

**Lake County Sustainability Chapter**  
Amendment to Lake County Regional Framework Plan

Waste Section Technical Revisions  
October 7, 2014

Lake County, IL  
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## G. Waste

*The content of the Waste section of the Sustainability Chapter is most closely related to Regional Framework Plan Chapter 5: Infrastructure and Services, particularly the Solid Waste section.*

### Significance

Effective waste management is integrally important to a sustainable County, as the core notion of sustainability revolves around the wise use of resources. The amount of waste generated by a community reflects how efficiently its inhabitants are utilizing resources. In addition, the way that products and food are produced, consumed, and disposed of has a large impact on greenhouse gas emissions (comprising about 42 percent of emissions in 2009 at a national level).<sup>1</sup>

It is desirable to both minimize waste and dispose of or reuse it in intelligent ways. Reducing the amount of waste that is landfilled reduces associated costs, and also makes the most of the space available in landfills, which have finite capacity. Facilities within Lake County, Countryside Landfill and Zion Landfill, are likely to reach capacity by ~~2019-2022~~ and ~~2022-2032~~, respectively, unless they are expanded.<sup>2</sup> This is a particular challenge in light of expected increases in demand as the County's population grows. The continuation and broadening of recycling, composting, and hazardous and electronic waste management programs is necessary to lessen the strain on available facilities.<sup>3</sup>

The Solid Waste Agency of Lake County (SWALCO) has been a leader in the region and beyond with regard to waste management. SWALCO represents 85 percent of the County's population and has members from ~~41-43~~ municipalities.<sup>4</sup> Its activities are primarily related to the implementation of the Lake County Solid Waste Management Plan, which includes recommendations on waste management, landfills, recycling, household chemical waste management, and many other pertinent issues.<sup>5</sup> Most recently, the Lake County Board, in conjunction with SWALCO's Board of Directors, took action on the Plan's recommendation to appoint the 60% Recycling Task Force. In December 2011, the Task Force published its report, which included recommendations to help the County meet its goal of a 60 percent recycling rate by 2020. The 60% Recycling Task Force Report and Solid Waste Management Plan are considered SWALCO's principal planning documents.<sup>6</sup>

### Issues & Opportunities

The following key issues and opportunities related to waste have been identified through the existing conditions analysis:

- From 2007 to 2010, the amount of solid waste produced per capita per day fell, but the total amount of waste increased. This is a reflection of population growth. The majority of the reduction in waste produced per capita per day may be attributed to the residential and commercial sectors.

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<sup>1</sup> U.S. Environmental Protection Agency. "Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2009." Retrieved 7/11/12 from <http://www.epa.gov/nonhaz/municipal/pubs/msw2009-fs.pdf>

<sup>2</sup> Note: the EPA recently approved permit application for an expansion at Zion

<sup>3</sup> Willis, 2012

<sup>4</sup> <http://www.swalco.org/AboutUs/History>

<sup>5</sup> "2009 Solid Waste Management Plan Update for Lake County, Illinois." SWALCO. Retrieved 7/11/12 from <http://www.swalco.org/Publications/Documents/Lake%20County%202009%20Plan%20Update.pdf>

<sup>6</sup> Willis, 2012

- Lake County's waste is sent primarily to two landfills, Countryside Landfill and Zion Landfill, which are expected to reach capacity by ~~2019-2022~~ and ~~2022-2032~~.
- The County reported an increase in recycling from 2009 to 2010, with an impressive 39 percent recycling rate -- or 511,368 tons of municipal weight (MW tons) -- in 2010. This already exceeds the national average recycling rate of around 34 percent; the County and SWALCO have committed to achieving a 60 percent recycling rate by 2020.
- SWALCO is widely recognized as a leader in the region and beyond in the field of waste management and has been leading the charge to increase recycling rates and composting in the County. In addition, the 60% Recycling Task Force has developed various recommendations to help the County achieve its goals.
- Volume-based pricing, or pay-as-you-throw service, which charges customers based on the volume of waste produced, offers an opportunity to significantly reduce the amount of waste sent to landfill.
- The collection and composting of food scraps presents an opportunity to divert over nine percent of the County's waste stream from landfill.<sup>7</sup>

## Analysis

### Waste Generation

In recent years, the amount of solid waste produced per capita per day (PCD) has declined in Lake County. In 2007, the County's waste production was about 11.6 pounds PCD; by 2009, the rate fell to 10.2 pounds PCD and remained stable through 2010 (see Figure G-1. Solid Waste Produced PCD). For Lake County as a whole, 1,309,495 MW tons of waste was produced.<sup>8</sup> However, because the population of the County continues to grow, the amount of waste has increased by approximately 15,000 tons. The economic recession is likely to have helped reduce consumption and subsequent waste generation.

The total waste generated per capita per day includes residential, commercial, construction and demolition (C&D) debris, landscape, and non-municipal solid waste such as industrial processes and special waste (see Table G-1. Waste Generation and Diversion). A comparison of waste generation rates denotes a reduction in residential and commercial waste generated per capita per day from 2007 to 2008, with diversion rates (i.e. the amount of waste diverted to recycling or composting) staying essentially the same.

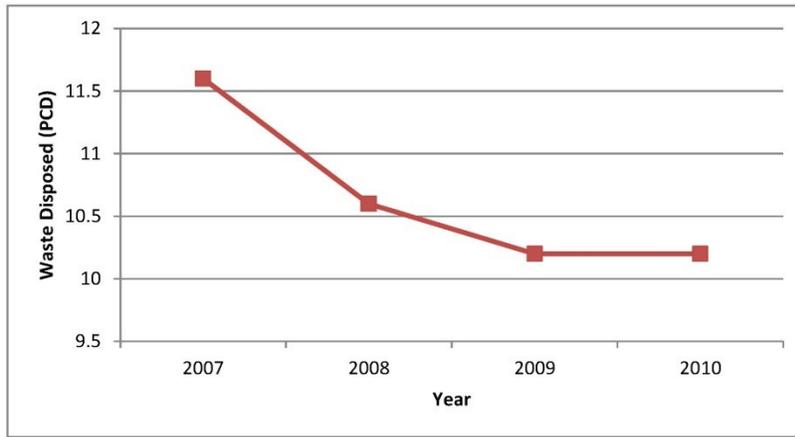
In addition to residential and commercial contributors, several other types of waste are substantial factors in Lake County's waste stream, including C&D debris, waste from industrial processes, and landscape waste. C&D materials are largely non-hazardous, non-contaminated solid waste by-products generated from construction, remodeling, renovation, or demolition conducted on buildings and other built structures. Such materials include brick (masonry), rock, concrete, lumber, gypsum board, plumbing and lighting fixtures, roof shingles, siding, appliances, and flooring. Most often, these materials pose little environmental threat due to their largely non-hazardous content, but in rare instances, C&D materials may contain hazardous content, such as asbestos, lead, and other heavy metals. C&D debris represented 17 percent of waste generation in 2008. As of January 2014, Lake County requires the recycling of 75 percent of C&D debris from buildings of 1,500 square feet area or

<sup>7</sup> "Illinois Commodity/Waste Generation and Characterization Study." Illinois Department of Commerce and Economic Opportunity. Retrieved 8/17/12 from <http://www2.illinois.gov/gov/green/Documents/Waste%20Study.pdf>

<sup>8</sup> IEPA, Illinois EPA Municipal Waste Survey for 2010, 2011

more. There was an eight percent increase in the diversion rate for this type of waste from 2007 to 2008.

**Figure G-1. Solid Waste Produced (PCD), 2007-2010**



Sources: SWALCO Solid Waste Management Plan, IEPA Survey (2010), 60% Task Force Report, 60% Task Force Meeting Packet<sup>9</sup>

**Table G-1. Waste Generation & Diversion, 2007-2008**

	Waste Generation, 2007 (PCD)	Diversion Rate, 2007	Waste Generation, 2008 (PCD)	Diversion Rate, 2008
<b>Municipal Solid Waste</b>				
Residential	4.00	32%	3.84	31%
Commercial	5.16	35%	4.24	36%
Construction/Demolition	1.81	40%	1.81	48%
Other Landscape	.2	-	.27	-
Subtotal	11.17	-	10.16	-
<b>Non-Municipal Solid Waste</b>				
Industrial Process/ Special Waste	.4	-	.46	-
<b>Total Solid Waste PCD</b>	<b>11.57</b>		<b>10.62</b>	

Source: Solid Waste Management Plan, 2009

#### Regional Landfills and Related County Facilities

Currently, 87 percent of disposal for waste generated in Lake County is disposed of in Lake County landfills. The majority of waste is disposed in two County landfills that have finite capacity. The Countryside Landfill near Grayslake is expected to close in 2022. At Zion Landfill, a proposal for a vertical expansion to provide an additional ten years of solid waste disposal capacity (7.23 million cubic yards of air space) was approved by the IEPA in June 2011. Separate to the permit application, Zion Landfill was expected to close in 2019, although a facility expansion has extended capacity to 2032.<sup>10</sup> Demand for

<sup>9</sup> <http://www.swalco.org/Recycling/Documents/February%2016%202011%20Meeting%20Packet.pdf>

<sup>10</sup> Solid Waste Landfill Capacity Certification, IEPA, January 1, 2012 for Zion Landfill.

landfill space is likely to continue to grow as the County's population increases.<sup>11</sup> Beyond landfills, Lake County hosts a number of waste service facilities and providers for businesses and residents,<sup>12</sup> including:

- 30 commercial waste and recycling collection providers
- 12 public recycling and/or scrap facilities
- Six residential curbside providers
- Five compost facilities
- One municipal drop-off facility

### Recycling

Lake County's reduction and stabilization of per capita waste can be attributed in part to SWALCO's recycling and diversion programs. The County reported an increase in recycling from 2009 to 2010, with an impressive 39 percent of waste (or 511,368 MW tons) recycled in 2010. For comparison, in 2009, Americans recycled and composted about 33.8 percent of their trash.<sup>13</sup> To aid in boosting recycling rates, SWALCO has developed clear guidelines for recycling for Lake County residents. For example, to provide clarity to residents on which products are appropriate for curbside recycling, SWALCO provides an online guide, *SWALCO's Recycle & Redirect Guide*.<sup>14,15</sup> In addition, SWALCO, in conjunction with a non-profit partner, Curbside Value Partnership (CVP), is broadening its efforts to increase participation in curbside recycling through resident outreach. This outreach partnership will focus early efforts on educating residents, incorporating use of modern media outlets, such as the web and social media.<sup>16</sup>

In June 2010, the Lake County Board, in conjunction with the Board of Directors for SWALCO, established the 60% Recycling Task Force as the appointed County body to investigate and evaluate alternatives, and develop recommendations on how to achieve a 60 percent County recycling rate by 2020. Beginning in September 2010, the Task Force (a 27-member team of private citizens, waste hauler representatives, and municipal administrators) convened in monthly meetings to develop specific recommendations and identify challenges to achieving recommendations.<sup>17</sup> The Task Force specifically analyzed the residential, commercial, and C&D sectors in Lake County, identifying opportunities to expand current programming, while developing new programs and ideas within each of these sectors.<sup>18</sup> At the conclusion of the Lake County Recycling Task Force series meetings in October 2011, the Task Force developed 36 recommendations for material (waste) diversion, which were adopted by the Lake County Board. Lake County implemented several of those recommendations in June 2013.

### Recycling & Waste Hauling Services

While SWALCO is responsible for implementing its Solid Waste Management Plan and provides some recycling services, municipalities are largely responsible for providing waste hauling and recycling

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<sup>11</sup> (IEPA, IEPA - Landfill Certification Form for Zion, 2012) (Willis, 2012)

<sup>12</sup> Note: A complete listing of Lake County disposal and recycling providers can be found on SWALCO's website <http://www.swalco.org/DisposalGuide/ServicesandFacilities>

<sup>13</sup> Illinois Environmental Protection Agency. "Nonhazardous Solid Waste Management and Landfill Capacity Report (2009)." Accessed November 3, 2011. See [www.epa.state.il.us/land/landfill-capacity/2009/report.pdf](http://www.epa.state.il.us/land/landfill-capacity/2009/report.pdf)

<sup>14</sup> "Lake County Curbside Recycling Guidelines." Retrieved 7/26/12 from <http://www.swalco.org/Recycling/Documents/Swalco%20Recycling%20Guidelines%20Final%20April%202010.pdf>

<sup>15</sup> (SWALCO, SWALCO, 2010)

<sup>16</sup> (Source: Source: Curbside Recycling News – June 15, 2012; CVP/SWALCO Partnership).

<sup>17</sup> (SWALCO, 60% Recycling Task Force Report).

<sup>18</sup> *ibid*

services for their residents. Most Lake County municipalities contract with a single private waste hauler to provide recycling and waste collection services for residents, including curbside pickup, within its respective geography. Some residents, such as those living within multifamily buildings over a certain size, and many businesses also contract for these services independently.

Recycling and waste hauling are handled through a variety of measures for Lake County unincorporated areas. Contracted private haulers that serve unincorporated areas are required to offer an option for volume-based pricing, or “pay-as-you-throw” (PAYT) service, which tracks the amount of garbage that households produce and charges them accordingly.<sup>19</sup> One study estimates that PAYT communities generate about 49 percent less waste than those that charge traditionally (through taxes or fixed fees).<sup>20</sup> The 60% Recycling Task Force Report also encourages the establishment of a hauler franchise pilot program to serve unincorporated areas, with a goal to determine effectiveness in increasing recycling rates and decreasing costs.<sup>21</sup>

#### Related Programs

SWALCO provides or supports specialized recycling and waste disposal programs for aluminum, batteries, commingled recycling, construction/demolition debris, glass, landscape waste, metals, latex paint, paper, plastics, tires, and scrap electronics. To support diversion rates and proper management of such materials, SWALCO offers a number of educational initiatives and programs. To promote yard waste composting, SWALCO-the Lake County Planning, Building and Development Department is administering a pilot program to encourage landscape waste shredding over limit landscape waste burning in a designated area. For food waste, Lake County has begun to sell compost bins to encourage composting and has taken steps to authorize local non-profit organizations to distribute compost bins to residents. In addition, the City of Highland Park is going to begin conducted a composting pilot program in a residential neighborhood to determine its feasibility on a city-wide scale.<sup>22</sup>

SWALCO also offers education programming assistance to Lake County schools for recycling, waste management, and other environmental projects. The School Education Corner offers resources and information for educators, school administrators, and parents interested in initiating recycling and waste diversion education programs.<sup>23</sup> To further broaden awareness around new C&D recycling pilot programs, Lake County has hosted a series of “C&D Handling Alternative Seminars” and focused on the goal of increasing awareness among the developer/building community. The 60% Recycling Task Force took a deeper evaluation of Lake County C&D debris, with resulting recommendations that focus on the development of a C&D ordinance to establish recycling requirements. A priority for SWALCO is increasing the local processing capacity.

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<sup>19</sup> “Pay-As-You-Throw.” Retrieved 7/26/12 from <http://www.epa.gov/waste/consERVE/tools/payt/index.htm>

<sup>20</sup> U.S. Environmental Protection Agency. “Pay-As-You-Throw Summer 2010 Bulletin.” Retrieved 7/26/12 from <http://www.swalco.org/Recycling/Documents/US%20EPA%20PAYT%20Summer%202010%20Bulletin.pdf>

<sup>21</sup> Under a franchise arrangement municipalities can allow multiple haulers to competitively bid out a specified scope of service within a defined geography or “franchise” area. Once a hauler is determined to an appointed ‘franchise’ area, residents then contract directly with the hauler for waste collection services at the approved price under the franchise agreement. (EPA, Decision Maker’s Guide To Solid Waste Management – Vol. II (Chapter 4 – Collection and Transfer).

<sup>22</sup> <http://www.cityhpil.com/CivicAlerts.aspx?aid=102>

<sup>23</sup> <http://www.swalco.org/Programs/SchoolResourceCorner/Default>

SWALCO also organizes and hosts recycling collection events. Electronics can be delivered to year-round drop-off facilities, and special one-day collection events are held as well.<sup>24</sup> The Household Chemical Waste facility in Gurnee, IL serves as the permanent disposal facility for household hazardous waste. Residents can drop off waste at the facility year round, or at mobile collection events organized throughout Lake County.<sup>25</sup> SWALCO also runs the “Reuse-A-Shoe” gym shoe recycling program. Some of the shoes are donated to the Share Your Soles Foundation, an Illinois-based charity that refurbishes shoes to give to those in need; the remainder are shipped to Nike to be processed as material for playgrounds and athletic fields.<sup>26</sup>

## Goal & Policies

**Goal:** Minimize waste.

**Policy 1:** Support and implement the recommendations of the 60% Recycling Task Force.

[Ref.: 60% Recycling Task Force Report]

Action 1: Enhance existing residential recycling programs to increase rates of diversion, per the Task Force Recommendations.

Action 2: Enhance existing programs for commercial sector recycling.

Action 3: Support implementation of local ordinances to increase the rates of recycling of construction and demolition debris.

Action 4: Educate Lake County residents about ways to reduce waste by using social media and other tools to change behavior.

Action 5: Implement the Construction and Demolition Debris Recycling provisions of the amended Solid Waste and Recycling Ordinance in 2014.

Action 6: Implement a procurement policy for the County to request, where applicable, sustainable alternatives for products and services.

**Policy 2:** Increase onsite scavenging in landfills and encourage markets for reusable materials.

Action 1: Encourage Lake County’s landfills to evaluate on-site scavenging of valuable recyclables prior to landfilling.

Action 2: Explore the feasibility of working with SWALCO and Lake County Partners to develop markets for recycled and refurbished products including finished compost, plastics, plastic film and glass.

Action 3: Encourage Lake County businesses, institutions, and local governments to purchase goods with recycled content in order to support local recycling businesses and the overall market for recycling.

**Policy 3:** Continue coordination between municipalities and other entities through SWALCO.

Action 1: Work with SWALCO and the Lake County Municipal League to identify opportunities for collaboration and coordination of services between the various communities for greater efficiency and evaluate the cost benefit of bidding waste hauler and recycling services together.

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<sup>24</sup> <http://www.swalco.org/collectionevents/ElectronicsCollectionEvents>

<sup>25</sup> <http://www.swalco.org/collectionevents/HouseholdWasteCollectionEvents>

<sup>26</sup> <http://www.swalco.org/Programs/Reuse-A-Shoe>

Action 2: Use communication tools (website, LCTV, e-newsletters) to communicate related information and best management practices.

Action 3: Evaluate model innovative recycling and diversion practices for County facilities to share with other jurisdictions.

**Indicators**

While the policies in this Chapter will be implemented on an ongoing basis, each indicator will be monitored on an annual basis and evaluated every five years. “Lake County Indicators” include indicators that are within the County government’s purview, while “Community Indicators” relate to activities within the County at large.

**Lake County Indicators:**

Indicator 1: The Solid Waste Hauling and Recycling Ordinance will be amended to be consistent with the 60% Recycling Task Force Report recommendations by 2016. (CAO/PBD)

**Community Indicators:**

Indicator 1: Lake County will achieve a 60 percent diversion rate by 2020. (SWALCO)

Indicator 2: One or both landfills will evaluate and implement an on-site scavenging or collection program for materials prior to landfilling by 2018. (SWALCO)

Indicator 3: The number of communities coordinating joint procurement of hauling services for refuse, recyclables, and organics will increase by 2018. (SWALCO)

**Implementation Approach**

Policy	Inter-governmental	County Departments and Agencies	Non-County Agencies
1 Support and implement the recommendations of the 60% Recycling Task Force.	County, Municipalities	CAO	SWALCO
2 Increase onsite scavenging in landfills and encourage markets for reusable materials.	County, Municipalities	CAO	SWALCO
3 Continue coordination between municipalities and other entities through SWALCO.	County, Municipalities	CAO	SWALCO