E-18-104

COMMITTEE REPORT

Mr. Chairman and Members of the Tazewell County Board:

Your Executive Committee has considered the following RESOLUTION and recommends that it be adopted by the Board:

RESOLUTION

WHEREAS, the County's Executive Committee recommends to the County Board to approve the attached Tazewell County Resource Recovery and Management Plan; and

WHEREAS, this is an update to the Tazewell County Solid Waste Plan which was originally adopted in 1991.

THEREFORE BE IT RESOLVED that the County Clerk notify the County Board Office, the Health Department Administrator and the Director of the Solid Waste & Code Enforcement of this action.

PASSED THIS 31stDAY OF OCTOBER, 2018.

ATTEST:

Tazewell County Clerk

Tazewell County Board Chairman

TAZEWELL COUNTY RESOURCE RECOVERY AND MANAGEMENT PLAN

Continuation of Tazewell County Solid Waste Planning 1991 to 2038

Prepared by:
Tazewell County Health Department
21306 Illinois Route 9. Tremont, IL 61568-9252
309-925-5511
www.tazewellhealth.org

GENERAL INFORMATION
Local Government: County of Tazewell, Illinois
Address: McKenzie Building
11 S. 4th
Pekin, IL. 61554

Plan Adopted by County Board on October 31st, 2018

11.01.18
David Zimmerman Date
Chairman, County Board

11-1-18
Greg Sinn Date
Chairman, Health Services

11-1-18
Amy Fox Date
Administrator,
Tazewell County Health Department

Introduction

Waste management in the U.S. is a $47 billion-dollar industry, employing 167,314 Americans.[i] Waste management programs primarily addressed in Illinois on the County level can be an economic driver and can support environmental goals that decision-makers choose to pursue to affect waste reduction, resource conservation, and material reuse.

Despite a significant economic and environmental impact, the waste diversion and waste management industries are largely hidden from public view. If we think of waste management, we often envision mounds of trash in an overflowing landfill. The waste management system is much more complex, encompassing many moving parts, such as transportation, collection, recycling and reuse, as well as waste generation by consumers and producers. Waste is often composed of products for which we no longer have a use. These products can often be used repeatedly before being disposed of if they were repurposed. Old products can be broken down, reprocessed, and used to replace new or "virgin" materials in the manufacturing process. To truly recapture the natural resources that are discarded as trash, we need to re-evaluate what we mean by "waste."

The solid waste management industry continues to evolve because of political, social, economic and technological changes. The Solid Waste Planning and Recycling Act recognizes this fact and as such requires all County Plans to be updated every five years. This document has been prepared to satisfy and comply with the requirements of the Act. Tazewell County adopted and implemented its initial 20-year Solid Waste Management Plan in 1991 and has adopted the required 5-year updates in 1996, 2001, 2006 and 2011. This plan will continue our compliance with the requirement to maintain a County Plan.

A significant amount of time has passed from the initial plan and changes to the Waste Management Industry have accelerated enough that the Tazewell County Health Services Committee has determined the need to develop a new 20-year plan for Waste Management in Tazewell County. This plan is a continuation of the work that started in 1991 and provides an update of ongoing work. Tazewell County has host agreements in place. Our host agreements and prior directives in the past Solid Waste Plan also carry through and are not voided in any way by this update. Finally, this plan itself could not have been created without partnerships and input from the community.

Overview of Waste Management

Illinois Laws and Program Requirement

In Illinois, there are three primary laws that address the management of solid waste: The Solid Waste Management Act (SWMA), the Solid Waste Planning and Recycling Act (SWPRA) and the Illinois Environmental Protection Act (EPAct). Each of these laws includes important language that guides the management of solid waste in Illinois. The SWMA, adopted in 1986, establishes the following waste management hierarchy, in descending order of preference, as State policy:

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

Under the SWPRA, adopted in 1988, all Illinois counties as well as the City of Chicago shall develop and implement comprehensive solid waste management plans that are required to place a substantial emphasis on recycling and landfill alternatives, encourage recycling and source reduction, and to promote composting. Each county waste management plan is required to be updated and reviewed every 5 years by IEPA to ensure compliance with the purpose and provisions of the Act. Each plan must include provisions for the implementation of a recycling program(s) designed to recycle 25 percent of the municipal waste generated in their jurisdiction.

The EPAct contains Illinois' environmental regulations and this legislation establishes requirements for the issuance of permits for pollution control facilities such as landfills and transfer stations. It also regulates the disposal of used tires and garbage. In addition, The EPAct establishes fees that support Department of Commerce and Economic Opportunity (DCEO) and Illinois Environmental Protection Agency (IEPA's) solid waste management programs.

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

Beginning with the adoption of the initial Solid Waste Management Plan in 1991, the theme throughout that early planning period was to encourage the implementation of integrated waste management systems that emphasized waste reduction, recycling and composting as alternatives to landfills. Alternative disposal technologies including MSW composting and resource recovery were considered and rejected as specific county objectives. The 2018 Tazewell County Resource Recovery and Management Plan adopts strategies that incorporates composting as an alternative. The previous Plan recommended that waste that was not recycled should be disposed of at existing landfills and that long-term capacity for Tazewell County waste should be contracted at existing privately operated facilities. Tazewell County

will rely on and provide for privately owned and operated landfill disposal capacity for managing its municipal solid waste. The capacity guarantee with Indian Creek #2 requires disposal capacity for Tazewell County generated waste through 2031.

2014 study of Landfills Statewide

CDM Smith conducted a study between September 10, 2014 and December 2, 2014 of Municipal Solid Waste (MSW) sites. A total of 263 waste samples (60 Executive Summary 5 from the additional Cook County, Illinois Commodity/Waste Generation and Characterization Study (CCICWGCS) facilities and 203 statewide Illinois facilities) from the Residential and Industrial/Commercial/Institutional (ICI waste sector were hand-sorted and "physically" characterized and 161 samples (14 from the additional CCICWGCS facilities and 147 statewide Illinois facilities) from the Construction and Demolition(C&D) waste sector were visually characterized to develop the waste composition profiles provided in this section. This study found that composition of Municipal Solid Waste from residential sources.[1]

After the samples were collected, they were sorted into material categories and weighed. The samples were sorted into 10 material classes; Paper, Beverage Containers, Plastics, Glass, Metals, Organics, C&D, Inorganics, Household Hazardous Waste (HHW), and Textiles.

In the Peoria/Quad Cities region, which Tazewell County resides, it was estimated that each person generated 7.4 pounds of waste per day. The Chicago Metropolitan region was the largest producer of per-capita waste and was found to have an estimated 8.7 pounds of waste per day per person. The region with the lowest waste generation was found to be Southern Illinois at a waste generation of 6.6 pounds per person per day.

Total statewide MSW generation in 2014 was 19.3 million tons, or 8.20 pounds per person per day. C&D materials comprise the largest portion of MSW generated, at 26.7%. Paper products were the second largest fraction, at 24.8%. The third largest category of MSW generation is Organic material, which made up 20.0% of total MSW generation. Plastic products were 10.7% of generation and the remaining categories in highest to lowest amount were inorganics, metal, textiles, glass, household hazardous waste, and beverage containers, which total 28.5%.

There were more High-Grade Office Paper, Boxboard, Yard Waste – Compostable, and Food Scraps landfilled in 2014 than in 2008; and less Newsprint, Uncoated OCC/Kraft, and Aluminum Beverage Containers landfilled in 2014 than in 2008.

Estimates of waste specific to Tazewell County are in the charts on the following pages. These estimates were generated, as part of the Illinois Solid Waste Disposal and Recycling Model report. The Model considers Tazewell County's population and geographic location within Illinois.

[1] http://www.illinoisrecycles.org/wp-content/uploads/2014/10/2015-Waste-Characterization-Update-FINAL.pdf

Study of Current Municipal Solid Waste Composition

Illinois Solid Waste Disposal and Recycling Model Report

Tazewell County

Residential and Commercial Combined Waste Sector

Material Class	Material Category	Estimated Generation (tons)	Estimated Recovery (tons)	Estimated Disposal (tons)	Capture Rate
Paper		**39,090**	**14,105**	**24,985**	**36%**
	Newsprint	4,180	2,180	2,000	52%
	High Grade Office Paper	3,440	2,041	1,399	59%
	Magazines/Catalogs	2,180	1,052	1,128	48%
	Uncoated OCC/Kraft	16,080	5,706	10,374	35%
	Boxboard	3,730	1,328	2,402	36%
	Mixed Paper - Recyclable	3,640	893	2,747	25%
	Compostable Paper	4,990	751	4,239	15%
	Other Paper	850	154	696	18%
Beverage Containers		**370**	**153**	**217**	**41%**
	Milk & Juice Cartons/Boxes - Coated	370	153	217	41%
Plastic		**22,330**	**4,671**	**17,659**	**21%**
	#1 PET Bottles/Jars	1,460	281	1,179	19%
	#1 Other PET Containers	410	120	290	29%
	#2 HDPE Bottles/Jars - Clear	740	356	384	48%
	#2 HDPE Bottles/Jars - Color	680	290	390	43%
	#2 Other HDPE Containers	50	19	31	37%
	#6 Exp. Polystyrene Packaging	1,260	234	1,026	19%
	#3-#7 Other - All	880	126	754	14%
	Other Rigid Plastic Products	3,960	1,130	2,830	29%
	Grocery & Merchandise Bags	1,030	158	872	15%
	Trash Bags	2,290	405	1,885	18%
	Commercial & Industrial Film	2,900	537	2,363	19%
	Other Film	4,010	579	3,431	14%
	Other Plastic	2,660	437	2,223	16%
Glass		**5,870**	**1,806**	**4,064**	**31%**
	Recyclable Glass Bottles & Jars	4,650	1,648	3,002	35%
	Flat Glass	690	0	690	0%
	Other Glass	530	157	373	30%

Metal		**8,410**	**4,028**	**4,382**	**48%**
	Aluminum Beverage Containers	1,050	527	523	50%
	Other Aluminum	590	250	340	42%
	Ferrous Containers (Tin Cans)	1,560	834	726	53%
	Other Ferrous	3,500	1,967	1,533	56%
	Other Non-Ferrous	620	100	520	16%
	Other Metal	1,090	351	739	32%

Prepared: 12/11/2017

Material Class	Material Type	Estimated Generation (tons)	Estimated Recovery (tons)	Estimated Disposal (tons)	Capture Rate
Organics		**40,030**	**8,841**	**31,189**	**22%**
	Yard Waste - Compostable	8,020	4,588	3,432	57%
	Yard Waste - Woody	1,590	1,000	590	63%
	Food Scraps	21,930	2,467	19,463	11%
	Bottom Fines & Dirt	3,090	13	3,077	0%
	Diapers	2,530	275	2,255	11%
	Other Organic	2,870	498	2,372	17%
Inorganics		**11,970**	**7,696**	**4,274**	**64%**
	Televisions	340	262	78	77%
	Computer Monitors	220	109	111	50%
	Computer Equipment/Peripherals	480	257	223	54%
	Electronic Equipment	990	493	497	50%
	White Goods - Refrigerated	710	710	0	100%
	White Goods - Not refrigerated	1,580	1,166	414	74%
	Lead-acid Batteries	1,250	1,250	0	100%
	Other Household Batteries	300	18	282	6%
	Tires	1,760	1,619	141	92%
	Household Bulky Items	4,310	1,806	2,504	42%
	Fluorescent Lights/Ballasts	30	5	25	16%
Textiles		**8,420**	**3,208**	**5,212**	**38%**
	Carpet	1,670	376	1,294	22%
	Carpet Padding	450	46	404	10%
	Clothing	3,990	2,121	1,869	53%
	Other Textiles	2,310	665	1,645	29%
Household Hazardous Waste		**1,840**	**1,124**	**716**	**61%**
	Household Hazardous Waste	1,840	1,124	716	61%
Construction and Demolition Debris		**41,910**	**24,815**	**17,095**	**59%**
	Construction and Demolition Debris (C&D)	41,910	24,815	17,095	59%

Total	**180,240**	**70,446**	**109,794**	**39%**

Residential Material Class	**Estimated Generation (tons)**	**Estimated Recovery (tons)**	**Estimated Disposal (tons)**	**Capture Rate**
Paper	14,380	5,144	9,236	36%
Beverage Containers	135	56	79	41%
Plastic	8,738	1,883	6,855	22%
Glass	2,892	942	1,950	33%
Metal	3,668	1,789	1,879	49%
Organics	21,822	5,526	16,296	25%
Inorganics	6,721	4,235	2,486	63%
Textiles	5,059	1,982	3,077	39%
Household Hazardous Waste	709	433	276	61%
Construction and Demolition Debris	11,740	6,951	4,789	59%
Total	**75,863**	**28,940**	**46,923**	**38%**

Commercial Material Class	**Estimated Generation (tons)**	**Estimated Recovery (tons)**	**Estimated Disposal (tons)**	**Capture Rate**
Paper	24,710	8,961	15,750	36%
Beverage Containers	235	97	137	41%
Plastic	13,592	2,788	10,804	21%
Glass	2,978	864	2,114	29%
Metal	4,742	2,239	2,503	47%
Organics	18,208	3,315	14,892	18%
Inorganics	5,249	3,461	1,788	66%
Textiles	3,361	1,226	2,135	36%
Household Hazardous Waste	1,131	691	440	61%
Construction and Demolition Debris	30,170	17,863	12,306	59%
Total	**104,377**	**41,506**	**62,871**	**40%**

Community Planning and Input

Planning is a Process – Not an Event

A plan is the framework that helps us identify our starting point (where are we now), our objective (where do we want to be in the future), the way to reach our objective (how are we going to get there) and finally the way to recognize progress (what should we measure to know we've moved the needle). Strategic planning offers the opportunity to deliver sustainable improvements to local waste management practices because it can respond to the always-changing waste and recovered materials markets.

Tazewell County Process to gather information

In June 2017, Specialty Groups and Community Meetings met throughout Tazewell County to gather input on the plan.

A Solid Waste Advisory Committee was formed to review and comment on plan.

Public Input

- Public and Private Partnerships (PPP) are one of the proven approaches to resource management planning. Our main objective is to promote sustainable, self-supporting partnerships between businesses and local government to support the formation and operation of new enterprise-municipal co-operation in solid waste management and recycling systems.
- Ongoing Community input is crucial. It is our goal to stimulate improved co-operation between public, private, and citizen stakeholders that: contributes to sustainable improvement of recycling and solid waste management; minimizes negative effects of waste especially in communities with high poverty; and improves the lives and livelihoods of people and enterprises in our communities.
- Diversion from landfills has become a major driver for many resource management plans and recycling programs, with some states and municipalities even operating under legislative requirements for achieving specific diversion goals. However, when poorly sorted materials are counted as "diverted" from local landfills but end up landfilled by manufacturers because they are not usable, they simply made a longer trip to the landfill. Verifying the fate of materials recovered from municipal recycling programs is critical to determining the actual diversion rate. Recycling programs should know the quantity of materials that were usable in the production of recyclable products and in the case of food recovery, how many pounds were diverted and used to an end that did not require landfilling.
- To ensure an optimally functioning whole recycling system, local governments must provide for recycling services that sustain all parts of the cycle, not just plastic and paper collection. Local governments must specify collection, processing, and marketing requirements in their requests for services and in their local ordinances for hauler and recovery service providers. Throughout the planning and implementation of resource management programs, stakeholder input and feedback are critical and must include the manufacturing end markets for recovered resources-including lawn waste, white goods, tires, food scraps, glass, etc.

Ultimately, the goal of recycling programs should be to maximize the recyclability of all materials.

USEPA's four-tiered waste management hierarchy guide waste management decision-making.

Recommendations for Tazewell County

As the solid waste needs shift and landfill space dwindles, the definitions and priorities around waste management evolve. On an industry level, the meaning of the term "waste management" has come to refer to a broader effort that includes resource recovery and sustainable materials management. Residents are more concerned with minimizing waste and reusing resources now than in any time in our past. Tazewell County has focused on curbside and community recycling programs in past plans. In this plan we will keep curbside recycling as a priority but focus of staff time will be in developing commercial recycling programs for small and large businesses within our County.

Materials Currently Not Recovered at Optimal Level

Special attention will need to be given to materials that have been identified as constituting a large percentage of the landfilled MSW stream--some of which are significantly below national recycling rates, although recycling processes and markets exist. Over the proposed 20 years of this plan, research and possible creation of diversion programs that examine the demand for product and education programs will need to be addressed. Materials to consider in this process are:

- ✓ Food scraps;
- ✓ Paper, including uncoated OCC/Kraft, compostable paper, newsprint, mixed paper, high grade office paper, boxboard;
- ✓ C & D, treated wood, gypsum board, composition shingles;
- ✓ Plastics, including PETE, HDPE, Other rigid plastics;
- ✓ Textiles, including carpet, clothing and other textiles.

Product Stewardship that promotes manufacturer "take-back" programs for end-of-life recycling of products, is an emerging trend. Examples of product stewardship include: paint, tires, and bottle return for soft drinks and water jugs.

Food Scrap Waste/ Organics are of concern to the health of our landfill, as the number entering our landfill is estimated to be 22% of volume from all sources. Resource management in yard waste and especially food scrap recovery is another area that will be addressed in recommendations. Food scrap constitutes a significant percentage of waste sent to landfills in Illinois and is estimated to be 11% of the waste entering Indian Creek Landfill. There are efforts being made to advance food scrap composting in the state by the Illinois Food Scrap Coalition and a broad base of stakeholders that includes generators, haulers, processors, and landscape professionals. This is a developing industry and in the next five years may continue to evolve. Composting of yard waste is another area that is lacking for Tazewell County. Yard waste is currently transported to Peoria County. When waste must travel, the economic cost and environmental impact are greater.

Toxic and Special Waste

Toxic and Special Waste are not included when developing recycling or diversion programs, and such materials, which are a part of the MSW stream, cannot be targeted for source reduction, diversion, or recycling. Initiatives and diversion programs should be maintained and expanded to reduce the quantity and toxicity of wastes from being landfilled, such as for Household Hazardous Waste (HHW). Statewide, it is estimated that 64,000 tons of HHW are currently being disposed per year.

In 2003, Tazewell County entered into a Host Agreement with Tazewell County Landfill,Inc. In the agreement, Indian Creek No. 2 landfill could not accept any special waste without approval. The agreement established a seven-member review committee made of the County Board Chair, a County Board member, two health department representatives, and the Mayors of Delavan, Hopedale, and Tremont. The review committee would approve the acceptance of any special waste entering the Indian Creek Landfill No. 2. The review considers EPA regulations, the waste and remaining capacity at the landfill. This process will continue as long as a Host Agreement is in place.

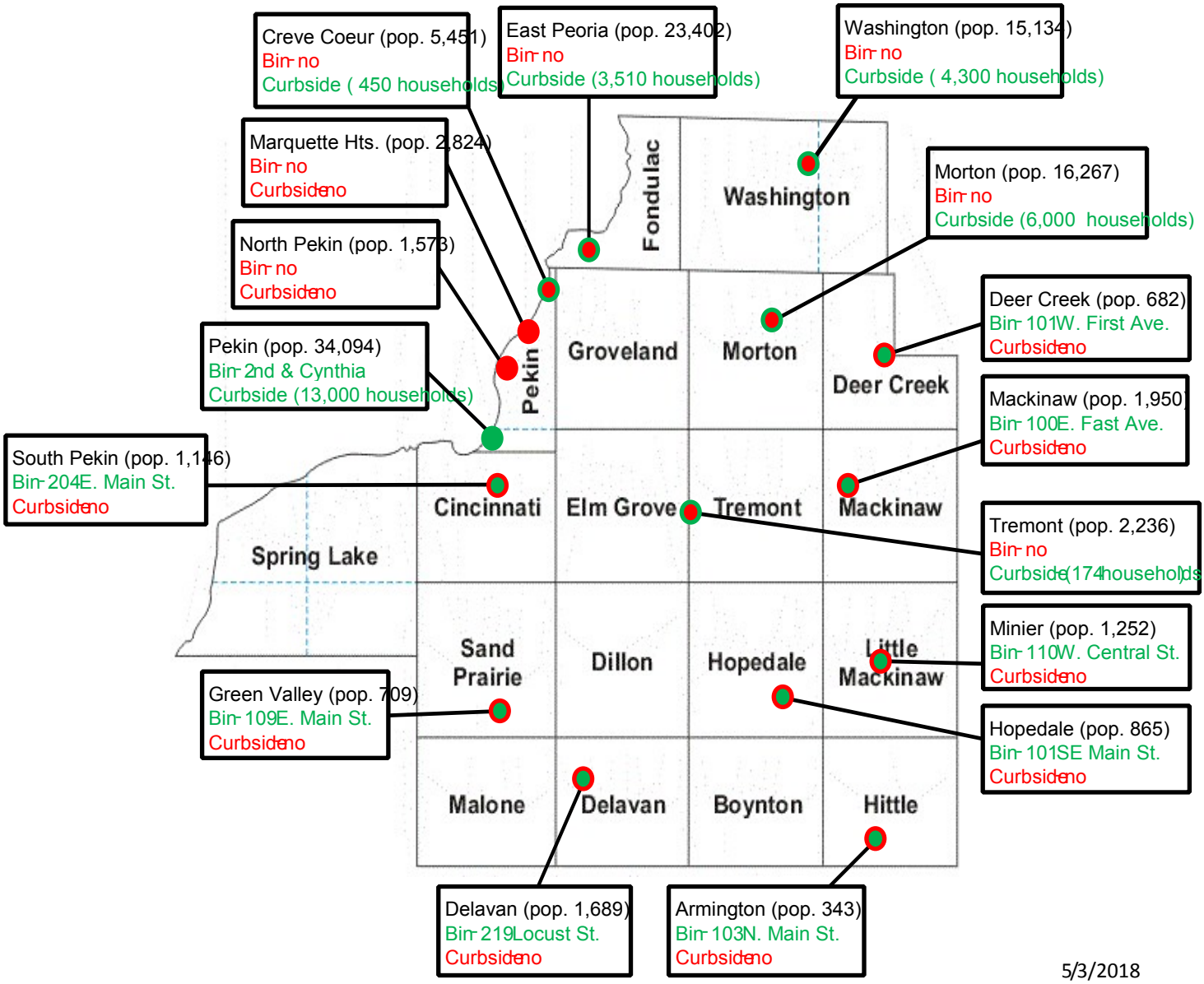
Alternative Technologies

Potential alternative technologies include disposal methods that reduce the volume of waste disposed in landfills, such as those that convert waste-to-energy or waste-to-fuel.

After speaking with the owners of the Tazewell County Landfill, Inc., their plan over the next 20 years is to construct a landfill gas to electricity plant.

To the extent that alternative disposal technologies are demonstrated to be viable in the future, these technologies do not displace recycling or reuse and should be considered as one part of a comprehensive solution. It is recommended that Tazewell County monitors and assesses developments in alternative technologies during the years covered by this Plan to ensure that opportunities are not missed. Tazewell County Officials at the directive of the County Board will utilize landfilling as the end of all waste until another agreed-upon option might become available.

Tazewell County Community Recycling



Since 1991, Curbside and community recycling has been and continues to be a strategic component of Tazewell County's Solid Waste Management Plan. Since the adoption of the initial plan, five of the County's largest communities have implemented curbside collection programs. Programs range from private subscription volume-based pay-per-bag waste disposal with free recycling to waste and recycling collection provided as a municipal service. Container drop-off collection programs were implemented in rural communities. For both types of programs, the County assisted with start-up costs funded through local landfill tipping fees. Annual recycling grants are also provided to these communities to help offset ongoing operating costs. We are recommending that these programs continue into the new plan.

Curbside Recycling has continued for homeowners within five Tazewell County Municipalities for the last 20 years. Each Municipality submits an annual grant application to the County providing grant objectives that will support the County's Solid Waste Plan. These applications and dollar amounts are reviewed in Health Services and approved by the County Board each year. For the last few years, the signed intergovernmental agreements have also required a year-end expenditure report detailing how the grant dollars were spent for the Municipality's projects.

Per Health Services request, starting for the 2019 grant application year, requirements of the grant application for the Municipalities will change.

Grants must now specifically have the potential to significantly increase a community's overall diversion of materials from the solid waste stream; improve recycling program efficiency; implement and expand education and outreach efforts that will grow public awareness about waste reduction and recycling services, school recycling programs, multifamily commercial recycling service; and recycling programs to collect and manage food waste from residential or commercial sources.

In addition, verifying the fate of materials recovered from municipal recycling programs is critical to determining the actual diversion rate. A midyear budget and report will need to be submitted to the County, and a final project report, to be made on a form provided by the County, are required. The final report will now have to provide the quantity (in pounds or tons) of waste reduced, reused, or recycled, that was diverted from the waste stream. This additional information will help to decide if the County is meeting their recycling/reduction Solid Waste Plan goals.

The County is also offering additional grant funds, with a cap, for pharmaceutical drop off sites or to specifically purchase recycling bins.

When **Rural Drop Off Centers** officially started, they were multi-stream recycling, where recyclables were source separated into their respective material types into the rural drop off containers. Now, the bins are a single stream recycling. Homeowners are no longer required to separate their items into the separate areas labeled, paper, glass, plastic, etc. They place their mixed recyclables into the same bin. The County has been able to help offset the cost of the rural recycling bins for several years. In the past, each Township or Village had individual contracts with Midland Davis, which was a 40,000-square-foot recycling facility that sat on a 15-acre site in South Pekin.[6] The funding provided was based on the total number of yearly pickups for each rural drop off center. The Township or Village was charged a flat fee by Midland Davis for each of the pickups and the County then reimbursed the Township or Village 100% of the cost for ONP (old newsprint) and 50% of the cost for the post-consumer content recyclables. When the facility was sold to Peoria Disposal Co. (now referred to as Area Disposal) in December of 2015, the facility had been processing 6,000 tons (of recyclables) annually. Area recycling was looking to take that up to 15, 000 tons a year.[6] After the recycling facility was purchased, the contracts between the Townships or Villages and Peoria Disposal Co. were changed. The contract fees are still based on a flat fee for the pick-up and drop off from the recycling bin, however, these bins are now weighed, and the unincorporated areas are charged a per-ton fee. The ONP and post-consumer content recyclables are marketed as a commodity and the per-ton fees are set by the current market. If the commodity is in demand, a refund based on that demand is issued to the unincorporated area based on the number of

tons collected. While the funding provided at this time by the County to the Township or Village is still 100% for ONP and 50% for post-consumer content recyclables, the refund due to commodity trading is taken into consideration for the grant dollars provided. As mentioned previously, the rural bins are now weighed, which provides the County with the quantity (in pounds or tons) of the waste recycled and diverted from the waste stream. This information will again help to decide if the County is meeting their Solid Waste Plan goals.

For the past 20 years, Tazewell County has annually been able to provide **Partnership Grants** to Municipalities to help offset their recycling efforts. Such grants were originally started based on the number of households within the Municipality that were targeted to participate in the startup of recycling programs. Over the years the grant dollars that the County has provided have been used for programs such as school and public education, purchase of recycling bins for homeowners, and town wide spring and fall cleanups. Grant dollars have also been provided when a Municipality has submitted a special request for grant dollars for projects such as purchasing recycling trucks and to help move the location of a recycling drop off site. One of the Municipalities within the County has been generous enough to provide this drop off site even though it already has a curbside recycling program. This drop off site currently has a high participation rate and needs to have the bins emptied at least weekly if not bi-weekly, saving many recyclables from being landfilled.

Public education is critical to the continued success of recycling programs. Important educational messages include reminders of what materials can (and cannot) be recycled in the household recycling bin and at various drop-off locations, the benefits of recycling, and results of current recycling programs. Listening and responding to business needs and issues around recycling and then ultimately partnering with business to find solutions for materials that could be repurposed, diverted, or reused by others.

Proposed New Waste Reduction/ Recycling Strategies for 2018-2023

Four new strategies proposed in 2018 focus on Industrial, Commercial and Institutional ICI Recycling, Multi-Family Dwellings, Food Diversion and Organic Waste, and Away from Home and Special Events. Based on local strategies developed in surrounding counties, these strategies have a potential for impact and success to Tazewell County's Resource Recovery and Management Plan. Partnerships will be at the center of this work and will enable the region to move our production at a faster pace. McLean and Peoria Counties will be partners in this work and Tazewell County will make regular effort to coordinate on projects and initiatives where possible and appropriate.

Industrial, Commercial, and Institutional (IC & I) waste is the waste generated by all non-residential sources in a municipality and is excluded from the residential waste stream. This includes:

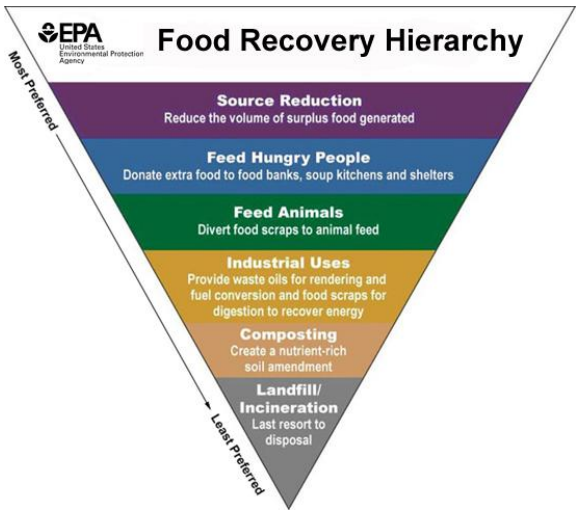
- Industrial waste, which is generated by manufacturing, primary and secondary industries, is managed off-site from the manufacturing operation, and is generally picked up under contract by the private sector;
- Commercial waste is generated by commercial operations such as shopping centers, restaurants, offices, etc. Some commercial waste (from small street-front stores, etc.) may be picked up by the municipal collection system along with residential waste;
- Institutional waste is generated by institutional facilities such as schools, hospitals, government facilities, nursing homes, universities, etc. This waste is generally picked up under contract with the private sector.

The economic benefits that are generated from residential recycling can also be generated from commercial recycling.

Organic and Food Waste Recovery-

Restaurants, warehouses, farms, home gardeners, distribution centers, and manufacturing facilities dealing with food and beverage goods all produce various types of organic and food waste. Common sources of these waste streams include the following:

- Products and ingredients near or past their expiration date
- Products with compromised or outdated packaging
- Products or ingredients that have become obsolete
- Materials that have been compromised in any other way that makes them no longer viable for sale
- Overabundance of products with no opportunity for sale



However, whether one-time projects or ongoing requirements, organic and food waste cleanouts often result in many organic waste materials going to landfill. This may be due to concerns over managing the logistics for safely recycling these materials, the cost or process of composting, lack of education, lack of resources to recover food for human consumption and potentially other endless reasons.

Companies may make poor assumptions that recycling is not a viable business solution for organic waste because of regulation by local public health.

Recycling **IS** a viable option. Outlets equipped to handle food recovery and composting are potentially available in central Illinois. Choosing recycling options for organic waste not only has a positive environmental impact, it may also result in reduced landfill costs and potential tax incentives for business.

Multi-family Unit

residents can generate a large amount of a community's residential waste, and they often desire curbside recycling collection. However, these residents are frequently left out of community curbside recycling programs because:

- ✓ the programs are generally for individual households and are not designed for multi-family dwellings
- ✓ local governments do not provide the waste hauling services to the complexes
- ✓ waste hauling services are usually provided by private haulers
- ✓ many multi-family buildings were never developed with recycling in mind
- ✓ complexes have little space in individual units and in common areas for the collection and storage of recyclables

Away from Home and Special Event Recycling

is a key component to maximizing our community's waste diversion efforts. Where else can we find the diverse populations in highly visited areas such as local nature parks, golf courses, sports stadiums and local annual events to provide opportunity and education towards recycling? These are highly visible areas where proper signage and container placement will provide even the most basic education in showing people "how to recycle" as well as maybe where their recycling locations or programs may be found. Simply put, these events provide the potential to touch the greatest amount of people in a very short time and quite possibly introducing what may be new ideas to those in attendance.

How does recycling promote a healthy community? As manufacturing activities and jobs continue to be outsourced, communities are struggling to add new, high-paying jobs to boost their local economies. To tackle this problem, some local governments are shifting their focus to developing creative economies in hopes that they will attract alternative, sustainable industries to the area.

One key indicator of a creative economy is recycling. A community's commitment to a cleaner environment is often considered to reflect its commitment to a higher quality of living. Recycling also attracts companies that reprocess recyclables and the suppliers who reuse these materials in their products. As EPA's *Recycling Economic Information Study (PDF)* (158 pp, 1701K, About PDF) points out, recycling industries not only offer higher paying jobs than the national average, they also prevent

communities from disposing of valuable commodities in landfills.
https://archive.epa.gov/region4/rcra/mgtoolkit/web/html/community.html

These initiatives will have outreach and education interwoven through each priority area. Targeted messages will be developed, and print materials and supportive curriculum will be developed to be used with municipal, industry, community, and school organizations.

Solid Waste Management as a term has grown to be outdated and will be dropped for outward communication. The programs formally known as Solid Waste Programs will now operate under Tazewell County Green Initiatives. This name takes into consideration what we are trying to emphasize to the public and carries the message of recycling as the lead strategy. A new logo has been created and will be used as the brand of the Tazewell County Green Initiatives Program.

ACTION PLAN

2018-2023

Institutional, Commercial, and Industrial Strategies to increase recycled material by 10% by 2021.

Gather baseline data to determine the amount of recycled materials from Tazewell County Institutions,

Provide a no cost technical assistance to businesses and institutions to maximize recycling, reuse, and food waste diversion opportunities.

Provide Waste audits to businesses and institutions:

- Evaluate existing waste streams
- Identify opportunities to prevent, recover, and divert waste
- Empower employees through education and training
- Create customized waste bin signage
- Conduct a cost analysis for starting or expanding a waste diversion program
- Connect with waste haulers and processors of recyclables and organics

Produce and distribute business recycling informational materials.

Coordinate a joint business recycling program.

Develop incentives for Apartment Buildings and Condominiums with 10 or more dwelling units to recycle.

As part of County construction and demolition permits, require that recycling be incorporated into the project.

- Schedule meetings with contractors and haulers to discuss and identify the issues and benefits of construction recycling.
- Initiate a construction debris feasibility study

Develop and evaluate a reporting system for waste diversion; develop alternatives for improvement, as necessary.

Identify emerging waste streams and by 2020 implement at least three sustainable material management practices that strengthen their respective market value.

Provide an opportunity for communities including law enforcement to develop a pharmaceutical take back program.

Develop at least one annual e-waste take back program.

Work with the IEPA to offer at least one tire collection program.

Develop and implement a pilot project to divert and dispose of food scraps within Tazewell County.

Develop a waste prevention/backyard composting publicity program.

Meet with farmers to evaluate agricultural reuse opportunities.

Develop and promote a home food composting program.

Develop and implement a special event recycling program.

Develop an educational program and school workshop to promote food scrap diversion and composting. Recycle fruit and vegetable scraps from school lunches and other organic material, like leaves and plant clippings, into nutrient-rich compost.

Develop a vermi-composting teacher workshop and offer training materials. Invite worms into the school.

Promote school sharing tables.

Promote Good Food Recovery and food donations.

Ensure adequate funding is available to continue to operate the Solid Waste Program.

Reevaluate the landfill tipping fee and budget annually.

Apply for the Illinois Counties Solid Waste Management Association grant opportunities, annually or as offered.

Apply for any IEPA solid waste grant opportunities, annually or as offered.

Develop a county policy that can be incorporated into the purchasing products and services which are less environmentally damaging when considering their whole life cycle.

Energy efficient computers

Office furniture from sustainable timber

Low energy buildings

Recycled paper

Cleaning services using ecologically sound products

Electric, hybrid or low-emission vehicles

Electricity from renewable energy sources

Create a reporting tool for communities to measure and communicate performance and increase residential and commercial recycling awareness.

Evaluate the waste disposal needs of the county and provide direction for future waste and recycling needs

By 2019, develop and implement a reporting tool that requires community grant recipients to report diverted recyclable material.

Continue to develop the Integrated Waste Management Advisory workgroup and hold semiannual meetings.

Provide solid waste education and awareness annually.

By 2019, develop and implement an educational program including access to beginning funding for multifamily dwellings to begin a recycling program

By 2019, conduct a waste diversion survey for commercial recycling. Develop a best practice educational program

Conduct community assessment for Groveland and North Pekin to incorporate at a minimum a drop off collection site if not a curbside recycling program.

By 2019, rebrand TCHD and the solid waste program as a better resource for recycling.

By 2020, develop a navigable website for solid waste that aims to preserve precious landfill space, conserve natural resources, save water and energy, and decrease pollution.

Provide public information annually on best practices that are identified throughout the plan and process.

Investigate a web-based recycling application for recycling information distribution.

2023-2028

Institutional, Commercial, and Industrial Strategies to increase recycled materials by 25% by 2028.

Assuming a successful pilot program, increase the Institutional, Commercial, and Industrial recycling rate by 25%.

Continue to provide technical assistance to businesses and institutions to maximize recycling, reuse, and food waste diversion opportunities, including waste audits.

Continue an Annual Business Recycling Forum

Require recycling in all apartment buildings and condominiums that contain 10 or more dwelling units.

Apartment and condominiums shall recycle the following materials including:

Plastic bottles, jugs

Metal Cans and Beverage Containers

Paper and Cardboard

Work with communities to require that all construction and demolition permits require that recycling be incorporated into the project.

Identify emerging waste streams.

Sustain the pharmaceutical take back program.

Develop household hazardous waste collection day using private contractors.

If feasible, continue to provide at least one annual:

E-waste take-back program
Tire collection program

Assuming a successful pilot program, evaluate and grow the food diversion and food scrap project.

Evaluate and continue to promote the special event recycling program.

Evaluate and continue to provide the educational program and school workshops to promote food scrap diversion and composting.

Ensure adequate funding is available to continue to operate the Solid Waste Program.

Reevaluate the landfill tipping fee and Environmental Service Fee annually.

Apply for the Illinois Counties Solid Waste Management Association grant opportunities, annually or as offered.

Apply for any IEPA solid waste grant opportunities, annually or as offered.

Evaluate county policy that incorporates into the purchasing products and services which are less environmentally damaging when considering their whole life cycle.

Create a reporting tool for communities to measure and communicate performance and increase residential and commercial recycling awareness.

Evaluate the reporting tool that requires community grant recipients to report diverted recyclable material.

Review and update the solid waste website that aims to educate on the status of preserving precious landfill space, conserve natural resources, save water and energy, and decrease pollution.

Continue regular meetings of the Waste Management Advisory workgroup. Assuming success of additional communities participating in a recycling program insure that the reporting tool is showing success of these communities.

Encourage recycling in communities that do not support a community drop off site

Evaluate the waste disposal needs of the county and provide direction for future waste and recycling needs.

Provide solid waste education and awareness annually.

Continue education and outreach for children, adults, and homeowners. Include education for all settings including schools, multi-family settings, and single-family rentals.

Evaluate waste surveys and determine if resurveys are needed to refocus on new trends in recycling and waste disposal.

Implement a web-based recycling application for recycling information distribution.

2028-2033

Develop Institutional, Commercial, and Industrial Strategies.

Mandated recycling rates *TBD* for *select* materials from communities receiving Curbside Grant Funding.

Research and determine the feasibility of implementing a mandatory community Pay As You Throw for MSW and Commercial Solid Waste

Provide continued funding of existing waste reduction and recycling programs and incentives for Commercial recycling/ MSW Landfilled

Increase paper and packaging recycling

Develop and/or expand programs directed at producer responsibility

Continued increase of commercial recycling and organics diversion

Possible mandating of major organic generators to compost within a ___ mile area of a Licensed Composting Facility offering incentivizing composting versus a punitive approach to have favorable outcomes for commerce as well as SW Management.

Identify emerging waste streams.

Develop a home food waste take back program

Develop a permanent Electronics Recycling site within the county

Identify an area for disposal of Clean Construction and Demolition Debris (CCD)

Ensure adequate funding is available to continue to operate the Solid Waste Program.

Research and determine feasibility of a mandatory community Pay As You Throw for MSW and Commercial Solid Waste fees

Provide reporting tool for communities to measure and communicate performance and increase residential and commercial recycling awareness.

Evaluate the waste disposal needs of the county and provide direction for future waste and recycling needs

Provide solid waste education and awareness annually.

Solid Waste Education should be determined by the improvements and changes in waste diversion locally, regionally, and nationally and assess the current needs towards education based on current trends in recycling as well as projections to future markets and technology in recycling.

2033-2038

Evaluate the waste disposal needs of the county and provide direction for future waste and recycling needs

SOLID WASTE PLAN GOALS

For Years 2018-2023

GOAL 1	Decrease the amount of waste put into landfills and submitted through transfer station in Tazewell County.	
OBJECTIVE	By 2021, Increase the amount of waste recycled in Tazewell County by 10%	By 2021, decrease the amount of construction and demolition waste put into the landfills, by 10%
STRATEGY 1	Assist business to develop and implement recycling and waste reduction programs.	
STRATEGY 2	Provide technical assistance and waste audits to identify areas where recycling can result in cost reductions.	
STRATEGY 3	Encourage construction and demolition debris recycling by investigating the feasibility of incentives to contractors who are actively developing recycling opportunities for construction and demolition debris.	

GOAL 2	The County Will Identify and implement emerging methods for improved management and handling of all waste
OBJECTIVE	By May 2018, identify emerging waste streams and by 2020 implement at least 3 sustainable material management practices that strengthen their respective market value.
STRATEGY 1	Provide safe recycling and disposal options for special wastes that may pose harm to the environment and/or public health and safety. 1. Electronic waste 2. Pharmaceuticals 3. Household hazardous waste 4. Metals 5. Tires 6. Explore other options
STRATEGY 2	Promote Landscape Compost Waste Recycling 1. Promote bin sales 2. Partnering with local communities to encourage composting 3. Provide education in schools and community events and workshops 4. Encourage land application of landscape waste where composting opportunities are not feasible
STRATEGY 3	Maintain sufficient flexibility to allow adaptation of strategies in accordance with local resources and unanticipated changes, needs and opportunities.
STRATEGY 4	Develop partners for the above listed waste streams including Law enforcement

GOAL 3	Monitor and pursue available funding sources for the solid waste program.
OBJECTIVE	By November 30, 2021 ensure that adequate funding is available to continue to operate the Tazewell County Solid Waste Program
STRATEGY 1	Monitor and balance the major costs associated with the SW program 1. Staff and staff training 2. Program planning 3. Community grants 4. Prescription drop off sites
STRATEGY 2	Identify internal and external sources of funding 1. Tipping fees 2. State and federal grants 3. Private foundations 4. Non-profit foundations or organizations 5. Networking with other agencies
STRATEGY 3	More and better collaboration for funding

GOAL 4	The Solid Waste Plan shall identify the needs of the County by development and management of the elements necessary to accurately analyze the current waste and recycle volumes and formulate feasible solutions to increase recycle efforts while decreasing the volume of solid waste to local landfills.
OBJECTIVE	By May 2018, identify and implement by 2020 a reporting tool for communities to measure and communicate the performance of their residential recycling efforts while increasing commercial recycle awareness through Outreach by use of available media tools.
STRAGEGY 1	Develop a reporting system to monitor current recycle and solid waste trends. 1. Waste Haulers 2. Local Communities 3. Recycle/Waste /Landfill facilities 4. Enforce Host Agreements which require reporting. 5. More stringent guidelines for reporting when funding is provided.
STRATEGY 2	Promote Outreach and Educational tools for Recycle opportunities. 1. Work with Strategic Planning and use of internal TCHD quality control initiatives to increase awareness through an enhanced website capable of providing the ability to monitor activity. 2. Continued Involvement/interaction with local governments.
STRATEGY 3	Introduce recycle improvements options to Marquette Heights and North Pekin and other communities. 1. Assist communities in long term goals for to include recycle within those service agreements. 2. Material specific containers(glass) to provide the highest possible quality recycle materials minimize contamination to maximize diversion. 3. Recommendations for Recycle Totes to replace Bins.
STRATEGY 4	Regulation of grant money
STRATEGY 5	Collaboration

GOAL 5	The County will increase public awareness and participation through extensive community outreach and education programs.
OBJECTIVE	Develop and implement a solid waste education and awareness program focusing on waste diversion by annually beginning in 2018 and every year thereafter.
STRATEGY 1	Conduct educational events, presentations, and contests to promote waste reduction, reuse, recycling, buy-recycled & sustainability practices.
STRATEGY 2	Become a resource for solid waste information and best practices to be utilized by businesses, agencies, and the public.
STRATEGY 3	Utilize County social media platforms and other media to disseminate information related to waste reduction, reuse, recycling, buy-recycled and sustainability practices.
STRATEGY 4	Conduct routine community assessments to evaluate the progress of the solid waste education and awareness program.
STRATEGY 5	Community Surveys
STRATEGY 6	Rebranding to include TCHD as a better resource

Citing and Resource
https://www.ibisworld.com/industry-trends/market-research-reports/administration-business-support-waste-management-services/remediation/waste-collection-services.html

http://www.illinoisrecycles.org/wp-content/uploads/2014/10/2015-Waste-Characterization-Update-FINAL.pdf

[1]Conservatree / Environmental Planning Consultants (EPC)
http://conservatree.org/learn/SolidWaste/BestPracticesGuide021407.pdf

[2]Container Recycling Institute http://www.container-recycling.org/assets/pdfs/reports/2009-SingleStream.pdf

[3]Minnesota Pollution Control Agency https://www.pca.state.mn.us/sites/default/files/commingled.pdf

[4]Niagara Region Waste Management Advisory Committee (WMAC)
https://www.niagararegion.ca/government/committees/wmac/pdf/2013/single-and-dual-stream-recycling-presentation.pdf

[5]University of Wisconsin / United States Department of Agriculture (USDA) / Wisconsin Counties Cooperating (WCC) http://studylib.net/doc/18880735/single-stream-recycling---university-of-wisconsin

[6] http://www.pjstar.com/article/20151218/NEWS/151219360 Peoria Journal Star, By Steve Tarter, Journal Star City of Peoria reporter. Posted December 18, 2015 at 5:54 PM