EXHIBIT
PWC-156

Criteria 1 -
Facility Need Assessment Report

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Prepared for:

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TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

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THE PROPOSED FACILITY IS NECESSARY TO ACCOMMODATE THE WASTE NEEDS OF THE AREA IT IS INTENDED TO SERVE

1.1 Introduction

Criterion (i) of Section 39.2 of the Illinois Environmental Protection Act requires that an applicant for local siting approval of a pollution control facility demonstrate that "*the facility is necessary to accommodate the waste needs of the area it is intended to serve (415 ILCS 5/39.2).*

A Municipal Solid Waste transfer station (MSWTS) is designated as a pollution control facility in the Illinois Environmental Protection Act. This report analyzes whether additional waste transfer capacity provided by the West Chicago Recycling and Transfer Station (West Chicago RTS), to be located in West Chicago Road near the intersection of North Avenue and Powis Road, is necessary to meet the waste needs of the service area it is likely intended serve.

1.1.1 West DuPage Recycling and Transfer Station

Lakeshore Recycling Systems LLC (LRS) has applied to the City of West Chicago (West Chicago) for local siting approval of a MSWTS to be located near the intersection Powis Road and North Avenue, on the southeast side of West Chicago in Winfield Township. A report was prepared by Civil and Environmental Consultants (CEC) to demonstrate need for the West DuPage RTS facility in the service area it intends to serve (**Ref 1**). Data, illustration figures and conclusions from the CEC need report were evaluated in this assessment of need to review their claim that a MSWTS is necessary less than one-half mile from an existing MSWTS, and furthermore located within the service areas of nine other MSWTS's that overlap the CEC defined service area.

The proposed transfer station is a facility where loads from MSW collection vehicles will be consolidated into larger loads for transport to a permitted disposal facility. For MSW, the material will be disposed of at a permitted landfill or in the case of landscape yard waste to a permitted compost facility. The facility will also accept and process hydro-excavation slurry liquid that must be solidified prior to landfill disposal. The service area assumed for the proposed West DuPage RTS includes portions of DuPage, Kane, and Will counties.

The West DuPage RTS location is illustrated in relation to the City of West Chicago on **Figure 1B – 1 Transfer Station Service Area** from the CEC report. This figure is included with **Appendix 1**. The facility lies east of Powis Road and South of North Avenue (IL-64). The facility will be operated by Lakeshore Recycling Systems (LRS), an established privately owned local company that offers residential and commercial collection services for municipal solid waste, landscape yard waste, construction and demolition waste and recyclable materials. The anticipated new services proposed in the application include:

- Receipt and transfer of up to 650 tons per day of non-hazardous municipal solid wastes (referred to as municipal solid waste or "MSW" or more generally as solid waste)
- Receipt, solidification, and transfer of up to 300 tons per day of hydro excavation wastes (HEW)
- Receipt and transfer of up to 250 tons per day of single-stream recyclables (referred to as "SSR" or more generally as "recyclables")
- Drop-off area for West Chicago residents of electrical/electronic devices; and
- Drop-off area for recyclables generated by residents and small businesses.

The facility will transfer waste materials collected by LRS, and likely from third-party haulers.

1.1.2 Needs Assessment Demonstration Summary

JPL Environmental Engineering (JPLEE) has performed a separate needs analysis of the proposed facility service area to assess the need for another MSWTS in the City of West Chicago, according to criteria 1) of Section 39.2. The needs assessment uses current and projected population, waste generation and recycling information for the service area to determine the necessity of a transfer station facility in the CEC designated service area.

The proposed service area of the LRS West DuPage RTS includes the thirteen municipal townships listed below:

DuPage County	Kane County	Will County
Bloomingdale	Aurora	DuPage
Lisle	Batavia	Wheatland
Milton	Elgin	
Naperville	Geneva	
Wayne	St. Charles	
Winfield		

The service area shown in **Figure 1B** was intentional by CEC with the selection of the boundary lines drawn. These lines include just two existing MSWTS's in the service area to the exclusion of the service areas of seven other transfer stations whose service areas overlap that of the LRS MSWTS service area. When considering the capacity of all existing transfer station service areas that share the proposed CEC designated service area, there is sufficient existing capacity to meet the waste needs for MSW transfer from the service area. For purpose of this study, MSW means garbage, general household, institutional and commercial waste, industrial lunchroom or office waste, landscape waste, and construction and demolition debris.

There does, however, appear to be a need for another HEW facility due to lack of a similar facility located within or near the proposed West DuPage RTS facility.

The methodology used to calculate existing MSW capacity is summarized below:

- When a transfer station exists near the north, south, east, and west boundary of the CEC designated service area, the overlap in service areas diminishes the need for another transfer station
- The areas of overlap were calculated to allocate population from each service area and multiplied by waste generated for disposal (after recycling), to estimate the existing permitted transfer capacity within the CEC designated service area.
- The waste generated for disposal in the CEC designated service area was then compared with the summation of waste transfer capacity of existing transfer station service areas, to demonstrate that sufficient capacity exists to meet the current and future MSW transfer need.

The data used for the assessment has been compiled on tables and figures presented herein and in appendices following the report.

There are nine other similar transfer station facilities whose service area overlaps the designated service area of the proposed facility. As illustrated in **Figure 2 -Transfer Station Service Areas** these nine facilities are:

- Waste Connections, Inc. DuKane Transfer Station located on Powis Road approximately one-half mile south from the proposed facility in West Chicago
- LRS Elburn Transfer Station in Elburn, Illinois operated by Lakeshore Recycling Systems, Inc. approximately 16 miles west of the proposed LRS MSWTS
- Batavia Transfer Station located approximately 8 miles west in Batavia, Illinois and operated by Waste Management, Inc (WMI).
- Plano Transfer Station in Plano, IL operated by Waste Connections located approximately 32 miles southwest of the proposed LRS MSWTS.
- Bluff City Transfer Station, Elgin, IL operated by Waste Management, Inc, approximately 15 miles north in Elgin, Illinois.
- ERDS Moen Transfer Station operated by Environmental Recycling and Disposal Service, located near Rockdale, Illinois approximately 35 miles south from the proposed LRS MSWTS.
- WMI Joliet Transfer Station operated by Waste Management, Inc approximately 35 miles south from the proposed LRS MSWTS.
- Elk Grove (Chicago) Transfer Station operated by Waste Connections, Inc., located approximately 18 miles east from the proposed LRS MSWTS.
- Melrose Park Transfer Station operated by Waste Management, Inc. approximately 18 miles east from the proposed LRS MSWTS.

The overlaps of service areas for these nine transfer stations, with the service area proposed by CEC, are illustrated in **Figure 2 – Transfer Station Service Areas** in **Appendix 1**. The service areas of each transfer station were obtained from past siting applications and figures illustrated in county solid waste plans (**Ref.'s 2, 3 and 4**).

1.2 Existing Service Area Identification and Population

The service area for the West DuPage RTS represents the locations where LRS currently provides collection services to their customers. It also represents the geographic location whereby the distance to the transfer station is close for other haulers to use for disposal of municipal solid waste and construction and demolition debris. The service area boundary (boundary) for the LRS facility is illustrated on **Figure 1B**. The current population for townships in the service area from the CEC needs study were used in these analyses. They represent estimated population by township from the most recent Year 2020 census prepared by the United States Census Bureau. (**Ref.5**).

The following counties and their contributing resident populations for Year 2020 are summarized below for the service area of the LRS facility:

• Kane County (part of)	345,083
• DuPage County (part of)	566,180
• Will County (part of)	176,242
Total Population	1,087,505

The breakdown of population among township boundaries within each county is shown in **Table 1 – Service Area Population by Township**

TABLE 1 - Service Area 2020 Census Population
- Illinois Municipalities/CDPs with County(ies) -
(Municipalities: Townships)

DuPage

Township	2020 Census Total Population
Bloomingdale	111,875
Lisle	119,040
Milton	120,237
Naperville	104,765
Wayne	64,427
Winfield	45,836
Total Population	***566,180***

Kane

Township	2020 Census Total Population
Aurora	126,929
Batavia	35,363
Elgin	104,493
Geneva	26,396
St. Charles	51,902
Total Population	***345,083***

Will

Township	2020 Census Total Population
DuPage	87,348
Wheatland	88,894
Total Population	***176,242***

Source: U.S. Census Bureau, 2020 Census

Each of the township locations are illustrated on **Figure 1B**.

1.3 Estimated Waste Generation from Service Area

The amount of waste generated from the service area was calculated using information contained in a relatively recent study, completed specifically for Illinois by the Illinois Department of Commerce and Economic Opportunity, *Illinois Commodity/Waste Generation Study* (IDCEO, 2015.) (**Ref. 6**).

Waste generation information from the study is reported in pounds per person per day (lbs/pp/day). Reporting waste generation with these units allows projections of waste amounts where the population of a community and/or county is known. Likewise, the amounts of future expected waste generation can be calculated using future population projections. This methodology was used to prepare expected waste generation amounts for the assumed service area and relate these to the need for additional transfer capacity of the proposed LRS waste transfer station.

1.3.1 IDCEO, 2010 Report and 2015 Update

The IDCEO report was the result of an intensive sampling of waste at 19 solid waste facilities located throughout Illinois, consisting of 17 landfills and 2 transfer stations. Samples of waste were further segregated into two sectors, Industrial/Commercial/Institutional (ICI) and

Residential. A total of 315 samples from the ICI and residential sectors were physically characterized and 150 loads of construction and demolition debris were visually characterized to develop waste composition profiles that included the following 11 categories:

- Paper (newsprint, cardboard, etc.)
- Beverage Containers (milk, juice boxes etc.)
- Plastic (PET, HDPE containers, film etc.)
- Glass (bottles, jars etc.)
- Metal (ferrous and non-ferrous (aluminum beverage containers, ductwork, tin cans etc.)
- Organics (yard waste, food scrap, etc.)
- Inorganics (electronics, tires, appliances etc.)
- Textiles (carpet, clothing etc.)
- Household Hazardous Waste (paint, chemicals etc.)
- Construction and Demolition Debris (concrete, asphalt, soil etc.)

The composition of the waste, and the various sector quantity results from the waste sorting, were then used to adjust national per person waste generation rates to derive rates specific to Illinois. Factors such as economic indicators were used to adjust the national average rates within the categories.

The IDCEO report included waste generation data for each of the counties in Illinois. These tables for the three counties in the service area are included in **Appendix 3**, and are summarized below in **Table 2**:

Table 2 – Service Area Waste Generation by County

County	Waste Generation (lbs/pp/day)
DuPage	8.77
Kane	7.68
Will	7.56

The waste generation rate that was reported for each county represents *'the quantity of products considered municipal waste entering the waste management system from residential, commercial, industrial, institutional and construction and demolition debris sources before material recovery or disposal takes place".*

In their most recent Solid Waste Management Plan Update for Kane County, they reported a waste generation rate of 8.21 lbs./pp/day (**Ref. 9**).

1.3.2 Recycling Rates

Each county, or portion thereof, in the service area has established a recycling program to divert and recycle waste that is generated in their county before it is disposed of in a landfill. The percentage varies by county and is typically reported in a solid waste management plan (Plan) that each county in Illinois is required to prepare. The Plans are updated at five-year intervals. In some cases, information is available from a county on an annual basis. The most recent recycling percentages from these plans are listed below in **Table 3:**

Table 3 – Reported Recycling Rates for Service Area Counties

County	Recycling Rate (%)	Year Reported
DuPage	30%	2017 (DuPage County **Ref. 7**
Kane	37%	2015 (Kane County, **Ref. 8, 9**)
Will	43%	2016 (Will County, **Ref. 10**)

1.3.3 Waste Transfer Quantity Calculation

Waste Transfer from Service Area

The amount of waste generated from the service area was calculated by multiplying the population of the townships from each county in the LRS RTS proposed service area by their respective reported waste generation rate. The amount of waste that requires to be transferred for disposal was calculated by using the waste generated amount, and then reducing it by the recycling rate within each county. The calculation is shown below. For example, the annual amount of waste for disposal in Bloomingdale Township within DuPage County is:

Waste Generated

111,875 people x 8.7 lbs/pp/day x 365 days ÷ 2,000 lbs. per ton = 117,630 tons/year

Waste Recycled

117,630 tons/year x 0.30 = 53,289 tons/year

Waste for Transfer

117,630 tons/year – 53,289 tons/year = 64,341 tons/year

The population estimates from each township in the service area of the West DuPage RTS were multiplied by their respective waste generation rates and adjusted by the reported recycling rate of their county. This analysis was performed by CEC and listed in Table 1-2B in their report. This table is included with this report as **Attachment 4**. The Year 2020 waste generated for disposal was calculated to be 2,997 tons per day, or 1,093,905 tons per year.

The LRS West DuPage transfer station is expected to be operated Monday through Friday and for one-half day on Saturdays, equivalent to 6 operating days per week. The required daily transfer capacity (tons/day) for waste available in the service area to disposal, was determined by dividing the annual amount of waste from the service area by 306 working days per year (6 days x 52 weeks, less 6 holidays).

Daily Waste Transferred:

1,093,905 tons/year ÷ 306 days/year = 3,574 tons per day

The calculated waste amount for transfer for the combined townships of the three counties in the service area, were each calculated and are summarized in **Table 4**.

Table 4 – Service Area Waste Generation for Transfer and Recycling

LRS West Chicago Transfer Station Service Area Township Summary				
County	*Contributing Population*	*Waste Generation Including Recyclable Materials (Tons per day)*	*Waste Generation for Transfer to Landfill Disposal Facility (Tons per day)*	*Recycled Difference (Tons per Day)*
Will	176,242	**666**	**380**	**286**
DuPage	566,577	**2,465**	**1,725**	**739**
Kane	345,083	**1,416**	**892**	**525**
Total	1,087,902	**4,547**	**2,997**	**1,550**

The calculated amount of waste generated in the service area is 4,547 tons per day, of which 2,997 tons per day remain after recycling that require transfer to disposal. The recyclable materials are collected separately and delivered to separate sorting and processing facilities or, for landscape waste, sent directly to compost facilities. The daily rate of waste generated is **2,997** tons per day, and the rate of waste generated for disposal per operating day is **3,574** tons per day.

1.4 Estimated Future Waste Generation for Transfer from Service Area

The LRS West Chicago transfer station is in a suburban area of metropolitan Chicago that has experienced population growth in the recent past, and it is expected to continue to grow. According to CMAP projections, each of the three counties in the service area will experience population growth in the future. A result of Increase population will be additional waste generation. This section of the report presents calculations for future waste generation in the service area and the additional amount to be transferred.

1.4.1 Future Population Increase and Waste Generation

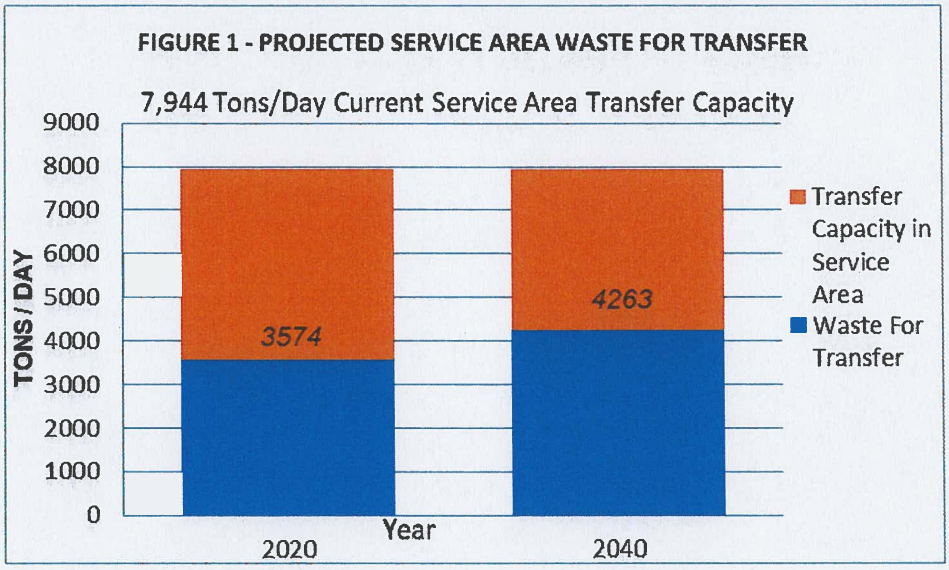
The population increase for the portions of DuPage, Kane and Will counties in the service area were estimated for a twenty-year period from 2020 through 2040, using future projections published by CMAP (**Ref. 10**). From these population projections the amount of future waste that is generated and will require transfer was calculated. The calculations are also included in **Table 1-2B** and summarized below.

The estimated amount of waste generated for the twenty years period from 2020 through 2040 was calculated and is presented in **Table 5 – Future Waste Generation for Transfer** and illustrated in **Figure 3 – Service Area Projected Waste Generation for Transfer**. The current recycling rates used in this report were held constant to calculate the amount of future recyclable material to be removed from the generated waste amounts.

Table 5 - Waste Projections for Service Area

Service Area: 2020			2040		
Population	Waste Generated (tons/year)	Waste Generated (tons/day)	Population	Waste Generated (tons/year)	Waste Generated (tons/day)
1,087,902	1,093,905	2,997	1,303,450	1,304,460	3,574

As illustrated in **Figure 1**, the waste generated in the service area that will require transfer for disposal was calculated to increase from approximately 3,574 tons per operating day in year 2020 to 4,263 tons per operating day in year 2040. The present transfer capacity in the service area of 7,469 tons/day is also shown on the figure.



The estimated current transfer capacity in the service area, equal to 7,944 tons per day, is approximately 3,681 tons per day more than what is required in Year 2040.

1.5 Transfer Capacity Need for Service Area

1.5.1 Current Population Overlap of Transfer Station Service Areas

The calculations of population for transfer stations whose service area overlaps that of the proposed service area of the West DuPage RTS are included in **Appendix 2** for the following transfer stations.

1.5.2 Elburn Transfer Station

The Elburn Transfer Station (ETS) is owned and operated by LRS. The service area for the ETS is illustrated with the proposed service area of the West DuPage RTS in **Figure 3 Transfer Station Service Areas 1 & 6** in **Appendix 1**. The service area for the ETS shown was obtained from Appendix F of the 2012 Solid Waste Management Plan for DuPage County. The townships that overlap the proposed service area are:

Kane – Aurora, Batavia, Elgin, Geneva, and St. Charles

The combined population of these townships within the service area overlap is 345,083. The permitted waste transfer capacity for the ETS is 1,000 tons per day.

1.5.3 Batavia Transfer Station

The Batavia Transfer Station (BTS) is owned and operated by Waste Management, Inc. Its service area is illustrated in **Figure 4 – Transfer Station Service Areas 2 & 6** in **Appendix 1.** The service area for the BTS shown was also obtained from Appendix F of the 2012 Solid Waste Management Plan for DuPage County. The townships served by BTS that entirely or partially overlap the proposed service area and their calculated proportional population are shown below:

		Percent	Overlap
Kane County	Population	Overlap	Population
Aurora	126,929	100%	126,929
Batavia	35,363	100%	35,363
Elgin	104,493	86%	90,372
Geneva	26,396	100%	26,396
St. Charles	51,902	100%	51,902
DuPage County			
Bloomingdale	111,875	19%	21,753
Lisle	119,040	11%	13,227
Milton	120,237	36%	43,419
Naperville	104,765	89%	93,124
Wayne	64,427	100%	64,427
Winfield	46,233	100%	46,233
Will County			
Wheatland	88,894	25%	22,224
		Total	**635,369**

The combined population of the townships within the service area overlap is 635,369 and the permitted waste transfer capacity for the BTS is 1,500 tons per day (**Ref. 11).**

1.5.4 DuKane Transfer Station

The DuKane Transfer Station (DKTS) is owned and operated by Waste Connections, Inc. and its service area is illustrated in **Figure 5 Transfer Station Service Areas 3 and 6** in **Appendix 1**. The service area for the DKTS shown was also obtained from Appendix F of the 2012 Solid Waste Management Plan for DuPage County. The townships served by DKTS that overlap the proposed service area are:

Kane County - Aurora, Batavia, Elgin, Geneva, and St. Charles
DuPage County – Bloomingdale, Lisle, Milton, Naperville, Wayne, Winfield

The combined population of these townships within the service area overlap is 911,263 . The permitted waste transfer capacity for the DKTS is 3,000 tons per day.

1.5.5 Plano Transfer Station

The Plano Transfer Station (PTS) is owned and operated by Waste Connections, Inc. and its service area is illustrated in **Figure 6 Transfer Station Service Areas 4 and 6** in **Appendix 1**. The service area for the PTS shown was obtained from the siting application submitted by Plano Transfer Station LLC and Complete Sanitation, Inc. (**Ref 3**). The townships served by PTS that partially overlap the proposed service area and their calculated proportional population are shown below:

Kane County	Population	Percent Overlap	Overlap Population
Aurora	126,929	28%	35,258
Batavia	35,363	30%	10,609
Geneva	26,396	37%	9,899
		Total	**55,765**

The combined population of these townships within the service area overlap is 55,765. The permitted waste transfer capacity for the PTS is 650 tons per day.

1.5.6 Bluff City Transfer Station

The Bluff City Transfer Station (BCTS) is owned and operated by Waste Management, Inc. and its service area is illustrated in **Figure 7 Transfer Station Service Areas 5 and 6** in **Appendix 1**. The service area for the BCTS shown was also obtained from Appendix F of the 2012 Solid Waste Management Plan for DuPage County. The townships served by BCTS that partially overlaps the proposed service area are shown below.

Kane County	Population	Percent Overlap	Overlap Population
Aurora	126,929	100%	126,929
Batavia	35,363	100%	35,363
Elgin	104,493	100%	104,493
Geneva	26,396	100%	26,396
St. Charles	51,902	100%	51,902
DuPage County			
Naperville	104,765	100%	104,765
Wayne	64,427	100%	64,427
Winfield	46,233	100%	46,233
		Total	560,111

The combined population of these townships within the service area overlap is 560,111. The permitted waste transfer capacity for the BCTS is 2,000 tons per day.

1.5.7 Moen and Joliet Transfer Stations

The Moen Transfer Station (MTS) is owned and operated by Environmental Recycling and Disposal Service. Its service area is illustrated in **Figure 8 – Transfer Station Service Areas 6, 7 & 8** in **Appendix 1**. The service area for the MTS shown was obtained from its siting application prepared by CEC in 2014 (**Ref 4**). The Joliet Transfer Station (JTS) is owned and operated by Waste Management, Inc. The service area overlap of the JTS is identical to that of the Moen Transfer station because the overlap is within the allowed disposal service area of the Prairie View RDF Landfill located in Will County.

The townships served by MTS and JTS that entirely or partially overlap the proposed service area and their calculated proportional population are shown below:

Kane County	Population	Percent Overlap	Overlap Population
Aurora	126,929	75%	95,197
DuPage County			
Lisle	119,040	61%	72,747
Naperville	104,765	89%	93,124

Will County			
DuPage	87,348	100%	87,348
Wheatland	88,894	100%	88,894
		Total	**437,310**

The combined population of these townships within the service area overlap is 437,310. The permitted waste transfer capacity for the MTS is 1,080 tons per day and the permitted capacity of the JTS is 1,300 tons per day.

1.5.8 Elk Grove (Chicago) Transfer Station

The Elk Grove Transfer Station (EGTS) is owned and operated by Waste Connections, Inc. and its service area is illustrated in **Figure 9 - Transfer Station Service Areas 6 and 9** in **Appendix 1**. The service area for the EGTS shown was also obtained from Appendix I of the 2007 Solid Waste Management Plan for DuPage County. The townships served by EGTS that overlap the proposed service area are:

DuPage County – Bloomingdale, Milton, Wayne, Winfield

The combined population of these townships within the service area overlap is 215,685. The permitted waste transfer capacity for the EGTS is 1,000 tons per day.

1.5.9 Melrose Park Transfer Station

The Melrose Park Transfer Station (MPTS) is owned and operated by Waste Management, Inc. and its service area is illustrated in **Figure 10 - Transfer Station Service Areas 6,10 and 11** in **Appendix 1**. The service area for the MPTS shown was also obtained from Appendix G of the 2007 Solid Waste Management Plan for DuPage County. The townships served by MPTS that overlap the proposed service area are:

DuPage County – Bloomingdale, Lisle, Milton

The combined population of these townships within the service area overlap is 132,866. The permitted waste transfer capacity for the MPTS is 5,500 tons per day.

The nine (9) transfer stations whose service areas overlap the service area boundary of the West DuPage RTS are currently permitted to accept municipal solid waste (MSW). Facility information and the calculated population overlap is included in **Appendix 2** for each of the nine. Of these nine MSW transfer stations, two are in Kane County, two in Will County, three in Cook County and one each within DuPage and Kendall Counties. A map of their service areas, illustrating the number of transfer station overlaps with the LRS West Chicago Transfer Station service area, is included on **Figure 11 – Current Transfer Station Service Areas**. The amount of MSW transfer capacity for each of these nine facilities within the service area overlap of the LRS West DuPage facility was calculated. The capacity estimate was determined for each service area by using the population in the overlap area and dividing it by the total service area population of the individual waste transfer stations. The ratio of the overlap of service area population to that of the total population was then used as the percentage of the reported waste

transfer capacity of each transfer station within the intersecting portion of the DuPage RTS service area.

1.5.10 General Construction and Demolition Debris (GCDD) Recycling Facilities

There are two GCDD Recycling Facilities in the proposed Service Area. One is operated by LRS at the site of the proposed West DuPage RTSM transfer station on Powis Road. The permitted capacity per the CEC report for siting of the West DuPage RTS is 1, 250 tons per day of GCDD material. The second GCDD Recycling Facility is located approximately one-half mile north of the proposed West DuPage RTS, also on Powis Road. This facility is operated by Falcon Green Resources, Inc. and is permitted to accept up to 300 tons per day of GCDD material.

C&D recycling facilities are limited by regulations as to the amount of residual material that is generated by their operations that requires disposal in a landfill. Recent legislation (Senate Bill 1089) modified Section 22.38 of the Environmental Protection Act as follows:

> *"....ensure that no less than 40% of the total general construction or demolition debris received at the facility on a rolling 12-month average basis is recyclable."*

The amount of allowed residual GCDD generated by the LRS recycling facility for transfer was calculated by applying 40% of the 1,250 tons per day rate as residuals that will require transfer to a permitted landfill for disposal. Similarly, the amount of residual material that will require transfer from the Falcon Green Resources facility is estimated to be 40% of its allowed 300 tons per day rate. The amount of waste transfer from these two facilities is estimated to be 500 tons per day and 120 tons per day respectively.

1.5.11 Summary of Current Service Area Transfer Station Overlap Capacity

The calculations of service area population for each of the individual transfer stations are included in **Appendix 2.** The allocated MSW transfer capacities for each of the nine MSW transfer facilities and two GCDD residual transfer facilities within the overlap of service areas are presented in **Table 6**.

Table 6 – Current Transfer Station Capacity for Service Area Overlap Locations

Transfer Station/ Location	Total Capacity (Tons per Day)	2020 Service Area Population	2020 Service Area Overlap Population	Percent	2022 Available Capacity (Tons per Day)
Waste Management Bluff City Elgin, IL	2,000	845,947	560,111	66%	1320
Waste Connections Plano, IL	650	648,033	55,765	9%	59
Du Kane Transfer West Chicago, IL	3,000	984,311	911,263	93%	2790
Waste Management Transfer, Batavia, IL	1,500	1,134,573	635,369	56%	840
Lakeshore Recycling Systems Transfer, Elburn, IL	1,000	409,636	345,083	84%	840
Waste Management Transfer, Joliet, IL	1,300	1,181,254	437,310	37%	481
ERDS Transfer, Joliet, IL	1,080	1,181,254	437,310	37%	400
Waste Connections Transfer Elk Grove Village, IL	1,000	2,199,031	215,685	10%	100
Republic Services Transfer Melrose Park, IL	5,500	1,455,875	132,866	9%	495
LRS GCDD Recycling West Chicago, IL **(Note 1)**	1,250	N/A	N/A	40%	500
Falcon Green Resources GCDD Recycling, West Chicago, IL **(Note 2)**	300	N/A	N/A	40%	120
				Total	**7,944**

Note 1: 40% of 1,250 tons per day incoming General Construction and Demolition Debris Debris (GCDD) can be disposed of as waste

Note 2: 40% of 300 tons per day incoming CCDD can be disposed of as waste

5.12 Net Transfer Capacity Surplus

The combined capacity of transfer stations in the service area is 7,944 tons per day. The service area currently generates 3,574 tons per day of waste that requires transfer to disposal. The current net surplus is therefore calculated to be:

Available Transfer Capacity -	7,944 tons per operating day
Waste Materials for Transfer -	3,574 tons per operating day
Net Surplus:	***4,370 tons per day***

Currently there exists a 122% Surplus (4,370 tons per operating day ÷ 3,574 tons per operating day) in municipal solid waste transfer capacity in the service area.

The capacity surplus is expected to decrease as growth in the service area increases population and results in further amounts of waste generated. In the year 2040, the surplun waste transfer capacity for the service area is expected to be reduced to approximately 3,681 tons per operating day (7,944 tons/operating day less 4,263 tons per operating day for transfer) or 86% of the transfer capacity need in the service area (3,681 tons per operating day excess capacity ÷ 4,263 tons/per operating day capacity need = .86 (86%)). Based on future waste transfer capacity need in Year 2040 for the West DuPage RTS service area, there will remain a 86% surplus in municipal solid waste transfer capacity.

1.6 Conclusion

Based on the information presented in this assessment report, additional MSW waste transfer capacity is not necessary to serve the waste needs of the intended service area of the LRS West DuPage RTS transfer station. This conclusion is supported by the following facts:

- The LRS West DuPage RTS service area currently generates 2,977 tons per day of waste that requires transfer to landfills for disposal. This translates to 3,574 tons per oping day of the week. Present capacity in the service area for transfer of waste is 7,944 tons per day, representing a surplus in capacity of 4,380 tons per day, or a 122% surplus.

- Expected growth in population through Year 2040 is insufficient to create a need for additional waste transfer capacity in the service area because there will remain a 86% surplus of waste transfer capacity in year 2040

- Two waste transfer stations are located within the service area of the proposed LRS West DuPage RTS location and seven transfer stations have service areas spaced geographically in proximity such that they can provide service within the proposed LRS service area. One of the nine is operated by LRS and it currently overlaps 84% of the population of the service area presented for their proposed transfer station application.

- As illustrated on Figure 11 of this report, there is currently a minimum of two (2) transfer stations available to serve all portions of the proposed service area of the West DuPage RTS facility, and as many as six (6).

Based on current waste generation volume, present waste transfer capacity and the future demographic trends of the service area, all of which were obtained from reliable published sources, it is the opinion of JPL Environmental Engineering that the proposed LRS West DuPage Recycling and Transfer Station <u>is not necessary</u> to accommodate the waste needs of the area it is intended to serve.

By: John P. Lardner

John P. Lardner, PE

1.7 References

1. Civil and Environmental Consultants, *Need Assessment Study for the West DuPage Recycling and Transfer Stations*, August 2022.

2. DuPage County Office of Economic Development and Planning Illinois, *2012 Solid Waste Management Plan Update*, Appendices F and G, 2012.

3. Andrews Engineering, Criteria 1 - *Need Assessment Study for Plano Transfer Station, LLC*, August 2013.

4. Civil and Environmental Consultants, *Need Assessment Study for Environmental Recycling and Disposal Service Moen Transfer Station*, December 2014

5. United States Bureau of Census, *2020 Census and Demographic Data*, 2021.

6. Illinois Department of Commerce and Economic Opportunity, prepared by CDM, *Illinois Commodity/Waste Generation and Characterization Study, Update March 30*, 2015.

7. DuPage County Office of Economic Development and Planning, *Solid Waste Management Plan Five Year Update,* 2017.

8. Kane County Division of Environmental and Water Resource Management, *Kane County Solid Waste Management and Resource Recovery Plan Five Year Update,* July 14, 2015.

9. Kane County Division of Environmental and Water Resource Management, *Kane County Solid Waste Management and Resource Recovery Plan Five Year Update,* December 8, 2020.

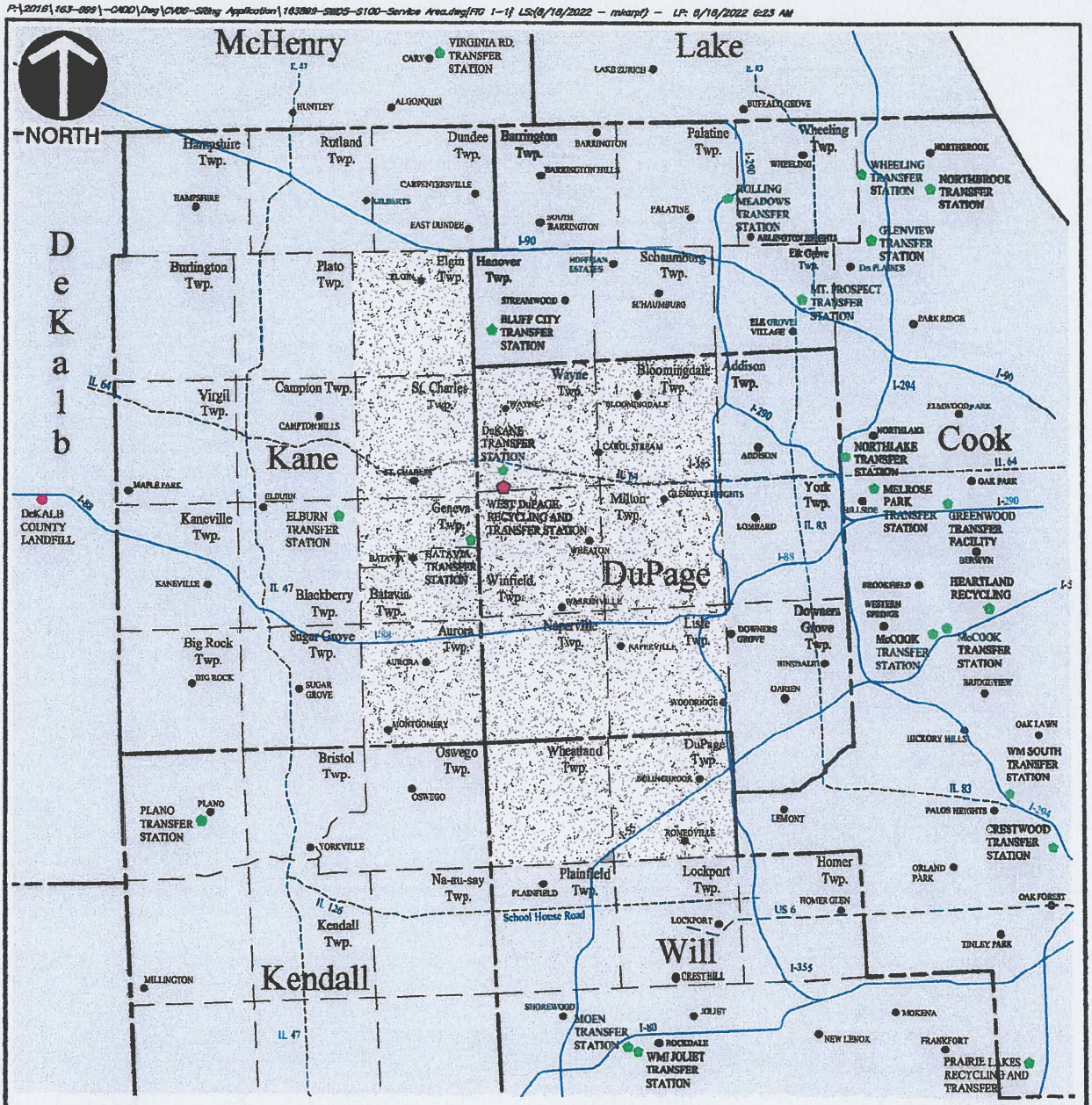
10. Will County Land Use Department, *Solid Waste Management Plan Update 2007 – 2016*, December 2017.

11. Chicago Metropolitan Agency for Planning, *2050 Forecast of Population, Households and Employment,* 2018.

12. City of Batavia, *Resolution 07-114-R Approving First Amendment to Host City Agreement with Veolia,*

APPENDIX 1 – TRANSFER STATION SERVICE AREA FIGURES

P:\2018\163-869\-CADD\Dwg\CVDE-Siting Application\163869-SIID5-S100-Service Area.dwg[FIG 1-1] LS:(8/18/2022 - mkarpf) - LP: 8/18/2022 6:23 AM



REFERENCE

1. LOCATIONS OF TRANSFER STATIONS BASED ON ADDRESSES FROM 2009 ILLINOIS SOLID WASTE CAPACITY REPORTS OR OTHER PUBLICLY AVAILABLE INFORMATION.
2. OWNER/OPERATORS OF TRANSFER STATIONS TAKEN FROM COMPANY WEBSITES AND OTHER PUBLICLY AVAILABLE INFORMATION.

LEGEND

- WEST DuPAGE RECYCLING AND TRANSFER STATION
- SURROUNDING TRANSFER STATION
- SURROUNDING LANDFILL
- SURROUNDING MUNICIPALITY
- WEST DuPAGE RECYCLING AND TRANSFER STATION SERVICE AREA
- COUNTY BOUNDARY LINE
- SURROUNDING COUNTY BOUNDARY LINE
- COUNTY TOWNSHIP
- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY

*HAND SIGNATURE ON FILE

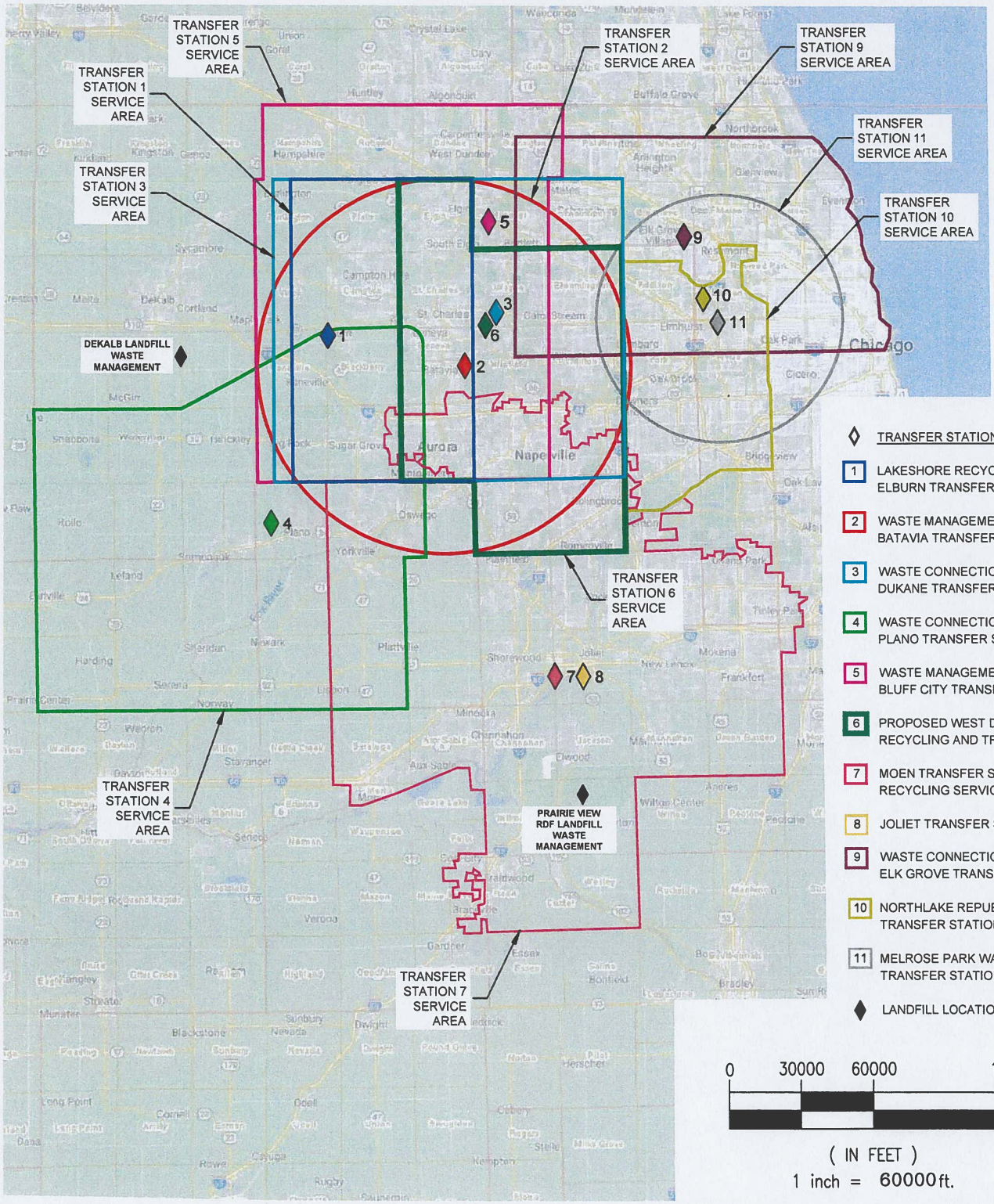
SCALE IN MILES
0 5.0 10.0

CEC
Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

TRANSFER STATION SERVICE AREA

DRAWN BY:	MSK	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGURE NO.:
DATE:	AUGUST 2022	DWG SCALE:	1"=5.0 MI	PROJECT NO:	163-999.0005	1-1



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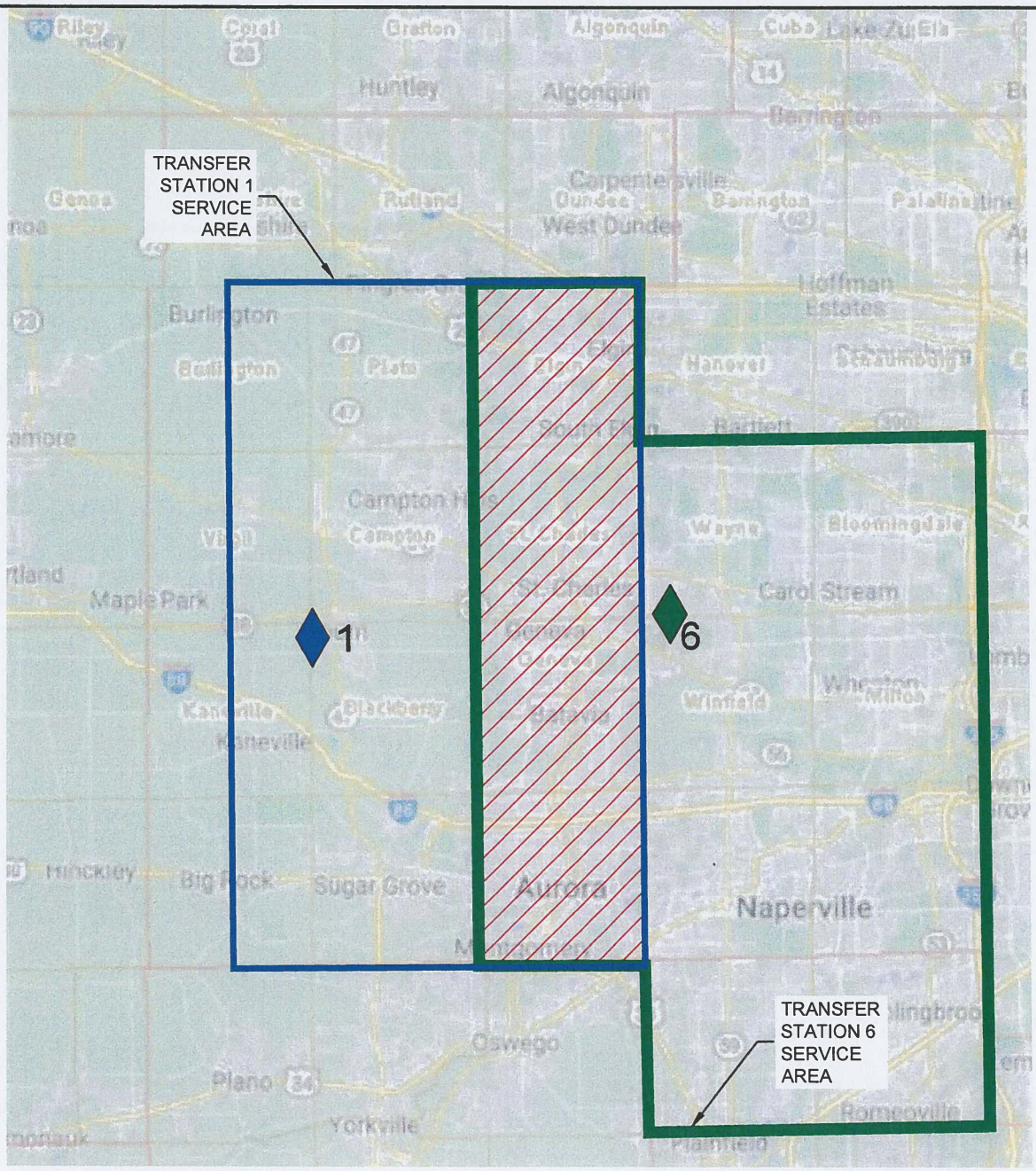
TRANSFER STATION SERVICE AREAS

JOB ID: 2022-138	DRAWN BY: CNW	SHEET: FIG 2
SCALE: 1" = 60000'	DATE: 1/3/2023	



◇ TRANSFER STATIONS

1 LAKESHORE RECYCLING SYSTEMS ELBURN TRANSFER STATION

6 PROPOSED WEST DUPAGE RECYCLING AND TRANSFER STATION

OVERLAP BETWEEN TRANSFER STATION SERVICE AREAS 1 & 6 = 137 SQUARE MILES (APPROX)

0 15000 30000 60000

(IN FEET)

1 inch = 30000 ft.

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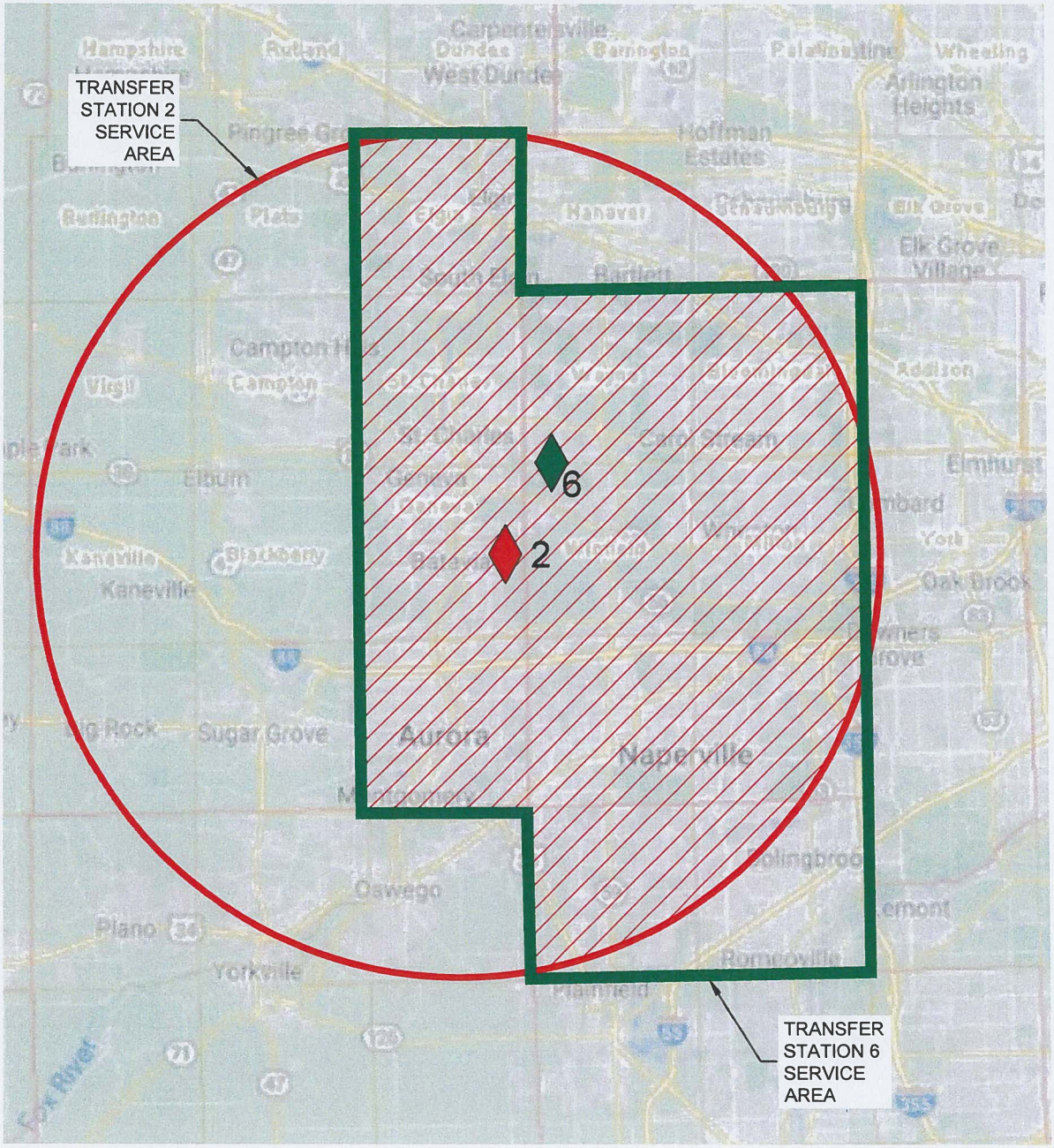
TRANSFER STATION SERVICE AREAS 1 & 6

JOB ID: 2022-138	DRAWN BY: CNW	SHEET: FIG 3
SCALE: 1" = 30000'	DATE: 1/3/2023	



◊ TRANSFER STATIONS

2 WASTE MANAGEMENT
BATAVIA TRANSFER STATION

6 PROPOSED WEST DUPAGE
RECYCLING AND TRANSFER STATION

OVERLAP BETWEEN TRANSFER STATION SERVICE AREAS 2 & 6 = 374 SQUARE MILES (APPROX)

0 15000 30000 60000

(IN FEET)
1 inch = 30000 ft.

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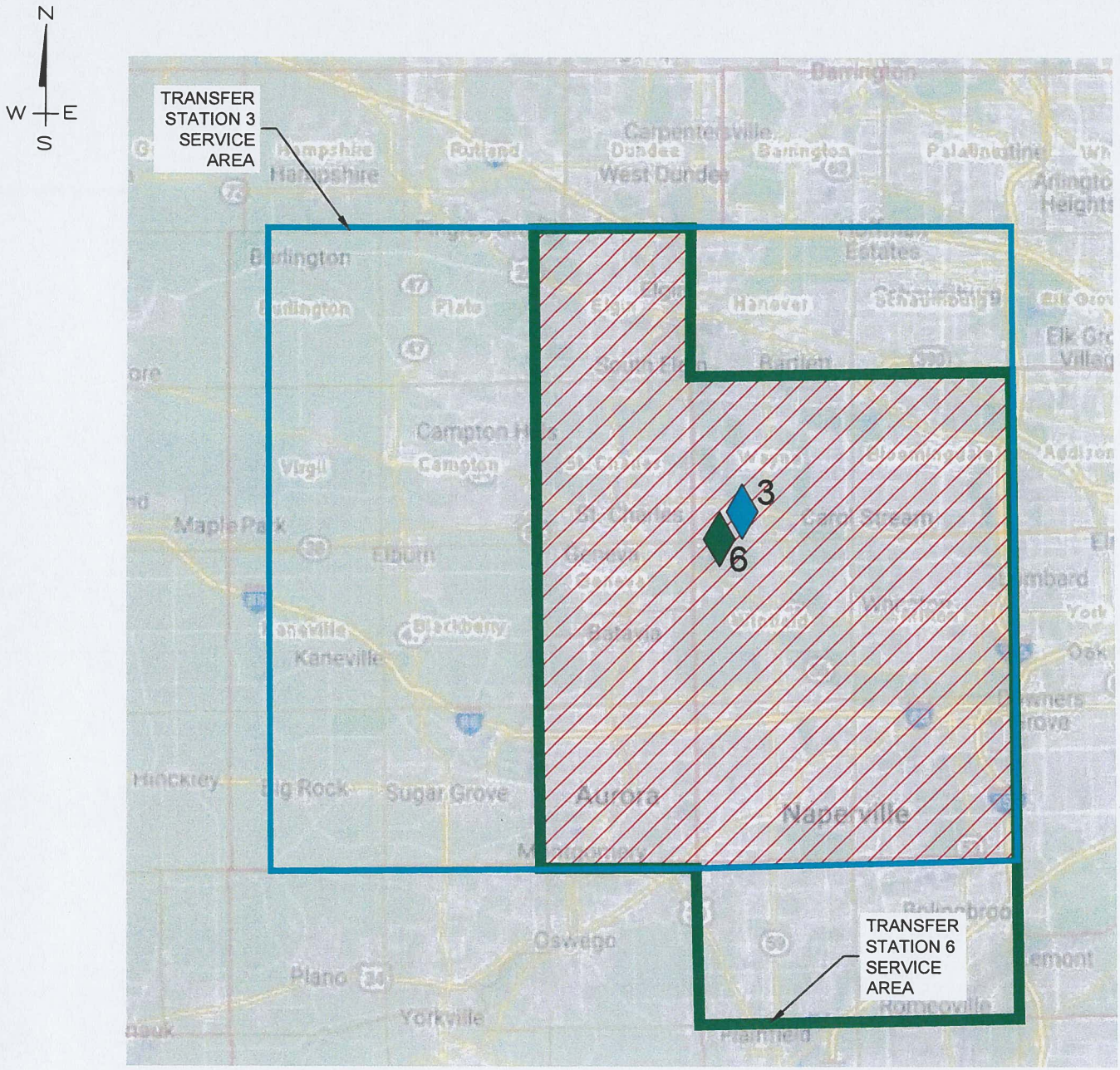
TRANSFER STATION SERVICE AREAS 2 & 6

JOB ID: 2022-138	DRAWN BY: CNW	SHEET: FIG 4
SCALE: 1" = 30000'	DATE: 1/3/2023	



◊ TRANSFER STATIONS

3 WASTE CONNECTIONS
DUKANE TRANSFER STATION

6 PROPOSED WEST DUPAGE
RECYCLING AND TRANSFER STATION

OVERLAP BETWEEN TRANSFER STATION SERVICE AREAS 3 & 6 = 352 SQUARE MILES (APPROX)

0 15000 30000 60000

(IN FEET)
1 inch = 30000 ft.

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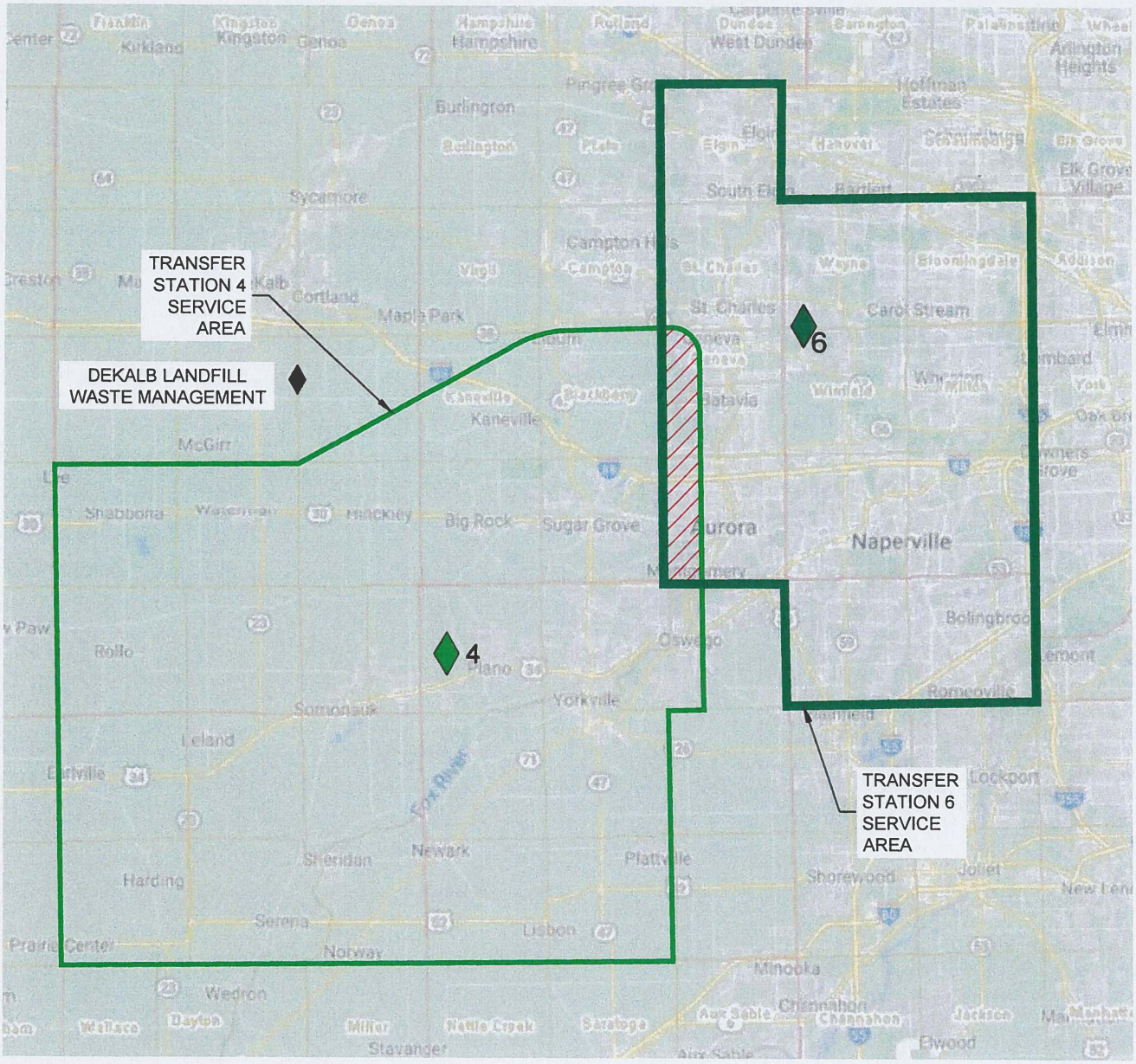
TRANSFER STATION SERVICE AREAS 3 & 6

JOB ID: 2022-138	DRAWN BY: CNW	SHEET: FIG 5
SCALE: 1" = 30000'	DATE: 1/3/2023	



◇ TRANSFER STATIONS

4 WASTE CONNECTIONS PLANO TRANSFER STATION

6 PROPOSED WEST DUPAGE RECYCLING AND TRANSFER STATION

♦ LANDFILL LOCATION

OVERLAP BETWEEN TRANSFER STATION SERVICE AREAS 4 & 6 = 22 SQUARE MILES (APPROX)

0 20000 40000 80000

(IN FEET)

1 inch = 40000ft.

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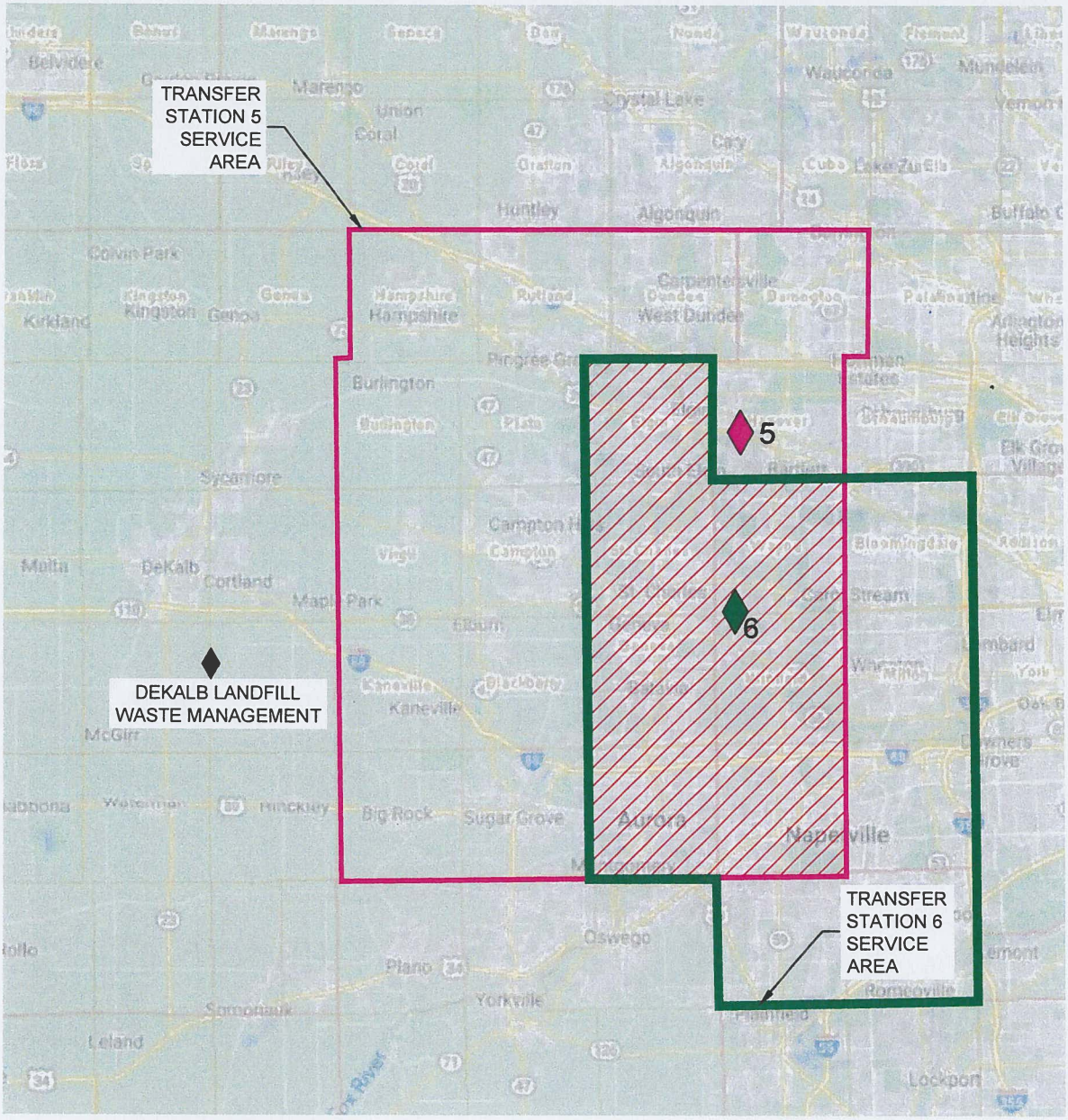
TRANSFER STATION SERVICE AREAS 4 & 6

JOB ID: 2022-138	DRAWN BY: CNW	SHEET: FIG 6
SCALE: 1" = 40000'	DATE: 1/3/2023	



TRANSFER STATIONS

5 WASTE MANAGEMENT BLUFF CITY TRANSFER STATION

6 PROPOSED WEST DUPAGE RECYCLING AND TRANSFER STATION

LANDFILL LOCATION

OVERLAP BETWEEN TRANSFER STATION SERVICE AREAS 5 & 6 = 245 SQUARE MILES (APPROX)

0 20000 40000 80000

(IN FEET)

1 inch = 40000ft.

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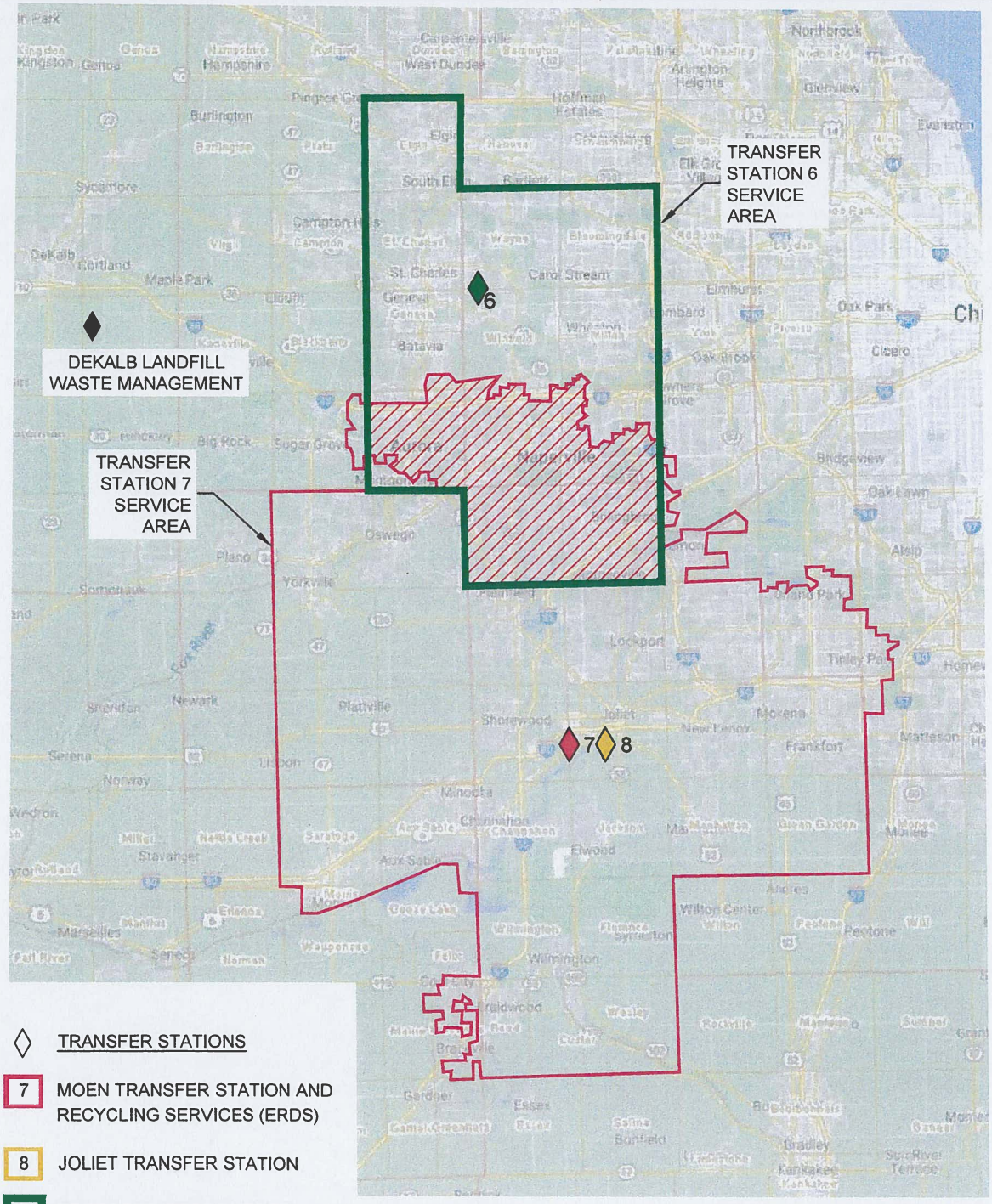
TRANSFER STATION SERVICE AREAS 5 & 6

JOB ID: 2022-138	DRAWN BY: CNW	SHEET: FIG 7
SCALE: 1" = 40000'	DATE: 1/3/2023	



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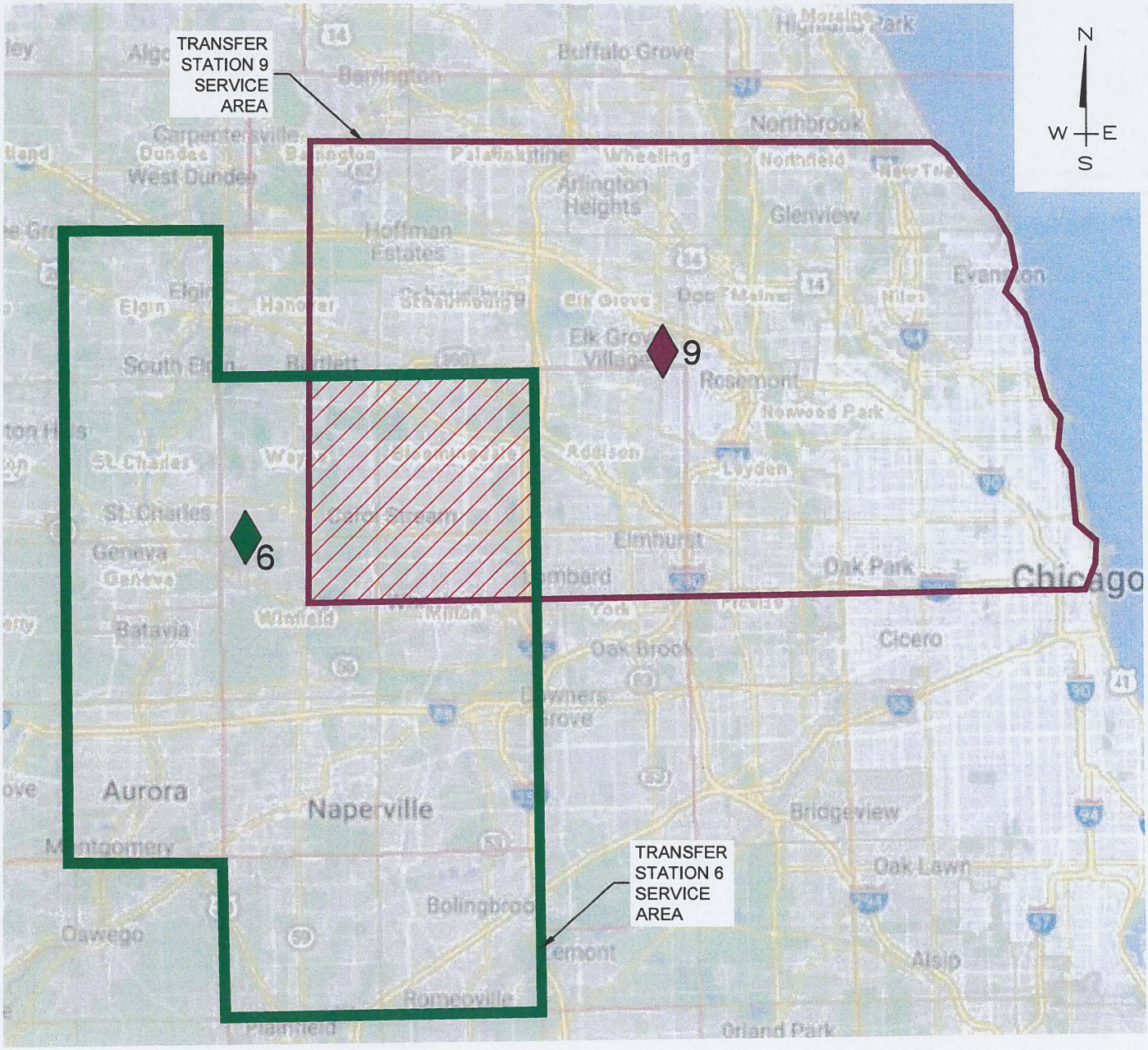
TRANSFER STATION SERVICE AREAS 6, 7 & 8

JOB ID: 2022-138	DRAWN BY: CNW	SHEET: FIG 8
SCALE: 1" = 50000'	DATE: 1/3/2023	



◇ TRANSFER STATIONS

9 WASTE CONNECTIONS
ELK GROVE TRANSFER STATION

6 PROPOSED WEST DUPAGE
RECYCLING AND TRANSFER STATION

OVERLAP BETWEEN TRANSFER STATION SERVICE AREAS 6 & 9 = 72 SQUARE MILES (APPROX)

0 15000 30000 60000

(IN FEET)
1 inch = 30000 ft.

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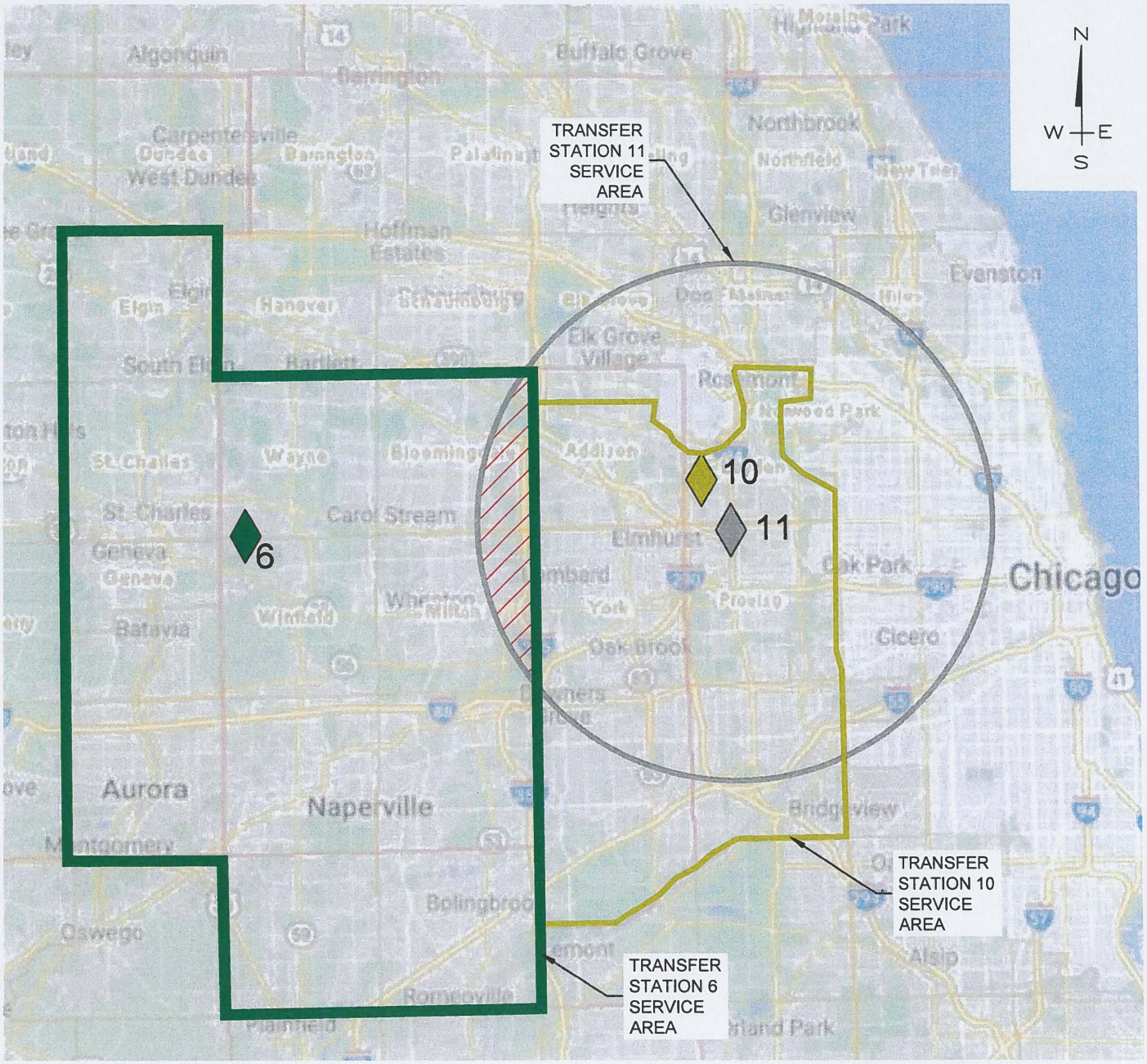
TRANSFER STATION SERVICE AREAS 6 & 9

JOB ID: 2022-138	DRAWN BY: CNW	SHEET: FIG 9
SCALE: 1" = 30000'	DATE: 1/3/2023	



◊ TRANSFER STATIONS

10 NORTHLAKE REPUBLIC SERVICES TRANSFER STATION

11 MELROSE PARK WASTE MANAGEMENT TRANSFER STATION

6 PROPOSED WEST DUPAGE RECYCLING AND TRANSFER STATION

OVERLAP BETWEEN TRANSFER STATION SERVICE AREAS 6, 10 & 11 =17 SQUARE MILES (APPROX)

0 15000 30000 60000

(IN FEET)

1 inch = 30000 ft.

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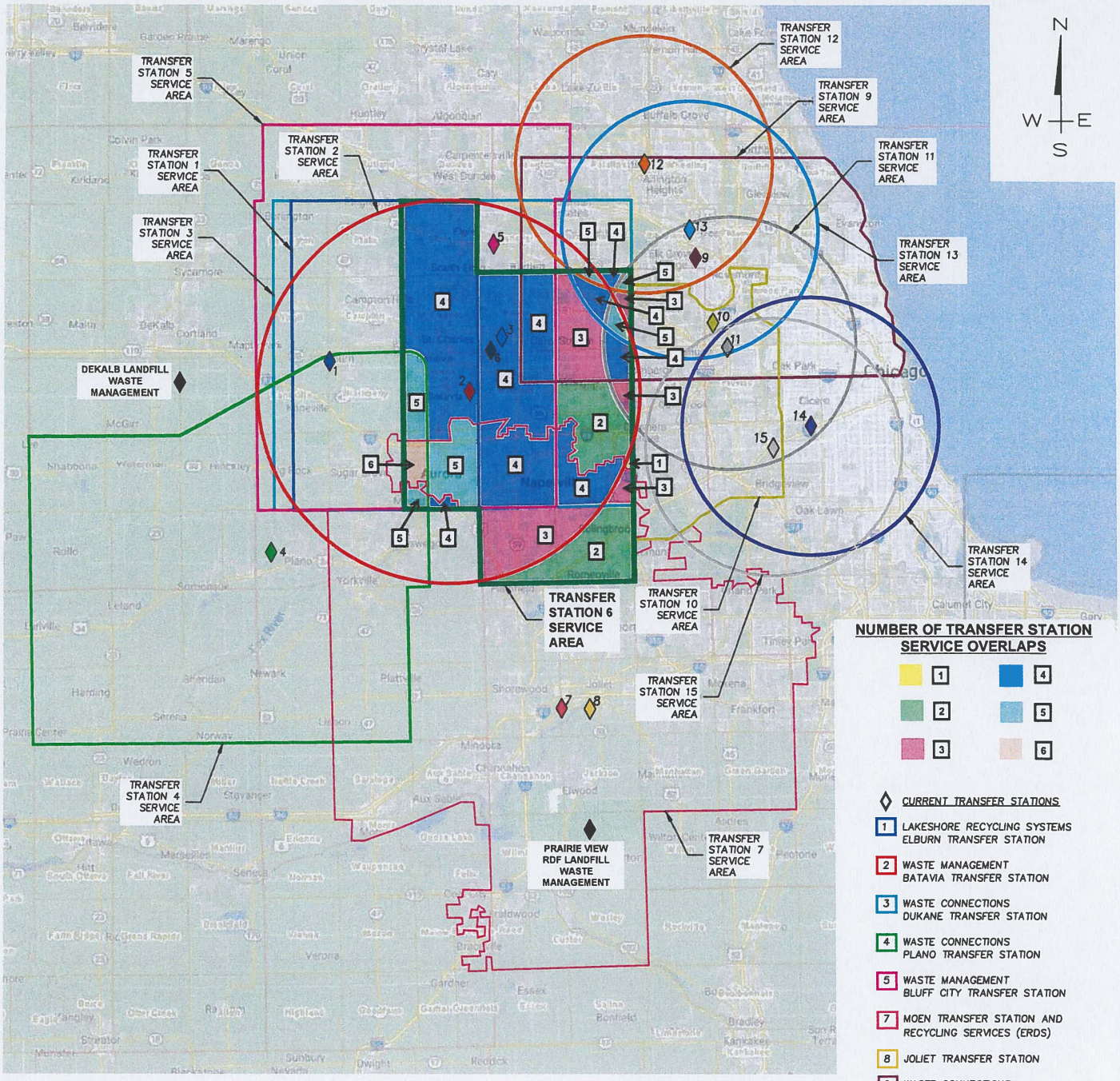
TRANSFER STATION SERVICE AREAS 6, 10 & 11

JOB ID: 2022-138	DRAWN BY: CNW	SHEET: FIG 10
SCALE: 1" = 30000'	DATE: 1/3/2023	



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CURRENT TRANSFER STATION SERVICE AREAS

JOB ID: 2022-138	DRAWN BY: CNW	SHEET: FIG 11
SCALE: 1" = 60000'	DATE: 1/3/2023	

APPENDIX 2
CALCULATION OF SERVICE AREA OVERLAP POPULATION PERCENTAGES

Population Estimates for Townships Served by Current Transfer Stations in Designated Service Area of Proposed West DuPage Recycling and Transfer Station

Note 1 Source: U.S. Census Bureau, 2020 Census
2020 Census Redistricting Data (Public Law 94-171) Summary File and latest Official Estimates
2 Chicago Metropolitan Agency for Planning, ONTO50 Household Population, 2018

WM Bluff City Transfer Station Service Area, Elgin, IL

		Census Population		CMAP ON TO 2050 Population Estimates	
County	Township	Year 2020	Overlap	2040	Overlap
Du Page	***Naperville***	104,765	***104,765***	118,653	***118,653***
	Wayne	64,427	***64,427***	74,665	***74,665***
	Winfield	45,836	***45,836***	54,985	***54,985***
Cook	Barrington	16,514		22,598	
	Hanover	100,092		115,137	
	Aurora	126,929	***126,929***	184,912	***184,912***
Kane	***Batavia***	35,363	***35,363***	43,866	***43,866***
	Big Rock	1,778		3,529	
	Blackberry	15,120		17,961	
	Burlington	1,921		6,727	
	Campton	17,049		23,811	
	Dundee	64,643		84,095	
	Elgin	104,493	***104,493***	**127,582**	***127,582***
	Geneva	26,396	***26,396***	34,370	***34,370***
	Hampshire	9,023		15,223	
	Kaneville	1,156		1,960	
	Plato	9,269		14,436	
	Rutland	26,666		32,379	
	St. Charles	51,902	***51,902***	60,711	***60,711***
	Sugar Grove	20,684		52,888	
	Virgil	1,921		6,041	
	Total	845,947		1,096,529	
	Service Area	Du Page	***215,028***	-	***248,303***
	Overlap	Cook		-	
	Population in Bold	Kane	***345,083***		***451,440***
	Total		***560,111***		
	%		41%		41%

Population Estimates for Townships Served by Current Transfer Stations in Designated Service Area of Proposed West DuPage Recycling and Transfer Station

Note 1 Source: U.S. Census Bureau, 2020 Census
2020 Census Redistricting Data (Public Law 94-171) Summary File and latest Official Estimates
2 Chicago Metropolitan Agency for Planning, ONTO50 Household Population, 2018

DuKane Transfer Station Service Area, West Chicago

			Census Population		CMAP ON TO 2050 Population Estimates	
County	Township		2020	Overlap	2040	Overlap
DuPage	***Bloomingdale***		111,875	***111,875***	*127,463*	***127,463***
	Lisle		119,040	***119,040***	*132,390*	***132,390***
	Naperville		104,765	***104,765***	*118,653*	***118,653***
	Milton		120,237	***120,237***	*132,716*	***132,716***
	Wayne		64,427	***64,427***	*74,665*	***74,665***
	Winfield		45,836	***45,836***	*54,985*	***54,985***
Kane	***Aurora***		126,929	***126,929***	*184,912*	***184,912***
	Batavia		35,363	***35,363***	*43,866*	***43,866***
	Big Rock		1,768		*5,506*	
	Blackberry		17,329		*22,183*	
	Burlington		1,810		*6,727*	
	Campton		17,064		*24,063*	
	Elgin		104,493	***104,493***	*127,582*	***127,582***
	Geneva		26,396	***26,396***	*34,370*	***34,370***
	Kaneville		1,156		*1,953*	
	Plato		9,296		*14,436*	
	St. Charles		51,902	***51,902***	*60,711*	***60,711***
	Sugar Grove		20,684		*29,073*	
	Virgil		1,921		*4,348*	
	Total		*984,311*		*1,202,640*	
	Service Area	DuPage	*566,180*	***566,180***	*640,873*	***640,873***
	Overlap					
	Population in Bold	Kane	345,083	**345,083**	358,228	**358,228**
	Total		911,263	**911,263**	999,101	**999,101**
	%			93%		83%

Population Estimates for Townships Served by Current Transfer Stations in Designated Service Area of Proposed West DuPage Recycling and Transfer Station

Note 1 Source: U.S. Census Bureau, 2020 Census
2020 Census Redistricting Data (Public Law 94-171) Summary File and latest Official Estimates
2 Chicago Metropolitan Agency for Planning, ONTO50 Household Population, 2018

Lakeshore Recycling Systems Transfer Station Service Area, Elburn

County	Township	Census Population 2020	Overlap	CMAP ON TO 2050 Population Estimates 2040	Overlap
Kane	***Aurora***	*126,929*	***126,929***	184,912	***184,912***
	Batavia	*35,363*	***35,363***	43,866	***43,866***
	Blackberry	17,329		6,727	
	Campton	17,064		24,063	
	Elgin	104,493	***104,493***	127,582	**127,582**
	Geneva	*26,396*	***26,396***	34,370	***34,370***
	Plato	9,296		14,436	
	St. Charles	*51,902*	***51,902***	60,711	***60,711***
	Sugar Grove	20,864		29,073	
	Total	409,636		525,738	
	Service Area Overlap Total	Kane	***345,083***		***451,440***
	Population in Bold %		***84%***		***86%***

Population Estimates for Townships Served by Current Transfer Stations in Designated Service Area of Proposed West DuPage Recycling and Transfer Station

Note 1 Source: U.S. Census Bureau, 2020 Census
2020 Census Redistricting Data (Public Law 94-171) Summary File and latest Official Estimates
2 Chicago Metropolitan Agency for Planning, ONTO50 Household Population, 2018

Waste Management Transfer Station, Batavia

County	Township	Census Population 2020	Overlap	CMAP ON TO 2050 Population Estimates 2040	Overlap
DuPage	Bloomingdale	111,875	***21,753***	*127,463*	***24,784***
	Lisle	119,040	***13,227***	*132,390*	***14,710***
	Naperville	104,765	***93,124***	*118,653*	***105,469***
	Milton	120,237	***43,419***	*132,716*	***47,925***
	Wayne	64,427	***64,427***	*74,665*	***74,665***
	Winfield	46,233	***46,233***	*54,985*	***54,985***
Kane	***Aurora***	126,929	***126,929***	184,912	***184,912***
	Batavia	35,363	***35,363***	43,866	***43,866***
	Big Rock	1,854		5,506	
	Blackberry	15,071		22,183	
	Burlington	1,921		6,727	
	Campton	17,175		24,063	
	Elgin	104,765	***90,372***	*127,582*	***110,054***
	Geneva	26,396	***26,396***	*34,370*	***34,370***
	Kaneville	1,264		1,953	
	Plato	6,160		14,436	
	St. Charles	51,902	***51,902***	*60,711*	***60,711***
	Sugar Grove	19,637		29,073	
	Virgil	1,937		4,348	
Will	*Wheatland*	81,320	***22,224***	*106,118*	***29,001***
Kendall	*Bristol*	26,255		51,611	
	Oswego	50,857		72,602	
	Total	1,135,383		1,430,932	
	Service Overlap	DuPage	***282,183***		***322,538***
	Population in Bold	Kane	***330,962***		***433,913***
		Will	***22,224***		***29,001***
	Total		***635,369***	-	***785,452***
	%		***56%***		***55%***

Population Estimates for Townships Served by Current Transfer Stations in Designated Service Area of Proposed West DuPage Recycling and Transfer Station

Note 1 Source: U.S. Census Bureau, 2020 Census
2020 Census Redistricting Data (Public Law 94-171) Summary File and latest Official Estimates
2 Chicago Metropolitan Agency for Planning, ONTO50 Household Population, 2018

Waste Connections Transfer Station LLC, Plano Service Area

		Census Population		CMAP GO TO 50 Population Estimates	
County	**Township**	**2020**	**Overlap**	**2040**	**Overlap**
Kane	**Aurora**	126,929	**35,258**	184,912	**51,364**
	Batavia	35,363	**10,609**	43,866	**13,160**
	Big Rock	1,859		5,506	
	Blackberry	15,090		22,183	
	Geneva	26,396	**9,899**	34,370	**12,889**
	Sugar Grove	19,618		29,073	
DuPage	Naperville	100,019		118,653	
	Winfield	46,233		54,985	
Will	Plainfield	80,318		99,634	
	Wheatland	81,472		106,118	
Kendall	Big Grove	1,647		2,932	
	Bristol	26,230		51,611	
	Fox	1,675		5,236	
	Kendall	7,739		14,396	
	Lisbon	899		3,315	
	Little Rock	13,076		20,921	
	Na-Au-Say	8,145		17,442	
	Oswego	50,870		72,602	
	Seward	4,455		10,412	
	Total	648,033		898,167	
	Service Overlap	-		-	
	Population in Bold	Kane	**55,765**		**77,413**
	Total		-	-	
	%		***9%***		***9%***

Population Estimates for Townships Served by Current Transfer Stations in Designated Service Area of Proposed West DuPage Recycling and Transfer Station

Note 1 Source: U.S. Census Bureau, 2020 Census
2020 Census Redistricting Data (Public Law 94-171) Summary File and latest Official Estimates
2 Chicago Metropolitan Agency for Planning, ONTO50 Household Population, 2018

Waste Management Transfer Station Service Area, Joliet

		Census Population		CMAP ON TO 2050 Population Estimates	
County	**Township**	**Year 2020**	**Overlap**	**Year 2040**	**Overlap**
Kane	***Aurora***	*126,929*	***95,197***	*184,912*	***138,684***
			-	-	
DuPage	***Lisle***	119,040	***72,747***	*132,390*	***80,905***
	Naperville	104,765	***93,124***	*118,653*	***105,469***
Will	***DuPage***	*87,348*	***87,348***	*105,019*	***105,019***
	Wheatland	88,894	***88,894***	*106,118*	***106,118***
All others		*654,278*		*1,250,939*	
			-	-	
	Total	1,181,254		1,898,031	
	Service Area Overlap	Kane	***95,197***		***138,684***
	Population in Bold	DuPage	***165,871***		***186,374***
		Will	***176,242***	***105,019***	***211,137***
	Total		***437,310***		***536,195***
	%		***37%***		***28%***

Population Estimates for Townships Served by Current Transfer Stations in Designated Service Area of Proposed West DuPage Recycling and Transfer Station

Note 1 Source: U.S. Census Bureau, 2020 Census
2020 Census Redistricting Data (Public Law 94-171) Summary File and latest Official Estimates
2 Chicago Metropolitan Agency for Planning, ONTO50 Household Population, 2018

Environmental Recycling and Disposal Transfer Station Service Area, Moen Road

		Census Population		CMAP ON TO 2050 Population Estimates	
County	Township	Year 2020	Overlap	Year 2040	Overlap
Kane	***Aurora***	*126,929*	***95,197***	*184,912*	***138,684***
			-	-	
DuPage	**Lisle**	119,040	***72,747***	*132,390*	***80,905***
	Naperville	104,765	***93,124***	*118,653*	***105,469***
			-	-	
Will	***DuPage***	87,348	***87,348***	***105,019***	***105,019***
	Wheatland	88,894	***88,894***	106,118	***106,118***
All others		654,278	-	1,250,939	
			-	-	
	Total	1,181,254		1,898,031	
	Service Area Overlap	**Kane** 126,929	***95,197***		***138,684***
	Population in Bold	**DuPage** 223,805	***165,871***		***186,374***
		Will 87,348	***176,242***		***211,137***
	Total		***437,310***		***536,195***
	%		***37%***		***28%***

Population Estimates for Townships Served by Current Transfer Stations in Designated Service Area of Proposed West DuPage Recycling and Transfer Station

Note 1 Source: U.S. Census Bureau, 2020 Census
2020 Census Redistricting Data (Public Law 94-171) Summary File and latest Official Estimates
2 Chicago Metropolitan Agency for Planning, ONTO50 Household Population, 2018

Elk GroveTransfer Station Service Area, Elk Grove Village - Waste Connections

		Census Population			CMAP ON TO 2050 Population Estimates	
County	**Township**	**2020**		**Overlap**	**2040**	**Overlap**
DuPage	Addison	88,390			114,612	
	Bloomingdale	111,875		***111,875***	127,463	***127,463***
	Milton	120,237	**0.5**	***60,119***	132,716	***66,358***
	Wayne	64,427	**0.5**	***32,214***	74,665	***37,333***
	Winfield	45,913	**0.3**	***11,478***	54,985	***13,746***
	York	128,326			154,978	
Cook	Barrington	16,506			20,772	
	Hannover Park	99,908			106,731	
	Palatine	114,240			130,789	
	Schaumburg	134,772			150,655	
	Elk Grove Village	95,329			107,044	
	Wheeling	157,350			177,049	
	Northfield	91,604			110,066	
	New Trier	57,249			75,740	
	Maine	140,602			151,590	
	Niles	112,440			133,058	
	Evanston	97,035			97,035	
	Leyden	93,025			97,057	
	Norwood Park	27,434			26,410	
	Rodgers Park	55,628			55,628	
	Proviso	151,158			164,124	
	Oak Park	54,486			54,424	
	Jeferson Park	26,216			26,216	
	Lakeview	103,050			103,050	
	River Forest	11,831			15,385	
	Total	*2,199,031*			*2,462,242*	
	Service Area	DuPage		***215,685***		***244,900***
	Overlap	Cook		-		
	Population in Bold					-
	Total	-		**215,685**		**244,900**
	%			10%		11%

Population Estimates for Townships Served by Current Transfer Stations in Designated Service Area of Proposed West DuPage Recycling and Transfer Station

Note 1 Source: U.S. Census Bureau, 2020 Census
2020 Census Redistricting Data (Public Law 94-171) Summary File and latest Official Estimates
2 Chicago Metropolitan Agency for Planning, ONTO50 Household Population, 2018

Melrose Park Trasnfer Station Service Area - Republic Sevices

		Census Population			CMAP ON TO 2050 Population Estimate	
County	**Township**	**2020**		**Overlap**	**2040**	**Overlap**
DuPage	***Bloomingdale***	88,390	**0.4**	***35,356***	127,463	***50,985***
	Milton	150,016	**0.3**	***37,504***	132,716	***33,179***
	Lisle	128,326	**0.4**	***60,006***	132,390	***33,098***
Cook	Hannover Park	99,908			106,730	
	Schaumburg	134,772			150,655	
	Elk Grove Village	95,329			107,044	
	Wheeling	157,350			177,049	
	Leyden	93,025			93,057	
	Proviso	151,158			164,124	
	Lyons	115,028			127,540	
	Oak Park	54,486			54,424	
	Jeferson Park	26,216			26,216	
	Cicero	85,810			92,129	
	Berwyn	57,120			58,186	
	Stickney	7,110			7,110	
	River Forest	11,831			15,385	
	Total	*1,455,875*			*1,572,218*	
	Service Area	DuPage		***132,866***		***117,262***
	Overlap	Cook		-		
	Population in Bold				**164,124**	
	Total	-		**132,866**	**164,124**	**117,262**
	%			6%		7%

APPENDIX 3
WASTE GENERATION TABLES FOR COUNTIES IN SERVICE AREA

DuPage County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)
Paper	***1,004.0***	***461,610***
Newsprint	107.1	49,230
High Grade Office Paper	69.6	32,000
Magazines/Catalogs	33.3	15,330
Uncoated OCC/Kraft	600.7	276,190
Boxboard	54.6	25,090
Mixed Paper - Recyclable	53.2	24,480
Compostable Paper	73.1	33,590
Other Paper	12.4	5,700
Beverage Containers	***7.2***	***3,320***
Milk & Juice Cartons/Boxes - Coated	7.2	3,320
Plastic	***361.1***	***166,020***
#1 PET Bottles/Jars	28.6	13,150
#1 Other PET Containers	8.0	3,690
#2 HDPE Bottles/Jars - Clear	14.5	6,650
#2 HDPE Bottles/Jars - Color	13.4	6,140
#2 Other HDPE Containers	0.9	430
#6 Exp. Polystyrene Packaging	18.4	8,440
#3-#7 Other - All	13.1	6,000
Other Rigid Plastic Products	58.0	26,650
Grocery & Merchandise Bags	18.6	8,530
Trash Bags	33.5	15,400
Commercial & Industrial Film	52.1	23,960
Other Film	58.8	27,020
Other Plastic	43.4	19,960
Glass	***85.9***	***39,510***
Recyclable Glass Bottles & Jars	68.1	31,330
Flat Glass	10.0	4,610
Other Glass	7.8	3,570
Metal	***123.1***	***56,600***
Aluminum Beverage Containers	15.4	7,070
Other Aluminum	8.7	4,000
Ferrous Containers (Tin Cans)	22.8	10,500
Other Ferrous	51.2	23,560
Other Non-Ferrous	9.0	4,160
Other Metal	15.9	7,310
Organics	***641.3***	***294,860***
Yard Waste - Compostable	117.4	53,980
Yard Waste - Woody	23.2	10,680
Food Scraps	376.4	173,040
Bottom Fines & Dirt	45.2	20,800
Diapers	37.1	17,040
Other Organic	42.0	19,320
Inorganics	***175.2***	***80,530***
Televisions	5.0	2,310
Computer Monitors	3.2	1,460
Computer Equipment/Peripherals	7.1	3,260
Electronic Equipment	14.5	6,650
White Goods - Refrigerated	10.4	4,770
White Goods - Not refrigerated	23.1	10,630
Lead-acid Batteries	18.2	8,380
Other Household Batteries	4.3	1,990
Tires	25.8	11,870
Household Bulky Items	63.1	29,000
Fluorescent Lights/Ballasts	0.5	210
Textiles	***144.6***	***66,460***
Carpet	24.5	11,250
Carpet Padding	6.6	3,040
Clothing	71.9	33,040
Other Textiles	41.6	19,130
Household Hazardous Waste	***26.9***	***12,350***
Construction and Demolition Debris (C&D)	***630.1***	***289,710***
Total MSW (tons)		***1,470,970***
Total MSW (pounds/person/day)		***8.77***
2014 population	919,539	

Kane County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)
Paper	***697.6***	***183,640***
Newsprint	87.1	22,920
High Grade Office Paper	50.3	13,250
Magazines/Catalogs	28.6	7,520
Uncoated OCC/Kraft	338.3	89,060
Boxboard	54.6	14,370
Mixed Paper - Recyclable	53.3	14,020
Compostable Paper	73.0	19,230
Other Paper	12.4	3,270
Beverage Containers	***6.0***	***1,580***
Milk & Juice Cartons/Boxes - Coated	6.0	1,580
Plastic	***337.0***	***88,730***
#1 PET Bottles/Jars	23.7	6,250
#1 Other PET Containers	6.6	1,750
#2 HDPE Bottles/Jars - Clear	12.0	3,160
#2 HDPE Bottles/Jars - Color	11.1	2,920
#2 Other HDPE Containers	0.8	200
#6 Exp. Polystyrene Packaging	18.3	4,830
#3-#7 Other - All	13.0	3,430
Other Rigid Plastic Products	58.0	15,260
Grocery & Merchandise Bags	15.7	4,140
Trash Bags	33.5	8,820
Commercial & Industrial Film	44.2	11,640
Other Film	58.8	15,470
Other Plastic	41.3	10,860
Glass	***86.0***	***22,630***
Recyclable Glass Bottles & Jars	68.1	17,940
Flat Glass	10.0	2,640
Other Glass	7.8	2,050
Metal	***123.1***	***32,400***
Aluminum Beverage Containers	15.4	4,050
Other Aluminum	8.7	2,290
Ferrous Containers (Tin Cans)	22.8	6,010

	County Generation (lb/c/yr)	Total Generation (tons)
Metal		
Other Ferrous	51.2	13,490
Other Non-Ferrous	9.0	2,380
Other Metal	15.9	4,180
Organics	***609.1***	***160,360***
Yard Waste - Compostable	117.4	30,910
Yard Waste - Woody	23.2	6,110
Food Scraps	344.1	90,600
Bottom Fines & Dirt	45.2	11,910
Diapers	37.1	9,760
Other Organic	42.0	11,070
Inorganics	***175.2***	***46,120***
Televisions	5.0	1,320
Computer Monitors	3.2	840
Computer Equipment/Peripherals	7.1	1,870
Electronic Equipment	14.4	3,800
White Goods - Refrigerated	10.4	2,730
White Goods - Not refrigerated	23.1	6,090
Lead-acid Batteries	18.2	4,800
Other Household Batteries	4.3	1,140
Tires	25.8	6,800
Household Bulky Items	63.1	16,610
Fluorescent Lights/Ballasts	0.5	120
Textiles	***127.3***	***33,520***
Carpet	24.5	6,440
Carpet Padding	6.6	1,740
Clothing	61.0	16,050
Other Textiles	35.3	9,290
Household Hazardous Waste	***26.9***	***7,080***
Construction and Demolition Debris (C&D)	***616.5***	***162,310***
Total MSW (tons)		***738,370***
Total MSW (pounds/person/day)		***7.68***

2014 population	526,521

Will County Municipal Solid Waste (MSW) Generation

	County Generation (lb/c/yr)	Total Generation (tons)
Paper	***646.7***	***221,500***
Newsprint	77.7	26,600
High Grade Office Paper	50.3	17,240
Magazines/Catalogs	28.6	9,780
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***
Milk & Juice Cartons/Boxes - Coated	6.2	2,120
Plastic	***339.6***	***116,320***
#1 PET Bottles/Jars	24.6	8,410
#1 Other PET Containers	6.9	2,360
#2 HDPE Bottles/Jars - Clear	12.4	4,250
#2 HDPE Bottles/Jars - Color	11.5	3,930
#2 Other HDPE Containers	0.8	280
#6 Exp. Polystyrene Packaging	18.4	6,290
#3-#7 Other - All	13.1	4,470
Other Rigid Plastic Products	58.0	19,850
Grocery & Merchandise Bags	15.5	5,310
Trash Bags	33.5	11,470
Commercial & Industrial Film	43.1	14,770
Other Film	58.8	20,130
Other Plastic	43.2	14,800
Glass	***86.0***	***29,440***
Recyclable Glass Bottles & Jars	68.1	23,340
Flat Glass	10.0	3,440
Other Glass	7.8	2,660
Metal	***123.1***	***42,160***
Aluminum Beverage Containers	15.4	5,270
Other Aluminum	8.7	2,980
Ferrous Containers (Tin Cans)	22.8	7,820

	County Generation (lb/c/yr)	Total Generation (tons)
Metal		
Other Ferrous	51.2	17,550
Other Non-Ferrous	9.1	3,100
Other Metal	15.9	5,440
Organics	***614.8***	***210,580***
Yard Waste - Compostable	117.4	40,210
Yard Waste - Woody	23.2	7,950
Food Scraps	349.9	119,840
Bottom Fines & Dirt	45.2	15,490
Diapers	37.1	12,690
Other Organic	42.0	14,400
Inorganics	***175.2***	***60,000***
Televisions	5.0	1,720
Computer Monitors	3.2	1,090
Computer Equipment/Peripherals	7.1	2,430
Electronic Equipment	14.5	4,950
White Goods - Refrigerated	10.4	3,550
White Goods - Not refrigerated	23.1	7,920
Lead-acid Batteries	18.2	6,250
Other Household Batteries	4.3	1,480
Tires	25.8	8,840
Household Bulky Items	63.1	21,610
Fluorescent Lights/Ballasts	0.5	160
Textiles	***125.0***	***42,820***
Carpet	24.5	8,380
Carpet Padding	6.6	2,270
Clothing	59.5	20,370
Other Textiles	34.5	11,800
Household Hazardous Waste	***26.9***	***9,210***
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

APPENDIX 4
CIVIL AND ENVIRONMENTAL CONSULTANTS
TABLE 1-2B

Table 1-2B
West DuPage Recycling and Transfer Station
Solid Waste Projections Utilizing Census Data 2020 - 2040 and SWMP

	Townships	2020 Census Population	2040 Projected Population	2020 Census lbs. per capita/day (PCD)	2020 Census Recycling Rate	2020 Census lbs./day	2040 Census lbs. per capita/day (PCD)	2040 Census Recycling Rate	2040 Census lbs./day
DuPage County	Bloomingdale	111,875	127,463	8.70	30%	681,319	8.70	30%	776,250
	Lisle	119,040	132,390	8.70	30%	724,954	8.70	30%	806,255
	Milton	120,237	132,716	8.70	30%	732,243	8.70	30%	808,240
	Naperville	104,765	118,653	8.70	30%	638,019	8.70	30%	722,597
	Wayne	64,427	74,665	8.70	30%	392,360	8.70	30%	454,710
	Winfield	46,233	54,985	8.70	30%	281,559	8.70	30%	334,859
	Total	**566,577**	**640,872**		**lb./day**	**3,450,454**		**lb./day**	**3,902,910**
Will County	DuPage	87,348	105,019	7.56	43%	376,400	7.56	43%	452,548
	Wheatland	88,894	106,118	7.56	43%	383,062	7.56	43%	457,284
	Total	**176,242**	**211,137**		**lb./day**	**759,462**		**lb./day**	**909,832**
Kane County	Aurora	126,929	184,912	8.21	37%	656,515	8.21	37%	956,420
	Batavia	35,363	43,866	8.21	37%	182,908	8.21	37%	226,888
	Elgin	104,493	127,582	8.21	37%	540,469	8.21	37%	659,892
	Geneva	26,396	34,370	8.21	37%	136,528	8.21	37%	177,772
	St. Charles	51,902	60,711	8.21	37%	268,453	8.21	37%	314,016
	Total	**345,083**	**451,441**		**lb./day**	**1,784,873**		**lb./day**	**2,334,988**
	Grand Total	**1,087,902**	**1,303,450**		**lb./day**	**5,994,789**		**lb./day**	**7,147,730**
					tons/day[4]	**2,997**		**tons/day[4]**	**3,574**

Notes:

1. Populations totals for 2020 and 2040 were taken from Table 1-2.
2. The values for pounds per capita per day and the recycling percentages were taken from each individual County Solid Waste Management Plan; pounds per capita and recycling rates.
3. Pounds per day was calculated by taking the Population Census * pound per capita day * (100% - recycling rate %).
4. Tons per a day was calculated by dividing the total pounds per a day by 2000 pounds per a ton.