Yard Waste - Compostable	117.4
Compostable Paper	73.3	1,230	Yard Waste - Woody	23.2
Other Paper	12.5	210	Food Scraps	349.8
			Bottom Fines & Dirt	45.3
Beverage Containers	6.6	110	Diapers	36.9
Milk & Juice Cartons/Boxes - Coated	6.6	110	Other Organic	42.3
Plastic	348.0	5,840	Inorganics	174.6
#1 PET Bottles/Jars	25.0	420	Televisions	4.8
#1 Other PET Containers	7.2	120	Computer Monitors	3.0
#2 HDPE Bottles/Jars - Clear	12.5	210	Computer Equipment/Peripherals	7.2
#2 HDPE Bottles/Jars - Color	11.9	200	Electronic Equipment	14.3
#2 Other HDPE Containers	0.6	10	White Goods - Refrigerated	10.1
#6 Exp. Polystyrene Packaging	17.9	300	White Goods - Not refrigerated	23.2
#3-#7 Other - All	13.1	220	Lead-acid Batteries	18.5
Other Rigid Plastic Products	57.8	970	Other Household Batteries	4.2
Grocery & Merchandise Bags	16.7	280	Tires	25.6
Trash Bags	33.4	560	Household Bulky Items	63.2
Commercial & Industrial Film	46.5	780	Fluorescent Lights/Ballasts	0.6
Other Film	59.0	990		
Other Plastic	46.5	780	Textiles	132.9
			Carpet	24.4
Glass	86.4	1,450	Carpet Padding	6.6
Recyclable Glass Bottles & Jars	68.5	1,150	Clothing	64.4
Flat Glass	10.1	170	Other Textiles	37.5
Other Glass	7.7	130		
			Household Hazardous Waste	26.8
Metal	123.4	2,070	Construction and Demolition Debris (C&D)	621.6
Aluminum Beverage Containers	15.5	260		
Other Aluminum	8.9	150	Total MSW (tons)	45,300
Ferrous Containers (Tin Cans)	22.6	380	Total MSW (pounds/person/day)	7.40

Montgomery County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	597.5	8,880	Metal	
Newsprint	69.3	1,040	Other Ferrous	51.3
High Grade Office Paper	32.0	480	Other Non-Ferrous	9.3
Magazines/Catalogs	32.6	490	Other Metal	16.0
Uncoated OCC/Kraft	263.8	3,960		
Boxboard	54.6	820	Organics	564.2
Mixed Paper - Recyclable	53.3	800	Yard Waste - Compostable	117.2
Compostable Paper	73.3	1,100	Yard Waste - Woody	23.3
Other Paper	12.7	190	Food Scraps	299.1
			Bottom Fines & Dirt	45.3
Beverage Containers	4.7	70	Diapers	37.3
Milk & Juice Cartons/Boxes - Coated	4.7	70	Other Organic	42.0
Plastic	295.7	4,440	Inorganics	177.2
#1 PET Bottles/Jars	19.3	290	Televisions	5.3
#1 Other PET Containers	5.3	80	Computer Monitors	3.3
#2 HDPE Bottles/Jars - Clear	9.3	140	Computer Equipment/Peripherals	7.3
#2 HDPE Bottles/Jars - Color	8.7	130	Electronic Equipment	14.7
#2 Other HDPE Containers	0.7	10	White Goods - Refrigerated	10.7
#6 Exp. Polystyrene Packaging	18.6	280	White Goods - Not refrigerated	23.3
#3-#7 Other - All	12.7	190	Lead-acid Batteries	18.0
Other Rigid Plastic Products	57.9	870	Other Household Batteries	4.7
Grocery & Merchandise Bags	11.3	170	Tires	26.0
Trash Bags	33.3	500	Household Bulky Items	63.3
Commercial & Industrial Film	31.3	470	Fluorescent Lights/Ballasts	0.7
Other Film	58.6	880		
Other Plastic	28.6	430	Textiles	99.9
			Carpet	24.6
Glass	86.6	1,300	Carpet Padding	6.7
Recyclable Glass Bottles & Jars	68.6	1,030	Clothing	43.3
Flat Glass	10.0	150	Other Textiles	25.3
Other Glass	8.0	120		
			Household Hazardous Waste	26.6
Metal	123.2	1,850	Construction and Demolition Debris (C&D)	465.6
Aluminum Beverage Containers	15.3	230		
Other Aluminum	8.7	130	Total MSW (tons)	36,560
Ferrous Containers (Tin Cans)	22.6	340	Total MSW (pounds/person/day)	6.67

Morgan County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)		County Generation (lb/c/yr)	Total Generation (tons)
Paper	705.6	12,270	Metal		
Newsprint	65.0	1,130	Other Ferrous	51.2	890
High Grade Office Paper	45.4	790	Other Non-Ferrous	9.2	160
Magazines/Catalogs	32.8	570	Other Metal	16.1	280
Uncoated OCC/Kraft	368.6	6,410			
Boxboard	54.6	950	Organics	560.1	9,740
Mixed Paper - Recyclable	53.5	930	Yard Waste - Compostable	117.3	2,040
Compostable Paper	73.0	1,270	Yard Waste - Woody	23.0	400
Other Paper	12.7	220	Food Scraps	295.6	5,140
			Bottom Fines & Dirt	45.4	790
Beverage Containers	4.6	80	Diapers	36.8	640
Milk & Juice Cartons/Boxes - Coated	4.6	80	Other Organic	42.0	730
Plastic	297.3	5,170	Inorganics	176.0	3,060
#1 PET Bottles/Jars	17.8	310	Televisions	5.2	90
#1 Other PET Containers	5.2	90	Computer Monitors	3.5	60
#2 HDPE Bottles/Jars - Clear	9.2	160	Computer Equipment/Peripherals	6.9	120
#2 HDPE Bottles/Jars - Color	8.6	150	Electronic Equipment	14.4	250
#2 Other HDPE Containers	0.6	10	White Goods - Refrigerated	10.4	180
#6 Exp. Polystyrene Packaging	17.8	310	White Goods - Not refrigerated	23.0	400
#3-#7 Other - All	13.2	230	Lead-acid Batteries	18.4	320
Other Rigid Plastic Products	58.1	1,010	Other Household Batteries	4.6	80
Grocery & Merchandise Bags	11.5	200	Tires	25.9	450
Trash Bags	33.4	580	Household Bulky Items	63.3	1,100
Commercial & Industrial Film	32.8	570	Fluorescent Lights/Ballasts	0.6	10
Other Film	58.7	1,020			
Other Plastic	30.5	530	Textiles	103.5	1,800
			Carpet	24.7	430
Glass	85.7	1,490	Carpet Padding	6.9	120
Recyclable Glass Bottles & Jars	67.9	1,180	Clothing	45.4	790
Flat Glass	9.8	170	Other Textiles	26.5	460
Other Glass	8.1	140			
			Household Hazardous Waste	27.0	470
Metal	123.6	2,150	Construction and Demolition Debris (C&D)	467.5	8,130
Aluminum Beverage Containers	15.5	270			
Other Aluminum	8.6	150	Total MSW (tons)		44,360
Ferrous Containers (Tin Cans)	23.0	400	Total MSW (pounds/person/day)		6.99

Moultrie County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	516.2	3,890	Metal	
Newsprint	38.5	290	Other Ferrous	51.8
High Grade Office Paper	34.5	260	Other Non-Ferrous	9.3
Magazines/Catalogs	30.5	230	Other Metal	15.9
Uncoated OCC/Kraft	220.3	1,660		
Boxboard	54.4	410	Organics	569.3
Mixed Paper - Recyclable	53.1	400	Yard Waste - Compostable	116.8
Compostable Paper	73.0	550	Yard Waste - Woody	23.9
Other Paper	11.9	90	Food Scraps	303.9
			Bottom Fines & Dirt	45.1
Beverage Containers	5.3	40	Diapers	37.2
Milk & Juice Cartons/Boxes - Coated	5.3	40	Other Organic	42.5
Plastic	307.9	2,320	Inorganics	173.8
#1 PET Bottles/Jars	19.9	150	Televisions	5.3
#1 Other PET Containers	5.3	40	Computer Monitors	2.7
#2 HDPE Bottles/Jars - Clear	9.3	70	Computer Equipment/Peripherals	6.6
#2 HDPE Bottles/Jars - Color	9.3	70	Electronic Equipment	14.6
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	10.6
#6 Exp. Polystyrene Packaging	18.6	140	White Goods - Not refrigerated	22.6
#3-#7 Other - All	13.3	100	Lead-acid Batteries	18.6
Other Rigid Plastic Products	58.4	440	Other Household Batteries	4.0
Grocery & Merchandise Bags	13.3	100	Tires	25.2
Trash Bags	33.2	250	Household Bulky Items	63.7
Commercial & Industrial Film	35.8	270	Fluorescent Lights/Ballasts	<0.1
Other Film	58.4	440		
Other Plastic	33.2	250	Textiles	107.5
			Carpet	23.9
Glass	86.3	650	Carpet Padding	6.6
Recyclable Glass Bottles & Jars	67.7	510	Clothing	49.1
Flat Glass	10.6	80	Other Textiles	27.9
Other Glass	8.0	60		
			Household Hazardous Waste	23.9
Metal	124.7	940		
Aluminum Beverage Containers	15.9	120	Construction and Demolition Debris (C&D)	472.4
Other Aluminum	9.3	70		
Ferrous Containers (Tin Cans)	22.6	170	Total MSW (tons)	17,990
			Total MSW (pounds/person/day)	6.54

Ogle County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	566.6	15,220	Metal	
Newsprint	51.7	1,390	Other Ferrous	51.4
High Grade Office Paper	50.3	1,350	Other Non-Ferrous	8.9
Magazines/Catalogs	31.6	850	Other Metal	16.0
Uncoated OCC/Kraft	239.7	6,440		
Boxboard	54.7	1,470	Organics	584.8
Mixed Paper - Recyclable	53.2	1,430	Yard Waste - Compostable	117.3
Compostable Paper	73.0	1,960	Yard Waste - Woody	23.1
Other Paper	12.3	330	Food Scraps	320.2
			Bottom Fines & Dirt	45.0
Beverage Containers	5.6	150	Diapers	37.2
Milk & Juice Cartons/Boxes - Coated	5.6	150	Other Organic	42.1
Plastic	315.3	8,470	Inorganics	175.3
#1 PET Bottles/Jars	21.6	580	Televisions	5.2
#1 Other PET Containers	6.0	160	Computer Monitors	3.4
#2 HDPE Bottles/Jars - Clear	10.8	290	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	10.1	270	Electronic Equipment	14.5
#2 Other HDPE Containers	0.7	20	White Goods - Refrigerated	10.4
#6 Exp. Polystyrene Packaging	18.6	500	White Goods - Not refrigerated	23.1
#3-#7 Other - All	13.4	360	Lead-acid Batteries	18.2
Other Rigid Plastic Products	58.1	1,560	Other Household Batteries	4.5
Grocery & Merchandise Bags	13.0	350	Tires	25.7
Trash Bags	33.5	900	Household Bulky Items	62.9
Commercial & Industrial Film	36.9	990	Fluorescent Lights/Ballasts	0.4
Other Film	58.8	1,580		
Other Plastic	33.9	910	Textiles	111.7
			Carpet	24.6
Glass	86.0	2,310	Carpet Padding	6.7
Recyclable Glass Bottles & Jars	68.1	1,830	Clothing	51.0
Flat Glass	10.1	270	Other Textiles	29.4
Other Glass	7.8	210		
			Household Hazardous Waste	26.8
Metal	122.9	3,300		
Aluminum Beverage Containers	15.3	410	Construction and Demolition Debris (C&D)	473.5
Other Aluminum	8.6	230		
Ferrous Containers (Tin Cans)	22.7	610	Total MSW (tons)	66,310
			Total MSW (pounds/person/day)	6.76

2014 population 53,724

Peoria County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	842.3	79,700	Metal	
Newsprint	50.6	4,790	Other Ferrous	51.3
High Grade Office Paper	58.8	5,560	Other Non-Ferrous	9.1
Magazines/Catalogs	31.1	2,940	Other Metal	15.9
Uncoated OCC/Kraft	508.7	48,130		
Boxboard	54.5	5,160	Organics	595.5
Mixed Paper - Recyclable	53.3	5,040	Yard Waste - Compostable	117.4
Compostable Paper	73.0	6,910	Yard Waste - Woody	23.3
Other Paper	12.4	1,170	Food Scraps	330.4
			Bottom Fines & Dirt	45.2
Beverage Containers	5.7	540	Diapers	37.1
Milk & Juice Cartons/Boxes - Coated	5.7	540	Other Organic	42.1
Plastic	308.7	29,210	Inorganics	175.2
#1 PET Bottles/Jars	22.6	2,140	Televisions	5.1
#1 Other PET Containers	6.3	600	Computer Monitors	3.2
#2 HDPE Bottles/Jars - Clear	11.4	1,080	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	10.6	1,000	Electronic Equipment	14.5
#2 Other HDPE Containers	0.7	70	White Goods - Refrigerated	10.4
#6 Exp. Polystyrene Packaging	18.4	1,740	White Goods - Not refrigerated	23.1
#3-#7 Other - All	13.0	1,230	Lead-acid Batteries	18.3
Other Rigid Plastic Products	58.0	5,490	Other Household Batteries	4.3
Grocery & Merchandise Bags	11.7	1,110	Tires	25.8
Trash Bags	33.5	3,170	Household Bulky Items	63.1
Commercial & Industrial Film	33.1	3,130	Fluorescent Lights/Ballasts	0.4
Other Film	58.8	5,560		
Other Plastic	30.5	2,890	Textiles	103.0
			Carpet	24.4
Glass	86.0	8,140	Carpet Padding	6.7
Recyclable Glass Bottles & Jars	68.2	6,450	Clothing	45.6
Flat Glass	10.0	950	Other Textiles	26.4
Other Glass	7.8	740		
			Household Hazardous Waste	26.8
Metal	123.1	11,650	Construction and Demolition Debris (C&D)	597.8
Aluminum Beverage Containers	15.4	1,460		
Other Aluminum	8.7	820	Total MSW (tons)	271,010
Ferrous Containers (Tin Cans)	22.8	2,160	Total MSW (pounds/person/day)	7.85

Perry County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	411.7	4,580	Metal	
Newsprint	64.7	720	Other Ferrous	51.2
High Grade Office Paper	24.3	270	Other Non-Ferrous	9.0
Magazines/Catalogs	27.9	310	Other Metal	16.2
Uncoated OCC/Kraft	101.6	1,130		
Boxboard	54.8	610	Organics	549.3
Mixed Paper - Recyclable	53.0	590	Yard Waste - Compostable	117.8
Compostable Paper	72.8	810	Yard Waste - Woody	23.4
Other Paper	12.6	140	Food Scraps	284.1
			Bottom Fines & Dirt	44.9
Beverage Containers	4.5	50	Diapers	36.9
Milk & Juice Cartons/Boxes - Coated	4.5	50	Other Organic	42.3
Plastic	282.3	3,140	Inorganics	177.1
#1 PET Bottles/Jars	16.2	180	Televisions	5.4
#1 Other PET Containers	4.5	50	Computer Monitors	3.6
#2 HDPE Bottles/Jars - Clear	8.1	90	Computer Equipment/Peripherals	7.2
#2 HDPE Bottles/Jars - Color	7.2	80	Electronic Equipment	14.4
#2 Other HDPE Containers	0.9	10	White Goods - Refrigerated	10.8
#6 Exp. Polystyrene Packaging	18.9	210	White Goods - Not refrigerated	23.4
#3-#7 Other - All	12.6	140	Lead-acid Batteries	18.0
Other Rigid Plastic Products	57.5	640	Other Household Batteries	4.5
Grocery & Merchandise Bags	9.9	110	Tires	26.1
Trash Bags	33.3	370	Household Bulky Items	62.9
Commercial & Industrial Film	28.8	320	Fluorescent Lights/Ballasts	0.9
Other Film	58.4	650		
Other Plastic	26.1	290	Textiles	93.5
			Carpet	24.3
Glass	85.4	950	Carpet Padding	6.3
Recyclable Glass Bottles & Jars	67.4	750	Clothing	39.6
Flat Glass	9.9	110	Other Textiles	23.4
Other Glass	8.1	90		
			Household Hazardous Waste	27.9
Metal	123.2	1,370	Construction and Demolition Debris (C&D)	459.4
Aluminum Beverage Containers	15.3	170		
Other Aluminum	9.0	100	Total MSW (tons)	24,630
Ferrous Containers (Tin Cans)	22.5	250	Total MSW (pounds/person/day)	6.07

Platt County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	435.9	3,680	599.4	5,060
Newsprint	65.2	550	50.9	430
High Grade Office Paper	49.8	420	9.5	80
Magazines/Catalogs	32.0	270	15.4	130
Uncoated OCC/Kraft	95.9	810		
Boxboard	54.5	460		
Mixed Paper - Recyclable	53.3	450		
Compostable Paper	73.4	620		
Other Paper	11.8	100		
Beverage Containers	5.9	50	41.5	350
Milk & Juice Cartons/Boxes - Coated	5.9	50		
Plastic	340.0	2,870	175.3	1,480
#1 PET Bottles/Jars	23.7	200	4.7	40
#1 Other PET Containers	7.1	60	3.6	30
#2 HDPE Bottles/Jars - Clear	11.8	100	7.1	60
#2 HDPE Bottles/Jars - Color	11.8	100	14.2	120
#2 Other HDPE Containers	1.2	10	10.7	90
#6 Exp. Polystyrene Packaging	17.8	150	23.7	200
#3-#7 Other - All	14.2	120	17.8	150
Other Rigid Plastic Products	58.0	490	4.7	40
Grocery & Merchandise Bags	15.4	130	26.1	220
Trash Bags	33.2	280	62.8	530
Commercial & Industrial Film	45.0	380	<0.1	<1
Other Film	59.2	500		
Other Plastic	41.5	350		
Glass	86.5	730	129.1	1,090
Recyclable Glass Bottles & Jars	68.7	580	24.9	210
Flat Glass	9.5	80	7.1	60
Other Glass	8.3	70	61.6	520
Metal	122.0	1,030	27.2	230
Aluminum Beverage Containers	15.4	130		
Other Aluminum	8.3	70		
Ferrous Containers (Tin Cans)	22.5	190		
Construction and Demolition Debris (C&D)			617.2	5,210
Total MSW (tons)				21,430
Total MSW (pounds/person/day)				6.95

2014 population 16,884

Pike County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	525.2	4,270	Metal	
Newsprint	39.4	320	Other Ferrous	51.7
High Grade Office Paper	28.3	230	Other Non-Ferrous	8.6
Magazines/Catalogs	30.7	250	Other Metal	16.0
Uncoated OCC/Kraft	234.9	1,910		
Boxboard	54.1	440	Organics	552.2
Mixed Paper - Recyclable	52.9	430	Yard Waste - Compostable	116.8
Compostable Paper	72.6	590	Yard Waste - Woody	23.4
Other Paper	12.3	100	Food Scraps	287.8
			Bottom Fines & Dirt	45.5
Beverage Containers	4.9	40	Diapers	36.9
Milk & Juice Cartons/Boxes - Coated	4.9	40	Other Organic	41.8
Plastic	284.1	2,310	Inorganics	175.9
#1 PET Bottles/Jars	17.2	140	Televisions	4.9
#1 Other PET Containers	4.9	40	Computer Monitors	3.7
#2 HDPE Bottles/Jars - Clear	8.6	70	Computer Equipment/Peripherals	7.4
#2 HDPE Bottles/Jars - Color	8.6	70	Electronic Equipment	14.8
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	9.8
#6 Exp. Polystyrene Packaging	18.4	150	White Goods - Not refrigerated	23.4
#3-#7 Other - All	12.3	100	Lead-acid Batteries	18.4
Other Rigid Plastic Products	57.8	470	Other Household Batteries	4.9
Grocery & Merchandise Bags	9.8	80	Tires	25.8
Trash Bags	33.2	270	Household Bulky Items	62.7
Commercial & Industrial Film	28.3	230	Fluorescent Lights/Ballasts	<0.1
Other Film	59.0	480		
Other Plastic	25.8	210	Textiles	91.0
			Carpet	24.6
Glass	84.9	690	Carpet Padding	6.1
Recyclable Glass Bottles & Jars	67.6	550	Clothing	38.1
Flat Glass	9.8	80	Other Textiles	22.1
Other Glass	7.4	60		
			Household Hazardous Waste	25.8
Metal	124.2	1,010		
Aluminum Beverage Containers	16.0	130	Construction and Demolition Debris (C&D)	456.3
Other Aluminum	8.6	70		
Ferrous Containers (Tin Cans)	23.4	190	Total MSW (tons)	18,900
			Total MSW (pounds/person/day)	6.37

Pope County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	357.6	780	Metal	
Newsprint	13.8	30	Other Ferrous	50.4
High Grade Office Paper	22.9	50	Other Non-Ferrous	9.2
Magazines/Catalogs	27.5	60	Other Metal	13.8
Uncoated OCC/Kraft	96.3	210		
Boxboard	55.0	120	Organics	559.2
Mixed Paper - Recyclable	55.0	120	Yard Waste - Compostable	119.2
Compostable Paper	73.3	160	Yard Waste - Woody	22.9
Other Paper	13.8	30	Food Scraps	293.4
			Bottom Fines & Dirt	45.8
Beverage Containers	4.6	10	Diapers	36.7
Milk & Juice Cartons/Boxes - Coated	4.6	10	Other Organic	41.3
Plastic	279.6	610	Inorganics	178.8
#1 PET Bottles/Jars	18.3	40	Televisions	4.6
#1 Other PET Containers	4.6	10	Computer Monitors	4.6
#2 HDPE Bottles/Jars - Clear	9.2	20	Computer Equipment/Peripherals	9.2
#2 HDPE Bottles/Jars - Color	9.2	20	Electronic Equipment	13.8
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	9.2
#6 Exp. Polystyrene Packaging	18.3	40	White Goods - Not refrigerated	22.9
#3-#7 Other - All	9.2	20	Lead-acid Batteries	18.3
Other Rigid Plastic Products	59.6	130	Other Household Batteries	4.6
Grocery & Merchandise Bags	9.2	20	Tires	27.5
Trash Bags	32.1	70	Household Bulky Items	64.2
Commercial & Industrial Film	27.5	60	Fluorescent Lights/Ballasts	<0.1
Other Film	59.6	130		
Other Plastic	22.9	50	Textiles	87.1
			Carpet	22.9
Glass	91.7	200	Carpet Padding	4.6
Recyclable Glass Bottles & Jars	73.3	160	Clothing	36.7
Flat Glass	9.2	20	Other Textiles	22.9
Other Glass	9.2	20		
			Household Hazardous Waste	27.5
Metal	119.2	260		
Aluminum Beverage Containers	13.8	30	Construction and Demolition Debris (C&D)	453.8
Other Aluminum	9.2	20		
Ferrous Containers (Tin Cans)	22.9	50	Total MSW (tons)	4,710
			Total MSW (pounds/person/day)	5.92

Pulaski County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	414.7	1,260	Metal	
Newsprint	19.7	60	Other Ferrous	52.7
High Grade Office Paper	26.3	80	Other Non-Ferrous	9.9
Magazines/Catalogs	29.6	90	Other Metal	16.5
Uncoated OCC/Kraft	144.8	440		
Boxboard	55.9	170	Organics	562.8
Mixed Paper - Recyclable	52.7	160	Yard Waste - Compostable	118.5
Compostable Paper	72.4	220	Yard Waste - Woody	23.0
Other Paper	13.2	40	Food Scraps	296.2
			Bottom Fines & Dirt	46.1
Beverage Containers	3.3	10	Diapers	36.2
Milk & Juice Cartons/Boxes - Coated	3.3	10	Other Organic	42.8
				130
Plastic	276.5	840	Inorganics	174.4
#1 PET Bottles/Jars	19.7	60	Televisions	6.6
#1 Other PET Containers	6.6	20	Computer Monitors	3.3
#2 HDPE Bottles/Jars - Clear	9.9	30	Computer Equipment/Peripherals	6.6
#2 HDPE Bottles/Jars - Color	9.9	30	Electronic Equipment	13.2
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	9.9
#6 Exp. Polystyrene Packaging	16.5	50	White Goods - Not refrigerated	23.0
#3-#7 Other - All	13.2	40	Lead-acid Batteries	19.7
Other Rigid Plastic Products	59.2	180	Other Household Batteries	3.3
Grocery & Merchandise Bags	6.6	20	Tires	26.3
Trash Bags	32.9	100	Household Bulky Items	62.5
Commercial & Industrial Film	23.0	70	Fluorescent Lights/Ballasts	<0.1
Other Film	59.2	180		
Other Plastic	19.7	60	Textiles	75.7
			Carpet	23.0
Glass	85.6	260	Carpet Padding	6.6
Recyclable Glass Bottles & Jars	69.1	210	Clothing	29.6
Flat Glass	9.9	30	Other Textiles	16.5
Other Glass	6.6	20		
			Household Hazardous Waste	26.3
Metal	128.4	390		
Aluminum Beverage Containers	16.5	50	Construction and Demolition Debris (C&D)	450.9
Other Aluminum	9.9	30		
Ferrous Containers (Tin Cans)	23.0	70	Total MSW (tons)	6,680
			Total MSW (pounds/person/day)	6.02

Randolph County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	580.6	9,570	Metal	
Newsprint	46.7	770	Other Ferrous	840
High Grade Office Paper	40.7	670	Other Non-Ferrous	150
Magazines/Catalogs	31.5	520	Other Metal	260
Uncoated OCC/Kraft	268.8	4,430		
Boxboard	54.6	900	Organics	9,250
Mixed Paper - Recyclable	53.4	880	Yard Waste - Compostable	1,940
Compostable Paper	72.8	1,200	Yard Waste - Woody	380
Other Paper	12.1	200	Food Scraps	4,880
			Bottom Fines & Dirt	750
Beverage Containers	4.9	80	Diapers	610
Milk & Juice Cartons/Boxes - Coated	4.9	80	Other Organic	690
Plastic	297.9	4,910	Inorganics	2,890
#1 PET Bottles/Jars	18.2	300	Televisions	80
#1 Other PET Containers	4.9	80	Computer Monitors	50
#2 HDPE Bottles/Jars - Clear	9.1	150	Computer Equipment/Peripherals	120
#2 HDPE Bottles/Jars - Color	8.5	140	Electronic Equipment	240
#2 Other HDPE Containers	0.6	10	White Goods - Refrigerated	170
#6 Exp. Polystyrene Packaging	18.2	300	White Goods - Not refrigerated	380
#3-#7 Other - All	13.3	220	Lead-acid Batteries	300
Other Rigid Plastic Products	58.2	960	Other Household Batteries	70
Grocery & Merchandise Bags	11.5	190	Tires	430
Trash Bags	33.4	550	Household Bulky Items	1,040
Commercial & Industrial Film	32.8	540	Fluorescent Lights/Ballasts	10
Other Film	58.9	970		
Other Plastic	30.3	500	Textiles	1,680
			Carpet	400
Glass	86.2	1,420	Carpet Padding	110
Recyclable Glass Bottles & Jars	68.0	1,120	Clothing	740
Flat Glass	10.3	170	Other Textiles	430
Other Glass	7.9	130		
			Household Hazardous Waste	440
Metal	122.6	2,020	Construction and Demolition Debris (C&D)	7,700
Aluminum Beverage Containers	15.2	250		
Other Aluminum	8.5	140	Total MSW (tons)	39,960
Ferrous Containers (Tin Cans)	23.1	380	Total MSW (pounds/person/day)	6.64

Richland County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	652.5	5,270	567.1	4,580
Newsprint	39.6	320	50.8	410
High Grade Office Paper	40.9	330	8.7	70
Magazines/Catalogs	32.2	260	16.1	130
Uncoated OCC/Kraft	346.7	2,800		
Boxboard	54.5	440		
Mixed Paper - Recyclable	53.2	430		
Compostable Paper	73.1	590		
Other Paper	12.4	100		
Beverage Containers	5.0	40		
Milk & Juice Cartons/Boxes - Coated	5.0	40		
Plastic	291.0	2,350	175.8	1,420
#1 PET Bottles/Jars	19.8	160	5.0	40
#1 Other PET Containers	5.0	40	3.7	30
#2 HDPE Bottles/Jars - Clear	9.9	80	7.4	60
#2 HDPE Bottles/Jars - Color	8.7	70	14.9	120
#2 Other HDPE Containers	<1	<5	9.9	80
#6 Exp. Polystyrene Packaging	18.6	150	23.5	190
#3-#7 Other - All	12.4	100	18.6	150
Other Rigid Plastic Products	58.2	470	3.7	30
Grocery & Merchandise Bags	9.9	80	26.0	210
Trash Bags	33.4	270	63.1	510
Commercial & Industrial Film	29.7	240	<0.1	<1
Other Film	58.2	470		
Other Plastic	27.2	220		
Glass	85.4	690	94.1	760
Recyclable Glass Bottles & Jars	68.1	550	24.8	200
Flat Glass	9.9	80	6.2	50
Other Glass	7.4	60	39.6	320
Metal	121.3	980	26.0	210
Aluminum Beverage Containers	14.9	120		
Other Aluminum	8.7	70		
Ferrous Containers (Tin Cans)	22.3	180		
Construction and Demolition Debris (C&D)			460.6	3,720
Total MSW (tons)				20,020
Total MSW (pounds/person/day)				6.79

Rock Island County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	837.5	61,320	575.7	42,460
Newsprint	111.2	8,200	51.3	3,780
High Grade Office Paper	55.1	4,060	9.1	670
Magazines/Catalogs	30.9	2,280	15.9	1,170
Uncoated OCC/Kraft	441.0	32,520		
Boxboard	54.6	4,030		
Mixed Paper - Recyclable	53.3	3,930		
Compostable Paper	73.1	5,390		
Other Paper	12.3	910		
Beverage Containers	5.0	370		
Milk & Juice Cartons/Boxes - Coated	5.0	370		
Plastic	306.6	22,610	175.1	12,910
#1 PET Bottles/Jars	19.9	1,470	5.0	370
#1 Other PET Containers	5.6	410	3.1	230
#2 HDPE Bottles/Jars - Clear	10.0	740	7.1	520
#2 HDPE Bottles/Jars - Color	9.4	690	14.5	1,070
#2 Other HDPE Containers	0.7	50	10.4	770
#6 Exp. Polystyrene Packaging	18.4	1,360	23.2	1,710
#3-#7 Other - All	13.0	960	18.2	1,340
Other Rigid Plastic Products	58.0	4,280	4.3	320
Grocery & Merchandise Bags	12.3	910	25.8	1,900
Trash Bags	33.5	2,470	63.1	4,650
Commercial & Industrial Film	34.8	2,570	0.4	30
Other Film	58.7	4,330		
Other Plastic	32.1	2,370		
Glass	86.0	6,340	107.0	7,890
Recyclable Glass Bottles & Jars	68.2	5,030	24.4	1,800
Flat Glass	10.0	740	6.6	490
Other Glass	7.7	570	48.1	3,550
Metal	123.0	9,070	26.7	1,970
Aluminum Beverage Containers	15.3	1,130		
Other Aluminum	8.7	640		
Ferrous Containers (Tin Cans)	22.8	1,680		
Construction and Demolition Debris (C&D)			600.8	44,310
Total MSW (tons)				209,250
Total MSW (pounds/person/day)				7.77

2014 population

147,499

Saline County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	646.3	8,090	Metal	
Newsprint	73.5	920	Other Ferrous	51.1
High Grade Office Paper	37.6	470	Other Non-Ferrous	8.8
Magazines/Catalogs	30.4	380	Other Metal	16.0
Uncoated OCC/Kraft	311.6	3,900		
Boxboard	54.3	680	Organics	6,890
Mixed Paper - Recyclable	53.5	670	Yard Waste - Compostable	1,470
Compostable Paper	72.7	910	Yard Waste - Woody	290
Other Paper	12.8	160	Food Scraps	3,570
			Bottom Fines & Dirt	570
Beverage Containers	4.0	50	Diapers	460
Milk & Juice Cartons/Boxes - Coated	4.0	50	Other Organic	530
Plastic	281.2	3,520	Inorganics	175.0
#1 PET Bottles/Jars	16.8	210	Televisions	4.8
#1 Other PET Containers	4.8	60	Computer Monitors	3.2
#2 HDPE Bottles/Jars - Clear	8.8	110	Computer Equipment/Peripherals	7.2
#2 HDPE Bottles/Jars - Color	8.0	100	Electronic Equipment	14.4
#2 Other HDPE Containers	0.8	10	White Goods - Refrigerated	10.4
#6 Exp. Polystyrene Packaging	18.4	230	White Goods - Not refrigerated	23.2
#3-#7 Other - All	12.8	160	Lead-acid Batteries	18.4
Other Rigid Plastic Products	58.3	730	Other Household Batteries	4.0
Grocery & Merchandise Bags	9.6	120	Tires	25.6
Trash Bags	33.6	420	Household Bulky Items	63.1
Commercial & Industrial Film	26.4	330	Fluorescent Lights/Ballasts	0.8
Other Film	59.1	740		
Other Plastic	24.0	300	Textiles	89.5
			Carpet	24.8
Glass	87.1	1,090	Carpet Padding	6.4
Recyclable Glass Bottles & Jars	68.7	860	Clothing	36.8
Flat Glass	10.4	130	Other Textiles	21.6
Other Glass	8.0	100		
			Household Hazardous Waste	26.4
Metal	123.0	1,540		
Aluminum Beverage Containers	15.2	190	Construction and Demolition Debris (C&D)	457.8
Other Aluminum	8.8	110		
Ferrous Containers (Tin Cans)	23.2	290	Total MSW (tons)	30,550
			Total MSW (pounds/person/day)	6.69

Schuyler County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	487.2	1,820	Metal	
Newsprint	32.1	120	Other Ferrous	50.9
High Grade Office Paper	29.4	110	Other Non-Ferrous	8.0
Magazines/Catalogs	29.4	110	Other Metal	16.1
Uncoated OCC/Kraft	203.5	760		
Boxboard	53.5	200	Organics	562.2
Mixed Paper - Recyclable	53.5	200	Yard Waste - Compostable	117.8
Compostable Paper	72.3	270	Yard Waste - Woody	24.1
Other Paper	13.4	50	Food Scraps	294.5
			Bottom Fines & Dirt	45.5
Beverage Containers	5.4	20	Diapers	37.5
Milk & Juice Cartons/Boxes - Coated	5.4	20	Other Organic	42.8
				160
Plastic	302.5	1,130	Inorganics	179.4
#1 PET Bottles/Jars	18.7	70	Televisions	5.4
#1 Other PET Containers	5.4	20	Computer Monitors	2.7
#2 HDPE Bottles/Jars - Clear	10.7	40	Computer Equipment/Peripherals	8.0
#2 HDPE Bottles/Jars - Color	8.0	30	Electronic Equipment	13.4
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	10.7
#6 Exp. Polystyrene Packaging	18.7	70	White Goods - Not refrigerated	24.1
#3-#7 Other - All	13.4	50	Lead-acid Batteries	18.7
Other Rigid Plastic Products	58.9	220	Other Household Batteries	5.4
Grocery & Merchandise Bags	10.7	40	Tires	26.8
Trash Bags	34.8	130	Household Bulky Items	64.2
Commercial & Industrial Film	32.1	120	Fluorescent Lights/Ballasts	<0.1
Other Film	58.9	220		
Other Plastic	32.1	120	Textiles	101.7
			Carpet	24.1
Glass	85.7	320	Carpet Padding	5.4
Recyclable Glass Bottles & Jars	66.9	250	Clothing	45.5
Flat Glass	10.7	40	Other Textiles	26.8
Other Glass	8.0	30		
			Household Hazardous Waste	26.8
Metal	123.1	460		
Aluminum Beverage Containers	16.1	60	Construction and Demolition Debris (C&D)	465.8
Other Aluminum	8.0	30		
Ferrous Containers (Tin Cans)	24.1	90	Total MSW (tons)	8,740
			Total MSW (pounds/person/day)	6.41

Scott County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	425.4	1,130	579.7	1,540
Newsprint	52.7	140	52.7	140
High Grade Office Paper	22.6	60	7.5	20
Magazines/Catalogs	30.1	80	15.1	40
Uncoated OCC/Kraft	131.8	350		
Boxboard	52.7	140		
Mixed Paper - Recyclable	52.7	140		
Compostable Paper	71.5	190		
Other Paper	11.3	30		
Beverage Containers	7.5	20	41.4	110
Milk & Juice Cartons/Boxes - Coated	7.5	20		
Plastic	312.4	830	176.9	470
#1 PET Bottles/Jars	22.6	60	3.8	10
#1 Other PET Containers	7.5	20	3.8	10
#2 HDPE Bottles/Jars - Clear	11.3	30	7.5	20
#2 HDPE Bottles/Jars - Color	11.3	30	15.1	40
#2 Other HDPE Containers	<1	<5	11.3	30
#6 Exp. Polystyrene Packaging	18.8	50	22.6	60
#3-#7 Other - All	11.3	30	18.8	50
Other Rigid Plastic Products	56.5	150	3.8	10
Grocery & Merchandise Bags	11.3	30	26.4	70
Trash Bags	33.9	90	64.0	170
Commercial & Industrial Film	33.9	90	<0.1	<1
Other Film	60.2	160		
Other Plastic	33.9	90		
Glass	86.6	230	101.6	270
Recyclable Glass Bottles & Jars	67.8	180	22.6	60
Flat Glass	11.3	30	7.5	20
Other Glass	7.5	20	45.2	120
Metal	120.5	320	26.4	70
Aluminum Beverage Containers	15.1	40		
Other Aluminum	7.5	20		
Ferrous Containers (Tin Cans)	22.6	60		
Construction and Demolition Debris (C&D)	466.8	1,240	466.8	1,240
Total MSW (tons)		6,120		6,120
Total MSW (pounds/person/day)		6.31		6.31

Shelby County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	457.9	5,130	568.6	6,370
Newsprint	35.7	400	50.9	570
High Grade Office Paper	24.1	270	8.9	100
Magazines/Catalogs	29.5	330	16.1	180
Uncoated OCC/Kraft	175.0	1,960		
Boxboard	54.4	610		
Mixed Paper - Recyclable	53.6	600		
Compostable Paper	73.2	820		
Other Paper	12.5	140		
Beverage Containers	5.4	60		
Milk & Juice Cartons/Boxes - Coated	5.4	60		
Plastic	302.6	3,390	176.7	1,980
#1 PET Bottles/Jars	19.6	220	5.4	60
#1 Other PET Containers	5.4	60	3.6	40
#2 HDPE Bottles/Jars - Clear	9.8	110	7.1	80
#2 HDPE Bottles/Jars - Color	8.9	100	14.3	160
#2 Other HDPE Containers	0.9	10	10.7	120
#6 Exp. Polystyrene Packaging	18.7	210	23.2	260
#3-#7 Other - All	12.5	140	17.9	200
Other Rigid Plastic Products	58.0	650	4.5	50
Grocery & Merchandise Bags	11.6	130	25.9	290
Trash Bags	33.9	380	63.4	710
Commercial & Industrial Film	33.0	370	0.9	10
Other Film	58.9	660		
Other Plastic	31.2	350		
Glass	85.7	960	102.7	1,150
Recyclable Glass Bottles & Jars	67.8	760	24.1	270
Flat Glass	9.8	110	6.2	70
Other Glass	8.0	90	45.5	510
			26.8	300
Metal	123.2	1,380	27.7	310
Aluminum Beverage Containers	15.2	170		
Other Aluminum	8.9	100		
Ferrous Containers (Tin Cans)	23.2	260		
Construction and Demolition Debris (C&D)			466.8	5,230
Total MSW (tons)				25,960
Total MSW (pounds/person/day)				6.35

2014 population

22,406

St. Clair County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)		County Generation (lb/c/yr)	Total Generation (tons)
Paper	636.4	85,140	Metal		
Newsprint	55.3	7,400	Other Ferrous	51.2	6,850
High Grade Office Paper	37.6	5,030	Other Non-Ferrous	9.0	1,210
Magazines/Catalogs	29.7	3,970	Other Metal	15.9	2,130
Uncoated OCC/Kraft	320.6	42,890			
Boxboard	54.6	7,300	Organics	579.2	77,490
Mixed Paper - Recyclable	53.2	7,120	Yard Waste - Compostable	117.4	15,710
Compostable Paper	73.0	9,770	Yard Waste - Woody	23.2	3,110
Other Paper	12.4	1,660	Food Scraps	314.2	42,040
			Bottom Fines & Dirt	45.2	6,050
Beverage Containers	5.0	670	Diapers	37.1	4,960
Milk & Juice Cartons/Boxes - Coated	5.0	670	Other Organic	42.0	5,620
Plastic	301.7	40,360	Inorganics	175.1	23,420
#1 PET Bottles/Jars	19.9	2,660	Televisions	5.0	670
#1 Other PET Containers	5.6	750	Computer Monitors	3.1	420
#2 HDPE Bottles/Jars - Clear	10.1	1,350	Computer Equipment/Peripherals	7.1	950
#2 HDPE Bottles/Jars - Color	9.3	1,240	Electronic Equipment	14.4	1,930
#2 Other HDPE Containers	0.7	90	White Goods - Refrigerated	10.4	1,390
#6 Exp. Polystyrene Packaging	18.3	2,450	White Goods - Not refrigerated	23.1	3,090
#3-#7 Other - All	13.0	1,740	Lead-acid Batteries	18.2	2,440
Other Rigid Plastic Products	58.0	7,760	Other Household Batteries	4.3	580
Grocery & Merchandise Bags	11.7	1,560	Tires	25.8	3,450
Trash Bags	33.5	4,480	Household Bulky Items	63.1	8,440
Commercial & Industrial Film	32.7	4,380	Fluorescent Lights/Ballasts	0.4	60
Other Film	58.8	7,860			
Other Plastic	30.2	4,040	Textiles	102.3	13,680
			Carpet	24.4	3,270
Glass	86.0	11,500	Carpet Padding	6.7	890
Recyclable Glass Bottles & Jars	68.2	9,120	Clothing	45.1	6,030
Flat Glass	10.0	1,340	Other Textiles	26.1	3,490
Other Glass	7.8	1,040			
			Household Hazardous Waste	26.8	3,590
Metal	123.0	16,460			
Aluminum Beverage Containers	15.4	2,060	Construction and Demolition Debris (C&D)	597.2	79,900
Other Aluminum	8.7	1,160			
Ferrous Containers (Tin Cans)	22.8	3,050	Total MSW (tons)		352,210
			Total MSW (pounds/person/day)		7.21

2014 population

267,569

Stark County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	472.3	1,410	Metal	
Newsprint	36.8	110	Other Ferrous	50.2
High Grade Office Paper	23.4	70	Other Non-Ferrous	10.0
Magazines/Catalogs	30.1	90	Other Metal	16.7
Uncoated OCC/Kraft	187.6	560		
Boxboard	53.6	160	Organics	576.1
Mixed Paper - Recyclable	53.6	160	Yard Waste - Compostable	117.2
Compostable Paper	73.7	220	Yard Waste - Woody	23.4
Other Paper	13.4	40	Food Scraps	308.2
			Bottom Fines & Dirt	46.9
Beverage Containers	6.7	20	Diapers	36.8
Milk & Juice Cartons/Boxes - Coated	6.7	20	Other Organic	43.5
				130
Plastic	308.2	920	Inorganics	174.2
#1 PET Bottles/Jars	20.1	60	Televisions	6.7
#1 Other PET Containers	6.7	20	Computer Monitors	3.3
#2 HDPE Bottles/Jars - Clear	10.0	30	Computer Equipment/Peripherals	6.7
#2 HDPE Bottles/Jars - Color	10.0	30	Electronic Equipment	13.4
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	10.0
#6 Exp. Polystyrene Packaging	16.7	50	White Goods - Not refrigerated	23.4
#3-#7 Other - All	13.4	40	Lead-acid Batteries	16.7
Other Rigid Plastic Products	56.9	170	Other Household Batteries	3.3
Grocery & Merchandise Bags	13.4	40	Tires	26.8
Trash Bags	33.5	100	Household Bulky Items	63.6
Commercial & Industrial Film	33.5	100	Fluorescent Lights/Ballasts	<0.1
Other Film	60.3	180		
Other Plastic	33.5	100	Textiles	103.8
			Carpet	23.4
Glass	87.1	260	Carpet Padding	6.7
Recyclable Glass Bottles & Jars	70.3	210	Clothing	46.9
Flat Glass	10.0	30	Other Textiles	26.8
Other Glass	6.7	20		
			Household Hazardous Waste	26.8
Metal	127.3	380		
Aluminum Beverage Containers	16.7	50	Construction and Demolition Debris (C&D)	596.2
Other Aluminum	10.0	30		
Ferrous Containers (Tin Cans)	23.4	70	Total MSW (tons)	7,400
			Total MSW (pounds/person/day)	6.79

Stephenson County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	624.0	14,700	51.4	1,210
Newsprint	62.4	1,470	8.9	210
High Grade Office Paper	39.9	940	15.7	370
Magazines/Catalogs	34.0	800		
Uncoated OCC/Kraft	294.6	6,940		
Boxboard	54.8	1,290		
Mixed Paper - Recyclable	53.1	1,250		
Compostable Paper	73.0	1,720		
Other Paper	12.3	290		
Beverage Containers	4.7	110		
Milk & Juice Cartons/Boxes - Coated	4.7	110		
Plastic	295.4	6,960	174.9	4,120
#1 PET Bottles/Jars	18.3	430	5.1	120
#1 Other PET Containers	5.1	120	3.0	70
#2 HDPE Bottles/Jars - Clear	9.3	220	7.2	170
#2 HDPE Bottles/Jars - Color	8.5	200	14.4	340
#2 Other HDPE Containers	0.4	10	10.2	240
#6 Exp. Polystyrene Packaging	18.3	430	22.9	540
#3-#7 Other - All	12.7	300	18.3	430
Other Rigid Plastic Products	58.2	1,370	4.2	100
Grocery & Merchandise Bags	11.5	270	25.9	610
Trash Bags	33.5	790	63.2	1,490
Commercial & Industrial Film	31.8	750	0.4	10
Other Film	58.6	1,380		
Other Plastic	29.3	690		
Glass	86.2	2,030	101.0	2,380
Recyclable Glass Bottles & Jars	68.3	1,610	24.6	580
Flat Glass	10.2	240	6.8	160
Other Glass	7.6	180	44.1	1,040
Metal	123.1	2,900	26.7	630
Aluminum Beverage Containers	15.3	360		
Other Aluminum	8.9	210		
Ferrous Containers (Tin Cans)	22.9	540		
Construction and Demolition Debris (C&D)			465.6	10,970
Total MSW (tons)				58,130
Total MSW (pounds/person/day)				6.76

2014 population

47,118

Tazewell County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	572.4	39,090	586.1	40,030
Newsprint	61.2	4,180	51.2	3,500
High Grade Office Paper	50.4	3,440	9.1	620
Magazines/Catalogs	31.9	2,180	16.0	1,090
Uncoated OCC/Kraft	235.4	16,080		
Boxboard	54.6	3,730		
Mixed Paper - Recyclable	53.3	3,640		
Compostable Paper	73.1	4,990		
Other Paper	12.4	850		
Beverage Containers	5.4	370		
Milk & Juice Cartons/Boxes - Coated	5.4	370		
Plastic	327.0	22,330	175.3	11,970
#1 PET Bottles/Jars	21.4	1,460	5.0	340
#1 Other PET Containers	6.0	410	3.2	220
#2 HDPE Bottles/Jars - Clear	10.8	740	7.0	480
#2 HDPE Bottles/Jars - Color	10.0	680	14.5	990
#2 Other HDPE Containers	0.7	50	10.4	710
#6 Exp. Polystyrene Packaging	18.4	1,260	23.1	1,580
#3-#7 Other - All	12.9	880	18.3	1,250
Other Rigid Plastic Products	58.0	3,960	4.4	300
Grocery & Merchandise Bags	15.1	1,030	25.8	1,760
Trash Bags	33.5	2,290	63.1	4,310
Commercial & Industrial Film	42.5	2,900	0.4	30
Other Film	58.7	4,010		
Other Plastic	38.9	2,660		
Glass	85.9	5,870	123.3	8,420
Recyclable Glass Bottles & Jars	68.1	4,650	24.5	1,670
Flat Glass	10.1	690	6.6	450
Other Glass	7.8	530	58.4	3,990
Metal	123.1	8,410	26.9	1,840
Aluminum Beverage Containers	15.4	1,050		
Other Aluminum	8.6	590		
Ferrous Containers (Tin Cans)	22.8	1,560		
Construction and Demolition Debris (C&D)			613.6	41,910
Total MSW (tons)				180,240
Total MSW (pounds/person/day)				7.23

2014 population

136,594

Union County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	426.8	3,840	Metal	
Newsprint	51.1	460	Other Ferrous	51.1
High Grade Office Paper	30.0	270	Other Non-Ferrous	8.9
Magazines/Catalogs	31.1	280	Other Metal	15.6
Uncoated OCC/Kraft	121.1	1,090		
Boxboard	54.5	490	Organics	559.0
Mixed Paper - Recyclable	53.3	480	Yard Waste - Compostable	117.8
Compostable Paper	73.3	660	Yard Waste - Woody	23.3
Other Paper	12.2	110	Food Scraps	293.4
			Bottom Fines & Dirt	45.6
Beverage Containers	4.4	40	Diapers	36.7
Milk & Juice Cartons/Boxes - Coated	4.4	40	Other Organic	42.2
Plastic	287.8	2,590	Inorganics	174.5
#1 PET Bottles/Jars	17.8	160	Televisions	5.6
#1 Other PET Containers	5.6	50	Computer Monitors	3.3
#2 HDPE Bottles/Jars - Clear	8.9	80	Computer Equipment/Peripherals	6.7
#2 HDPE Bottles/Jars - Color	8.9	80	Electronic Equipment	14.4
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	10.0
#6 Exp. Polystyrene Packaging	17.8	160	White Goods - Not refrigerated	23.3
#3-#7 Other - All	13.3	120	Lead-acid Batteries	17.8
Other Rigid Plastic Products	57.8	520	Other Household Batteries	4.4
Grocery & Merchandise Bags	10.0	90	Tires	25.6
Trash Bags	33.3	300	Household Bulky Items	63.3
Commercial & Industrial Film	28.9	260	Fluorescent Lights/Ballasts	<0.1
Other Film	58.9	530		
Other Plastic	26.7	240	Textiles	94.5
			Carpet	24.4
Glass	86.7	780	Carpet Padding	6.7
Recyclable Glass Bottles & Jars	68.9	620	Clothing	40.0
Flat Glass	10.0	90	Other Textiles	23.3
Other Glass	7.8	70		
			Household Hazardous Waste	27.8
Metal	123.4	1,110		
Aluminum Beverage Containers	15.6	140	Construction and Demolition Debris (C&D)	461.2
Other Aluminum	8.9	80		
Ferrous Containers (Tin Cans)	23.3	210	Total MSW (tons)	20,210
			Total MSW (pounds/person/day)	6.15

2014 population 17,996

Vermilion County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	607.7	24,410	Metal	
Newsprint	58.2	2,360	Other Ferrous	51.3
High Grade Office Paper	37.2	1,510	Other Non-Ferrous	9.1
Magazines/Catalogs	29.8	1,210	Other Metal	15.8
Uncoated OCC/Kraft	283.5	11,500		
Boxboard	54.5	2,210	Organics	555.1
Mixed Paper - Recyclable	53.2	2,160	Yard Waste - Compostable	117.3
Compostable Paper	73.0	2,960	Yard Waste - Woody	23.2
Other Paper	12.3	500	Food Scraps	290.1
			Bottom Fines & Dirt	45.4
Beverage Containers	4.2	170	Diapers	37.0
Milk & Juice Cartons/Boxes - Coated	4.2	170	Other Organic	42.1
Plastic	284.9	11,560	Inorganics	175.5
#1 PET Bottles/Jars	17.0	690	Televisions	4.9
#1 Other PET Containers	4.7	190	Computer Monitors	3.2
#2 HDPE Bottles/Jars - Clear	8.6	350	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	7.9	320	Electronic Equipment	14.5
#2 Other HDPE Containers	0.5	20	White Goods - Refrigerated	10.4
#6 Exp. Polystyrene Packaging	18.5	750	White Goods - Not refrigerated	23.2
#3-#7 Other - All	13.1	530	Lead-acid Batteries	18.2
Other Rigid Plastic Products	57.9	2,350	Other Household Batteries	4.4
Grocery & Merchandise Bags	10.1	410	Tires	25.9
Trash Bags	33.5	1,360	Household Bulky Items	63.1
Commercial & Industrial Film	28.3	1,150	Fluorescent Lights/Ballasts	0.5
Other Film	58.7	2,380		
Other Plastic	26.1	1,060	Textiles	92.9
			Carpet	24.4
Glass	86.3	3,500	Carpet Padding	6.7
Recyclable Glass Bottles & Jars	68.3	2,770	Clothing	39.2
Flat Glass	10.1	410	Other Textiles	22.7
Other Glass	7.9	320		
			Household Hazardous Waste	26.6
Metal	123.0	4,990		
Aluminum Beverage Containers	15.3	620	Construction and Demolition Debris (C&D)	589.8
Other Aluminum	8.6	350		
Ferrous Containers (Tin Cans)	22.9	930	Total MSW (tons)	103,050
			Total MSW (pounds/person/day)	6.96

Wabash County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	546.4	3,150	Metal	
Newsprint	78.1	450	Other Ferrous	52.0
High Grade Office Paper	31.2	180	Other Non-Ferrous	8.7
Magazines/Catalogs	33.0	190	Other Metal	15.6
Uncoated OCC/Kraft	211.6	1,220		
Boxboard	53.8	310	Organics	572.4
Mixed Paper - Recyclable	53.8	310	Yard Waste - Compostable	117.9
Compostable Paper	72.8	420	Yard Waste - Woody	22.5
Other Paper	12.1	70	Food Scraps	308.7
			Bottom Fines & Dirt	45.1
Beverage Containers	5.2	30	Diapers	36.4
Milk & Juice Cartons/Boxes - Coated	5.2	30	Other Organic	41.6
Plastic	300.1	1,730	Inorganics	173.4
#1 PET Bottles/Jars	20.8	120	Televisions	5.2
#1 Other PET Containers	5.2	30	Computer Monitors	3.5
#2 HDPE Bottles/Jars - Clear	10.4	60	Computer Equipment/Peripherals	6.9
#2 HDPE Bottles/Jars - Color	8.7	50	Electronic Equipment	13.9
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	10.4
#6 Exp. Polystyrene Packaging	17.3	100	White Goods - Not refrigerated	22.5
#3-#7 Other - All	13.9	80	Lead-acid Batteries	19.1
Other Rigid Plastic Products	57.2	330	Other Household Batteries	3.5
Grocery & Merchandise Bags	12.1	70	Tires	26.0
Trash Bags	33.0	190	Household Bulky Items	62.4
Commercial & Industrial Film	33.0	190	Fluorescent Lights/Ballasts	<0.1
Other Film	59.0	340		
Other Plastic	29.5	170	Textiles	102.3
			Carpet	24.3
Glass	85.0	490	Carpet Padding	6.9
Recyclable Glass Bottles & Jars	67.6	390	Clothing	45.1
Flat Glass	10.4	60	Other Textiles	26.0
Other Glass	6.9	40		
			Household Hazardous Waste	26.0
Metal	123.1	710		
Aluminum Beverage Containers	15.6	90	Construction and Demolition Debris (C&D)	464.8
Other Aluminum	8.7	50		
Ferrous Containers (Tin Cans)	22.5	130	Total MSW (tons)	13,830
			Total MSW (pounds/person/day)	6.57

Warren County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	589.3	5,250	Metal	
Newsprint	43.8	390	Other Ferrous	51.6
High Grade Office Paper	39.3	350	Other Non-Ferrous	9.0
Magazines/Catalogs	30.3	270	Other Metal	15.7
Uncoated OCC/Kraft	282.9	2,520		
Boxboard	55.0	490	Organics	4,930
Mixed Paper - Recyclable	52.8	470	Yard Waste - Compostable	117.9
Compostable Paper	73.0	650	Yard Waste - Woody	23.6
Other Paper	12.3	110	Food Scraps	288.5
			Bottom Fines & Dirt	44.9
Beverage Containers	4.5	40	Diapers	37.0
Milk & Juice Cartons/Boxes - Coated	4.5	40	Other Organic	41.5
				370
Plastic	289.6	2,580	Inorganics	174.0
#1 PET Bottles/Jars	16.8	150	Televisions	4.5
#1 Other PET Containers	4.5	40	Computer Monitors	3.4
#2 HDPE Bottles/Jars - Clear	9.0	80	Computer Equipment/Peripherals	6.7
#2 HDPE Bottles/Jars - Color	7.9	70	Electronic Equipment	14.6
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	10.1
#6 Exp. Polystyrene Packaging	18.0	160	White Goods - Not refrigerated	23.6
#3-#7 Other - All	13.5	120	Lead-acid Batteries	18.0
Other Rigid Plastic Products	58.4	520	Other Household Batteries	4.5
Grocery & Merchandise Bags	11.2	100	Tires	25.8
Trash Bags	33.7	300	Household Bulky Items	62.9
Commercial & Industrial Film	30.3	270	Fluorescent Lights/Ballasts	<0.1
Other Film	58.4	520		
Other Plastic	28.1	250	Textiles	86.0
			Carpet	24.7
Glass	87.6	780	Carpet Padding	6.7
Recyclable Glass Bottles & Jars	69.6	620	Clothing	41.5
Flat Glass	10.1	90	Other Textiles	23.6
Other Glass	7.9	70		
			Household Hazardous Waste	24.0
Metal	123.5	1,100		
Aluminum Beverage Containers	15.7	140	Construction and Demolition Debris (C&D)	462.5
Other Aluminum	9.0	80		
Ferrous Containers (Tin Cans)	22.5	200	Total MSW (tons)	21,450
			Total MSW (pounds/person/day)	6.60

2014 population 17,817

Washington County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	644.9	4,700	Metal	
Newsprint	26.1	190	Other Ferrous	50.8
High Grade Office Paper	50.8	370	Other Non-Ferrous	9.6
Magazines/Catalogs	31.6	230	Other Metal	16.5
Uncoated OCC/Kraft	343.0	2,500		
Boxboard	54.9	400	Organics	583.2
Mixed Paper - Recyclable	53.5	390	Yard Waste - Compostable	118.0
Compostable Paper	72.7	530	Yard Waste - Woody	23.3
Other Paper	12.3	90	Food Scraps	317.0
			Bottom Fines & Dirt	45.3
Beverage Containers	5.5	40	Diapers	37.0
Milk & Juice Cartons/Boxes - Coated	5.5	40	Other Organic	42.5
				310
Plastic	318.3	2,320	Inorganics	175.6
#1 PET Bottles/Jars	22.0	160	Televisions	5.5
#1 Other PET Containers	6.9	50	Computer Monitors	2.7
#2 HDPE Bottles/Jars - Clear	11.0	80	Computer Equipment/Peripherals	6.9
#2 HDPE Bottles/Jars - Color	11.0	80	Electronic Equipment	15.1
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	11.0
#6 Exp. Polystyrene Packaging	19.2	140	White Goods - Not refrigerated	23.3
#3-#7 Other - All	12.3	90	Lead-acid Batteries	17.8
Other Rigid Plastic Products	57.6	420	Other Household Batteries	4.1
Grocery & Merchandise Bags	13.7	100	Tires	26.1
Trash Bags	32.9	240	Household Bulky Items	63.1
Commercial & Industrial Film	38.4	280	Fluorescent Lights/Ballasts	<0.1
Other Film	59.0	430		
Other Plastic	34.3	250	Textiles	113.9
			Carpet	24.7
Glass	86.4	630	Carpet Padding	6.9
Recyclable Glass Bottles & Jars	68.6	500	Clothing	52.1
Flat Glass	9.6	70	Other Textiles	30.2
Other Glass	8.2	60		
			Household Hazardous Waste	24.7
Metal	123.5	900		
Aluminum Beverage Containers	15.1	110	Construction and Demolition Debris (C&D)	473.4
Other Aluminum	8.2	60		
Ferrous Containers (Tin Cans)	23.3	170	Total MSW (tons)	18,580
			Total MSW (pounds/person/day)	6.98

Wayne County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	508.3	4,230		
Newsprint	26.4	220	Other Ferrous	51.7
High Grade Office Paper	27.6	230	Other Non-Ferrous	9.6
Magazines/Catalogs	30.0	250	Other Metal	15.6
Uncoated OCC/Kraft	231.9	1,930		
Boxboard	54.1	450	Organics	558.8
Mixed Paper - Recyclable	52.9	440	Yard Waste - Compostable	117.8
Compostable Paper	73.3	610	Yard Waste - Woody	22.8
Other Paper	12.0	100	Food Scraps	293.2
			Bottom Fines & Dirt	45.7
Beverage Containers	4.8	40	Diapers	37.3
Milk & Juice Cartons/Boxes - Coated	4.8	40	Other Organic	42.1
Plastic	293.2	2,440	Inorganics	174.2
#1 PET Bottles/Jars	18.0	150	Televisions	4.8
#1 Other PET Containers	4.8	40	Computer Monitors	3.6
#2 HDPE Bottles/Jars - Clear	9.6	80	Computer Equipment/Peripherals	7.2
#2 HDPE Bottles/Jars - Color	8.4	70	Electronic Equipment	14.4
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	10.8
#6 Exp. Polystyrene Packaging	18.0	150	White Goods - Not refrigerated	22.8
#3-#7 Other - All	14.4	120	Lead-acid Batteries	18.0
Other Rigid Plastic Products	57.7	480	Other Household Batteries	4.8
Grocery & Merchandise Bags	10.8	90	Tires	25.2
Trash Bags	33.6	280	Household Bulky Items	62.5
Commercial & Industrial Film	30.0	250	Fluorescent Lights/Ballasts	<0.1
Other Film	58.9	490		
Other Plastic	28.8	240	Textiles	97.3
			Carpet	24.0
Glass	85.3	710	Carpet Padding	7.2
Recyclable Glass Bottles & Jars	68.5	570	Clothing	42.1
Flat Glass	9.6	80	Other Textiles	24.0
Other Glass	7.2	60		
			Household Hazardous Waste	25.2
Metal	123.8	1,030		
Aluminum Beverage Containers	15.6	130	Construction and Demolition Debris (C&D)	463.8
Other Aluminum	8.4	70		
Ferrous Containers (Tin Cans)	22.8	190	Total MSW (tons)	19,430
			Total MSW (pounds/person/day)	6.40

2014 population 16,644

White County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	617.0	4,500		
Newsprint	72.7	530	Other Ferrous	50.7
High Grade Office Paper	32.9	240	Other Non-Ferrous	9.6
Magazines/Catalogs	34.3	250	Other Metal	16.5
Uncoated OCC/Kraft	283.8	2,070		
Boxboard	54.8	400	Organics	567.6
Mixed Paper - Recyclable	53.5	390	Yard Waste - Compostable	117.9
Compostable Paper	72.7	530	Yard Waste - Woody	23.3
Other Paper	12.3	90	Food Scraps	301.6
			Bottom Fines & Dirt	45.2
Beverage Containers	5.5	40	Diapers	37.0
Milk & Juice Cartons/Boxes - Coated	5.5	40	Other Organic	42.5
				310
Plastic	294.8	2,150	Inorganics	175.5
#1 PET Bottles/Jars	19.2	140	Televisions	5.5
#1 Other PET Containers	5.5	40	Computer Monitors	2.7
#2 HDPE Bottles/Jars - Clear	9.6	70	Computer Equipment/Peripherals	6.9
#2 HDPE Bottles/Jars - Color	9.6	70	Electronic Equipment	15.1
#2 Other HDPE Containers	<1	<5	White Goods - Refrigerated	11.0
#6 Exp. Polystyrene Packaging	19.2	140	White Goods - Not refrigerated	23.3
#3-#7 Other - All	12.3	90	Lead-acid Batteries	17.8
Other Rigid Plastic Products	57.6	420	Other Household Batteries	4.1
Grocery & Merchandise Bags	11.0	80	Tires	26.1
Trash Bags	32.9	240	Household Bulky Items	63.1
Commercial & Industrial Film	30.2	220	Fluorescent Lights/Ballasts	<0.1
Other Film	59.0	430		
Other Plastic	28.8	210	Textiles	97.3
			Carpet	24.7
Glass	86.4	630	Carpet Padding	6.9
Recyclable Glass Bottles & Jars	68.6	500	Clothing	41.1
Flat Glass	9.6	70	Other Textiles	24.7
Other Glass	8.2	60		
			Household Hazardous Waste	24.7
Metal	123.4	900		
Aluminum Beverage Containers	15.1	110	Construction and Demolition Debris (C&D)	460.7
Other Aluminum	8.2	60		
Ferrous Containers (Tin Cans)	23.3	170	Total MSW (tons)	17,890
			Total MSW (pounds/person/day)	6.72

Whiteside County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	584.8	16,910	570.2	16,490
Newsprint	28.4	820	51.2	1,480
High Grade Office Paper	38.7	1,120	9.0	260
Magazines/Catalogs	32.2	930	15.9	460
Uncoated OCC/Kraft	292.2	8,450		
Boxboard	54.6	1,580		
Mixed Paper - Recyclable	53.3	1,540		
Compostable Paper	73.0	2,110		
Other Paper	12.4	360		
Organics				
Yard Waste - Compostable			117.6	3,400
Yard Waste - Woody			23.2	670
Food Scraps			305.0	8,820
Bottom Fines & Dirt			45.3	1,310
Diapers			37.0	1,070
Other Organic			42.2	1,220
Beverage Containers	4.8	140		
Milk & Juice Cartons/Boxes - Coated	4.8	140		
Plastic	299.1	8,650	175.7	5,080
#1 PET Bottles/Jars	19.4	560	5.2	150
#1 Other PET Containers	5.5	160	3.1	90
#2 HDPE Bottles/Jars - Clear	9.7	280	7.3	210
#2 HDPE Bottles/Jars - Color	9.0	260	14.5	420
#2 Other HDPE Containers	0.7	20	10.4	300
#6 Exp. Polystyrene Packaging	18.3	530	23.2	670
#3-#7 Other - All	13.1	380	18.3	530
Other Rigid Plastic Products	58.1	1,680	4.5	130
Grocery & Merchandise Bags	11.4	330	25.9	750
Trash Bags	33.5	970	62.9	1,820
Commercial & Industrial Film	31.8	920	0.3	10
Other Film	58.8	1,700		
Other Plastic	29.7	860		
Inorganics				
Televisions			175.7	5,080
Computer Monitors			5.2	150
Computer Equipment/Peripherals			3.1	90
Electronic Equipment			7.3	210
White Goods - Refrigerated			14.5	420
White Goods - Not refrigerated			10.4	300
Lead-acid Batteries			23.2	670
Other Household Batteries			18.3	530
Tires			4.5	130
Household Bulky Items			25.9	750
Fluorescent Lights/Ballasts			62.9	1,820
Textiles				
Carpet			101.0	2,920
Carpet Padding			24.6	710
Clothing			6.6	190
Other Textiles			44.3	1,280
Household Hazardous Waste				
Construction and Demolition Debris (C&D)				
Total MSW (tons)				
Total MSW (pounds/person/day)				
Glass	85.8	2,480	465.5	13,460
Recyclable Glass Bottles & Jars	68.1	1,970	6.6	190
Flat Glass	10.0	290	44.3	1,280
Other Glass	7.6	220	25.6	740
Metal	122.8	3,550	27.7	800
Aluminum Beverage Containers	15.2	440		
Other Aluminum	8.6	250		
Ferrous Containers (Tin Cans)	22.8	660		
Total MSW (tons)				
Total MSW (pounds/person/day)				

Will County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	646.7	221,500	614.8	210,580
Newsprint	77.7	26,600	51.2	17,550
High Grade Office Paper	50.3	17,240	9.1	3,100
Magazines/Catalogs	28.6	9,780	15.9	5,440
Uncoated OCC/Kraft	296.9	101,680		
Boxboard	54.6	18,690		
Mixed Paper - Recyclable	53.3	18,240		
Compostable Paper	73.1	25,020		
Other Paper	12.4	4,250		
Beverage Containers	6.2	2,120	42.0	14,400
Milk & Juice Cartons/Boxes - Coated	6.2	2,120		
Plastic	339.6	116,320	175.2	60,000
#1 PET Bottles/Jars	24.6	8,410	5.0	1,720
#1 Other PET Containers	6.9	2,360	3.2	1,090
#2 HDPE Bottles/Jars - Clear	12.4	4,250	7.1	2,430
#2 HDPE Bottles/Jars - Color	11.5	3,930	14.5	4,950
#2 Other HDPE Containers	0.8	280	10.4	3,550
#6 Exp. Polystyrene Packaging	18.4	6,290	23.1	7,920
#3-#7 Other - All	13.1	4,470	18.2	6,250
Other Rigid Plastic Products	58.0	19,850	4.3	1,480
Grocery & Merchandise Bags	15.5	5,310	25.8	8,840
Trash Bags	33.5	11,470	63.1	21,610
Commercial & Industrial Film	43.1	14,770	0.5	160
Other Film	58.8	20,130		
Other Plastic	43.2	14,800		
Glass	86.0	29,440	125.0	42,820
Recyclable Glass Bottles & Jars	68.1	23,340	24.5	8,380
Flat Glass	10.0	3,440	6.6	2,270
Other Glass	7.8	2,660	59.5	20,370
Metal	123.1	42,160	26.9	9,210
Aluminum Beverage Containers	15.4	5,270		
Other Aluminum	8.7	2,980		
Ferrous Containers (Tin Cans)	22.8	7,820		
Construction and Demolition Debris (C&D)			614.9	210,590
Total MSW (tons)				944,740
Total MSW (pounds/person/day)				7.56

2014 population

685,000

Williamson County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	645.8	21,890	Metal	
Newsprint	51.6	1,750	Other Ferrous	51.3
High Grade Office Paper	42.2	1,430	Other Non-Ferrous	9.1
Magazines/Catalogs	29.5	1,000	Other Metal	15.9
Uncoated OCC/Kraft	329.2	11,160		
Boxboard	54.6	1,850	Organics	562.0
Mixed Paper - Recyclable	53.1	1,800	Yard Waste - Compostable	117.4
Compostable Paper	73.2	2,480	Yard Waste - Woody	23.3
Other Paper	12.4	420	Food Scraps	297.1
			Bottom Fines & Dirt	45.1
Beverage Containers	4.4	150	Diapers	37.2
Milk & Juice Cartons/Boxes - Coated	4.4	150	Other Organic	41.9
Plastic	288.5	9,780	Inorganics	175.2
#1 PET Bottles/Jars	18.0	610	Televisions	5.0
#1 Other PET Containers	5.0	170	Computer Monitors	3.2
#2 HDPE Bottles/Jars - Clear	9.1	310	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	8.3	280	Electronic Equipment	14.5
#2 Other HDPE Containers	0.6	20	White Goods - Refrigerated	10.3
#6 Exp. Polystyrene Packaging	18.6	630	White Goods - Not refrigerated	23.0
#3-#7 Other - All	13.0	440	Lead-acid Batteries	18.3
Other Rigid Plastic Products	58.1	1,970	Other Household Batteries	4.4
Grocery & Merchandise Bags	10.3	350	Tires	25.7
Trash Bags	33.6	1,140	Household Bulky Items	63.1
Commercial & Industrial Film	28.6	970	Fluorescent Lights/Ballasts	0.6
Other Film	58.7	1,990		
Other Plastic	26.6	900	Textiles	93.5
			Carpet	24.5
Glass	85.8	2,910	Carpet Padding	6.5
Recyclable Glass Bottles & Jars	68.1	2,310	Clothing	39.5
Flat Glass	10.0	340	Other Textiles	23.0
Other Glass	7.7	260		
			Household Hazardous Waste	26.8
Metal	123.0	4,170		
Aluminum Beverage Containers	15.3	520	Construction and Demolition Debris (C&D)	591.2
Other Aluminum	8.6	290		
Ferrous Containers (Tin Cans)	22.7	770	Total MSW (tons)	88,010
			Total MSW (pounds/person/day)	7.11

2014 population 67,796

Winnebago County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	726.8	106,320	Metal	
Newsprint	65.9	9,640	Other Ferrous	51.2
High Grade Office Paper	46.6	6,810	Other Non-Ferrous	9.0
Magazines/Catalogs	30.5	4,460	Other Metal	15.9
Uncoated OCC/Kraft	390.6	57,140		
Boxboard	54.5	7,980	Organics	573.5
Mixed Paper - Recyclable	53.2	7,790	Yard Waste - Compostable	117.4
Compostable Paper	73.1	10,690	Yard Waste - Woody	23.2
Other Paper	12.4	1,810	Food Scraps	308.5
			Bottom Fines & Dirt	45.3
Beverage Containers	4.9	710	Diapers	37.0
Milk & Juice Cartons/Boxes - Coated	4.9	710	Other Organic	42.0
Plastic	304.6	44,560	Inorganics	175.2
#1 PET Bottles/Jars	19.3	2,830	Televisions	5.1
#1 Other PET Containers	5.4	790	Computer Monitors	3.1
#2 HDPE Bottles/Jars - Clear	9.8	1,430	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	9.0	1,320	Electronic Equipment	14.4
#2 Other HDPE Containers	0.6	90	White Goods - Refrigerated	10.4
#6 Exp. Polystyrene Packaging	18.4	2,690	White Goods - Not refrigerated	23.1
#3-#7 Other - All	13.1	1,910	Lead-acid Batteries	18.3
Other Rigid Plastic Products	58.0	8,480	Other Household Batteries	4.3
Grocery & Merchandise Bags	12.3	1,800	Tires	25.8
Trash Bags	33.5	4,900	Household Bulky Items	63.1
Commercial & Industrial Film	34.5	5,050	Fluorescent Lights/Ballasts	0.5
Other Film	58.8	8,600		
Other Plastic	31.9	4,670	Textiles	106.2
			Carpet	24.5
Glass	85.9	12,570	Carpet Padding	6.6
Recyclable Glass Bottles & Jars	68.1	9,960	Clothing	47.6
Flat Glass	10.0	1,470	Other Textiles	27.5
Other Glass	7.8	1,140		
			Household Hazardous Waste	26.9
Metal	123.0	18,000	Construction and Demolition Debris (C&D)	600.2
Aluminum Beverage Containers	15.4	2,250		
Other Aluminum	8.7	1,270	Total MSW (tons)	398,970
Ferrous Containers (Tin Cans)	22.8	3,340	Total MSW (pounds/person/day)	7.47

Woodford County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)	County Generation (lb/c/yr)	Total Generation (tons)
Paper	546.2	10,790		
Newsprint	50.6	1,000	Other Ferrous	51.1
High Grade Office Paper	50.1	990	Other Non-Ferrous	9.1
Magazines/Catalogs	29.9	590	Other Metal	15.7
Uncoated OCC/Kraft	222.2	4,390		
Boxboard	54.7	1,080	Organics	611.0
Mixed Paper - Recyclable	53.2	1,050	Yard Waste - Compostable	117.4
Compostable Paper	72.9	1,440	Yard Waste - Woody	23.3
Other Paper	12.7	250	Food Scraps	346.3
			Bottom Fines & Dirt	45.1
Beverage Containers	6.6	130	Diapers	37.0
Milk & Juice Cartons/Boxes - Coated	6.6	130	Other Organic	42.0
Plastic	342.2	6,760	Inorganics	175.7
#1 PET Bottles/Jars	25.3	500	Televisions	5.1
#1 Other PET Containers	7.1	140	Computer Monitors	3.0
#2 HDPE Bottles/Jars - Clear	12.7	250	Computer Equipment/Peripherals	7.1
#2 HDPE Bottles/Jars - Color	11.6	230	Electronic Equipment	14.7
#2 Other HDPE Containers	1.0	20	White Goods - Refrigerated	10.1
#6 Exp. Polystyrene Packaging	18.7	370	White Goods - Not refrigerated	23.3
#3-#7 Other - All	13.2	260	Lead-acid Batteries	18.2
Other Rigid Plastic Products	58.2	1,150	Other Household Batteries	4.6
Grocery & Merchandise Bags	15.7	310	Tires	25.8
Trash Bags	33.4	660	Household Bulky Items	63.3
Commercial & Industrial Film	43.0	850	Fluorescent Lights/Ballasts	0.5
Other Film	58.7	1,160		
Other Plastic	43.5	860	Textiles	124.5
			Carpet	24.3
Glass	85.6	1,690	Carpet Padding	6.6
Recyclable Glass Bottles & Jars	67.8	1,340	Clothing	59.2
Flat Glass	10.1	200	Other Textiles	34.4
Other Glass	7.6	150		
			Household Hazardous Waste	26.8
Metal	122.5	2,420		
Aluminum Beverage Containers	15.2	300	Construction and Demolition Debris (C&D)	616.1
Other Aluminum	8.6	170		
Ferrous Containers (Tin Cans)	22.8	450	Total MSW (tons)	52,490
			Total MSW (pounds/person/day)	7.28

Appendix D
Photographic Log

Photo No. 1	Date: 09/10/2014
Direction:	
Description: Third residential sample sorted at the first (A) facility.	







Photo No. 2	Date: 09/12/2014
Direction:	
Description: Second residential sample sorted at the third (C) facility.	



Photo No. 3	Date: 09/16/2014
Direction:	
Description: Fourth ICI sample sorted at the fourth (D) facility.	



		Project: Illinois Commodity/Municipal Solid Waste Disposal Characterization Study, Fall 2014	Project No. 67680-105176
Photo No. 4	Date: 09/17/2014		
Direction:			
Description: First residential sample sorted at the fifth facility.			
Photo No. 5	Date: 09/11/2014		
Direction:			
Description: Sixth ICI sample sorted at the second facility.			
Photo No. 6	Date: 09/17/2014		
Direction:			
Description: Second ICI sample sorted at the fifth facility.			

Project:

Illinois Commodity/Municipal Solid Waste Disposal Characterization Study, Fall 2014

Project No.

67680-105176

Photo No.

7

Date:

09/17/2014

Direction:

Description:

Sample delivery via front end loader on to tarp near sort station.



Photo No.

8

Date:

09/10/2014

Direction:

Description:

Sort staff working through sample. All wastes larger than 1/4 inch size are sorted into material containers for weight recording.



Photo No.

9

Date:

10/28/2014

Direction:

Description:

Sort staff working through sample.



Project:

Illinois Commodity/Municipal Solid Waste Disposal Characterization Study, Fall 2014

Project No.

67680-105176

Photo No.
10

Date:
09/12/2014

Direction:

Description:

Sort table has a metal screen with ¼ inch spacing over wooden table top. Waste particles and pieces smaller than ¼ inch fall through the screen and are weighed as dirt and fines.



Photo No.
11

Date:
09/25/2014

Direction:

Description:

Material sort containers – three different plastics categories.



Photo No.
12

Date:
09/10/2014

Direction:

Description:

Material sort container – food scraps.



Project:

Illinois Commodity/Municipal Solid Waste Disposal Characterization Study, Fall 2014

Project No.

67680-105176

Photo No.
13

Date:
09/10/2014

Direction:

Description:

Material sort container – clean lumber



Photo No.
14

Date:
09/10/2014

Direction:

Description:

Material sort container – painted wood.



Photo No.
15





Date:
09/16/2014

Direction:

Description:

Material sort container – cardboard/kraft paper.



		Project: Illinois Commodity/Municipal Solid Waste Disposal Characterization Study, Fall 2014	Project No. 67680-105176
Photo No. 16	Date: 09/10/2014		
Direction:			
Description: Material sort container – grocery and merchandise bags.			
Photo No. 17	Date: 09/26/2014		
Direction:			
Description: Third Residential sample sorted at the ninth facility.			
Photo No. 18	Date: 10/03/2014		
Direction:			
Description: Eighth C&D sample characterized at the twelfth facility.			

Project:

Illinois Commodity/Municipal Solid Waste Disposal Characterization Study, Fall 2014

Project No.

67680-105176

Photo No.
19

Date:
10/07/2014

Direction:

Description:

Second Residential sample sorted at the thirteenth facility.



Photo No.
20

Date:
10/16/2014

Direction:

Description:

Sorting table is tipped on to a tarp to collect the Bottom Fines and Dirt material category from the sample.



Photo No.
21

Date:
10/16/2014

Direction:

Description:

Once the entire sample is sorted, bins of material categories are weighed and recorded. All work activities are completed wearing proper PPE.

