2024

Solid Waste Management Plan Update

For Lake County, Illinois

Plan Update Timeline

Adopted by:

SWALCO

Citizens Advisory Committee September 25, 2024

SWALCO Board of Directors October 17, 2024

Lake County Board November 12, 2024

LakeCounty

2024 Plan Update
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SECTION 1
INTRODUCTION

1. Planning Background

With the passage of the Solid Waste Planning and Recycling Act in 1988, counties were required to develop waste management plans to manage the municipal waste generated within their borders. Lake County adopted its first Solid Waste Management Plan (the "Plan") in 1989 and has since adopted the required five-year updates in 1994, 1999, 2004, 2009, 2014, 2019 and now 2024 as represented by this document.

The Solid Waste Planning and Recycling Act allows counties to delegate the development of the solid waste management plans to a municipal joint action agency. Lake County has chosen to delegate the updating of the original 1989 Plan to the Solid Waste Agency of Lake County (SWALCO), which was formed in 1990. State law still requires Lake County to formally adopt all plan updates and amendments, even though they may be prepared by SWALCO.

From the outset of the requirement to develop a solid waste management plan Lake County has taken a regional approach to planning and implementation by working jointly with the incorporated municipalities. The 1989 Plan was prepared by the Lake County Joint Action Solid Waste Planning Agency which was formed by intergovernmental agreement and represented 31 municipalities and the County of Lake covering approximately 95% of the County's population. That Agency eventually led to the formation of SWALCO, which became responsible for implementing the 1989 Plan and conducting future planning for all of Lake County.

1.1.1 Scope and Applicability of the Lake County Plan

The Lake County Plan is applicable to all geographic areas of Lake County (refer to Figure 2.1 in Section 2). It is also applicable to all units of local government in Lake County regardless of their membership in SWALCO or not. The only exclusion is for units of local government, including Barrington, Buffalo Grove and Wheeling, which are members of another municipal joint action agency (the Solid Waste Agency of Northern Cook County, or SWANCC), but that exclusion does not extend to siting of pollution control facilities in Lake County (Section 4). To further clarify, if a pollution control facility was proposed within a portion of Buffalo Grove that falls within Lake County, that facility would have to be consistent with the Lake County Plan.

A pollution control facility includes disposal facilities such as landfills, mass burn incinerators, alternative disposal technologies, and transfer stations that accept municipal waste. Solid waste plans have specific importance with respect to pollution control facilities that manage waste because such facilities must meet the following criterion (415 ILCS 5/39.2(a)(viii)) in order to be granted local siting approval (along with 8 other criteria):

> *If the facility is to be located in a county where the county board has adopted a solid waste management plan consistent with the planning requirements of the Local Solid Waste Disposal Act or the Solid Waste Planning and Recycling Act, the facility is consistent with that plan; for purposes of this criterion (viii), the "solid waste management plan" means the plan that is in effect as of the date the application for siting approval is filed;*

Therefore, any pollution control facility proposed to be located anywhere within incorporated or unincorporated Lake County must demonstrate that it is consistent with this 2024 Plan Update in order to receive local siting approval. Recommendations and requirements applicable to pollution control facilities that may have existed in the 1989 Plan or the subsequent Plan Updates are superseded by this 2024 Plan Update.

1.1.2 Development of the 2024 Plan Update

Keeping with Lake County's tradition of preparing consensus-based plan updates, a Citizens Advisory Committee (CAC) was formally appointed by the SWALCO Board of Directors. The list of the CAC members is contained in Attachment A, along with the agendas and attendance sheets from the CAC's meetings held June 12, August 7th, August 28th and September 25th.

Subsequent to the action taken by the CAC to approve the draft Plan Update on September 25th, 2024 the SWALCO Board of Directors approved the Plan Update at its meeting on October 17th, 2024. The Plan Update was then forwarded to the Lake County Board with a recommendation from SWALCO to approve it.

At the County level, the 2024 Plan Update was presented to the Lake County Planning, Building, Zoning, and Environment Committee on November 6, 2024, and the Committee voted to recommend approval of the Plan Update to the Lake County Board. The Lake County Board approved the 2024 Plan Update on November 12, 2024 (the County Board resolution adopting the 2024 Plan Update is in Attachment B).

1.2 Organization of the 2024 Plan Update

The remainder of the 2024 Plan Update is organized as follows:

- Section 2 – Waste Generation and Management
- Section 3 – Recommendations for the 2020-2024 Planning Period
- Section 4 – Requirements for Pollution Control Facilities for the 2025-2029 Planning Period

Several attachments have also been included in the 2024 Plan Update:

- Attachment A – Citizens Advisory Committee Members, Agendas and Attendance Sheets
- Attachment B – Lake County Board Resolution Adopting the 2024 Plan Update
- Attachment C – IEPA Plan Update Form

SECTION 2
WASTE GENERATION AND MANAGEMENT

2.1 Introduction

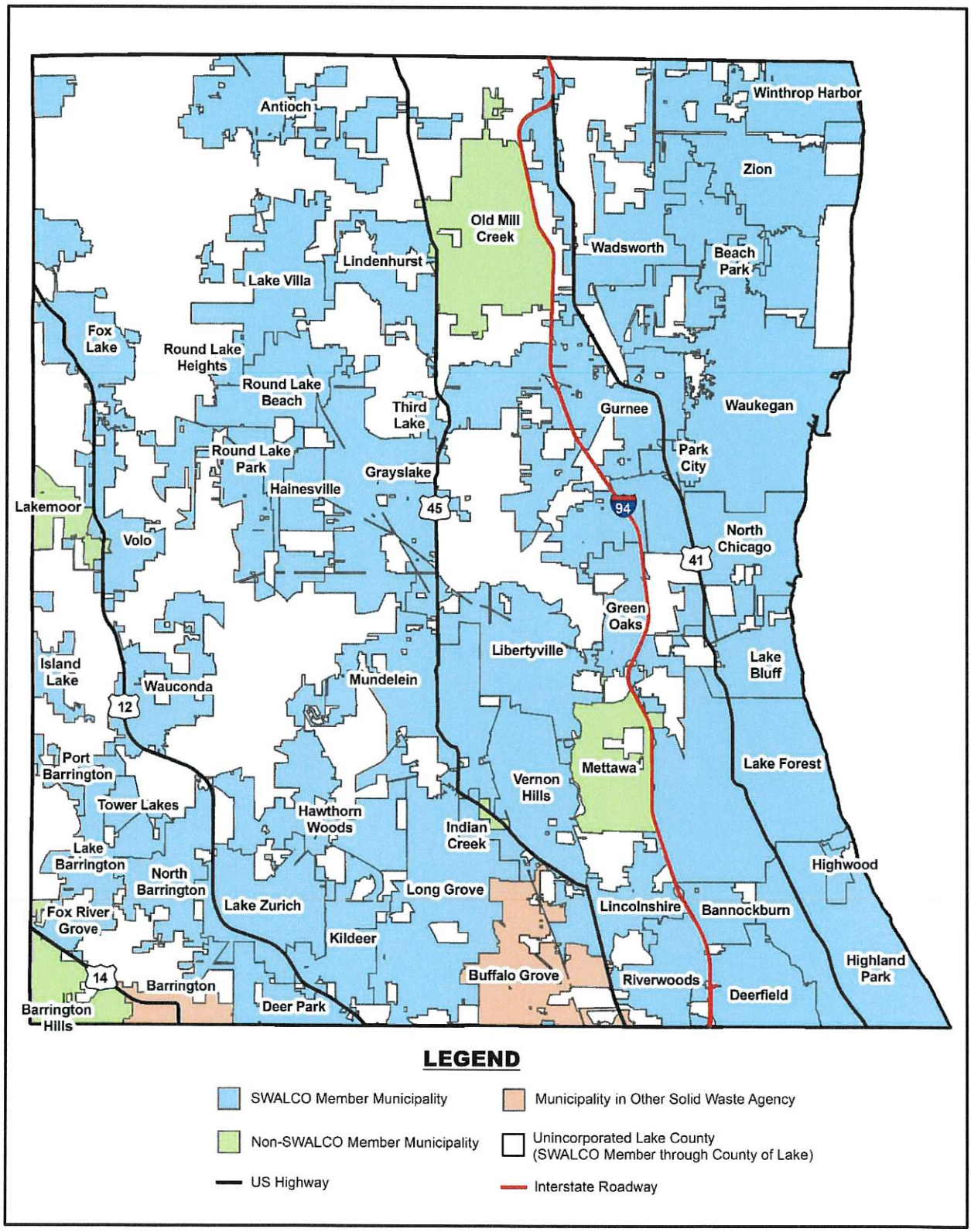
This section of the 2024 Plan Update provides updated information on demographics and waste generation and management within the SWALCO Planning area and Lake County. The Lake County Solid Waste Management Plan (the Plan) was first developed in 1989 and has subsequently been updated every 5 years (in 1994, 1999, 2004, 2009, 2014, and 2019). The 2024 Plan Update utilizes data sources similar to those used in prior studies, in order to facilitate comparison with prior Plan Updates.

2.2 Planning Area

The Solid Waste Agency of Lake County (SWALCO) is comprised of 43 municipalities, Lake County and the Great Lakes Naval Training Center. There are six municipalities in the County that have not joined SWALCO, and three municipalities (Barrington, Buffalo Grove and Wheeling) that are members of the Solid Waste Agency of Northern Cook County (refer to Figure 2.1). These latter three municipalities lie only partially in Lake County. In addition, four of the SWALCO communities and three of the non-SWALCO communities also lie partially in other counties.

Historically, the "planning area" has consisted of the SWALCO members and non-member communities, but excluding the three municipalities that are members of SWANCC. The population within the planning area therefore tracks the County's population closely, but is somewhat lower because Barrington, Buffalo Grove and Wheeling are considered part of the SWANCC planning area. (For reference, in 2020, Barrington had 5,922 residents in the Lake County portion of its boundaries, Buffalo Grove had 14,068 residents, and Wheeling had no residents; combined, the Lake County portion of these communities represented less than 3 percent of the County's population.)

FIGURE 2.1 LAKE COUNTY AND SWALCO PLANNING AREA



2.3 Demographics

Projections of population, households and employment for Lake County and the planning area were developed using the latest available forecasts from the Chicago Metropolitan Agency for Planning (CMAP). CMAP is the regional planning body which succeeded the Northeastern Illinois Planning Commission. Long-term forecasts developed by CMAP for 2050 are provided in Table 2.1.

TABLE 2.1 LONG-TERM DEMOGRAPHIC PROJECTIONS (2020 - 2050)

	2020	2050	Increase (Number)	Increase (%)	Annual Growth
Population					
Lake County	714,352	882,584	168,232	19.06%	0.71%
SWALCO Planning Area	694,362	857,885	163,524	19.06%	0.71%
Households					
Lake County	253,386	342,782	89,396	26.08%	1.01%
SWALCO Planning Area	246,295	333,190	86,895	26.08%	1.01%
Persons Per Household					
Lake County	2.82	2.57			
SWALCO Planning Area	2.82	2.57			
Employment					
Lake County	350,731	416,700	65,969	15.83%	0.58%
SWALCO Planning Area	340,916	405,039	64,123	15.83%	0.58%

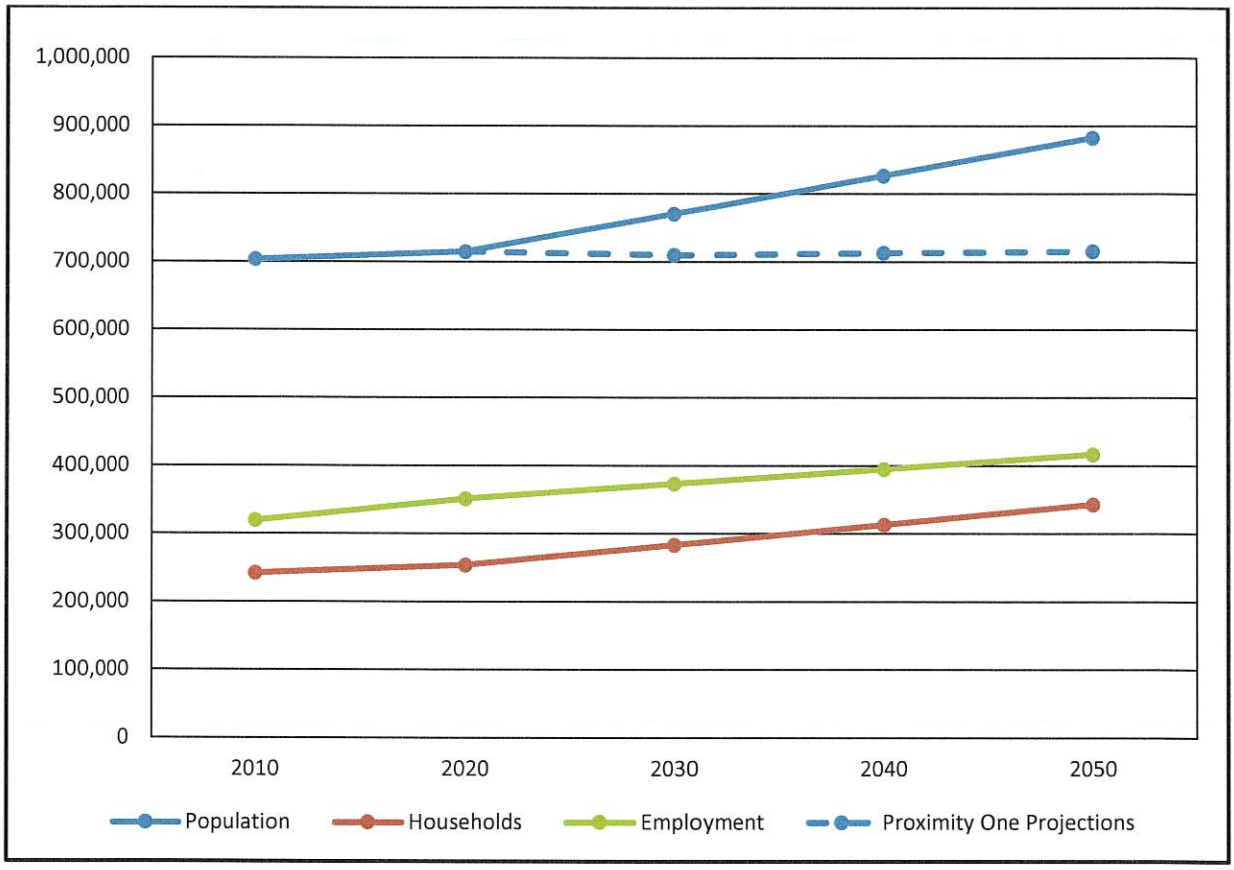
Notes:
1. Source: CMAP, *On to 2050 Local Forecasts.*
2. 2020 Population and Households are 2020 Census data. All other data (except persons per household) are CMAP estimates and projections. Persons per household calculated by dividing population by the number of households.
3. Projections for Lake County include only the Lake County portion of communities that lie partially in the County.
4. Projections for SWALCO Planning Area include only Lake County portion of communities that lie partially in the County.
5. Population counts for the Lake County portion of communities that lie partially in the County were available in 2020 Census data, but not in 2050 CMAP data. 2050 projections for the Lake County portion of those communities were estimated by assuming that the growth rate for the SWALCO planning area was the same as the growth rate for Lake County as a whole.

Annual growth in population, households, and employment in Lake County during the period 2020 to 2050 are forecast at 0.7 percent, 1.0 percent, and 0.6 percent, respectively. From a comparative regional standpoint, CMAP projects a faster rate of growth (on a percentage basis) for Kane, Kendall, McHenry and Will Counties, and a slower rate of growth for Cook and DuPage Counties.

Future growth in Lake County will be more moderate than in past decades. For instance, during the 1980 to 2000 period, population grew by 1.9 percent annually, households by 2.2 percent annually, and employment by 4.3 percent annually.

Population growth in many Illinois counties has slowed since 2010 and in fact the State of Illinois lost approximately 54,000 residents between the 2010 and 2020 censuses. For comparative purposes, Figure 2.2 includes an alternative forecast of Lake County population using projections from Proximity One, a private forecasting company, which indicate a lower rate of growth. For consistency with prior Plan Updates, the remainder of this section uses CMAP projections to analyze waste quantities.

FIGURE 2.2 DEMOGRAPHIC TRENDS IN LAKE COUNTY



Near-term demographic forecasts for the current five-year Plan Update period (2025-2029) are provided in Table 2.2. These forecasts were developed by linear interpolation between 2025 and 2030 five-year interim projections developed by CMAP (the same data source as used for the 2050 forecast in Table 2.1). These near-term forecasts are provided for the use of Lake County and SWALCO staff during the upcoming five-year planning period.

TABLE 2.2 NEAR TERM DEMOGRAPHIC PROJECTIONS (2025-2029)

	2025	2026	2027	2028	2029
Population					
Lake County	760,334	766,218	772,102	777,986	783,870
SWALCO Planning Area	739,044	744,764	750,483	756,203	761,922
Households					
Lake County	285,370	288,381	291,392	294,403	297,414
SWALCO Planning Area	277,379	280,306	283,233	286,160	289,087
Persons Per Household					
Lake County	2.66	2.66	2.65	2.64	2.64
SWALCO Planning Area	2.66	2.66	2.65	2.64	2.64
Employment					
Lake County	358,489	360,537	362,584	364,632	366,679
SWALCO Planning Area	348,452	350,442	352,432	354,422	356,412

Notes:

1. Near-term forecasts based on linear interpolation of CMAP Projections for 2025 and 2030.

2.4 Waste Generation

This section presents updated waste generation information for the SWALCO planning area. The initial Solid Waste Management Plan (1989) utilized a number of sources to estimate waste generation rates (i.e., pounds per person per day, pounds per employee per day) including surveys of landfills, surveys of municipalities, and published studies. Subsequent Plan Updates (1994, 1999, and 2004) modified the initial estimates by applying adjustment factors based on national-level estimates of waste generation. A comprehensive review of waste generation in Lake County was performed for the development of the 2009 Plan Update for the first time since the original Plan was prepared, again utilizing several sources including hauler and municipal surveys and published studies.

Following completion of the 2009 Plan Update, Lake County convened a task force to investigate options for increasing recycling in the County to a target rate of 60%. The task force further evaluated and quantified waste disposal from the County utilizing data reported by haulers and municipalities, similar to the approach used in the 2009 Plan Update. However, where the 2009 Plan Update had utilized some regional disposal data to develop disposal rates, the methodology used in the *60% Recycling Task Force Report* relied solely on locally-reported data. Disposal rates in the 2014 Plan Update were developed applying a methodology consistent with Lake County's *60% Recycling Task Force Report*, and this method (as further described in this section) has been retained for the 2024 Plan Update. The following subsections detail the disposal rate calculation and identify overall waste generation rates in Lake County.

2.4.1 Disposal Rate Calculation

Following adoption of the 2009 Plan Update, SWALCO convened a task force to evaluate methods by which SWALCO and Lake County could achieve a 60% recycling rate by 2020. The *60% Recycling Task Force Report* utilized local data to calculate disposal rates in Lake County. The method used in the *60% Recycling Task Force Report* was used in the 2014 Plan Update and has continued to be the method utilized to measure waste disposal in Lake County to monitor progress towards the goals established in the *60% Recycling Task Force Report*.

Annual waste disposal rates for 2019-2023 are presented in Table 2.3. The following data sources have been used to develop annual waste disposal rates:

1. Hauler data reported by residential franchises (Source "A" in Table 2.3), used to calculate residential disposal rates.

2. Hauler data reported under the Lake County solid waste ordinance (Source "B" in Table 2.3), used to calculate commercial waste and construction & demolition debris (C&D) disposal rates.

3. Calculated recycling residue tonnages (Source "C" in Table 2.3), reflecting contaminants from the collected residential, commercial, and C&D debris recycling streams that is removed during processing and ultimately disposed. This tonnage is calculated in Table 2.6 and described further in Section 2.4.2.

4. Annual Lake County population based on the interpolation of 2020 decennial survey data and CMAP 5-year projections.

The *60% Recycling Task Force Report* developed baseline disposal rates. In 2010, the residential disposal rate was 1.85 pounds per capita per day (pcd) and the commercial/C&D disposal rate was 2.50 pcd, for a total disposal rate of 4.35 pcd.

These disposal rates can fluctuate from year to year based on economic conditions and other factors (such as the Covid pandemic). Disposal rates for the period 2019-2023 are shown in Table 2-3, for comparison against the baseline 2010 rates. Residential disposal rates during the past five years have consistently been below the 2010 baseline rate of 1.85 pcd, indicating progress toward waste reduction goals. Commercial and C&D disposal rates have fluctuated, and in some years were lower than the 2010 baseline rate of 2.50 pcd but in other years were higher. Total waste disposal rates ranged from 4.13 pcd in 2021, which is below the 2010 baseline number of 4.35 pcd, to 5.24 pcd in 2019, which was higher than the 2010 baseline.

TABLE 2.3 SWALCO WASTE DISPOSAL DATA					
Data Source	2019	2020	2021	2022	2023
Tonnage Data					
A. Residential (Hauler Reported)	192,806	214,141	212,723	199,327	199,465
B. MSW (Hauler Reported)	608,540	497,547	507,285	523,402	573,249
C. Recycling Residue	56,928	39,255	38,228	40,886	40,056
D. Total Disposed (B+C)	665,468	536,801	545,513	564,288	613,304
Disposal Rate Calculations					
Lake County Population	705,156	714,352	723,548	732,745	741,941
Household Count	246,989	253,386	259,783	266,179	272,576
Residential Disposal Rate	1.58	1.71	1.68	1.55	1.53
Commercial/C&D Debris Disposal Rate	3.65	2.40	2.45	2.67	3.00
Total MSW Disposal Rate	5.24	4.12	4.13	4.22	4.53

The *60% Recycling Task Force Report* established goal disposal rates for the residential and commercial/C&D debris sectors. Goals were set for 2015 and 2020, utilizing 2010 rates as the base year for calculation purposes. Lake County's 2010 waste generation rate (disposal + recycling + composting) was calculated to be 8.76 pcd for all waste streams (residential, commercial and C&D). If a diversion goal of 60% is achieved, then 40% of the waste generated will still require disposal. Therefore, a base year generation rate of 8.76 pcd and disposal of 40% of that amount equates to a goal disposal rate of 3.50 pcd (for total waste):

8.76 pcd generated x 40% disposed = 3.50 pcd disposed

Given that the 2010 disposal rate calculated in the *60% Recycling Task Force Report* was 4.77 pcd, a reduction factor of 0.73 (3.50 pcd / 4.77 pcd = 0.73) was applied to 2010 disposal rates to calculate 2020 goal disposal rates:

Residential	0.73 x 1.85 pcd = 1.35 pcd goal (2020)
Commercial/C&D	0.73 x 2.92 pcd = 2.13 pcd goal (2020)

2015 goal disposal rates were set as the midway point between 2010 and 2020 rates. Table 2.4 summarizes the goal disposal rates for the residential and commercial/C&D debris sectors for 2015 and 2020, as calculated in the *60% Recycling Task Force Report*.

TABLE 2.4 DISPOSAL RATE GOALS			
Disposal Sector	2010 (Base Year)	2015	2020
Residential	1.85	1.60	1.35
Commercial/C&D Debris	2.92	2.52	2.13
Total	4.77	4.12	3.48

The data in Table 2.4 indicate that, for the period 2019-2023, residential disposal rates were below the 2010 baseline (again, indicating progress in waste reduction), and in some years met the 2015 reduction goal, but did not meet the 2020 reduction goals. During that same period, commercial and C&D disposal rates in some years met the 2015 reduction goal but not the 2020 reduction goal, so additional progress in those sectors is required.

Table 2.5 shows detailed residential waste data for 2023 for the member communities of SWALCO. In 2023, 19 of SWALCO's member communities met the 2015 residential goal of 1.60 pcd and 10 of those communities met the 2020 residential goal of 1.35 pcd[1].

TABLE 2.5 SWALCO MEMBER COMMUNITY PROGRESS TOWARDS GOAL DISPOSAL RATE (2023)					
SWALCO Member	Disposal (tons)	Average Household Size	Household Count	Household Population	Disposal Rate
Antioch	4,446	2.80	5,479	15,341	1.59
Bannockburn	293	2.60	205	533	3.01
Beach Park	4,395	3.00	5,179	15,537	1.55
Deer Park	1,251	2.80	1,071	2,999	2.29
Deerfield	4,874	2.60	7,436	19,334	1.38
Fox Lake	4,821	2.10	5,828	12,239	2.16
Grayslake	6,968	2.60	8,503	22,108	1.73
Green Oaks	1,493	2.50	1,371	3,428	2.39
Gurnee	7,617	2.60	12,386	32,204	1.30
Hainesville	1,565	2.80	1,320	3,696	2.32
Hawthorn Woods	3,117	3.10	2,975	9,223	1.85
Highland Park	7,093	2.50	12,405	31,013	1.25
Highwood	781	2.70	1,980	5,346	0.80
Island Lake	2,989	2.70	3,232	8,726	1.88
Kildeer	1,506	3.10	1,384	4,290	1.92
Lake Barrington	2,306	2.20	2,402	5,284	2.39
Lake Bluff	1,979	2.70	2,174	5,870	1.85

[1] Rates in Table 2.5 are not adjusted for residue.

TABLE 2.5 SWALCO MEMBER COMMUNITY PROGRESS TOWARDS GOAL DISPOSAL RATE (2023)

SWALCO Member	Disposal (tons)	Average Household Size	Household Count	Household Population	Disposal Rate
Unincorp. Lake County	35,303	2.70	32,948	88,960	2.17
Lake Forest	7,268	2.60	7,671	19,945	2.00
Lake Villa	2,614	2.80	2,997	8,392	1.71
Lake Zurich	5,582	2.70	7,262	19,607	1.56
Libertyville	5,549	2.60	8,103	21,068	1.44
Lincolnshire	1,494	2.30	3,414	7,852	1.04
Lindenhurst	4,949	2.80	5,187	14,524	1.87
Long Grove	1,880	3.10	2,797	8,671	1.19
Mundelein	9,212	2.70	11,967	32,311	1.56
North Barrington	1,123	2.90	1,181	3,425	1.80
North Chicago	4,741	2.60	7,897	20,532	1.27
Park City	553	3.00	305	915	3.31
Port Barrington	506	2.90	583	1,691	1.64
Riverwoods	1,453	2.90	1,325	3,843	2.07
Round Lake	5,691	3.10	6,269	19,434	1.60
Round Lake Beach	6,785	3.30	8,629	28,476	1.31
Round Lake Heights	928	3.40	812	2,761	1.84
Round Lake Park	2,636	3.10	3,331	10,326	1.40
Third Lake	403	2.60	433	1,126	1.96
Tower Lakes	437	2.80	440	1,232	1.94
Vernon Hills	7,636	2.60	10,996	28,590	1.46
Volo	2,200	2.90	2,120	6,148	1.96
Wadsworth	624	2.60	1,377	3,580	0.95
Wauconda	3,699	2.80	5,518	15,450	1.31
Waukegan	19,578	2.60	31,756	82,566	1.30
Winthrop Harbor	2,488	2.40	2,749	6,598	2.07
Zion	6,653	2.80	9,295	26,026	1.40

2.4.2 Recycling and Composting Quantities

SWALCO compiles data on recycling and composting activity from Lake County annually. Data is reported through the County's hauler licensing ordinance as well as surveys conducted by SWALCO. Table 2.6 summarizes recycling and composting quantities for the past 5 years.

Adjustments to recycling quantities are also shown in Table 2.6 based on reported or estimated residue rates. Residue consists of materials collected for recycling which are not recovered during processing and which are ultimately disposed. Residue rates applied in Table 2.6 include:

- Residential and commercial recycling stream = 14.54%, based on SWALCO recycling stream composition data at the WMRA MRF in Grayslake.
- Construction and demolition debris recycling stream = 25%, based on regulatory recycling thresholds for C&D recycling facilities
- Landscape waste composting stream residue rates are not adjusted due to a lack of data on residues from composting facilities; residue rates at compost facilities are expected to be less than at recycling facilities, with anecdotal information indicating residue rates around 5%. This adjustment will be made in the future if residue rates are obtained from the composting facilities.

TABLE 2.6 LAKE COUNTY RECYCLING AND COMPOSTING DATA (2019 - 2023)

	2019	2020	2021	2022	2023
Residential Recycling (tons)	59,027	63,581	63,423	58,560	56,580
Commercial Recycling (tons)	140,339	105,071	103,551	123,945	137,355
Residential / Commercial Recycling Residue (tons)	(28,988)	(24,522)	(24,278)	(26,536)	(28,198)
C&D Debris Recycling (tons)	111,760	58,930	55,800	57,400	47,430
C&D Debris Recycling Residue (tons)	(27,940)	(14,733)	(13,950)	(14,350)	(11,858)
Landscape Waste Composting (tons)	98,926	190,822	116,594	150,706	132,166
SWALCO Diversion Programs (tons)	1,909	1,695	1,494	1,311	1,279
Municipal Waste Diversion (tons)	**355,033**	**380,844**	**302,634**	**351,035**	**334,755**
Municipal Waste Diversion (%)	**35%**	**43%**	**37%**	**40%**	**37%**

2.4.3 Summary Waste Generation

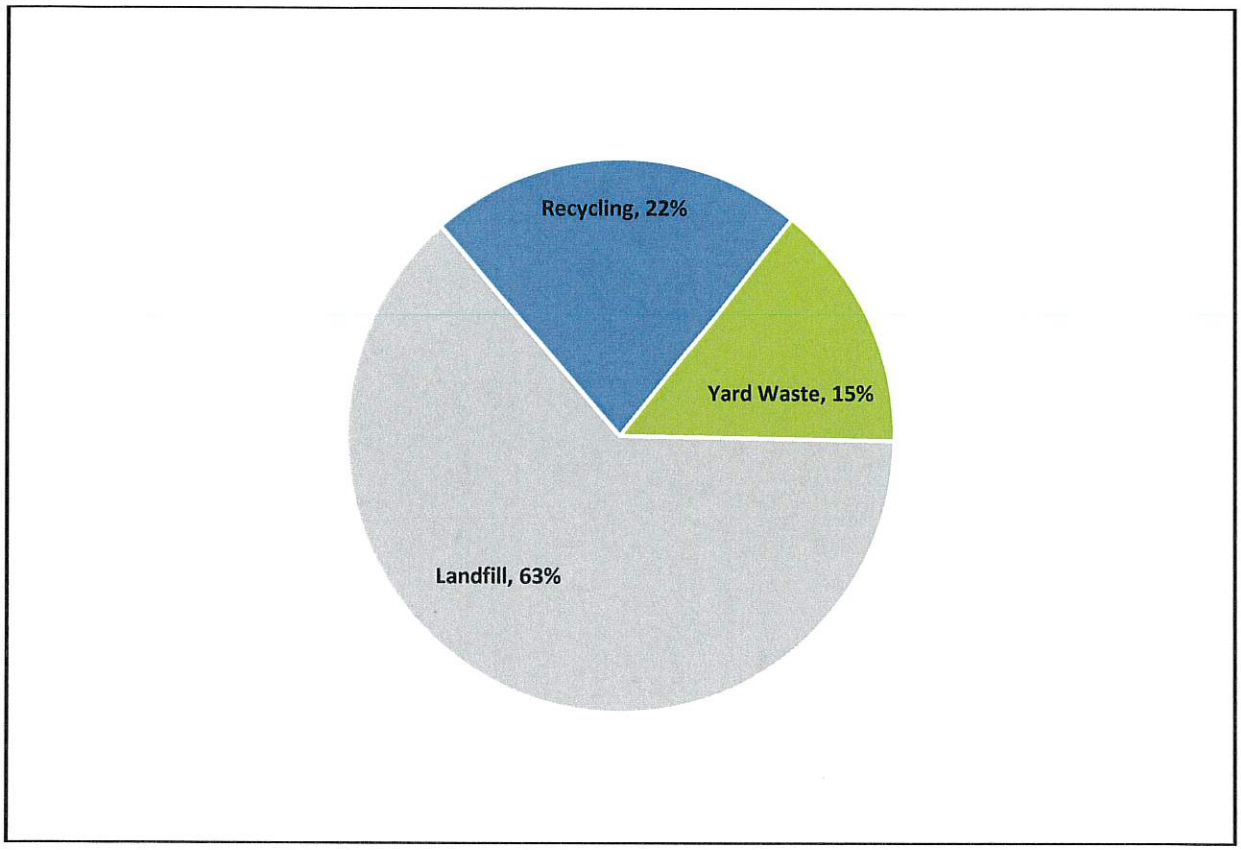
Municipal solid waste generation tonnages and per capita rates for 2019-2023 are summarized in Table 2.7, based on the disposal and recycling/composting data presented previously.

TABLE 2.7 LAKE COUNTY WASTE GENERATION (2019-2023)

	2019	2020	2021	2022	2023
Waste Generation Tonnage					
Residential	251,833	277,722	276,146	257,887	256,045
Commercial/C&D Debris	669,929	427,732	436,341	462,370	522,997
Landscape	98,926	190,822	116,594	150,706	132,166
Total MSW Generation (tons)	1,020,688	896,275	829,080	870,963	911,208
Waste Generation Per Capita					
Residential	1.98	2.13	2.09	1.93	1.89
Commercial/C&D Debris	5.27	3.28	3.30	3.46	3.86
Landscape	0.78	1.46	0.88	1.13	0.98
Total MSW Generation Rate (pcd)	8.03	6.87	6.28	6.51	6.73

Based on the preceding information, Lake County is estimated to have diverted 37% of the waste generated within the County in 2023. The remaining 63% of waste was landfilled (see Figure 2.3). More information on waste management methods and the facilities utilized is provided in Section 2.5 of this Plan Update.

FIGURE 2.3 WASTE MANAGEMENT METHODS (2023)

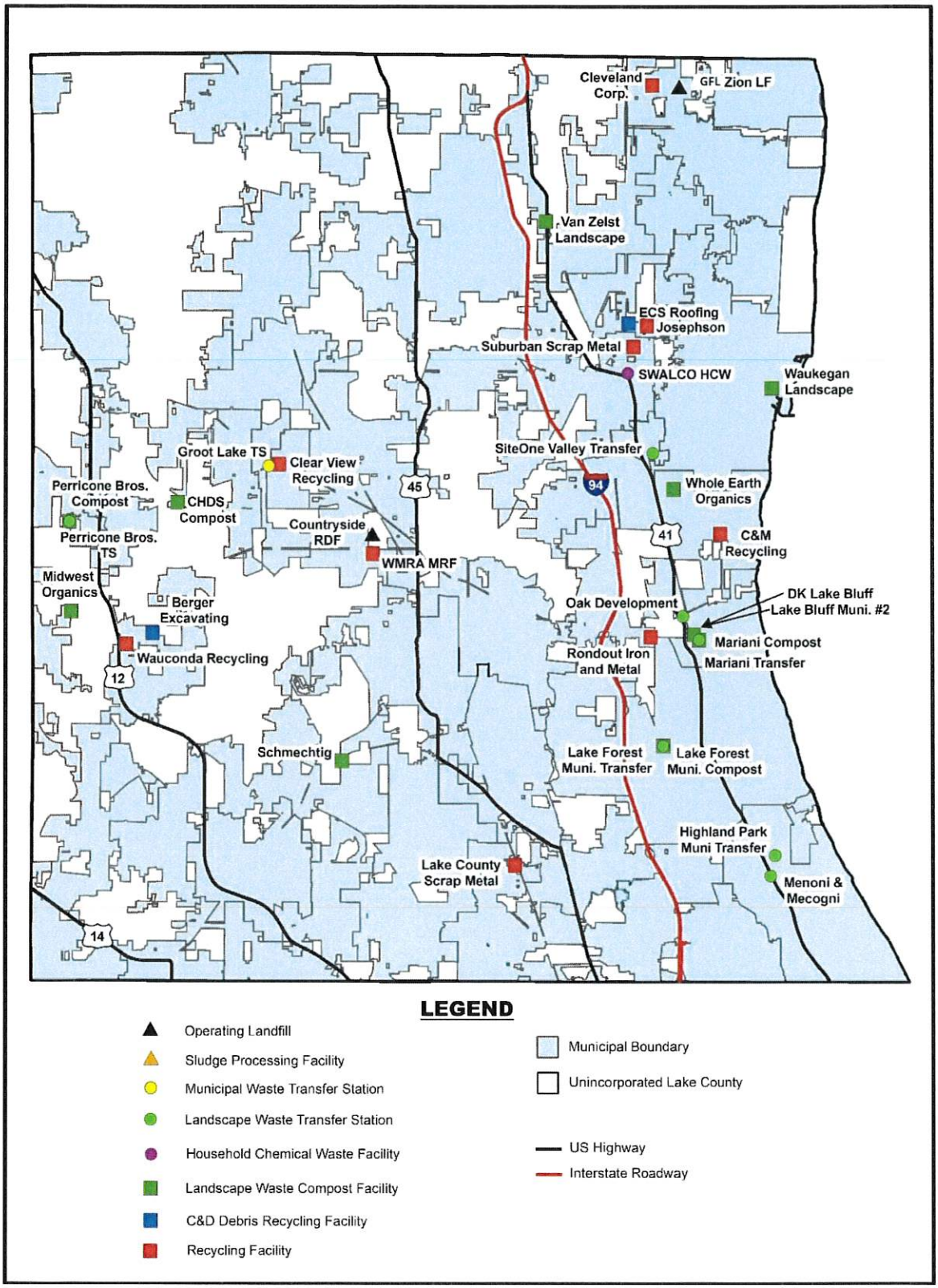


2.5 Waste Management Methods

2.5.1 Current Waste System

Lake County and SWALCO communities rely on a number of facilities to manage their waste (refer to Figure 2.4). For the 2019 Plan Update, SWALCO performed a comprehensive survey of waste management facilities in the County which are included in Figure 2.4. Since the 2019 Plan Update, the TKG Environmental C&D facility, the Lincolnshire HCW Facility, and the Whole Earth Organics compost facility have closed, which has been reflected in the figure.

FIGURE 2.4 LAKE COUNTY SOLID WASTE FACILITIES (2024)



The most recent complete year of Lake County compost quantity information has been provided below in Table 2.8.

TABLE 2.8 LANDSCAPE WASTE AND FOOD SCRAP COMPOST FACILITY INFORMATION

Facility	Tons Received (2022)	
	Lake County	Total
DK-Lake Bluff (Note 1)	1,200	1,200
Green Soils Management Compost (Note 2)	19,432	55,520
Harbor View Compost Facility (Note 2)	13,288	24,162
Joyce Farms Recycling Inc.	108	7,183
Lake Bluff Municipal #2 (Note 1)	0	0
Lake Forest (Note 1)	75	75
Mariani Landscape/Mariani Enterprises (Note 3)	576	588
Midwest Organics Recycling LLC (Note 2)	26,920	31,670
Perricone Bros.	3,333	3,367
Quarry Compost Facility	3,617	36,175
Schmechtig Landscape Co. (Note 3)	274	288
Thelen Sand & Gravel	67,529	90,039
Van Zelst Landscape Development (Note 3)	599	631
Waukegan Landscape Waste Compost (Note 1)	3,860	3,860
Whole Earth Organics LLC	9,700	9,700
Willow Ranch Compost Facility	195	11,711
Total	**150,706**	**276,168**

Notes:
1. DK Lake Bluff, Lake Bluff Municipal, Lake Forest, and Waukegan accept landscape waste generated in their own municipalities only.
2. Green Soils Management, Harbor View and Midwest Organics Recycling also accept food waste from Lake County: quantities of food waste are included in the reported tons received.
3. Mariani, Schmechtig, and Van Zelst do not accept landscape waste from outside/third party sources.

SWALCO has historically relied on the Zion and Countryside Landfills for disposal capacity. As of this Plan Update, SWALCO has secured disposal capacity at the Zion Landfill through a host agreement for 300,000 tons per year of Lake County waste while the landfill remains open. Capacity information for the two landfills is provided in Table 2.9. Countryside Landfill has approximately 2 years of remaining capacity, and the owner of that facility is working on development of a transfer station. With a recent permitted expansion, the Zion Landfill has an estimated 23 years of remaining capacity. On a combined basis, the two facilities have an estimated remaining life of approximately 19 years.

TABLE 2.9 LANDFILL CAPACITY INFORMATION

Facility	Capacity (01/01/24)		Throughput (2023)		Remaining Life (Years)
	Gate Cu. Yds.	Tons	Gate Cu. Yds.	Tons	
Countryside	958,568	290,475	544,995	165,150	2
GFL Zion	54,602,594	16,546,241	2,341,693	709,604	23
Total	55,561,162	16,836,716	2,886,688	874,754	19

Notes:
1. Source: IEPA Capacity Certification forms.
2. Capacities reported to IEPA in gate cubic yards and are converted to tons using IEPA conversion factor of 3.3 gate cubic yards per ton.
3. Remaining life calculated based on reported gate cubic yards of capacity and gate cubic yards of throughput.
4. Capacity for Zion Landfill includes expansion capacity permitted by IEPA in September 2024.

2.5.2 Waste Management Strategies to Reach 60% Recycling

A summary of 2023 waste disposal and diversion performance in SWALCO member communities is provided in Table 2.10 below. Diversion in Lake County (including recycling and yard waste/food waste for composting) shows variation from community to community, ranging from approximately 11% to 48%. On a household basis, residential recycling ranges from 221 pounds per household per year to 989 pounds per household per year.

TABLE 2.10 2023 RESIDENTIAL WASTE DATA

	Homes Served	Recycling (tons)	Yard Waste (Note 1) (tons)	Disposed (tons)	Generated (tons)	Diversion (%)	Avg. lbs/Home/ Year Recycled
Antioch	4,279	1,130	524	4,446	6,100	27.1%	528
Bannochburn*	228	113	19	293	424	31.0%	987
Beach Park	4,319	1,114	462	4,395	5,971	26.4%	516
Deer Park*	1,028	330	802	1,251	2,384	47.5%	642
Deerfield*	5,882	1,952	264	4,874	7,090	31.3%	664
Fox Lake*	4,722	1,219	524	4,821	6,564	26.6%	516
Grayslake*	6,910	1,823	854	6,968	9,645	27.8%	528
Green Oaks	1,135	458	96	1,493	2,048	27.1%	807
Gurnee*	7,487	1,926	903	7,617	10,445	27.1%	514
Hainesville	750	112	90	1,565	1,767	11.4%	298
Hawthorn Woods*	2,690	764	237	3,117	4,118	24.3%	568
Highland Park*	9,654	3,584	349	7,093	11,025	35.7%	742
Highwood*	2,292	603	131	781	1,516	48.5%	526
Island Lake*	3,068	1,000	239	2,989	4,228	29.3%	652
Kildeer*	1,520	526	88	1,506	2,120	29.0%	692
Lake Barrington*	2,112	653	231	2,306	3,189	27.7%	618
Lake Bluff*	2,120	610	447	1,979	3,037	34.8%	576
Lake Forest	6,462	2,664	1,770	7,268	11,702	37.9%	824

TABLE 2.10 2023 RESIDENTIAL WASTE DATA

	Homes Served	Recycling (tons)	Yard Waste (Note 1) (tons)	Disposed (tons)	Generated (tons)	Diversion (%)	Avg. lbs/Home/ Year Recycled
Lake Villa	2,521	661	304	2,614	3,580	27.0%	524
Lake Zurich*	5,864	2,152	509	5,582	8,243	32.3%	734
Libertyville*	5,731	1,878	819	5,549	8,247	32.7%	656
Lincolnshire*	1,573	556	158	1,494	2,208	32.3%	707
Lindenhurst	4,718	1,303	487	4,949	6,739	26.6%	552
Long Grove*	2,503	975	133	1,880	2,987	37.1%	779
Mundelein*	8,809	1,510	630	9,212	11,351	18.8%	343
Navy Housing	1,462	364	0	1,442	1,806	20.2%	498
North Barrington*	1,101	355	132	1,123	1,610	30.2%	645
North Chicago*	3,158	865	396	3,299	4,560	27.7%	548
Park City	305	135	53	553	741	25.3%	884
Port Barrington*	524	175	67	506	748	32.4%	668
Riverwoods*	1,223	455	64	1,453	1,972	26.3%	744
Round Lake*	5,131	1,300	284	5,691	7,275	21.8%	507
Round Lake Beach*	7,605	1,643	642	6,785	9,070	25.2%	432
Round Lake Heights	420	193	67	928	1,188	21.8%	917
Round Lake Park	3,023	866	89	2,636	3,591	26.6%	573
Third Lake*	409	102	42	403	546	26.3%	498
Tower Lakes*	432	147	71	437	656	33.3%	681
Vernon Hills*	7,600	1,930	812	7,636	10,379	26.4%	508
Volo*	1,297	641	70	2,200	2,912	24.4%	989
Wadsworth	884	260	0	624	884	29.4%	588
Wauconda*	3,742	1,236	344	3,699	5,278	29.9%	660
Waukegan*	19,437	4,892	2,134	19,578	26,604	26.4%	503
Winthrop Harbor	1,806	550	350	2,488	3,388	26.6%	609
Zion	6,614	1,682	740	6,653	9,075	26.7%	509
Avon Township*	963	307	64	969	1,339	27.7%	637
Ela Township	1,385	219	180	724	1,123	35.5%	316
Fremont Township	1,824	202	31	1,892	2,125	10.9%	221
Lake Villa Township	3,417	888	443	3,423	4,754	28.0%	520
Shields Township*	612	202	31	582	814	28.6%	659
Warren Township	5,560	1,388	686	5,491	7,564	27.4%	499
Unincorporated Areas	16,847	5,972	725	22,208	28,905	23.2%	709
Total	**195,158**	**56,580**	**19,590**	**199,465**	**275,635**	**27.6%**	**580**

Notes:
1. * denotes communities where food scraps are co-collected with yard waste and included in yard waste tons in this table.

2.5.3 Commercial Waste Franchises

A total of 9 SWALCO member communities have implemented commercial franchises (Volo is the 9th, data was not available for 2023, franchise started in 2024). Under the commercial franchise agreements, non-residential properties within the community are provided waste and recycling collection service by a single hauler. All commercial franchise contracts provide a base level of recycling service at no added cost, increasing business access to recycling. Two new commercial franchise has been added since the 2019 Plan Update (Lake Bluff and Volo). Annual collection information for these communities is provided in Table 2.11.

TABLE 2.11 COMMERCIAL WASTE FRANCHISE DATA (2019-2023)

Community	Material	2019	2020	2021	2022	2023
Bannockburn	Waste (tons)	1,873	1,490	1,447	1,261	1,319
	Recycling (tons)	195	163	188	159	191
	Organics (tons)	178	247	232	233	104
	Recycling Rate	16.6%	21.6%	22.5%	23.7%	18.3%
	Recycling Participation Rate	93.1%	94.2%	87.1%	92.8%	83.0%
Deerfield	Waste (tons)	6,387	4,545	5,360	5,703	4,832
	Recycling (tons)	926	647	904	824	774
	Organics (tons)	39	53	74	114	37
	Recycling Rate	13.1%	13.3%	15.4%	14.1%	14.4%
	Recycling Participation Rate	59.1%	57.6%	55.3%	61.2%	56.0%
Grayslake	Waste (tons)	4,427	3,882	4,052	4,679	1,517
	Recycling (tons)	563	482	508	406	448
	Organics (tons)	0	0	0	0	0
	Recycling Rate	11.3%	11.0%	11.1%	8.0%	8.2%
	Recycling Participation Rate	49.3%	49.8%	48.7%	50.4%	50.6%
Gurnee	Waste (tons)	12,108	9,741	10,422	12,212	12,476
	Recycling (tons)	1,725	1,303	1,406	1,321	1,241
	Organics (tons)	26	0	0	0	0
	Recycling Rate	12.6%	11.8%	11.9%	9.8%	9.0%
	Recycling Participation Rate	46.4%	49.4%	47.7%	47.5%	43.1%
Highland Park	Waste (tons)	9,067	6,963	7,766	7,896	6,698
	Recycling (tons)	1,531	1,244	1,570	1,371	1,316
	Organics (tons)	140	144	211	304	170
	Recycling Rate	15.6%	16.6%	18.6%	17.5%	18.2%
	Recycling Participation Rate	79.7%	81.1%	77.7%	80.3%	81.6%
Highwood	Waste (tons)	1,686	1,367	2,079	1,741	1,884
	Recycling (tons)	111	92	202	121	133
	Organics (tons)	0	0	0	0	0
	Recycling Rate	6.2%	6.3%	8.9%	6.5%	6.6%
	Recycling Participation Rate	53.7%	53.8%	55.1%	55.0%	59.7%

TABLE 2.11 COMMERCIAL WASTE FRANCHISE DATA (2019-2023)						
Community	Material	2019	2020	2021	2022	2023
Lake Bluff	Waste (tons)	NA	NA	NA	NA	3,678
	Recycling (tons)	NA	NA	NA	NA	123
	Organics (tons)	NA	NA	NA	NA	5
	Recycling Rate	NA	NA	NA	NA	3.4%
	Recycling Participation Rate	NA	NA	NA	NA	39.7%
Libertyville	Waste (tons)	12.450	10,589	11,314	14,025	16,247
	Recycling (tons)	1,438	1,163	842	547	627
	Organics (tons)	0	0	0	0	5
	Recycling Rate	10.4%	9.9%	6.9%	3.8%	3.7%
	Recycling Participation Rate	43.7%	44.2%	44.8%	47.4%	43.7%

Illinois state law requires that a community seeking to establish a commercial waste franchise for the first time complete a series of advance steps and meet certain conditions prior to implementation. An initial step is to complete a 3-year study phase during which private haulers operating within the community submit data every 6 months documenting the number of waste and recycling accounts served. At the end of the study period, a community may only move forward with future steps for a commercial waste franchise if fewer than 50% of the non-residential customers in the community are subscribed to recycling collection service.

2.5.4 SWALCO's Diversion Programs Collection Data

In addition to the traditional waste, recycling, and composting collection programs previously quantified, SWALCO also provides collection programs for household hazardous waste (HHW), pharmaceuticals, clothing and textiles, shoes, and electronic wastes. Table 2.12 summarizes the quantity of materials collected through these programs from 2019-2023.

TABLE 2.12 SWALCO DIVERSION PROGRAMS COLLECTION DATA					
Material Description	2019	2020	2021	2022	2023
HCW (pounds)	315,720	174,600	257,040	202,080	199,019
Pharmaceuticals (pounds)	13,479	9,907	10,160	11,803	2,018
Latex/Fire Ext/Propane Tanks (pounds)				9,800	12,400
Clothing & Textiles (pounds)	361,334	325,587	472,417	529,985	596,092
Shoes (pounds)	21,136	12,687	19,335	34,138	35,108
Misc. Items (pounds)	6,932	3,493	29,301	24,228	15,575
Residential Electronics (pounds)	3,099,277	2,862,818	2,199,495	1,809,670	1,697,425
Total (pounds)	**3,817,878**	**3,389,092**	**2,987,748**	**2,621,704**	**2,557,637**
Total (tons)	**1,909**	**1,695**	**1,494**	**1,311**	**1,279**

2.6 Waste Composition

The Illinois Recycling Association (IRA) and Illinois Department of Commerce and Economic Opportunity (DCEO) commissioned a study, the *Illinois Commodity/Waste Generation and Characterization Study*, in 2008 of waste generation and composition in Illinois. The study was updated in 2015. As part of the IRA/DCEO studies, samples of waste from each of the two landfills in Lake County were sorted into constituent components.

The results of the updated 2015 composition study are summarized in Table 2.13. Generally, it appears that the composition of waste disposed in Lake County is similar to waste disposed from urban areas more generally and throughout the state as a whole. Differences are noted in material categories such as paper and organics, which are less prevalent in Lake County landfill disposal than in overall urban county sites and landfills statewide. Additionally, inorganics and construction and demolition wastes are noted to be more prevalent in Lake County's landfill tonnage[2].

[2] Inorganic wastes more prevalent in Lake County landfills include household bulky items and batteries. Construction and demolition wastes more prevalent include roofing materials. The prevalence of roofing and other C&D materials may be reduced since the 2015 study was completed as a result of the opening of the ECS Roofing Professionals shingle transfer facility and TKG Environmental Services Group C&D processing facility.

TABLE 2.13 COMPOSITION OF LANDFILLED WASTE (BY WEIGHT, 2015)

Material	Lake County Landfills	Urban County Average	Illinois Average
Paper	**15.5%**	**23.0%**	**23.3%**
Newspaper	0.7%	1.8%	1.9%
Corrugated	7.1%	9.5%	9.1%
Other Paper	7.7%	11.7%	12.3%
Plastic	**17.1%**	**16.1%**	**16.2%**
#1 - #7 Containers	2.2%	3.7%	3.9%
Plastic Film	11.4%	7.8%	7.9%
Other Plastic	3.6%	4.6%	4.4%
Glass	**2.1%**	**3.7%**	**3.5%**
Metal	**2.9%**	**4.0%**	**4.2%**
Aluminum Cans	0.3%	0.5%	0.5%
Tin Cans	0.4%	0.7%	0.9%
Other Metal	2.3%	2.8%	2.8%
Organics	**24.9%**	**28.3%**	**27.9%**
Yard Waste	3.3%	3.6%	3.1%
Food Scraps	12.5%	17.7%	18.0%
Other Organic	9.1%	7.0%	6.8%
Inorganics	**8.8%**	**3.9%**	**4.1%**
Computers/Electronics	0.1%	0.8%	0.8%
Appliances	2.0%	0.4%	0.4%
Tires	0.0%	0.1%	0.2%
Other Inorganic	6.8%	2.6%	2.7%
Textiles	**6.6%**	**4.7%**	**5.1%**
HHW	**0.1%**	**0.7%**	**0.6%**
Construction/Demolition	**21.9%**	**15.7%**	**15.2%**
Wood	6.7%	7.8%	8.0%
Other	15.3%	7.9%	7.2%
Total	**100.0%**	**100.1%**	**100.1%**
# Samples	8	202	263

Source:
1. CDM Smith, *Illinois Commodity/Waste Generation and Characterization Study Update*, March 30, 2015.

Table 2.14 shows a comparison of the results of the 2015 composition study versus the 2008 study and a prior study conducted at Lake County landfills in 1993. The 1993 study sorted waste materials into 27 categories, whereas the 2008 and 2015 studies sorted waste materials into 79 categories.

TABLE 2.14 WASTE COMPOSITION AT LAKE COUNTY LANDFILLS (BY WEIGHT)

Material	1993 Study	2008 Study	2015 Study
Newsprint	8.4%	2.0%	0.7%
High-Grade Paper	2.0%	3.2%	0.4%
Other Recyclable Paper	11.4%	4.3%	4.2%
Other Paper	8.9%	5.9%	3.0%
Corrugated	10.6%	6.3%	7.1%
Glass Containers	4.7%	2.2%	2.1%
HDPE Containers	1.0%	0.7%	0.4%
PET Bottles	0.4%	1.4%	0.6%
PVC Containers	0.1%	0.8%	0.8%
Polystyrene	0.8%	0.7%	0.4%
Polyethylene Film	4.0%	5.3%	11.4%
Other Plastic	4.4%	10.6%	3.6%
Aluminum Cans	0.9%	0.4%	0.3%
Tin and Bi-Metal	1.5%	1.1%	0.4%
Other Aluminum	0.3%	1.5%	0.3%
Other Ferrous	3.2%	1.8%	1.7%
Other Non-Ferrous	0.5%	0.4%	0.2%
Wood	3.7%	13.3%	6.7%
Textiles, Rubber, Leather	4.7%	10.5%	6.6%
Disposable Diapers	3.1%	2.0%	1.4%
Food Waste	13.2%	8.9%	12.5%
Grass Clippings	0.3%	1.1%	0.4%
Other Landscape Waste	3.1%	2.5%	2.9%
Fines	2.8%	0.0%	5.4%
Household Batteries	0.1%	0.1%	4.3%
Other	6.0%	13.1%	22.0%
Total	100.1%	100.0%	100.0%
# Samples	90	27	8

Source:
1. CDM Smith, *Illinois Commodity/Waste Generation and Characterization Study Update*, March 30, 2015. Data are for samples of waste sorted at Lake County landfills.
2. CDM, *Illinois Commodity/Waste Generation and Characterization Study*, May 22, 2009. Data are for samples of waste sorted at Lake County landfills.
3. CDM, *Final Report of Municipal Solid Waste Characterization Study for Solid Waste Agency of Lake County*, November 2, 1993.

The 1993 study included two categories ("other combustibles" and "other non-combustibles") that were combined and reported as "other" in Table 2.14. Material components in the 2008 and 2015 studies which did not readily correspond to the components in the 1993 study were assigned to the "other" category in Table 2.14 -- this explains why "other" materials are twice as large or more in the 2008 and 2015 studies.

Because a larger number of samples were sorted in the 1993 study, some care must be taken in comparing the results of the studies. Further, the 1993 study conducted sorts over three seasons versus a single season for the 2008 and 2015 studies. Nonetheless, it would appear that commonly recycled materials such as newsprint, corrugated, aluminum cans, tin cans and glass containers are less prevalent in the 2008 and 2015 landfilled waste, suggesting that these materials are being removed by recycling programs in Lake County.

SECTION 3
RECOMMENDATIONS FOR THE 2025-2029 PLANNING PERIOD

3.1 Introduction

This Section of the 2024 Plan Update contains the policy recommendations approved by the Citizens Advisory Committee (CAC), the SWALCO Board of Directors and the Lake County Board. It should be noted that many of the recommendations from the 2019 Plan Update are still applicable to this Plan Update. The recommendations in this section are for the planning period 2025-2029 and will be the primary program and policies Lake County and SWALCO will focus on for the next five years.

The recommendations in Section 3.2 have been organized according to the following planning categories:

- Public Information and Education
- Source Reduction and Reuse
- Circular Economy and Greenhouse Gas
- Recycling
- Organics Management
- Household Chemical Waste (HCW) Management
- Organization and Administration
- Finance and Ownership
- Legislative Initiatives

3.2 Planning Recommendations for 2025-2029

The following recommendations represent the key elements of the 2024 Plan Update and are organized by the planning categories listed above. Section 4 contains the requirements applicable to pollution control facilities requiring siting per Section 39.2 of the Illinois Environmental Protection Act (415 ILCS 5/39.2).

3.2.1 Public Information and Education

a. Finalize the transition to Recycle Coach on SWALCO's website. The goals of Recycle Coach are to help residents reduce contamination in recycling and composting programs, stay informed about current hauling services and learn more about SWALCO's various waste diversion programs in one organized platform. Ideally, Recycle Coach becomes the central and shared platform for SWALCO, SWALCO members and their haulers to use to inform residents about hauler-related services and SWALCO's programs.
b. Assist SWALCO members to add Recycle Coach to each of their websites to further utilize its capabilities.
c. Hire and maintain a full time Communications Associate position to enhance SWALCO's communication and education efforts and to assist SWALCO members with local education efforts and campaigns.

d. Utilize funding from federal grants SWALCO was awarded to further enhance public education, including: 1) the U.S. EPA's Recycling Education and Outreach (REO) grant that provides funding to increase recycling participation and reduce contamination ($2 million grant administered by the Metropolitan Mayors Caucus, with $83,000 for Lake County initiatives over a 3-year period), and 2) the Department of Energy's grant to SWALCO's current electronics recycler, ERI, that will focus on expanding consumer participation in electronics recycling programs.

3.2.2 Source Reduction and Reuse

a. Conduct research on Public Act 103-0524 which allows consumers to use take-home containers for dry bulk food or ready-to-eat sales at a restaurant or retailer. The research should include whether restaurants and retailers in Lake County are allowing the use of consumer owned containers and to what degree with this information being organized into a database and shared with the public. After the research is completed, develop a strategy to engage more restaurants, retailers and consumers in the implementation of the law to encourage the use of reusable containers for dry bulk food or ready-to-eat food.
b. Develop and distribute educational materials to both the residential and business sectors on minimizing food waste through best practices when purchasing and preparing food, and donation to food recovery programs in Lake County for large food generators like grocery stores and restaurants. Coordinate this recommendation with recommendation 3.2.2.a when reaching out to restaurants and retailers regarding Public Act 103-0524.
c. Develop a database of reuse businesses and organizations in Lake County and work with them to increase their visibility and number of customers.
d. Continue to hold one day reuse events and make an effort to connect those who have items to give away with those who want them to create a more sustainable reuse platform and market in Lake County.
e. Evaluate whether to hold repair fairs to help residents extend the life of existing items instead of buying new.
f. Create a database of municipalities in Lake County that have a Buy Nothing online presence and assist in growing the number of users on such sites and expanding to other municipalities.
g. Explore re-engaging with Lake County Partners and Rheaply to develop a business to business reuse platform and program in Lake County and the Chicago region.
h. Continue to expand the clothing/textile and shoe collection programs with goals of collecting 1 million pounds of clothing/textiles and 100,000 pounds of shoes annually by 2029.

3.2.3 Circular Economy and Greenhouse Gas

a. Support programs and legislation that SWALCO determines will be effective in reducing the amount of methane released by landfills.
b. Encourage and support efforts by the waste industry to utilize renewable natural gas in its collection fleet and to transition to the use of electric collection trucks.
c. Review Lake County's sustainable purchasing policy (focused on more sustainable purchasing of goods and services) and when finalized share with SWALCO's members for their consideration in possibly amending their purchasing policies.

3.2.4 Recycling

a. Assist Lindenhurst and Wauconda implement commercial franchises that include recycling and composting options for businesses. Assist other SWALCO members begin the required 3-year study prior to considering implementation of a commercial franchise, with the goal of having 15 SWALCO members with commercial franchises or in the process of completing the 3-year study by 2029, currently there are 10.
b. Based on the findings in Section 2 of this Plan Update regarding the recycling performance of existing commercial franchises, which are showing overall reductions in participation rates and recycling tonnage, work with the existing franchises and their haulers to increase both rates and tonnage.
c. Continue the Special Materials collection program for fire extinguishers, propane tanks and car seats (latex paint will not be part of the program beginning in 2026 when the paint EPR program is implemented in Illinois) and determine if other special materials should be added to the list of acceptable items.
d. Continue to support the Hefty ReNew bag program in those members who have access to the program and work to expand the program to other SWALCO members (this is dependent on the hauler/Material Recovery Facility (MRF) formally engaging in the program with Reynolds).
e. Continue the electronics recycling program under the Consumer Electronics Recycling Act (extended producer responsibility (EPR) law for electronics).
f. Continue the boat film wrap program in cooperation with the Council of the Great Lakes' Circular Great Lakes initiative and continue to be a Knowledge Partner and engage with the Council's initiative.
g. Continue to participate as an Activator in the U.S. Plastic Pact (the Pact includes over 120 members including brand owners, packaging manufacturers, NGOs and local government that was formed to reduce and eliminate unnecessary and problematic packaging, to have 100% of packaging reuseable, recyclable or compostable by 2030, to achieve a 50% diversion rate by 2030 and achieve a 30% recycled content in packaging by 2030).
h. Continue to offer and provide waste audit assistance to businesses and organizations in Lake County to increase recycling and/or composting diversion at the business/organization level.
i. Determine if haulers are complying with Public Act 098-1079 which requires haulers operating in Cook County and all contiguous counties (includes Lake County) to provide recycling guidelines to existing commercial customers who have recycling at least once per year and to provide a written offer to initiate recycling services to those businesses that aren't at least once every 2 years. If non-compliance is found, take appropriate measures to inform haulers who aren't abiding with the law to do so.

3.2.5 Organics Management

a. Assist SWALCO members to include food waste collection in their contracts with the goal of having 10 members with year-round organics collection by 2029, currently there are 5. Also assist SWALCO members to include drop-offs for food waste as part of the hauling contract or with funding from the member with the goal of increasing the number of food waste drop-offs from 2 to 5.
b. Assist SWALCO members expand collection options for food waste by awarding franchises, both residential and commercial, to companies that specialize in food waste collection. These food waste collection franchises would co-exist with existing franchises for waste, recycling and yardwaste collection.

c. Continue to include in SWALCO's annual budget a line-item for purchasing compost for SWALCO member compost giveaways to assist with long term market development for compost use in Lake County.
d. Encourage and assist SWALCO members adopt a compost use ordinance as approved by the SWALCO Board of Directors at its April 2022 meeting with the goal of having 5 SWALCO members adopt the ordinance with the initial focus on the members who have year-round food waste collection programs.
e. Determine how many large venues in Lake County will be required to comply with Public Act 103-2876 which requires large event venues (3,500 or more capacity, not including school stadiums, county fairs or a hotel) to offer recycling and composting services at events. Assist those large venues identified in the county to comply with the law.
f. Continue to conduct annual sales of backyard composting bins (and rain barrels) to promote the practice of backyard composting of food waste.

3.2.6 Household Chemical Waste (HCW) Management

a. Expand the HCW program's list of acceptable items to include single use/alkaline batteries in 2025 (we currently collect rechargeable batteries) with the assistance of IEPA's grant from the federal Department of Energy.
b. Expand the HCW program's list of acceptable items and become a collector of medium format batteries (11 pounds to 25 pounds, e.g., lawn mower and bicycle batteries) as authorized by the Illinois Portable Batteries Stewardship Act (EPR law for batteries).
c. Expand the HCW program's list of acceptable items to include vape pens.
d. Modify the Agency's IEPA permit to expand the list of acceptable items to include defective and damaged batteries, lead acid batteries and propane tanks. Permit application was submitted in June 2024.
e. With permit authorization pending from recommendation 3.2.6.d, if awarded, SWALCO should expand the HCW program to include paint and batteries from the commercial sector. In addition, SWALCO should explore expanding its program to include universal waste from commercial generators that qualify as small quantity generators. This program would be separate from the residential HCW program and would include a charge for our services.
f. Evaluate options to reduce the cost for the current sharps program which is currently funded by an annual $35,000 grant from the IEPA. The program has seven collection sites funded by the grant, if a lower cost option is implemented or additional funding becomes available, the program should be expanded.

3.2.7 Organization and Administration

a. Encourage SWALCO members to include a list of SWALCO designated disposal facilities in request for proposals (RFP) for residential and commercial hauling services. The list should include the following facilities: Countryside Landfill, Zion Landfill, Round Lake Park Transfer Station and any other pollution control facility sited in Lake County that enters into the host community benefit agreements required by Section 4 of the 2024 Plan Update.

3.2.8 Finance and Ownership

a. Continue the evaluation of whether SWALCO can share in the revenues from recycling commodities to help fund the agency (an RFP was issued in June 2023 and negotiations

continue to the date of this Plan Update) on an annual basis as it had historically with the WM MRF in Grayslake up until 2020.

b. With the expected closure of the Countryside LF in 2028 there will be an impact to SWALCO's revenues that may require the SWALCO Board of Directors to consider an increase in funding from the O&M fee, which is currently $1.25 per household per year per member.

3.2.9 Legislative Initiatives

a. Develop and work with the Lake County legislative delegation to enact extended producer responsibility (EPR) for: 1) household chemical waste, potentially saving SWALCO over $400,000 per year in current program expenditures, 2) sharps/needles, program can't expand currently due to lack of funding, 3) electronics, the current law sunsets at the end of 2026, and 4) packaging, needs assessment will be completed in 2026, laying the groundwork to file a comprehensive packaging bill in 2027.

b. Develop and work with the Lake County legislative delegation to enact legislation to: 1) enhance and increase markets for final compost, and 2) require the diversion of food waste by large commercial generators from landfilling.

SECTION 4
REQUIREMENTS FOR POLLUTION CONTROL FACILITIES FOR THE 2025-2029 PLANNING PERIOD

4.1 Introduction

A pollution control facility includes disposal facilities such as landfills, mass burn incinerators, alterative disposal technologies, and transfer stations that accept municipal waste. Solid waste plans have specific importance with respect to pollution control facilities that manage waste because such facilities must meet the following criterion (415 ILCS 5/39.2(a)(viii)) to be granted local siting approval (along with 8 other criteria):

> *If the facility is to be located in a county where the county board has adopted a solid waste management plan consistent with the planning requirements of the Local Solid Waste Disposal Act or the Solid Waste Planning and Recycling Act, the facility is consistent with that plan; for purposes of this criterion (viii), the "solid waste management plan" means the plan that is in effect as of the date the application for siting approval is filed;*

Therefore, any pollution control facility proposed to be located anywhere within incorporated or unincorporated Lake County must demonstrate that it is consistent with this section of the 2024 Plan Update in order to receive local siting approval. Recommendations and requirements applicable to pollution control facilities that may have existed in the 1989 Plan or the subsequent Plan Updates are superseded by this 2024 Plan Update.

With respect to final disposal requirements the list of acceptable facilities remains the same as the 2019 Plan Update: landfills, transfer stations, alternative technologies that biologically treat waste and alternative technology facilities that use purification or depolymerization technology to process plastics-to-plastics are permitted by and are consistent with the Lake County Solid Waste Management Plan, but mass burn incineration, and thermal or pyrolysis conversion facilities that convert waste and/or plastic to a fuel are not.

4.2 Pollution Control Facility Requirements for 2025-2029

The following are the requirements applicable to landfills, solid waste transfer stations, and alternative technology facilities proposed to be located in Lake County. There are specific requirements for each type of pollution control facility listed in the remainder of this section. In addition, the following requirement is applicable to all pollution control facilities.

SWALCO and the siting authority (the unit of local government with siting jurisdiction in accordance with Section 39.2 of the Illinois Environmental Protection Act) will continue using the three guidelines that were outlined in the 1989 Plan for evaluating landfilling technology. These guidelines are: utilize proven technology; minimize emissions; and avoid large economic risks. SWALCO's and the siting authority's determination on whether the proposed facility is consistent with the Lake County Solid Waste Management Plan will be based, in part, on the applicant addressing the following questions in the plan consistency (siting criterion number 8 of Section 39.2 of the Act) portion of the siting application:

- **Facility Requirements** – what types of facilities are required as part of the technology? How many facilities are needed and of what size, including both site acreage and disposal capacity (in tons per day)?
- **Siting** - What are the facility siting requirements? Does a suitable site exist within the County?
- **Economics** -What are the capital, operation, and maintenance costs associated with the technology? What are the estimated tipping fees per ton and how do the estimated fees compare to current tipping fees for disposal of Lake County waste?
- **Technical Feasibility** - Is the technology proven for a portion or all of the waste generated for disposal in Lake County? Can it provide reliable long-term management of the targeted waste stream?
- **Ability to Implement** - Can the technology be successfully engineered? What are the potential obstacles to implementation and how will these obstacles be addressed? Can it be implemented in time to serve its intended purpose?
- **Environmental Impacts** - What are the environmental impacts of the technology on the air, water, and land of Lake County and its surrounding neighbors? Do the air, land and water pollution control technologies proposed at the facility meet the most stringent standards under applicable state of Illinois and/or federal law?
- **Permitting** - What federal, state and/or local permits will be necessary for the facility to be developed and operated?
- **Safety Issues** - What safety concerns for the worker and general public are associated with the facility and can they be adequately addressed?
- **Health Risk Assessment** - What are the health risks and benefits associated with the technology?
- **Financing** – How will the facility be financed and can financing be arranged?

4.2.1 Landfilling

L.1 Maintain the provision in the existing Host Community Benefit Agreement with the Zion Landfill that provide for disposal capacity for Lake County generated municipal waste. Any proposed pollution control facility's Host Community Benefit Agreement must have a provision regarding disposal capacity for Lake County generated municipal waste.

L.2 Continue to implement source reduction, reuse, recycling, and composting programs to reduce dependence on landfilling.

L.3 If one or both of the two existing landfills in Lake County (Zion Landfill and Countryside Landfill) propose an expansion onto property that is directly adjoining or within 250 feet of an existing portion of the permitted footprint of the landfill (horizontal) and/ or on top of (vertical expansion) the existing landfill's permitted airspace, and the proposed expansion meets the requirements of Section 4.2.4 regarding Host Community Benefit Agreements, the proposed expansion will be considered consistent with the Plan.

L.4 A new or expanded landfill in Lake County would be considered as a local solution to managing the County's waste. If the proposed new or expanded landfill meets the applicable requirements of the Lake County Solid Waste Management Plan (Requirements L.4 and L.5) it will be considered consistent with the Plan.

L.5 Any proposed new landfill facility must meet the requirements of Section 4.2.4 regarding Host Community Benefit Agreements.

L.6 Encourage existing and new landfill owners to design and implement landfill technologies to extend life expectancy, reduce long term toxicity and conserve resources when possible and environmentally appropriate.

L.7 Encourage existing and new landfill owners to design and implement landfill gas collection and management systems that capture and utilize the maximum amount of landfill gas for energy recovery as opposed to direct flaring of some or all of the landfill gas.

4.2.2 Solid Waste Transfer

T.1 Solid waste transfer stations, if developed in accordance with the applicable requirements of the Lake County Solid Waste Management Plan (Requirements T.2 through T.5), will be considered consistent with the Plan. These requirements (T.1 through T.5) are not applicable to landscape waste transfer stations or general construction and demolition debris recycling facilities as permitted under Section 22.38 of the Illinois Environmental Protection Act, but are applicable to any transfer station that meets the definition of a pollution control facility under the Act.

T.2 A transfer station site should be large enough to provide for a facility large enough to safely and efficiently manage the anticipated volume of waste, adequate buffering and screening, stormwater management, and safe traffic flow. If the site is proposed for additional functions, including but not limited to, vehicle and equipment storage, vehicle maintenance, office space, processing of recyclables, or processing of waste into a fuel it must be demonstrated that the site is large enough for all proposed functions.

T.3 Transfer station operations - related to the unloading of refuse, recyclables and landscape waste, temporary storage of the materials on the tipping floor, and the loading of transfer trailers - must be located within a portion of the transfer station that can be completely enclosed. (This does not require the transfer station to keep its incoming and outgoing doors closed during operations unless proximity to a Federal Aviation Administration (FAA) regulated airport requires that doors open and close with the acceptance of waste. This does prohibit the development of a three sided and/or an open top structure as a transfer station in Lake County.) Developers are strongly encouraged to incorporate green/sustainable building principles into the design and operation of the facility and the overall site, including obtaining Leadership in Energy and Environment Design (LEED) certification for the facility.

T.4 Transfer station developers must include in the design and operation of the facility: 1) the transfer of recyclables, landscape waste and food scraps within 24 hours of acceptance at the facility (with the exception of waste loaded into trailers and stored at the transfer station prior to delivery to the landfill, compost site or recycler, and extreme weather or emergency situations that make this requirement infeasible), 2) a negative air pressure system within the enclosed portion of the transfer station and filtering of the exhaust air before it is emitted outside the facility, 3) operating hours that are no greater than 17 hours daily during weekdays, 8 hours during Saturdays and closed on Sundays (hours can only be extended by the siting authority due to storms, strikes or other one-time events), 4) high performance doors that will automatically open and close as vehicles enter and leave and that allow for the facility to keep its doors closed during operating hours, if so determined by the siting authority. Transfer station developers are encouraged to evaluate the processing of the solid waste into a renewable resource that could be transported to off-site markets.

T.5 Any proposed transfer station facility must meet the requirements of Section 4.2.4 regarding Host Community Benefit Agreements.

4.2.3 Alternative Technologies

AT.1 Alternative technologies, which are limited to technologies that convert waste to energy through biological conversion (i.e., anaerobic digestion technologies, not including mass burn incineration or thermal conversion such as gasification or pyrolysis) or that use purification or depolymerization technologies to process plastic-to-plastic, are considered as a local and sustainable solution to managing Lake County's waste. If the proposed alternative technology facility meets the applicable requirements of the Lake County Solid Waste Management Plan (Requirements AT.1 and AT.2) and it is 500 tons per day or less in design capacity (based on 365 days per year) it will be considered consistent with the Plan.

AT.2 Any proposed alternative technology facility must meet the requirements of Section 4.2.4 regarding Host Community Benefit Agreements.

4.2.4 Host Community Benefit Agreements

A.1 Prior to filing a siting application, pursuant to Section 39.2 of the Illinois Environmental Protection Act, for a new pollution control facility or for an expansion or significant modification to an existing pollution control facility, the applicant shall first enter into Host Community Benefit Agreements (defined as any type of legal agreement entered into or assumed by the applicant and any other person or legal entity) with the following units of local government: 1) the governing body with jurisdiction over the proposed facility, 2) SWALCO and 3) Lake County. In addition, the applicant may enter into additional Host Community Benefit Agreements with other appropriate units of local government, as determined by the applicant. In the event the applicant represents an existing pollution control facility with existing Host Community Benefit Agreements, the applicant shall amend each existing Host Community Agreement with each respective party prior to filing the siting application with the governing body.

The new and/or amended Host Community Benefit Agreements must, at a minimum, contain provisions for: 1) a guarantee of access to capacity at the facility for Lake County's unincorporated and incorporated solid waste, 2) environmental safeguards, and 3) payment of host benefit fees.

As part of the host agreement negotiations with all applicable units of local government and prior to the approval or disapproval of the host agreements, the developer must demonstrate, using a SWALCO approved life cycle assessment model, that its proposed disposal option is superior to the current system for at least three of the four parameters (net annual energy consumption, sulfur oxides emissions, nitrogen oxides emissions and carbon dioxide emissions), one of which must be carbon dioxide emissions. The life cycle assessment results and all input data must be provided to all interested parties and presented in a public meeting hosted by the governing authority with jurisdiction for siting, and both SWALCO and Lake County representatives will be invited to the same public meeting (the intent is to have one public meeting that all units of local government that must approve host agreements would attend jointly). The life cycle assessment results must be made available to SWALCO (and posted on SWALCO's website) and other interested parties at least 30 days prior to the public meeting in order to provide interested parties time to evaluate and comment on the results. The requirement to conduct a life

cycle assessment is not applicable to either a new landfill or landfill expansion and is therefore not required for a new landfill or landfill expansion.

All reasonable and necessary costs, including but not limited to legal fees and consulting fees, associated with the development of Host Community Benefit Agreements, and the evaluation of the life cycle assessment model and data shall be paid for by the developer to the affected units of local government. The developer will be required to establish an escrow account or multiple escrow accounts that the units of local government can draw on to pay for their reasonable and necessary costs. The amount of the escrow account or accounts shall be equal to the amount of the reasonable and necessary costs and funded as necessary to cover such costs. This is consistent with the provision in Section 39.2 of the Illinois Environmental Protection Act which authorizes units of local government to charge applicants pursuing siting approval for a pollution control facility a fee to cover the reasonable and necessary costs incurred by the unit of local government in the siting review process.

Attachment A
Citizens Advisory Committee Members and Agendas

SWALCO

LAKE COUNTY CITIZENS ADVISORY COMMITTEE (CAC)
2024 Solid Waste Management Plan Update

Member Name	Affiliation
Andrew Mariani	DK Organics, composter
Andy Klink	Midwest Organics Recycling, composter
Austin Pollack	Village of Gurnee, local government
Erin Rauscher	Village of Lake Zurich, local government
John Wasik	Lake County Board, local government
Robin Grooms	Lake County Staff, local government
Chris Peters	WM, landfill
Josh Molar	Groot, waste hauler
Mike Brink	WM, waste hauler
Michael Flood	Flood Brothers, waste hauler
Steve Ramos	LRS, waste hauler
Tim Curry	GFL, landfill
Liam Donnelly	WasteNot, food waste hauler
Barbara Klipp	Environmental group
Evan Craig	Environmental group
Seema Keshav	Go Green, Environmental group
Kari Rabideau	GFL, waste hauler
Mark Bingham	GFL, waste hauler
Peter Josephsen	Recycler
Larry Blacik	private citizen
Jenny Futterman	private citizen
Erlene Howard	Collective Resource, food waste hauler
Mary Beth Schaye	Collective Resource, food waste hauler

SWALCO/Lake County Citizens Advisory Committee

2024 Solid Waste Management Plan Update

Meeting Agenda

6 p.m., June 12, 2024
Meeting Held Remotely

1. Introductions
2. Roles of the plan update participants
    a. CAC
    b. SWALCO
    c. Lake County
3. Brief review of 2019 Plan Update
4. Plans for the format of the 2024 Plan Update
5. Discuss meeting remotely v. in person and schedule next two meetings
    a. Second meeting – proposed August 7, 6 p.m.
    b. Third meeting – proposed September 25, 6 p.m.

LAKE COUNTY CITIZENS ADVISORY COMMITTEE (CAC)
2024 Solid Waste Management Plan Update
Attendance Sheet – June 12, 2024 Meeting

Member Name	Affiliation	In Attendance
Andrew Mariani	DK Organics, composter	☐
Andy Klink	Midwest Organics Recycling, composter	☐
Austin Pollack	Village of Gurnee, local government	☒
Erin Rauscher	Village of Lake Zurich, local government	☒
John Wasik	Lake County Board, local government	☒
Robin Grooms	Lake County Staff, local government	☒
Chris Peters	WM, landfill	☒
Josh Molar	Groot, waste hauler	☐
Mike Brink	WM, waste hauler	☐
Michael Flood	Flood Brothers, waste hauler	☒
Steve Ramos	LRS, waste hauler	☐
Tim Curry	GFL, landfill	☒
Liam Donnelly	WasteNot, food waste hauler	☒
Barbara Klipp	Environmental group	☒
Evan Craig	Environmental group	☒
Seema Keshav	Go Green, Environmental group	☒
Kari Rabideau	GFL, waste hauler	☒
Mark Bingham	GFL, waste hauler	☒
Peter Josephsen	Recycler	☐
Larry Blacik	private citizen	☒
Jenny Futterman	private citizen	☒
Erlene Howard	Collective Resource, food waste hauler	☒
Mary Beth Schaye	Collective Resource, food waste hauler	☒

SWALCO/Lake County Citizens Advisory Committee

2024 Solid Waste Management Plan Update

Meeting Agenda, In Person

6 p.m., August 7, 2024
Central Permit Facility, Second Floor
500 W. Winchester Road
Libertyville, IL

1. Introductions
2. Review of data for base year 2023
3. Discuss policy recommendations for next 5 years
4. Adjourn – Next meeting September 25th (decide in person or remote)

LAKE COUNTY CITIZENS ADVISORY COMMITTEE (CAC)
2024 Solid Waste Management Plan Update
Attendance Sheet - August 7, 2024 Meeting

Member Name	Affiliation	In Attendance
Andrew Mariani	DK Organics, composter	☐
Andy Klink	Midwest Organics Recycling, composter	☐
Austin Pollack	Village of Gurnee, local government	☐
Erin Rauscher	Village of Lake Zurich, local government	☐
John Wasik	Lake County Board, local government	☒
Robin Grooms	Lake County Staff, local government	☒
Chris Peters	WM, landfill	☒
Josh Molar	Groot, waste hauler	☐
Mike Brink	WM, waste hauler	☒
Michael Flood	Flood Brothers, waste hauler	☐
Steve Ramos	LRS, waste hauler	☐
Tim Curry	GFL, landfill	☐
Liam Donnelly	WasteNot, food waste hauler	☒
Barbara Klipp	Environmental group	☒
Evan Craig	Environmental group	☐
Seema Keshav	Go Green, Environmental group	☒
Kari Rabideau	GFL, waste hauler	☒
Mark Bingham	GFL, waste hauler	☒
Peter Josephsen	Recycler	☐
Larry Blacik	private citizen	☒
Jenny Futterman	private citizen	☒
Erlene Howard	Collective Resource, food waste hauler	☒
Mary Beth Schaye	Collective Resource, food waste hauler	☒

SWALCO/Lake County Citizens Advisory Committee

2024 Solid Waste Management Plan Update

Meeting Agenda, Remote via Teams

2 p.m., August 28, 2024

1. Introductions

2. Continue discussion of policy recommendations for next 5 years
   a. Review changes made to recommendations 1-4
   b. Review and comment on recommendations 5-9

3. Adjourn – Next meeting September 25th (decide in person or remote)

LAKE COUNTY CITIZENS ADVISORY COMMITTEE (CAC)
2024 Solid Waste Management Plan Update
Attendance Sheet - August 28, 2024 Meeting

Member Name	Affiliation	In Attendance
Andrew Mariani	DK Organics, composter	☐
Andy Klink	Midwest Organics Recycling, composter	☐
Austin Pollack	Village of Gurnee, local government	☒
Erin Rauscher	Village of Lake Zurich, local government	☐
John Wasik	Lake County Board, local government	☐
Robin Grooms	Lake County Staff, local government	☒
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Evan Craig	Environmental group	☒
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Kari Rabideau	GFL, waste hauler	☒
Mark Bingham	GFL, waste hauler	☐
Peter Josephsen	Recycler	☐
Larry Blacik	private citizen	☐
Jenny Futterman	private citizen	☒
Erlene Howard	Collective Resource, food waste hauler	☒
Mary Beth Schaye	Collective Resource, food waste hauler	☒

SWALCO/Lake County Citizens Advisory Committee

2024 Solid Waste Management Plan Update

Meeting Agenda, Remote via Teams

6 p.m., September 25, 2024

1. Review the draft 2024 Plan Update
2. Vote on whether to recommend adoption by the SWALCO board and Lake County board
3. Adjourn – thank you for your time and effort

LAKE COUNTY CITIZENS ADVISORY COMMITTEE (CAC)
2024 Solid Waste Management Plan Update
Attendance Sheet - September 25, 2024 Meeting

Member Name	Affiliation	In Attendance
Andrew Mariani	DK Organics, composter	☐
Andy Klink	Midwest Organics Recycling, composter	☐
Austin Pollack	Village of Gurnee, local government	☒
Erin Rauscher	Village of Lake Zurich, local government	☐
John Wasik	Lake County Board, local government	☐
Robin Grooms	Lake County Staff, local government	☒
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Tim Curry	GFL, landfill	☐
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Seema Keshav	Go Green, Environmental group	☒
Kari Rabideau	GFL, waste hauler	☐
Mark Bingham	GFL, waste hauler	☐
Peter Josephsen	Recycler	☐
Larry Blacik	private citizen	☒
Jenny Futterman	private citizen	☒
Erlene Howard	Collective Resource, food waste hauler	☐
Mary Beth Schaye	Collective Resource, food waste hauler	☒

Date: October 7th, 2024
To: The Lake County Board and the Solid Waste Agency of Lake County (SWALCO) Board

Subject: Concerns over Hefty ReNew Bag Program and Chemical Recycling Technologies in the 2024 Lake County Solid Waste Management Plan Update

Dear Respected Board Members,

We, the undersigned, would firstly like to thank the Solid Waste Agency of Lake County (SWALCO) for the opportunity to provide input to the 2024 Lake County Solid Waste Management Plan Update. As residents of Lake County and leaders in our community environmental groups, we appreciate being included in the conversation of how to reduce and divert solid waste away from landfills.

We would, however, like to express our deep concern over two recommendations in the plan update - 1) Supporting and expanding the Hefty ReNew Bag Program in Lake County communities and 2) An incomplete definition of chemical recycling technology that leaves open plastics-to-plastics recycling as a solution to the plastics pollution problem.

The above are false solutions to the plastics crisis. They move our focus and efforts away from reducing single-use plastics and seeking safer alternatives to unproven programs and technologies, thus wasting the time and money of Lake County residents.

We ask that *1) there be a minimum 2-year trial period for the Hefty ReNew Program in which a determination is made on whether it is an environmentally responsible program 2) expand the definition to include all types of chemical recycling, that will NOT be considered as a solution for plastics recycling*

1) **Hefty ReNew Bag Program:** According to Hefty, the program will provide Lake County residents an opportunity to recycle their hard-to-recycle plastics such as plastic bags, foam foodware containers, chip bags etc. These will be transformed into new products such as plastic building materials, outdoor furniture, composite wood or into plastic pellets or into alternative fuels.

   Our concerns with the program are

   a) Will the materials be responsibly recycled? In the Hefty ReNew bag program, the preferred technology to recycle these materials is mechanical recycling, then advanced/chemical recycling and last burning in cement kilns. Technologies such as chemical recycling and burning plastics for cement production, generate large quantities of hazardous waste and release hazardous air pollutants into the environment. These are toxic chemicals that can cause cancer, harm the developing fetus, damage the reproductive system, and lead to other serious health problems (see NRDC report)[1]. According to media reports about Hefty's bag program in Boise Idaho, residents were told that their hard-to-recycle

plastics collected in Hefty Orange bags will be transformed into low polluting fuel. Within a year of the program's start, the efforts came to a halt and now 50% of Boise's orange bags are burned in cement kilns[2]. When asked the question, Hefty informed us that Boise residents voted to burn the plastics, but **Burning plastics is not recycling**. And everyone suffers from the toxic emissions when plastics are burned.

b) Growing concern over plastics in building materials - Even if a majority of materials collected in Illinois through the Hefty ReNew program are mechanically recycled to produce building products, there are concerns about using plastics in building materials. Project TENDER is an alliance of 50 scientists and healthcare professionals that are raising the alarm about the mounting scientific evidence that plastic and its chemicals are contributing to neurodevelopmental disabilities in young children. In an April 2024 paper, Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics[3], scientists express concern about the chemical additives that leach from plastics in our homes and concentrate in dust. They state that **plastic based building products such as vinyl flooring and wall coverings have a large surface area from which phthalates can migrate into the indoor air and household dust exposing residents (see project TENDER paper, page 3 & 4)**[3]. Prenatal exposure to Phthalates can have an impact on brain development, behavior, delayed language development, reduced IQ and childhood ADHD[3].

2) **Chemical and Advanced Recycling:** As stated earlier, chemical and advanced recycling technologies produce large amounts of hazardous waste. These technologies also have not proven to be scalable and lack transparency from the industry[4]. We ask that recycling of plastics does not include
   a) the use of plastic for energy generation, for fuel production or as a fuel
   b) mass burn incineration or thermal or chemical conversion such as gasification, pyrolysis, solvolysis, hydropyrolysis, methanolysis, combustion, solvent based purification or
   c) any other chemical process used to transform plastic or plastic-derived materials into plastic monomers, chemicals, waxes, lubricants, chemical feedstocks, synthetic oil or gas, pyrolysis oil, crude oil, diesel, gasoline, aviation fuel, or home heating oil, or any other oil not specified here.

As you are aware, plastic pollution is not just a problem of litter in our streets. Tiny bits of plastics, microplastics, are found everywhere in our environment - even in the human body. Scientists have found microplastics in the placenta[5,6], newborns' first stool[7], in the blood, in the lungs, the brain as well as in human testicles. **We cannot afford to spend our resources on solutions that have not proven to work and that have a negative impact on the environment.**

We respectfully request that the Hefty program be limited to a trial period in which to determine if it is a sound program and that alternate technologies in the future do not include any forms of chemical or advanced recycling.

Sincerely,
Seema Keshav, Founder Go Green Vernon Hills & Lincolnshire
Jenny Futterman, Chair Go Green Highland Park

1 NRDC: Recycling Lies - "Chemical Recycling" of Plastic Is Just Greenwashing Incineration (PDF)
2 Are Boise's orange bags really recycling? Do they help? What experts and the evidence say (yahoo.com)
3 Project TENDR Briefing Paper: Protecting the Developing Brains of Children from Plastics and Toxic Chemicals in Plastics | Project TENDR (thearc.org)
4 Chemical Recycling: A Dangerous Deception — Beyond Plastics - Working To End Single-Use Plastic Pollution
4 ipen-plastic-waste-management-hazards-en.pdf
5 Ragusa A, Svelato A, Santacroce C, Catalano P, Notarstefano V, Carnevali O, et al. 2021. Plasticenta: First evidence of microplastics in human placenta. Environ Int 146: 106274.
6 Zhu L, Zhu J, Zuo R, Xu Q, Qian Y, An L. 2023. Identification of microplastics in human placenta using laser direct infrared spectroscopy. The Science of the total environment 856(Pt 1): 159060.

Attachment B
Lake County Board Resolution
Adopting the 2024 Plan Update

SWALCO

Attachment C
IEPA Plan Update Form

SWALCO

Print Form

Illinois
Environmental
Protection Agency

Bureau of Land
1021 North Grand Avenue East
Box 19276
Springfield, IL 62794-9276

FIVE YEAR MUNICIPAL WASTE MANAGEMENT PLAN UPDATE

The Agency has prepared this form to assist local governments with the five year updates of municipal waste (MW) plans. Although local governments may prepare and submit a more extensive document, the Agency will consider submission of this completed form to be the plan update required under the Solid Waste Planning and Recycling Act (SWPRA).

Attach additional labeled pages as necessary.

GENERAL INFORMATION

Local Government:	Lake County		
Contact Person:	Walter Willis, Executive Director, Solid Waste Agency of Lake County		
Address:	1311 North Estes Street		
P.O. Box:			
City:	Gurnee	State: IL	Zip: 60031
Telephone:	(847) 336-9340 x2	Plan Adoption Date:	9/12/89
Re-Adoption Date:	9/1/91	Plan Update Due:	11/9/24

1. **Recommendation and Implementation Schedule Contained in the Adopted Plan**

   This information should be easily accessible in the plan's Executive Summary or Recommendations chapter. Briefly describe the recommendations and implementation schedule for each alternative in the adopted plan below.

   a. Source Reduction

   Refer to Section 3.2 (Page 3-2)

   b. Recycling and Reuse

   Refer to Section 3 (Pages 3-2 through 3-3)

c. Combustion for Energy Recovery

The Lake County Plan does not recommend combustion technologies. However, alternative technologies that convert waste to energy through biological conversion are considered. Refer to Section 4 (Page 4-4).

d. Combustion for Volume Reduction

The Lake County Plan does not recommend combustion technologies. However, alternative technologies that convert waste to energy through biological conversion are considered. Refer to Section 4 (Page 4-4).

e. Disposal In Landfills

Refer to Section 4 (Pages 4-1 through 4-3).

2. **Current Plan Implementation Efforts**

a. Which recommendations in the adopted plan have been implemented?

Section 3 discusses future program recommendations and the current status of those recommendations.

Briefly describe which recommendations were not implemented and the reasons why these were not implemented.

Section 3 discusses future program recommendations and the current status of those recommendations.

b. Which recommendations in the adopted plan have been implemented according to the plan's schedule?

Briefly describe which recommendations were not implemented according to the adopted plan's schedule, and attach a revised implementation schedule.

Section 3 discusses future program recommendations and the current status of those recommendations.

3. **Recycling Program Status**

Because the Agency's annual landfill capacity report includes data on each adopted plan's recycling status, information on your recycling percentages is not being requested on this form. This will avoid duplication of efforts.

a. Has the program been implemented throughout the county or planning area:

⊗ Yes ○ No

b. Has a recycling coordinator been designated to administer the program?

⊗ Yes ○ No If yes, when? 1991

c. Does the program provide for separate collection and composting of leaves?

⊗ Yes ○ No

d. Does the recycling program provide for public education and notification to foster understanding of and encourage compliance with the program?

⊗ Yes ○ No

e. Does the recycling program include provisions for compliance, including incentives and penalties?

⊗ Yes ○ No If yes, please describe:

Lake County has implemented and enforces its Solid Waste Hauling and Recycling Ordinance, a copy of which is available on the County's website. The ordinance identified hauler requirements regarding recycling and contains penalties for violations of the ordinances.

f. Does the program include provisions for recycling the collected materials, identifying potential markets for at least three materials, and promoting the use of products made from recovered or recycled materials among businesses, newspapers, and local governments?

⊗ Yes ○ No If yes, please describe:

The Lake County Solid Waste Hauling and Recycling Ordinance requires all haulers operating in the County to offer recycling collection services.

g. Provide any other pertinent details on the recycling program.

Please refer to Section 2.5 for a discussion of current programs, and refer to Section 3 (Pages 3-3 and 3-4) for a discussion of future program recommendations.

4. **Current Needs Assessment Information (optional)**

Depending upon the available resources, updated waste generation data, current municipal waste recycling and disposal information, and any other recent available data may be included; this information will not be required by the Agency.

a. MW Generated per year: 911,208 ⊗ Tons ○ Cubic Yards

b. MW Generation Rate: 6.73 pcd (pounds/capita/day)

c. MW Recycled/Year: 334,755 tons

d. MW Incinerated/Year: 0 ⊗ Tons ○ Cubic Yards

e. MW Landfilled/Year 576,453 ⊗ Tons ○ Cubic Yards

Time period for this information: 2023

5. **New Recommendations and Implementation Schedule**

Due to political, fiscal, or technological changes, a local government may choose to recommend different waste management options for the review plan. It should be noted, however, that the recycling program requirements of the SWPRA must be followed. Discuss any new recommendations included in the revised plan, and the implementation schedule to be followed.

New recommendations for the 2025-2029 Planning Period are contained in Section 3.