Solid Waste Management Plan

2016

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OHIO EPA - DMWM

Logan County
Solid Waste Management District

LoganCounty SOLIDWASTE

Directed by the Policy Committee with the assistance of
District Staff and consultants and advisors.

JAZ environmental consulting

Howard S Weinerman

SOLID WASTE
APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AUG 16 2016
AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HERETO ATTACHED

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Appendices

Section I Introduction

A. Plan Approval Date, Counties in District, and Planning Period Length

1. Currently approved plan:

Date of approval:	March 15, 2010
Counties within District:	Logan
Years in planning period:	Sixteen

2. Plan to be implemented with approval of this document

Counties within district:	Logan
Reference Year for this Plan:	2013
Years in planning period:	Fifteen
Year 1 of planning period:	2016

B. Reasons for Plan Submittal

This update to the Logan County Solid Waste Management District's solid waste management plan (Plan Update) represents the District's quinquiennal update to its solid waste management plan as required by Ohio Revised Code (ORC) Section 3734.56. This Plan Update was prepared in accordance with ORC Section 3734.55(D) and as required by ORC Section 3734.56(A).

C. Process to Determine Material Change in Circumstances

While this Plan Update is written for a fifteen-year planning period, in accordance with ORC Section 3734.56(A), an amended plan will be submitted to the director every five years on or before the anniversary date of the approval of this Plan Update. Should a material change in circumstances occur within the District from those addressed in this Plan Update prior to the required update submission, the Board of County Commissioners may request the preparation of a draft-amended plan. The process used for determining when a material change in circumstances has occurred will be the following:

Criteria and Monitoring:
Waste Generation – Planning period waste generations are projected in Section V. A large increase or decrease in waste generation from these projections could result in a material change in circumstances. Increased waste generations could impair the ability of the facilities identified in the plan to adequately process District-generated waste. If the District can secure arrangements for managing the increase in waste generation at any other licensed and permitted solid waste management facility, then a material change in circumstances has not occurred. The District will annually monitor generation through commercial and industrial surveys and with Ohio EPA's *Annual District Report Review Form.* Slight increases will be noted, if however the increases become significantly larger than the projections described in Section V, the District will begin steps to ensure adequate disposal capacity. Slight decreases will be noted, if however the decrease becomes significantly larger than the projections described in Section V,

the District will ensure the changes in waste generation do not decrease disposal fee revenues such that the plan implementation is adversely affected. A significant change is defined as a thirty percent increase or decrease in the amount of solid waste that is disposed in landfills in any one year.

Capacity – Waste management methods identified in Section VI ensure proper disposal, processing, and management of solid waste generated within the District through the planning period. A capacity shortfall would not ensure adequate management of solid wastes and may be deemed a material change. The District will measure a capacity shortfall by an unexpected closure and/or a twenty percent or greater reduction in the ability to process or dispose of District waste of any facility currently used by the District that receives twenty percent or more of the District's waste stream. If, however the District identifies proper disposal, processing, and management methods capable of handling the capacity shortfall created then a material change in circumstances has not occurred. The District will annually monitor landfill capacity by obtaining copies of landfill annual reports from each landfill identified as accepting District waste.

Waste Reduction and Recycling - Strategies for waste reduction and/or recycling have many dependent factors. The District is committed to promote recycling; however, funding, markets, and District recycling needs may change. Strategies that cannot be implemented or need to be discontinued, which are not required to demonstrate State Plan Goals #1 or #2, may not be deemed as a material change in circumstances. The District will monitor any significant changes to strategies for waste reduction and recycling and significant delays in program implementation. A significant change to strategies for waste reduction and recycling is defined as the discontinuance or alteration of programs as provided in the Plan Update that prevents the District from implementing the Plan Update. A significant delay in program implementation is defined as a delay in implementing any scheduled program from the Plan Update that is greater than one year from the deadlines established in the Plan Update.

Revenues for Plan Implementation – Changes in the availability of funds for the District resulting in significant deviation in the implementation schedule of the approved plan could result in a material change. If the District can modify programs thus reducing costs while continuing to maintain compliance, then a material change in circumstances has not occurred. The District, in order to maintain budget solvency, reserves the right to adjust the amount of funds allocated to individual programs without causing a material change in circumstance.

A reduction in revenues that would initiate a review for a potential material change in circumstances is defined as either: a calendar year in which revenues received by the District are equal to or greater than twenty-five percent below the revenues projected for that year in this Plan Update; or a calendar year in which revenues received by the District are equal to or greater than fifteen percent below revenues received in the previous year. An increase in expenses that would initiate a review for a potential material change in circumstances is defined as either: a calendar year in which actual expenses exceed anticipated expenditures as projected in the Plan Update by ten percent; or a calendar year in which actual expenditures exceed expenditures from the previous year by $200,000 and the extra expenditures were unexpected. Any of the situations described in this paragraph have the potential to negatively impact the District's ability to fund planned activities.

The District Coordinator will annually prepare a financial report of revenues and expenses for the previous year to be discussed at the annual meeting with the Policy Committee.

Timetable and Notification

During the annual meeting with the Policy Committee, the Board of County Commissioners will review the previous year Annual District Report and any subsequent and substantial events. The Board of County Commissioners then has sixty days to determine whether a substantive change has occurred. Within these sixty days the Board may require the Policy Committee to provide additional data or reports to help with the determination. If it appears there has been a significant change in circumstances within thirty days after the Board of County Commissioners makes this determination, the Board shall notify Ohio EPA and direct the Policy Committee to prepare a Plan Update and proceed to adopt and obtain approval of the amended plan in accordance with ORC 3734.55 (A) through (C).

D. District Formation and Certification Statement

The Logan County Solid Waste Management District is an existing solid waste management district that was formed on March 9, 1989. The District has not undergone any reconfiguration since it was formed. Copies of resolutions pertaining to the formation of the District are included in Appendix A.

Appendix B contains all public notices as they appeared in the local newspapers publicizing hearings and comments for the Plan Update.

Copies of resolutions from municipal corporations, townships, and the Board of County Commissioners are included in Appendix C. Also included is the certification statement from the Board of Directors certifying ratification in accordance with ORC Section 3734.

E. Policy Committee Members

Name	Representing
John Bayliss	Commissions Designee
Victor Klingelhofer	Township Trustee
Mayor Ben Stahler	City of Bellefontaine
Robert Bottom	Generator Representative
Scott Coleman	Public Interests Representative
Spencer Reames	Citizens Interests Representative
Dr. Boyd Hoddinott	Health District

At the time this Plan Update was prepared, Commissioner John Bayliss was the chairperson of the District's policy committee.

F. Board of County Commissioners

John Bayliss, President
Tony Core
Dustin Wickersham

G. District Address and Phone Number

Contact: Angel Payne, District Coordinator
Location: 1100 S. Detroit Street
Bellefontaine, Ohio 43311
Telephone: (937) 599-1253
FAX: (937) 599-3217

E-mail: angel@logancountyrecycles.com

Web Page: http://www.logancountyrecycles.com

H. Technical Advisory Committee and Other Subcommittees

A technical advisory committee was not utilized for this Plan Update.

During this plan period, three or more Technical Advisory Committee(s) (TAC) may be convened by the Policy Committee to monitor and advise the Board of Directors on matters relating to fee implementation, Education, Zero Waste achievements, and development of single stream recycling. The Board will consider the input of these TACs in determining the appropriate level of rate changes, outsourcing education, meeting goals and funding. TAC will consider each of the following: finances, technology and education. TACs will be convened on as-needed basis and will meet as often as they see fit considering the issue and the timeframe to offer advise. A report will be issued at the conclusion of the assigned tasks.

Member	Suggested TAC Involvement
Spencer Reames	Education
Dr. Boyd Hoddinott Robert Bottom	Technology
Scott Coleman27 Mayor Ben Stahlman, or representative	Finance

Section II Executive Summary

House Bill 592, which became effective on June 28, 1988 required the Director of Ohio EPA, with the advice of the Solid Waste Management Advisory Council (SWAC) to establish a state solid waste management plan. The legislation also required boards of county commissioners of all of Ohio's counties to form solid waste management districts, either individually or in conjunction with other boards of county commissioners. The Logan County Solid Waste Management District (District) was formed as a single county district on March 9, 1989. The primary responsibility of solid waste management districts is to prepare, ratify, and implement a solid waste plan that ensures residents have access to adequate solid waste disposal capacity and implement programs to reduce the reliance on landfills.

The District's first solid waste management plan (locally written) was approved by the Director of Ohio EPA on December 18, 1991. The District has since had three updates; the second was approved on December 24, 1996; the third on December 28, 2005; and the fourth on March 15, 2010.

The District's plans were written to demonstrate Logan County, consisting of approximately 45,369 residents in just over 18,000 households, has adequate capacity for disposal and landfill reliance is reduced. The original plan levied a three-tier disposal fee on the two in-district landfills, one of which closed in 1993. Funds derived from these fees were intended to finance implementation of solid waste programs.

The solid waste management system is conventional with source reduction, recycling, composting, and landfilling methods for managing waste. The initial plan provided for subsidies for recycling collection and processing facilities to build infrastructure and complete projects. As needs and demands for services changed the District made necessary changes to provide long-term financial stability.

A. Status of Implementation under the solid waste management plan approved on March 15, 2010

The 2010 Plan was prepared to demonstrate compliance with the eight goals of the *2001 State Solid Waste Management Plan* (*2001 State Plan*). The *2001 State Plan* established the following goals:

- Goal 1: Ensure the availability of reduction, recycling, and minimization alternatives for municipal solid waste (also known as the "Access Goal")
- Goal 2: Reduce and/or recycle at least 25% of the residential/commercial solid waste and 66% of the industrial solid waste generated by each SWMD
- Goal 3: Provide informational and technical assistance on source reduction
- Goal 4: Provide informational and technical assistance on recycling, reuse, and composting opportunities
- Goal 5: Provide strategies for scrap tires, yard waste, lead-acid batteries and household hazardous waste
- Goal 6: Evaluate the feasibility of incorporating economic incentives into source reduction and recycling programs
- Goal 7: Market development strategy (optional)
- Goal 8: Annual reporting of plan implementation

The District vision is to develop a self-sufficient and sustainable comprehensive integrated waste management system that ensures highly effective waste and recycling programs/services. To make this vision come to fruition the District needed to redevelop and align services with this vision. A new plan was needed to reduce the environmental footprint and improve material efficiency while fostering local businesses. In March 2007, the Logan County Commissioners adopted a Zero Waste Plan. Adoption of this plan embarked the District on a journey to expand recycling programs, increase participation in those programs, improve regional recycling and composting opportunities, encourage others to develop innovative and effective methods of waste reduction, develop incentives to move public and private interests toward Zero Waste methodologies, and educate to encourage attitudes and behaviors toward green purchasing, resource conservation, and recycling.

The 2010 Plan redesigned and transformed the recycling collection, storage, and processing infrastructure to allow for more diversion of materials. The redesigned infrastructure provided more opportunities, reduced collection transportation, increased materials captured, and provided community ownership. A specific objective under the 2010 Plan was to develop self-sustaining programs to balance the long-term needs for conservation in Logan County and to implement those programs in a cost-effective manner to satisfy the growing desire by local communities to reduce the fees and charges necessary to implement these programs.

The people and businesses in Logan County have been recycling for decades and continue to demonstrate residential/commercial recycling of rates far in excess of the State 25 percent goal and industrial recycling in excess of the State 66 percent goal.

B. Solid Waste Management Plan Update

This 2016 Plan Update, like the District's Approved Plan, is prepared to demonstrate compliance with the eight goals of the *2001 State Solid Waste Management Plan* (*2001 State Plan*).

Ohio law requires SWMDs to complete solid waste management plan updates consistent with a format that is prescribed by Ohio EPA. With the exception of a few deviations that were made to accommodate the requirements of the *2001 State Plan*, this Plan Update follows Ohio EPA's *Solid Waste Management Plan Format* (*Format*), version 3.0. The *Format* requires specific narrative information and data tables. There are nine major sections to the *Format*. These sections are as follows:

- Section I - includes basic information about the District
- Section II – is an Executive Summary and includes brief narrative descriptions of each section in the Plan Update.
- Section III - includes an inventory of facilities, activities, and haulers used by the District to manage waste in the reference year (2013).
- Section IV - includes the reference year statistics for the Plan Update including population data, waste generation and waste reduction estimations for the residential/commercial sector and the industrial sector. Section IV also contains detailed descriptions of the recycling and waste reduction programs that were offered by the District in the reference year.

- Section V - includes projections of population, waste generation and waste reduction for each year of the planning period. Section V also contains detailed descriptions of the recycling and waste reduction programs that will be offered by the District throughout the planning period.
- Section VI - includes the District's anticipated strategy for managing the waste that is projected to be generated throughout the planning period.
- Section VII – presents the demonstration of the progress the District will make towards meeting Goal #1 and Goal #2 of the *2001 State Plan*.
- Section VIII - includes a presentation of the financial resources of the District as well as the projected expenditures that the District will make during the planning period.
- Section IX –addresses the District's authority to adopt rules

This Executive Summary provides an overview of each section of the Plan Update.

C. Narrative Description of Sections III - IX

Section III - Inventories

Section III identifies the existing waste reduction and waste disposal services operating in the District. Waste source reduced, recycled, composted, incinerated, and disposed are measured to establish a basis for planning period projections. In addition all existing solid waste disposal, recycling and transfer facilities used by the District are identified. The reference year for this plan update is 2013.

Eighteen haulers and two public sector haulers operated in the district in 2013 and hauled waste to seven Ohio landfills and three out of state facilities. Over 90 percent of the District's landfilled waste was disposed in the only in-district landfill, Cherokee Run Landfill. Four transfer facilities reported receiving over 4 percent to transfer.

The District has an extensive residential recycling program with three pay-as-you-throw (PAYT) non-subscription curbside recycling programs and fifteen (as of year 2013) drop-off recycling programs. All curbside programs are serviced by private haulers utilizing a dual stream: fibers and commingled. Curbside programs use curbside container bins. Drop-off recycling centers are serviced by the District 's own hauling vehicle. Roll-off containers (33-yard) are used for collection of fiber (cardboard is collected in smaller separate containers) and commingled. The drop-off recycling centers also accept household batteries. Curbside recycling programs collected 785 tons and drop-off programs collected 1,969 tons of recyclable material. Approximately 75 tons of household hazardous waste, batteries, used oil, electronics, used paints, scrap tires, and mercury were accepted at the Center for Hard to Recycle Materials (CHaRM). Other recycling occurred through yard waste services and private companies/businesses. Yard waste facilities reported composting 2,636 tons of yard and food waste in 2013.

Commercial businesses had the opportunity to recycle at the drop-off recycling centers or with private sector service providers. Private sector service providers also service the industrial sector.

The District operates a dual stream (fiber and commingled) recycling processing center. Over 3,500 tons were processed through the facility in 2013.

Section IV – Reference Year Waste Population, Waste Generation, and Waste Reduction
Section IV outlines all reference year parameters for use in Section V to project and estimate planning period waste generation, disposal and reduction. Section IV gathers population data, making adjustments if needed; calculates waste generation, using various methods and determines the best representative for the District; assesses waste reduction and recycling data; and compares reference year information to historical trends or alternative estimated methodologies.

Reference year population for Logan County was taken from projections provided by the Ohio Policy Research and Strategic Planning Office. Estimated population for Logan County is 45,481; however, one village within the District has population residing in another solid waste district. In these circumstances Ohio law requires the district containing the largest portion of the jurisdiction's population to include the entire population of the municipality. After adjustments, Logan County's population is 45,369.

Residential/commercial waste generation in the reference year was calculated by adding together recycling data obtained through the survey that was conducted for this Plan Update and waste disposal data obtained from the annual reports submitted by waste management companies. Using this methodology, residential/commercial waste generation was determined to be 50,138 tons in 2013, or a per capita generation rate of 6.06 pounds/person/day.

Industrial waste generation was calculated by adding together the recycling data obtained during the survey with waste disposal data obtained from landfill and transfer facility annual operating reports. Industrial generation was determined to be 56,867 tons.

Exempt waste generation was determined from annual reports submitted to Ohio EPA by waste disposal companies. In 2013, owners and operators of landfill facilities reported receiving 6,364 tons.

Programs implemented under the 2010 Plan matured and achieved greater diversion of waste. The three curbside "pay as you throw" programs (Bellefontaine, Lake Township, and West Liberty) progressed. Public and private partnerships supported the recycling programs, systems, and facilities.

The most extensive programming change was the re-development of the drop-off recycling programs into economically viable and sustainable systems. These centers should thrive regardless of changes in outside support or municipal budgeting priorities. A total of 20 centers were planned but was reduced to 16 (the 16th site was being constructed in 2014 with plans for opening in 2015) distributed throughout the county.

The second extensive program change was the purchase and remodeling of a warehouse for recovering and processing of recyclable materials in a dual-stream. The warehouse purchase showed a commitment to build an infrastructure contributing to the community and optimizing service costs.

The District also developed a permanent drop-off center accepting hard to recycle materials. The center bridges the gap between materials not accepted at point of sale for proper recycling or disposal methods.

The 2010 Plan implemented a huge transformation in the District's infrastructure. Implementing the infrastructure changes were time-consuming and had a few hiccups in areas of construction. In the end, the notable concern was the large debt incurred. However, the changes have been effective with documented increased recycling and decreased waste disposal.

Total residential and commercial waste reduction achieved from all recycling activities (curbside, drop-offs, fiber collection, special collection, composting, and private recycling) is 24,785 tons. Industrial waste reduction is reported as 52,299 tons.

Section V – Planning Period Projections and Strategies

Section V contains projections for each year of the planning period for population, waste generation, recycling, and waste disposal. Section IV reconciled data serves as the base for all projections. Districts must establish a planning period which extends a minimum of ten years into the future, and provide strategies to meet waste management needs for the set planning period. The first year of this Plan Update's planning period is 2016 to extend sixteen years to 2031. Ohio Revised Code Section 3734.56 require solid waste management plan updates to be prepared and submitted every 3 or 5 years, depending upon whether the plan covers a planning period of less than 15 years or 15 or more years. This Plan Update extends 15 or more years and thus will be updated again by the District in 5 years.

For planning period projections the District reviewed historical data trends for waste disposal and recycling as well as considered projections and trends from Ohio Department of Job and Family Services. For the residential/commercial sector the most representative projections came from historical data trends. Based on historical trends the County is expecting to see a 0.12 percent annual decrease in waste generation decreasing residential/commercial waste generation to 49,007 tons by the end of the planning period. The industrial sector projections were based on Ohio Department of Job and Family Services predictions of manufacturing employment declining. A 0.01 percent per year decrease is projected for industrial generation. Industrial sector end of the planning period waste generation is projected to decrease to 56,764 tons. Total District waste generation is predicted to decrease to 112,135 tons.

Section V further evaluates the status of the programs and strategies (presented in Section IV) implemented under the 2010 Plan for future growth or changes to meet the needs of the District's goals. Many paths can be taken to achieve Zero Waste. The District has already re-developed the infrastructure and will move forward in this plan update to explore program options to continue to move towards Zero Waste. Specific program focii outlined for this 2016 Plan Update include:

- Encourage waste prevention, reduction, and reuse opportunities
- Continue CHaRM for collecting hard to recycle materials
- Continue effective and efficient management and operation of recycling services
- Continue to incentivize recycling
- Continue pilots and research to expand multi-family housing opportunities for recycling

- Explore alternatives for managing organic wastes
- Enhance illegal dumping and litter enforcement programs
- Emphasize education and outreach with schools, teachers, youth, and adults

As opportunities arise the District will work to encourage waste prevention, reduction, and reuse. The District will use the website to reach out to the public and will develop training materials targeted to generator sectors. Reuse centers will be promoted and encouraged.

CHaRM will continue to serve the community in handling hard-to-recycle materials.

Management and operation of recycling services will continue to be evaluated for effectiveness and efficiency continually striving for optimizing the services and increasing material recovery. Many communities outside of Logan County are implementing single-stream recycling programs with demonstrated success in increased diversion and participation. This plan will weigh the pros and cons of dual versus single stream working with the service provider to continue to frame the best program.

To continue success towards Zero Waste an incentive and penalty approach will be utilized. A financial incentive system will continue for residential drop-off and curbside communities using metrics to reward or penalize. Businesses and industry waste assessments will continue to be offered. A focus will be placed on right-sized services so that customers are not over-charged or that service frequency matches the needs.

Multi-family housing recycling will be approached to educate management and housing residents on benefits. The pilot program conducted demonstrated financial incentives in reduced waste disposal fees and proved a system was feasible. The District will explore an awareness campaign and assist to expand to a full-scale program.

Achieving diversion of organic materials will involve the inclusion of many collection and processing opportunities. New and old technologies will be explored to maximize the highest and best use practices for handling organics.

The District will coordinate with other departments to prioritize litter and open dumping issues. The District will explore public education campaigns, stronger enforcement policies, and special event ordinances.

An emphasis will be placed on education to provide schools, teachers, youth, and adults a well-rounded program that complements the planned strategies and provides residents with information to assist them in making wise environmental choices. The District will also continue a focus on community outreach initiatives to foster greater communication on waste and recycling issues throughout the county.

Residential/commercial and industrial sector recycling is expected to increase through the planning period.

Section VI – Methods of Management: Facilities and Programs to be Used

Section VI demonstrates the available methods for managing waste generation throughout the planning period. The District demonstrates how generated waste will be recycled, composted, transferred, and disposed in the reference year and throughout the planning period. Demonstrating disposal capacity is a key requirement of local solid waste management plans. The District demonstrates sufficient capacity available for waste disposal.

Waste generation was determined from recycling plus disposal data. Generation was projected (as described in Section V) to decrease for the residential/commercial sector and industrial sector throughout the planning period. Total projected capacity needed for each management method for the entire planning period is:

Recycling:	1,230,589 tons
Transfer:	22,477 tons
Composting:	42,203 tons
Landfilling:	535,945 tons

Of the waste generated in 2013, the District recycled 66 percent, composted 2 percent, and disposed 32 percent. Throughout the planning period the District is expecting to manage generated waste through these same management methods at roughly the same percentages. Using the estimates for waste disposal the District performed a regional capacity analysis to demonstrate adequate disposal capacity.

During the 2013 reference year, nine landfills including the in-district landfill managed 36,284 tons of solid waste generated by District residents, businesses, and industries. The sole landfill within the District managed 32,741 tons or 90.2 percent of waste landfilled. The eight landfills located outside the district but within Ohio, managed 1,627 tons or 4.5 percent of waste landfilled. Ohio landfills accepting district waste had over 96 million cubic yards of remaining permitted capacity as of January 1, 2013.

Over the sixteen-year planning period, the District will need disposal capacity for an estimated 1,607,836 cubic yards.

Section VII – Measurement of Progress Toward Waste Reduction Goals

The *2001 State Plan* establishes eight goals districts are required to achieve in their solid waste management plans. These goals are intended to further recycling and waste minimization within the District. However, Goals #1 and Goals #2 are considered primary goals when evaluating a District's plan for compliance with the *State Plan*. Section VII of the *Format* determines the progress towards Goal #1 and Goal #2.

The *2001 State Plan* mandates the Logan County Solid Waste Management District comply with either Goal #1 or Goal #2 in order to obtain an approved solid waste management plan. Solid waste management districts are encouraged to attempt to demonstrate compliance with both goals of the *2001 State Plan* but are required to demonstrate compliance with only one goal or the other.

This Plan Update demonstrates compliance with both Goal #1 and #2. Goal #1 requires the District to provide infrastructure access for at least 90 percent of its residents, evaluate its waste recycling rate, and ensure commercial/institutional generators have access to recycling

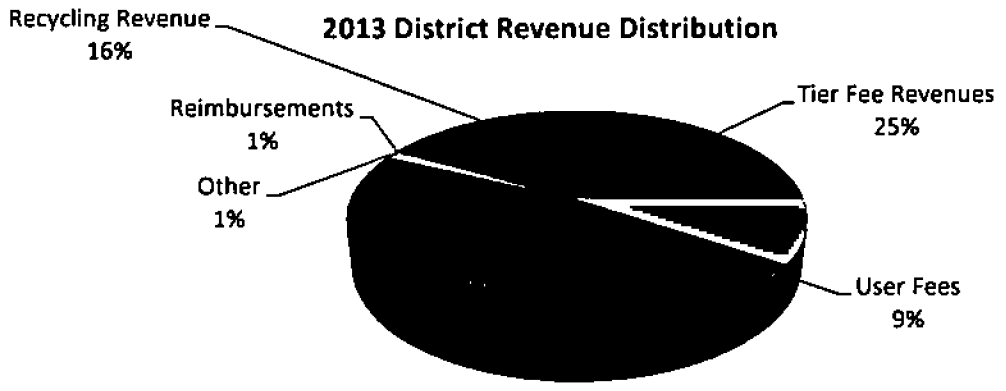
opportunities. The District must also demonstrate that outreach and education programs are in place. Goal #2 requires the District to reduce and/or recycle at least 25 percent of the solid waste generated in the residential/commercial sector and at least 66 percent of the solid waste generated in the industrial sector.

The Logan County service area has a population of 45,369 in 2013. The total access credits for reference year programs totaled 58,307 residents resulting in over 100 percent of the population having access to recycling opportunities. The District is providing access via three PAYT non-subscription curbside and fifteen drop-off locations. Access will increase by year 2016 due to the addition of an additional rural full-time drop-off location. The minimum five materials accepted are cardboard, paper, newspaper, glass containers, steel containers, aluminum containers, and plastic containers.

The waste reduction rate for the residential/commercial sector in the year 2013 was 49 percent. The waste reduction rate is above the state target of 25 percent. The waste reduction rate for the industrial sector in the year 2013 was 92 percent. The waste reduction rate for the industrial sector is above the state target of 66 percent.

Section VIII – Cost and Financing of Plan Implementation

Section VIII presents the revenues and expenses associated with the District's financing of plan implementation. The District's existing fee structure is: $1.00 per ton of solid waste that is generated within the District and disposed at a solid waste landfill located within the District; $2.00 per ton of solid waste that is generated outside the District but within Ohio and disposed at a solid waste landfill located within the District; and $1.00 per ton of solid waste that is generated outside of Ohio and disposed at a solid waste landfill located within the District. Upon approval of this plan update, the fee structure will be $1:$3:$1 until 2026 when it will modify to $1:$2:$1. The District will rely on waste disposal fees, revenue share, user fees, grants, and miscellaneous income for revenue. The distribution of revenues for the reference year is shown in Figure II-1, "Summary of Revenues in 2013" below:



Section IX – District Rules

This Plan Update does not prepare or adopt any rules. However, the District is authorized to adopt rules in accordance with and pursuant to Division (F) of Section 343.01 of the ORC and Division (C) of Section 3734.53 of the ORC, to the extent any such rules are determined by the

Board from time to time to be necessary or desirable to implement any provision or to accomplish any objective of this solid waste management plan.

Table ES-1 General Information

District Name: Logan County Solid Waste Management District		
District ID #:	**Reference Year:** 2013	**Planning Period:** 2016-2031
Plan Status: For Public Comment 12/2015		**Reason for Plan Submittal:** Five-year plan update

Table ES-2 District Coordinator

Name: Angel Payne		
Address: 1100 S. Detroit Street		
City: Bellefontaine	**State:** Ohio	**Zip:** 43311
Phone: (937) 599-1253	**Fax:** (937) 599-3217	

Table ES-3 Plan Data Summary

.		Reference Year	2016	2031
Population:		45,369	45,656	44,346
Generation	Industrial	56,867	56,850	56,764
	Res/Comm	50,138	50,455	49,007
	Exempt	6,364	6,364	6,364
	Total:	113,368	113,668	112,135
Waste Reduction	Industrial SR	-	-	-
	Ind. Recycling	52,299	52,299	53,354
	R/C SR	-	-	-
	R/C Recycling	22,283	22,029	27,088
	MSW Composting	2,502	2,540	2,737
	Incineration	-	-	-
	Ash Disposed	-	-	-
	WR Total	77,084	76,868	83,180
Disposal*	LF-in-District	32,741	33,207	26,150
	LF-out-of-District	3,543	3,594	2,805
	LF-out-of-State	-	-	-
	Total LF	36,284	36,800	28,955
WRR*		68%	68%	74%

*Includes exempt waste.

Table ES-4 Existing Disposal Facilities

Name	County	District tons	2016 Total tons	Years Left
Cherokee Run Landfill	Logan	32,741	33,207	41.5
Celina Sanitary Landfill	Mercer	8	8	6.9
Wood County Landfill	Wood	2	2	12.9
Beech Hollow Landfill	Jackson	3	3	47.1
Hancock County Landfill	Hancock	26	26	34.5
Stony Hollow Inc	Montgomery	1,479	1,500	20.8
County Environmental of Wyandot	Wyandot	1,466	71	150.9
Franklin County Sanitary Landfill	Franklin	21	21	24.9
Crawford County Sanitary Landfill	Crawford	18	18	10.5
Indiana Landfills	-	1,916	1,944	n/a

Section III Inventories

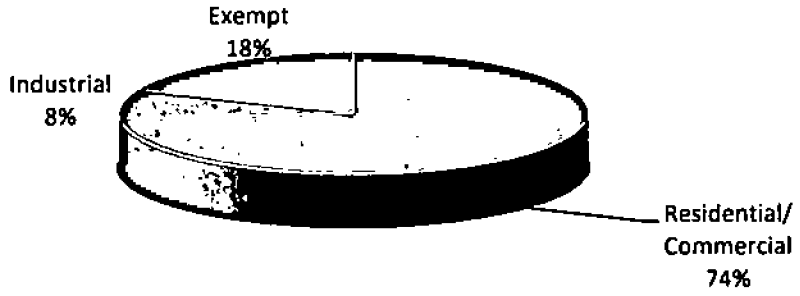
A. The Reference Year

The reference year is the calendar year represented by data collection efforts for new surveys conducted for a solid waste management plan update. The *Format* requires that the reference year be the calendar year prior to the year preparation of the solid waste management plan update. Preparation of the Plan Update began in 2013. Consequently, 2013 was selected as the reference year, and all survey efforts were performed to collect data for 2013.

B. Existing Solid Waste Landfills

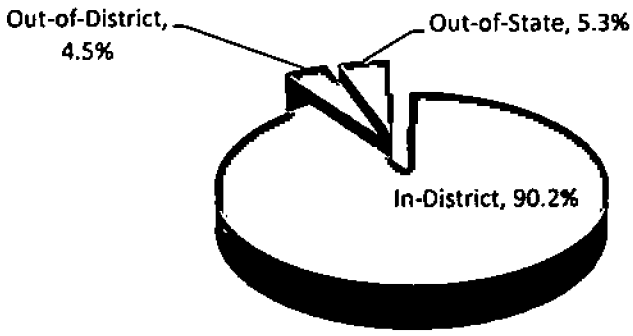
The District disposed 34,357 tons of waste in landfills. The majority of waste disposal is residential/commercial as shown in Figure III-1, "Landfilled Waste Distribution Per Sector".

Figure III-1 Landfilled Waste Distribution Per Sector



Less than 5% of waste disposal went to out-of-district facilities. The majority of waste disposal is disposed in the only in-district landfill, Cherokee Run Landfill, as shown in Figure III-2, "Landfilled Waste Flow".

Figure III-2 Landfilled Waste Flow



The Cherokee Run Landfill is a privately owned publicly available municipal solid waste landfill. Cherokee Run Landfill received a vertical expansion in 2011 and plans to begin construction once the vertical space in the existing permitted footprint is filled.

Table III-1, "Landfills Used by the District" identifies landfill facilities that accepted District waste for disposal. As shown on the table, a few transfer stations are also identified. In cases where waste is hauled through a transfer facility, the county of origin is not recorded. This means a load of trash disposed in a landfill from a transfer facility could have waste mixed from several counties. When a transfer facility hauls to more than one landfill, it becomes difficult to track which landfill received a county's waste. For planning purposes the waste hauled through transfer facilities is listed separately.

Information in this section was obtained from Facility Annual Operation Reports for 2013.

Table III-1: Landfills Used by the District

Facility Name	Type of Landfill	Location		Waste Received from the SWMD (TPY)				Remaining Capacity at 2013 year end		
		County	ST	Residential/ Commercial	Industrial	Exempt	Total	Years	Airspace (cu yds) Gross	Net
In-District Landfill Facilities										
Cherokee Run Landfill	PA, PO	Logan	OH	23,790.99	2,655.11	6,278.20	32,724.30	41.5	19,091,997	14,636,870
In-District Transfer Facilities										
none	n/a	n/a	n/a	0.00	0.00	0.00	0.00	n/a	n/a	n/a
Out-of-District Landfill Facilities										
Celina Sanitary Landfill	PA, PO	Mercer	OH	1.71	0.00	6.55	8.26	6.9	624,611	412,243
Wood County Landfill	PA, PO	Wood	OH	2.00	0.00	0.00	2.00	12.9	763,784	396,022
Beech Hollow Landfill	PA, PO	Jackson	OH	3.00	0.00	0.00	3.00	47.1	28,288,500	19,716,450
Hancock County Landfill	PA, GO	Hancock	OH	26.32	0.00	0.00	26.32	34.5	5,817,101	4,123,171
Stony Hollow Inc.	PA, PO	Montgomery	OH	10.45	0.00	2.45	12.90	20.8	6,943,271	6,174,649
County Environmental of Wyandot	PA, PO	Wyandot	OH	0.00	0.00	70.20	70.20	150.9	21,141,861	24,028,797
Out-of-District Transfer Facilities										
Waste Management of Ohio Transfer and Recycling	PA, PO	Franklin	OH	20.50	0.00	0.00	20.50	n/a	n/a	n/a
Shelby County Transfer Station	PA, GO	Shelby	OH	17.00	0.00	0.00	17.00	n/a	n/a	n/a
Ohio - Lima Transfer Facility	PA, PO	Allen	OH	1,465.19	0.00	1.01	1,466.20	n/a	n/a	n/a
Delaware County Solid Waste TF	PA, GO	Delaware	OH	10.16	2.57	5.26	17.99	n/a	n/a	n/a
Out-of-State Facilities										
EQ Industrial Services Processing Facility	PFO	Marion	IN	5.54	0.00	0.00	5.54	n/a	n/a	n/a
Indianapolis Resource Recovery Facility	INP	Marion	IN	0.00	1,910.40	0.00	1,910.40	n/a	n/a	n/a
Medassure of Indiana Treatment Facility	MWP	Marion	IN	0.30	0.00	0.00	0.30	n/a	n/a	n/a
Totals				**25,353.16**	**4,568.08**	**6,363.67**	**36,284.91**			

Source: 2013 Annual Facility Operational Reports and 2013 Ohio EPA Facility Data Tables

Notes:

PA=Publicly Available; GO= Government Owned; PO=Privately Operated, C=Captive

Residential/Commercial waste includes asbestos and other
Exempt waste includes CD/D
Remaining life in years is based upon actual receipts, not AMDWR.
n/a - not applicable

C. Existing Incinerators and Resource Recovery Facilities

Table III-2, "Solid Waste Incinerators and Waste-to-Energy Facilities Used by the District", does not report use of incinerators or resource recovery facilities to manage District waste.

Table III-2: Solid Waste Incinerators and Waste-to-Energy Facilities Used by the District

Facility Name	Type of Facility	Location		Waste Received from the SWMD (TPY)					Total Ash Produced (TPY)
				Waste Incinerated				Bypass Waste Received (TPY)	
		County	ST	Residential/ Commercial	Industrial	Exempt	Total		
In-District Facilities									
None	n/a	n/a	n/a						
Out-of-District Facilities									
None	n/a	n/a	n/a						
Out-of-State Facilities									
None	n/a	n/a	n/a						
Totals				0	0	0	0	0	0

D. Existing Transfer Facilities

Table III-3, "Solid Waste Transfer Facilities Used By the District", presents a listing of all transfer facilities.

Table III-3: Solid Waste Transfer Facilities Used by the District

Facility Name	Type of Facility	Location		Waste Received from the SWMD (TPY)				Recyclables Processed (TPY)	
		County	State	Residential/ Commercial	Industrial	Exempt	Total	Recovered from Waste	Total
In-District Transfer Facilities									
none	n/a	n/a	n/a	0.00	0.00	0.00	0.00	n/a	n/a
Out-of-District Transfer Facilities									
Waste Management of Ohio Transfer and Recycling	PA, PO	Franklin	OH	20.50	0.00	0.00	20.50	0.00	0.00
Shelby County Transfer Station	PA, GO	Shelby	OH	17.00	0.00	0.00	17.00	0.00	0.00
Ohio - Lima Transfer Facility	PA, PO	Allen	OH	1,465.19	0.00	1.01	1,466.20	0.00	0.00
Delaware County Solid Waste TF	PA, GO	Delaware	OH	10.16	2.57	5.26	17.99	0.00	0.00
Totals				1,512.85	2.57	6.27	1,521.69		0.00

Source: 2013 Annual Facility Operational Reports and 2013 Ohio EPA Facility Data Tables

Notes:

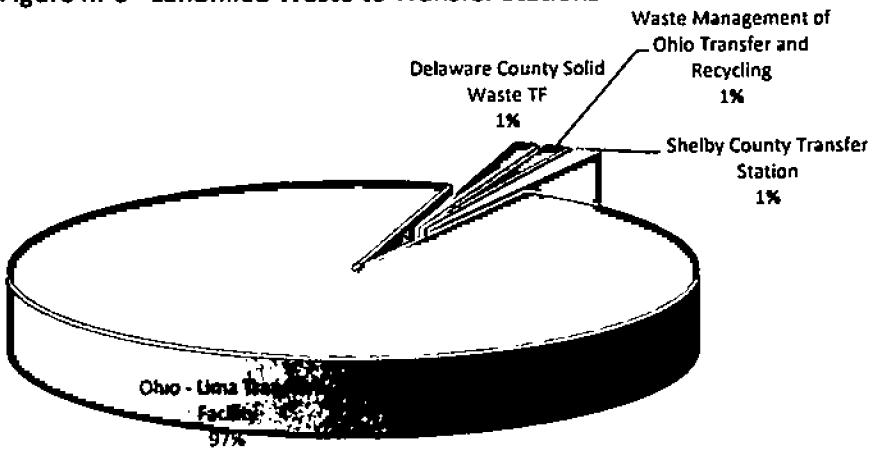
PA=Publicly Available; PO=Privately Owned; GO=Government Owned

Residential/Commercial waste includes asbestos and other

Exempt waste includes CD/D

Of the waste landfilled a small portion, approximately 1,522 tons of waste was transferred through four transfer facilities. Ohio – Lima Transfer Facility transferred the majority of waste. Figure III-3, "Landfilled Waste to Transfer Stations" depicts the transfer stations used and their respective market share.

Figure III-3 - Landfilled Waste to Transfer Stations



E. Existing Recycling Activities

In the District, residential recycling is managed through curbside or drop-off opportunities. In 2013, customers in three political subdivisions had access to curbside recycling. Table III-4, "Residential Curbside Recycling Activities Used by the District", shows the curbside recycling programs in 2013.

Table III-4: Residential Curbside Recycling Activities Used by the District

Curbside Recycling Name	Type of Curbside	# of Households Served[1]	Frequency of Collection	Average # of Households Participating	Service Area		Types of Materials Accepted	Recyclables Processed from the SWMD (TPY)
					County	Townships /Cities		
Bellefontaine PAYT/Curbside Recycling	NS	5,415	weekly	4,600	Logan	Bellefontaine	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL	659.39
Lake Township PAYT/Curbside Recycling	NS	5,124	weekly	230	Logan	Lake Township	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL	included with Bellefontaine's recyclable tonnages
Village of West Liberty PAYT/Curbside Recycling	NS	736	weekly	650	Logan	West Liberty	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL	126.00

Source:
2013 Annual District Report for District
[1]Number of Households Served: Ohio Policy Research and Strategic Planning Office "Housing Unit and Group Quarters Counts for Governmental Units, 2010" dated August 2011. Households = Housing Units Owned, Occupied.

Notes: Al = Aluminum, SC = Steel cans (tin/steel), Gl = Glass, ONP = Newsprint, Pl = Plastics, MxP = Mixed Other paper, OCC = Cardboard, Mag = Magazines, OffP = Office Paper, PBd = Paper Board, S = Subscription, NS = Non-subscription, DNR = Did Not Report

All three curbside programs are pay-as-you-throw (PAYT) non-subscription recycling programs. Non-subscription service provides curbside recycling to everyone in the community and PAYT varies the rate based on the amount of trash disposed. All three political subdivisions contracted recyclable collection services to a private hauler. The average number of households participating in this program varies from month to month for each community. Households participating are estimates provided by the private hauler. Table III-5, "Drop-offs, Buybacks, Hauler Collection, Other Recycling Activities and HHW Collection Used by the District", lists all reference year drop-off opportunities available in the District. Drop-off opportunities are collection containers scattered throughout the county where residents bring recyclables. The District had fifteen drop-off recycling centers.

There are some residential materials which can be recycled that logistically were not yet handled through curbside or drop-off opportunities. The District managed these materials through CHARM (Center for Hard to Recycle Materials) and yard waste opportunities.

Commercial and industrial recycling was managed through collection haulers, recyclers/processors, and scrap yards as also shown on Table III-5, "Drop-offs, Buybacks, Hauler Collection, Other Recycling Activities and HHW Collection Used by the District".

Table III-5: Drop-offs, Buybacks, Hauler Collection, Other Recycling Activities and HHW Collection Used by the District

Facility/Activity Name, Address, Phone	Type of Facility or Activity	Types of Materials Accepted	Service Area			Hours Available to Public	Recyclables Processed from the SWMD (TPY)	Processing Capacity (tons)		
			County	Townships/ Cities	Population Served			% of Material from Sector:	Daily (TPD)	Annual (TPY)
Commercial/Industrial Recycling Activities										
Commercial Business Surveys	C	commingled, mixed steel, aluminum, appliances, PL, MxP, OCC, ONP, OffP, food, batteries, oil, wood, textiles, tires, other	Logan	All Townships and Cities	45,481	N/A	22,760	100% C	DNR	DNR
Industrial Business Surveys	I	GL, aluminum, steel, PL, MxP, OCC, ONP, OffP, food, batteries, oil, tires, wood, textiles, stone/clay/sand, other	Logan	All Townships and Cities	45,481	N/A	52,299	100% I	DNR	DNR
Rumpke 1-877-786-7537	processor	ONP, MxP,OCC, PL, Wood	Logan	All Townships and Cities	45,481	N/A	328.5 35	Ind Com	DNR	DNR
Waste Management: Columbus	processor	OCC	Logan	All Townships and Cities	45,481	N/A	12	Ind	DNR	DNR
Dayton Glass Plant	processor	GL, Wood	Logan	All Townships and Cities	45,481	N/A	316	R/C	DNR	DNR
Sims Brothers Recycling 512 Plumvalley St Bellefontaine, Ohio 43311 www.simsbros.com	SY, BB	App, Auto, scrap metal, FE, NonFe, all paper, OCC, PL #1 and #2, GL, electronics	Logan	All Townships and Cities	45,481	M-F 8-4:30 Sa 8-12	7,436	100% R/C	DNR	DNR
Fiber Collection Program - Commercial and Institutional Recycling Assistance	private HC with District processing	OCC	Logan	All Townships and Cities	45,481	N/A	included with District processing numbers	100% C	DNR	DNR
Fiber Collection Program - County Government Recycling	District HC with District processing	OCC	Logan	All Townships and Cities	45,481	N/A	included with District processing numbers	100% C	DNR	DNR
Fiber Collection Program - Logan County School Cardboard and Paper Recycling	District HC with District processing	OCC, OffP, ONP, MxP, Mag, PBd	Logan	All Townships and Cities	45,481	N/A	included with District processing numbers	100% R/C	DNR	DNR

Table III-5 (Cont'd): Drop-offs, Buybacks, Hauler Collection, Other Recycling Activities and HHW Collection Used by the District

Facility/Activity Name, Address, Phone	Type of Facility or Activity	Types of Materials Accepted	Service Area			Hours Available to Public	Recyclables Processed from the SWMD (TPY)	Processing Capacity (tons)		
			County	Townships/ Cities	Population Served			% of Material from Sector:	Daily (TPD)	Annual (TPY)
Drop-off Programs, FS, Rural										
Belle Center Village PAYT Drop-off	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	Belle Center & Richland Twp	2,469	24 hours a day 7 days a week	124	100% R/C	DNR	DNR
DeGraff Village PAYT Drop-off	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	DeGraff Village & Miami Township	2,315	24 hours a day 7 days a week	148	100% R/C	DNR	DNR
East Liberty PAYT Drop-off	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	Perry Township	988	24 hours a day 7 days a week	97	100% R/C	DNR	DNR
Huntsville Village PAYT Drop-off	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	Huntsville & McArthur Township	2,014	24 hours a day 7 days a week	123	100% R/C	DNR	DNR
Lakeview Village PAYT Drop-off	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	Lakeview & Stokes Township	4,559	24 hours a day 7 days a week	192	100% R/C	DNR	DNR
Middleburg PAYT Drop-off	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	Zane Township	1,136	24 hours a day 7 days a week	84	100% R/C	DNR	DNR
Moundwood PAYT Drop-off	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	Washington Township	3,565	24 hours a day 7 days a week	116	100% R/C	DNR	DNR
Quincy Village PAYT Drop-off	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	Quincy & Miami Township	2,315	24 hours a day 7 days a week	69	100% R/C	DNR	DNR
Rushsylvania Village PAYT Drop-off	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	Rushsylvania & Rushcreek Twp	2,208	24 hours a day 7 days a week	62	100% R/C	DNR	DNR

Table III-5 (Cont'd): Drop-offs, Buybacks, Hauler Collection, Other Recycling Activities and HHW Collection Used by the District

Facility/Activity Name, Address, Phone	Type of Facility or Activity	Types of Materials Accepted	Service Area			Hours Available to Public	Recyclables Processed from the SWMD (TPY)	Processing Capacity (tons)		
			County	Townships/ Cities	Population Served			% of Material from Sector:	Daily (TPD)	Annual (TPY)
Russells Point PAYT Drop-off	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	Russells Point & Washington Twp	3,565	24 hours a day 7 days a week	107	100% R/C	DNR	DNR
West Liberty Village PAYT Drop-off	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	West Liberty & Liberty Township	3,405	24 hours a day 7 days a week	137	100% R/C	DNR	DNR
West Mansfield PAYT Drop-off	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	Bokescreek Twp	1,329	24 hours a day 7 days a week	97	100% R/C	DNR	DNR
Zanesfield PAYT Drop-off	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	Jefferson Twp	2,911	24 hours a day 7 days a week	11	100% R/C	DNR	DNR
Drop-off Programs, FS, Urban										
Bellefontaine PAYT Drop-off Campbell Hill	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	Bellefontaine	13,193	24 hours a day 7 days a week	150	100% R/C	DNR	DNR
Bellefontaine PAYT Drop-off S. Detroit Street	PA, DO	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	Logan	Bellefontaine	13,193	24 hours a day 7 days a week	452	100% R/C	DNR	DNR
Household Hazardous Waste Programs										
Center for Hard to Recycle Materials (CHaRM)	PA, DO	HHW, electronics, batteries ST, used paints, used oils mercury	Logan	All Townships and Cities	45,481	April-October M-F 8-4	75	100% R	DNR	DNR
Lead-Acid Battery Programs										
Center for Hard to Recycle Materials (CHaRM)	PA, DO	all batteries	Logan	All Townships and Cities	45,481	April-October M-F 8-4	3	100% R	DNR	DNR
MRFs										
Recycling Processing Center	processor PA	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL,	Logan	All Townships and Cities	45,481	M-F 8-4	3,738	100% R	NA	NA
Scrap Tire Programs										
Center for Hard to Recycle Materials (CHaRM)	PA, DO	ST	Logan	All Townships and Cities	45,481	April-October M-F 8-4	13	100% R	DNR	DNR

Table III-5: Drop-offs, Buybacks, Hauler Collection, Other Recycling Activities and HHW Collection Used by the District

Facility/Activity Name, Address, Phone	Type of Facility or Activity	Types of Materials Accepted	Service Area			Hours Available to Public	Recyclables Processed from the SWMD (TPY)	Processing Capacity (tons)		
			County	Townships/ Cities	Population Served			% of Material from Sector:	Daily (TPD)	Annual (TPY)
CNC Wholesale 1300 Erie St S Massillon, Ohio 44646	BR	ST	Logan	All Townships and Cities	45,481	N/A	4	100% R/C	DNR	DNR
Liberty Tire Service of Ohio 614-871-8097 grovecity@libertytire.com	BR	ST	Logan	All Townships and Cities	45,481	N/A	222	100% R/C	DNR	DNR
R & R Tire Disposal 2875 Baty Road Elida, Ohio 419-221-2320	BR	ST	Logan	All Townships and Cities	45,481	N/A	13	100% R/C	DNR	DNR
R Willig Tire Distributions Inc 1955 Firestone Pkwy Akron, Ohio 44301	BR	ST	Logan	All Townships and Cities	45,481	N/A	3	100% R/C	DNR	DNR
Rumpke Transportation Company LLC 513-851-0122	BR	ST	Logan	All Townships and Cities	45,481	N/A	78	100% R/C	DNR	DNR
Waste Management of Ohio 330-866-3265	BR	ST	Logan	All Townships and Cities	45,481	N/A	8	100% R/C	DNR	DNR
Yard Waste Programs										
Bellefontaine City Yard Waste Management North Co Rd 32 Bellefontaine, Ohio 43311	Class IV Compost	YW	Logan	Bellefontaine	13,193	N/A	677	100% R	DNR	DNR
Cherokee Run Compost Facility 2946 State Route 68 North Bellefontaine, Ohio 43311	Class IV Compost	YW, leaves, grass clippings prunings, brush, trees,	Logan	All Townships and Cities	45,481	N/A	156	100% R	DNR	DNR
New Day Farms, North - Pullet Farm 783 Co Rd 142 N West Mansfield, Ohio 43358	PUO Class III Compost	animal waste	Logan	N/A	N/A	N/A	559	100% R	DNR	DNR
DeGraff Village Leaf Collection	HC Class IV Compost	leaves, limbs from storm debris	Logan	DeGraff Village	1,270	N/A	0	100% R	DNR	DNR
Quincy Village Compost Facility 103 Logan St Quincy, Ohio 43343	Class IV Compost	YW, leaves, limbs from storm debris	Logan	Quincy Village	688	N/A	0	NA	DNR	DNR

Table III-5: Drop-offs, Buybacks, Hauler Collection, Other Recycling Activities and HHW Collection Used by the District

Facility/Activity Name, Address, Phone	Type of Facility or Activity	Types of Materials Accepted	Service Area			Hours Available to Public	Recyclables Processed from the SWMD (TPY)	Processing Capacity (tons)		
			County	Townships/ Cities	Population Served			% of Material from Sector:	Daily (TPD)	Annual (TPY)
West Liberty Village Curbside Yard Waste Collection and Compost Facility US 68 N West Liberty, Ohio 43357	Class IV Compost	YW, leaves	Logan	West Liberty	1,782	N/A	466	100% R	DNR	DNR
Ohio Hi-Point Career Center 2280 St Rte 540 Bellefontaine, Ohio 43311	Class III Compost	YW, leaves, animal care from their career classes	Logan	Career Center only	n/a	N/A	3	NA	DNR	DNR
Park Enterprise Construction Co Inc 560 Barks Road Marion, Ohio	Class IV Compost	YW, leaves, limbs Under 10" in diameter	Logan	All Townships and Cities	45,481	N/A	1,203	NA	DNR	DNR
Food Waste Hauler Data	HC	food waste	Logan	All Townships and Cities	45,481	N/A	134	NA	DNR	DNR
							9,650			

Source:
2013 Annual District Report for District

Notes:

R=Residential; C=Commercial; I=Industrial; PA = Publicly Available; DO = Drop off; BR=Broker; PUO=Private Use Only; BB = Buyback; HC = Hauler Collection; SY = Scrap Yard
AC=Aluminum Containers; GL=Glass Containers; PL= Plastic Containers; ONP=Old Newspaper; OCC=Corrugated Cardboard; SC=Steel Containers; PBd=Paperboard; LAB=Lead Acid Battery; Mag=Magazines; OffP=Office Paper; MxP=Mixed Paper; ST=Scrap Tires; App=Appliances; Oth=Nicad Batteries, Used Oil, Wood

DNR=Did Not Report

F. Existing Composting/Yard Waste Management Facilities

Table III-6, "Composting/Yard Waste Management Activities Used by the District" provides a listing of facilities that managed yard waste, animal wastes, and food waste generated by the County. Tonnages creditable for waste reduction is 2,502 tons of yard waste and 134 tons of food waste. Animal wastes are not creditable because they have traditionally never been disposed in a solid waste landfills. Information in this section has been obtained from Ohio EPA's 2013 Compost Facility Data Report.

Table III-6: Composting/Yard Waste Management Activities Used by the District

Facility Name or Activity	Facility Type	Location (County)	Tons Waste Received from the SWMD			Processing Capacity			Compost Produced (TPY)
			Food Waste	Yard Waste	Animal Ag & Other Waste	Daily (TPD)	Annual (TPY)	Non Compostable Landfilled (TPY)	
Bellefontaine City Yard Waste Management North Co Rd 32 Bellefontaine, Ohio 43311	Class IV	Logan	0	677.00	0.00	N/A	N/A	N/A	N/A
Cherokee Run Compost Facility 2964 State Route 68 North Bellefontaine, Ohio 43311	Class IV	Logan	0	156.20	0.00	N/A	N/A	N/A	N/A
New Day Farms, North - Pullet Farm 783 Co Rd 142 N West Mansfield, Ohio 43358	Class III	Logan	0	0.00	559.00	N/A	N/A	N/A	N/A
DeGraff Village Leaf Collection	Collection	Logan	0	0.00	0.00	N/A	N/A	N/A	N/A
Quincy Village Compost Facility 103 Logan St Quincy, Ohio 43343	Class IV	Logan	0	0.00	0.00	N/A	N/A	N/A	N/A
West Liberty Village Curbside Yard Waste Collection and Compost Facility US 68 N West Liberty, Ohio 43357	Class IV	Logan	0	466.00	0.00	N/A	N/A	N/A	N/A
Ohio Hi-Point Career Center 2280 St Rte 540 Bellefontaine, Ohio 43311	Class III	Logan	0	0.00	3.23	N/A	N/A	N/A	N/A
Park Enterprise Construction Co Inc 560 Barks Road Marion, Ohio	Class IV	Marion	0	1203.24	0.00	N/A	N/A	N/A	N/A
Food Waste Hauler Data	collection	N/A	134	0.00	0.00	N/A	N/A	N/A	N/A
Total Tons			134	2,502	562	N/A	N/A	N/A	N/A

G. Facilities Used by the District which are Located Outside Ohio

Facilities identified in Table III-7, "Facilities Used by the District which are Located Outside Ohio: Additional Data" was obtained from Ohio EPA.

Table III-7: Facilities Used by the District Which are Located Outside Ohio: Additional Data

Facility Name Type of Facility	Facility Mailing Address/Phone	Facility Owner Address/Phone	Facility Operator Address/Phone	Daily Waste Receipt Limit, (TPD)	Number of Days Facility Open/Year
EQ Industrial Services Processing Facility	2650 North Shadeland Ave Indianapolis, IN 46219 317-247-7160	2701 N I-94 Service Drive Ypsilanti, Michigan 48198 734-547-2542	2650 North Shadeland Ave Indianapolis, IN 46219 317-247-7160	N/A	N/A
Indianapolis Resource Recovery Facility	2320 S Harding St Indianapolis, IN 46221 317-634-7367	2320 S Harding St Indianapolis, IN 46221 317-634-7367	2320 S Harding St Indianapolis, IN 46221 317-634-7367	N/A	N/A
Medassure of Indiana Treatment Facility	1013 South Girls School Road Indianapolis, IN 46231 732-363-7444	1013 South Girls School Road Indianapolis, IN 46231 732-363-7444	1013 South Girls School Road Indianapolis, IN 46231 732-363-7444	N/A	N/A

H. Existing Open Dumps and Waste Tire Dumps

Table III-8, "Open Dumps and Waste Tire Dumps Located in the District" provides information about the open dumps and waste tire dumps in the District. This information was provided by the Logan County Health Department.

Table III-8: Open Dumps and Waste Tire Dumps Located in the District

Site Location (describe briefly)	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Land Owner Mailing	Description of	Approximate Size	Time Period Site
4971 CR 130 Huntsville	40.418597	-83.8011798	Randall Middaugh 4971 CR 130 Huntsville, Ohio 43324	scrap tires (over 100,000), commingled solid waste, CDD	3 acres	2 years

Source: Logan County Health Department

I. Ash, Foundry Sand and Slag Disposal Sites

There are no unpermitted or unlicensed foundry sand or slag disposal sites located in the District, or used by the District in the reference year. Table III-9, "Ash, Foundry Sand, and Slag Disposal Sites Used by the District", identifies no facilities. All permitted or licensed facilities are identified in Table III-1.

Table III-9: Ash, Foundry Sand, and Slag Disposal Sites Used by the District

Site Location (describe briefly)	Land Owner Mailing Address/Phone	Description of Materials Dumped	Approximate Size of Site (in acres)	Time Period Site has Existed
None				

J. Map of Facilities and Sites

A map of the District showing the location of each facility and disposal site listed in Section III.B through III.H is included in Appendix D. The commercial businesses and industries that participate in commercial and industrial recycling programs are not shown on this map. Including all such sites would congest the map. Additional information on any of these businesses or industries is available from the District.

K. Existing Collection Systems – Haulers

The list of haulers provided in Table III-10, "Solid Waste Haulers Operating in the District" includes transporters and service providers.

Table III-10: Solid Waste Haulers Operating in the District

Name of Hauling Company	Mailing Address Phone Number	Description of Collection Routes	Types of Materials Collected	Estimated Tons Collected from the District (TPY)	Name of Facilities Used by Hauler
Private Sector Haulers					
Allied	2946 US Rt 68 N Bellefontaine, Oh 43311	Entire County	refuse (commercial, industrial, residential, cd&d)	DNR	Cherokee Run Landfill
Best Way Disposal	100 Fox Dr Piqua, Oh 45356	Service to parts of Logan County	special waste	DNR	Cherokee Run Landfill
Ernest Carter	108 W. Buckingham Bellefontaine, Oh 43311	Service to parts of Logan County	refuse (commercial, residential)	DNR	Cherokee Run Landfill
Greyhound Hauling Express and Wolf Environmental	1209 Hill Rd N PMB 227 Pickerington, Oh 43147	Service roll-off boxes to all Logan County	refuse (commercial, industrial, residential, cd&d, special waste)	DNR	Cherokee Run Landfill and Lowendick's
Hemmelgarn Services Inc.	624 N Knoop-Johnston Rd Sidney, Oh 45365	Entire County	refuse, all types-mostly cd&d	DNR	Cherokee Run Landfill Bellefontaine Construction & Demo
Honest Scrap	PO Box 247 Lakeview, Oh 43311	Service around Lakeview area	refuse (residential)	DNR	Cherokee Run Landfill
J & N Haulers	2668 Co Rd 10 Ada, Oh 45810	Entire County	refuse (commercial, industrial, residential, cd&d)	DNR	Cherokee Run Landfill
Miller's Refuse	175 E. Elm St Box 174 Ridgeway, Oh 43345	DNR	DNR	DNR	DNR
Montgomery Co. Transfer	2550 Sandridge Drive Dayton, Oh 45439	DNR	refuse (haul into county)	DNR	Cherokee Run Landfill
Payne Refuse	221 Clagg Avenue Bellefontaine, Oh 43311	DNR	DNR	DNR	DNR
Phil Hostetler	7342 Lafayette-Plain City Plain City, Oh 43064	No service in County, haul into County	sludge	DNR	Cherokee Run Landfill
Premier Contractors of America	233 E. Court St Sidney, Oh 45365	DNR	DNR	DNR	DNR
R & J Trucking	2708 Lefferson Rd Middletown, Oh 45044	Entire County	refuse (commercial, industrial, residential)	DNR	Cherokee Run Landfill Rumpke
Roberts Refuse	1148 State Rt 55 Urbana, Oh 43078	Service to parts of Logan County	refuse (commercial, residential)	DNR	Cherokee Run Landfill
Rumpke	1191 Fields Ave Columbus, Oh 43201	Entire County	recyclables and tires	363.5 tons recyclables 78 tons tires	Rumpke
Soupy's Hauling	9152 Friend Rd DeGraff, Oh 43318	Service to parts of Logan County	refuse (residential)	DNR	Shelby County Transfer
Union Recyclers	15140 SR 36E Marysville, Oh 43040	DNR	DNR	DNR	Union Recyclers
Waste Management	1006 Walnut St Canal Winchester, Oh 43110	DNR	refuse (commercial, industrial, residential), recyclables, tires	12 tons recyclables 8 tons tires	DNR
Public Sector Haulers					
Village of Belle Center	PO Box 508 Belle Center, Oh 43310	Belle Center residents only	refuse and yard waste (commercial, residential)	DNR	Cherokee Run Landfill
Village of West Liberty	PO Box 187 West Liberty, Oh 45365	West Liberty residents only	refuse and yard waste (commercial, residential)	466 tons yard waste	Cherokee Run Landfill

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Section IV Reference Year Population, Waste Generation and Waste Reduction

A. Reference Year Population and Residential/Commercial Waste Generation

Table IV-1, "Reference Year Population and Residential/Commercial Generation," presents the District's population and residential/commercial waste generation for 2013. Reference year population is taken from Ohio Department of Development's Office of Strategic Research (ODOD, OSR). OSR provided estimate populations for 2013 based on the 2010 census data by governmental unit.

Note: Ohio law requires that the entire population of a municipality located in more than one solid waste management district be added to the solid waste management district containing the largest portion of the jurisdiction's population. The majority of Ridgeway Village reside in Hardin County; part of the North Central Ohio Solid Waste District. Adjustments were made to subtract the portion of Ridgeway located in Logan County from the Logan County population.

The District population is 45,369 as indicated in Table IV-1.

Table IV-1: Reference Year Population and Residential/Commercial Generation

County/Community Name	2013 Population[1]		National Generation Rate (lbs/person/day)[2]	2013 District Residential/ Commercial Generation (Tons)
	Before Adjustment	After Adjustment		
Logan County	45,481		4.38	36,265.71
Village of Ridgeway (Hardin County)		(112)		
Total District Population		45,369		

Source:

[1]Population - Ohio Policy Research and Strategic Planning Office "2013 Population Estimates by County, City, Village and Township"

[2] 2012 National Generation Rate - from US EPA report "Municipal Solid Waste, Generation, Disposal and Recycling in the United States: Facts and Figures for 2012, published in February 2014.

Notes:

Adjustments: Ridgeway has more than 50% of the population living inside Hardin County and a portion living inside Logan County. The population of this community is therefore subtracted from Logan County totals.

Sample Calculation:

Residential/Commercial Generation:

$$\text{Total Res/Com Generation} = \frac{\text{Population (people)} \times \text{Generation Rate (lbs/person/day)} \times 365 \text{ (days/year)}}{2{,}000 \text{ (lb/ton)}}$$

$$36{,}266 = \frac{45{,}369 \times 4.38 \times 365}{2{,}000 \text{ (lb/ton)}}$$

Additionally, Table IV-1 also provides an approximate estimate of residential/commercial waste generation using the latest national average waste generation estimate per capita of 4.38 pounds/person/day published February 2014 by Franklin Associates for the U.S. Environmental

Protection Agency. This estimate will be compared later in Section IV.H to historical District waste generation to determine the most accurate method of calculating residential/commercial waste generation for the District.

B. Industrial Waste Generation

In early 2014, the District conducted an industry business survey to identify diversion practices in the District for year 2013 (the reference year). All successful contacts with businesses resulted in some data entry to the database. The District did not blanket the county with any mass mailings of survey forms, so there were not any non-respondents. Businesses could access the survey electronically online through the District's website. Businesses were notified by USPS and followed-up with phone calls. A copy of the survey can be found in **Appendix E**.

A total of fourteen businesses provided data, however three businesses did not fall within the SIC categories (20 and 22-39) allowed for plan updates. Occasionally, the waste generator needed only to confirm that their methods and quantities remained unchanged from previous surveys. Several businesses needed District staff to provide direct assistance in characterizing their management methods. Several industries provided extensive details about their waste management activities. This data was interpreted into the database. Other industries provided mixes of quantitative and non-empirical information, from which the District, interpolated, estimated, converted, and extrapolated annual data. The data was confirmed with the industry before entries were made into the database. Often, the available data was presented in unusable units or inconsistent data units; thereby requiring conversion. To minimize double counting of recyclable materials, survey respondents were asked to identify who processes and/or recycles the materials. The data was then compiled into spreadsheets located in **Appendix F**. Due to manufacturing confidentiality, the names of industries are not identified.

Table IV-2, "Industrial Waste Generation Survey Respondents vs. Unreported", reports industrial generation for those businesses responding and calculates industrial waste generation for non-responding businesses. The count of industries and number of employees for non-responding businesses was compiled from the 2013 Harris Industrial Guide for Ohio.

Table IV-2: Industrial Waste Generation Survey Respondents vs. Non Respondents

Standard Industrial Classification (SIC)	Survey Respondents				Amounts Based Upon Secondary Data (Unreported)				Total Industrial Waste Generated (Tons)
	# of Industries	# of Employees	Tons of Waste Generated	Generation Rate (T/employee)	# of Industries	# of Employees[1]	Generation Rate (T/employee)[2]	Tons of Waste Generated	
20	1	1	559.00	559.00	1	164	13.92	2,282.88	2,841.88
22	0	0	0.00	0.00	0	0	9.99	0.00	0.00
23	0	0	0.00	0.00	0	0	2.80	0.00	0.00
24	0	0	0.00	0.00	1	3	51.62	154.86	154.86
25	0	0	0.00	0.00	0	0	1.79	0.00	0.00
26	0	0	0.00	0.00	1	8	17.50	140.00	140.00
27	0	0	0.00	0.00	6	93	6.70	623.10	623.10
28	0	0	0.00	0.00	1	3	12.43	37.29	37.29
29	0	0	0.00	0.00	1	4	7.33	0.00	0.00
30	2	60	814.80	13.58	2	84	7.29	612.36	1,427.16
31	0	0	0.00	0.00	1	3	3.41	0.00	0.00
32	2	869	28,448.00	32.74	1	5	10.55	52.75	28,500.75
33	0	0	0.00	0.00	3	243	36.93	8,973.99	8,973.99
34	2	516	52.20	0.10	7	150	11.16	1,674.00	1,726.20
35	2	104	21.50	0.21	10	74	5.72	423.28	444.78
36	0	0	0.00	0.00	6	208	2.98	619.84	619.84
37	2	3,100	33,000.00	10.65	4	282	3.21	905.22	33,905.22
38	0	0	0.00	0.00	1	3	1.74	5.22	5.22
39	0	0	0.00	0.00	2	8	4.62	36.96	36.96
Total	11	4,650	62,895.50	616.27	48	1,335	211.69	16,541.75	79,437.25

Source:

[1]Unreported number of Industries and Number of Employee Data is from the Harris Directory

[2]Unreported Waste Generation Rate is from Ohio EPA Plan Format Appendix JJ

Sample Calculations:

$$\text{Reported generation rate (SIC Code 20)} = \frac{\text{Tons of reported waste generated}}{\text{\# of reported employees}}$$

$$559 = \frac{559.00}{1}$$

$$\text{Total tons of unreported waste generated (SIC code 20)} = \text{\# of unreported employees} \times \text{unreported generation rate}$$

$$2{,}282.88 = 164 \times 13.92$$

$$\text{Total tons of waste generated (SIC Code 20)} = \text{Tons of reported waste generated} + \text{tons of unreported waste generated}$$

$$2{,}841.88 = 559 + 2{,}282.88$$

C. Exempt Waste

As shown in Table IV-3, the District disposed of 6,364 tons of exempt waste in the reference year. The majority of the waste was identified as construction and demolition debris.

Table IV-3: Exempt Waste Generated in the District and Disposed in Publicly-Available Landfills

Type of Waste Stream	Generation Rate (lb/person/day)	Total Exempt Waste Generation (TPY)[1]
Construction and Demolition Debris; asbestos	0.77	6,363.67
Total	0.77	6,363.67

Source:
[1]Table III-1

Sample Calculation:

$$\text{Generation Rate (lbs/person/day)} = \frac{\text{Total Exempt Waste (tons/yr)} \times 2{,}000 \text{ (lb/ton)}}{\text{District Population} \times 365 \text{ days/year}}$$

$$0.77 = \frac{6{,}364 \times 2{,}000}{45{,}369 \times 365}$$

D. Total Waste Generation

Calculating waste generation based upon national averages and industrial survey results can differ from waste generation based on actual reported quantities (as reported by solid waste facilities, recycling facilities, and recycling brokers).

When performing waste generation calculations based upon national averages and industrial survey results (Table IV-4) the following potential factors for variance were noted. Residential/commercial national averages are good for "ball-park" estimates; therefore, when available, local resources should be used in solid waste planning. There are various factors that affect the local waste stream (laws, practices, commercial activity, etc.); thus, caution should be used if national averages are used instead of local data. Industrial survey results are the best source for generation information, unless response rates are low or a thorough survey is not conducted. Because of low response, Ohio EPA's *Format version 3.0* Appendix JJ was used to estimate industrial generation. The data in Appendix JJ is based on older (from 1993) generation rates per SIC code from other Ohio solid waste management districts. This type of data may not be reliable for the demographics and the industrial base located in the District. In conclusion, the waste generations calculated in Table IV-4 have room for error.

Table IV-4, "Reference Year Total Waste Generation for the District" presents the total waste generated using national and industrial estimates. The estimate calculates 122,067 tons of waste generation. The generation rate in pounds per person per day is estimated at 14.74 pounds per person per day.

Table IV-4: Reference Year Total Waste Generation for the District

Type of Waste	Generation Rate (lbs/person/day)	Tons/Year
Residential/Commercial[1]	4.38	36,265.71
Industrial[2]	9.59	79,437.25
Exempt[3]	0.77	6,363.67
Total Waste Generation	14.74	122,066.63

Source:

[1]Residential/Commercial - Tons/year is taken from Table IV-1

[2]Industrial -Tons/year is taken from Table IV-2

[3]Exempt - Tons/year is taken from Table IV-3

Industrial - Generation Rate is calculated using the following equation.

Sample Calculation:

$$\text{Generation Rate (lbs/person/day)} = \frac{\text{Total Industrial Waste (tons/yr)} \times 2{,}000\ \text{(lb/ton)}}{\text{District Population} \times 365\ \text{days/year}}$$

$$14.74 = \frac{122{,}066.63 \times 2{,}000}{45{,}369 \times 365}$$

E. Reference Year Waste Reduction

1. *Residential/Commercial* Sector

As businesses are adopting better reporting practices less obstacles have been noticed from surveying efforts. Businesses have better records and are more conscience of waste management methods. Comparing reported data to previous year reports revealed an unusually large amount of ferrous metal (7,000 tons) reported from one recycler. This is of concern, because this large tonnage is inconsistent with the past 6 years of reporting. A tonnage of less than 2,000 tons of ferrous metals is expected. The 7,000 tons of ferrous was included on the Annual District Report but is removed in this plan update. What seems to be a one-time occurrence would result in inflating waste generation for planning purposes and therefore, should not be used for basing projections. The reported ferrous metals tonnage recycled was adjusted to 1,503 tons. This adjustment and all residential/commercial waste for 2013 is shown on Table IV-5, "Reference Year Residential/Commercial Waste Reduction in the District".

All double counting was excluded from the quantities by ensuring the data from only one point on the recycling chain was used. For instance, if any recyclers/brokers reported having handled recyclables that were generated by commercial businesses that also returned a survey then only quantities reported on the survey on the commercial business were counted. Special care was taken to include only materials that are creditable according to Ohio EPA requirements. For instance, animal wastes are considered "non-creditable" towards recycling since they are not considered a solid waste. This material was excluded as a recyclable material.

Table IV-5: Reference Year Residential/Commercial Waste Reduction in the District

Type of Waste Source Reduced	TPY	Type of Waste Recycled	TPY	Incineration, Composting, Resource Recovery		
				Total Waste Received	Residual Landfilled	Net Waste Reduced
		White Goods	0	Incineration	Ash	Net Incineration
		Batteries	29	0	0	0
		Food Composting	158	Composting	Residuals	Net Compost
		Glass	0	2,502	0	2,502
		HHW	75	Resource Recovery	Ash	Net Resource Recovery
		Ferrous Metals	1,503	0	0	0
		Non-Ferrous Metals	567			
		Cardboard	10,793			
		Other Paper	1,680			
		Plastic	1,867			
		Rubber	0			
		Tires	438			
		Textiles	402			
		Used Oil	202			
		Wood	2,891			
		Commingled	1,441			
		Electronics	100			
		Ash	0			
		Other	135			
Subtotal	0		22,283			2,502
					Grand Total	24,785

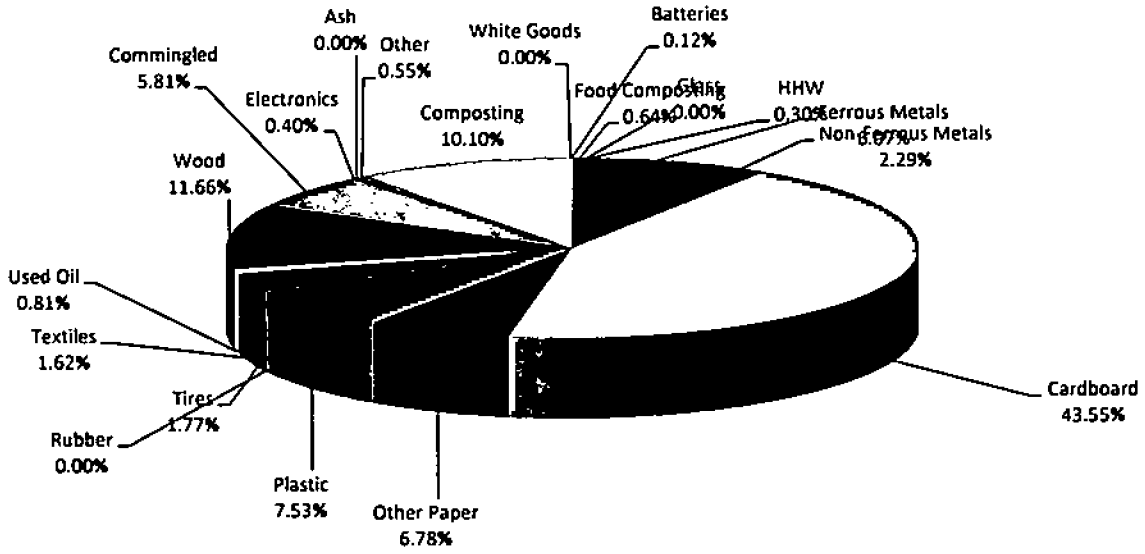
Source:

2013 Annual District Report for Logan County

Ohio EPA published "2013 Draft Compost Facility Planning Report"

Figure IV-1 below depicts recyclables by commodity reported as recycled in 2013 for the residential/commercial sector. As shown the largest commodity recycled is cardboard, followed by the ferrous metals category.

Figure IV-1 - 2013 Residential/Commercial Waste Reduction



2. *Industrial Sector*

The industrial sector diverted 52,299 tons of material from the waste stream in 2013, as shown in Table IV-6, "Reference Year Industrial Waste Reduction in the District". This recycling data was obtained from industries by a variety of methods, but surveys were generally conducted on-line and/or over the phone. Web data and phone conversations were used in concert; each generator required a unique mix depending on their facilities and database, as well as, their unique spirit of cooperation and their familiarity and comfort with their disposal and recycling issues. All quantities shown are actual reported quantities received by the District. No estimated quantities for non-respondents were included. The District used responses from eleven industries representing over four thousand employees. The industrial recycling survey data has been tabulated and is located in **Appendix F**. Note: Recycling data included in Appendix F includes three additional businesses not included in Table IV-6. These businesses were not included because the SIC category did not fall in the categories allowable by Format version 3.0.

Table IV-6: Reference Year Industrial Waste Reduction in the District

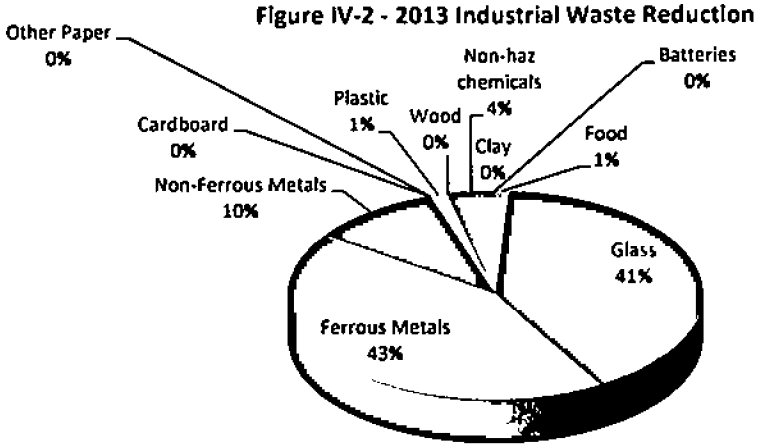
Type of Waste Source Reduced	TPY	Type of Waste Recycled	TPY	Incineration, Composting, Resource Recovery		
				Total Waste Received	Residual Landfilled	Net Waste Processed
		White Goods	0	Incineration	Ash	Net Incineration
		Batteries	3	-	-	-
		Food	559			
		Glass	21,197	Composting	Residuals	Net Compost
		Ferrous Metals	22,513	0	0	0
		Non-Ferrous Metals	5,256	Resource Recovery	Ash	Net Resource Recovery
		Cardboard	94			
		Other Paper	1			
		Plastic	716			
		Rubber	0			
		Tires	0			
		Textiles	0			
		Wood	78			
		Non-Exempt Foundry Sand	0			
		Non-haz chemicals	1,851			
		Clay	31			
Subtotal	0		52,299			0
					Grand Total	52,299

Source:

2013 Annual District Report for Logan County

Figure IV-2 below depicts recyclables by commodity reported as recycled in 2013 for the industrial sector. As shown, the largest commodity recycled is ferrous metals followed by glass.

Figure IV-2 - 2013 Industrial Waste Reduction



F. Existing Waste Reduction/Recycling Activities

The State Solid Waste Management Plan "establishes objectives for solid waste reduction, recycling, reuse, and minimization". (Source: Ohio Revised Code Section 3734.50(B).) Each District's plan must show how the District will meet the objectives set forth in the State Solid Waste Management Plan. The District's 2009 Plan provided recycling strategies and programs the District would implement to meet the 2001 State Plan objectives.

The following discussion is a description of the recycling and waste reduction strategies and programs implemented in the reference year. These strategies and programs will be referred to as "existing" for this Plan Update.

COMMERCIAL/INDUSTRIAL SECTOR TA AND EDUCATION

Program Name: Industrial Committee

IMPLEMENTATION DATE: 2005 - ongoing

WHO WILL IMPLEMENT: The District

WHO WILL BENEFIT: Logan County industrial businesses

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: No one particular material will be targeted for recycling or source reduction.

STRATEGY/PROGRAM GOAL: To create a forum for industrial businesses or representatives to discuss how the District could meet industry needs and how industrial generators can help the District achieve its goals and to share information on industrial recycling progress, new technologies, new resources, etc.

STRATEGY/PROGRAM DESCRIPTION: The District has had an ongoing industrial group meeting known as Keep Logan County Clean. This group is housed within the organization Keep Logan County Beautiful, KLCB, which in turn is affiliated with Keep Ohio Beautiful and Keep America Beautiful. The focus of this group is sharing information on industrial recycling progress, new technologies, new resources, etc. The committee met four times in 2013

and in addition conducted an annual awards banquet. Attendance at the KLCB meetings, usually luncheons, ran between 20 and 30 persons. The meetings shifted each quarter to a different industrial location so that tours could be arranged to observe recycling activities, resource reduction activities and other operations of interest. There is awareness that the commercial/business community needs a similar functional group.

MEASUREMENT OF SUCCESS: The District monitors meeting response and attendance.

STRENGTHS AND WEAKNESSES: Open communication is a strength between the District and industries within Logan County. Communication helps both sides further the goal of recycling and waste reduction within the solid waste management district.

CURBSIDE RECYCLING, NON-SUBSCRIPTION

Program Name: Bellefontaine City PAYT/Curbside Recycling

IMPLEMENTATION DATE: 1992(curbside)/1998(PAYT) - ongoing

WHO WILL IMPLEMENT: The City of Bellefontaine offers an option based PAYT/curbside recycling program serviced by the private sector. In 2013 the District met monthly with the City to provide assistance in negotiating contracts or managing the program. Education for this program was a joint effort with the City of Bellefontaine and the District. Education was delivered through pamphlets, flyers, websites, social media, and direct communications. Fifteen contest winners were awarded for being a "Good Recycler" in the spring.

WHO WILL BENEFIT: Residents of Bellefontaine

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: The PAYT program accepts cardboard, mixed paper, and commingled recyclables. Mixed paper includes: newspaper, magazines, glossy inserts, junkmail, chipboard, and paper. Commingled recyclables include: glass (clear, brown, and green), plastics, aluminum cans, bi-metal cans, steel cans, and cartons. Approximately 659 tons of recyclables (264 tons mixed recyclables and 396 tons mixed paper) were collected from the City of Bellefontaine and Lake Township resulting in 0.14 tons per participating household (280 pounds/household).

STRATEGY/PROGRAM GOAL: To lower customer trash disposal costs and reduce landfilled waste. PAYT helps make a connection between individual costs and their waste disposal habits. This, in turn, creates incentives to reduce waste and recycle.

STRATEGY/PROGRAM DESCRIPTION: Residents in the City of Bellefontaine must subscribe to one of the available option services for the PAYT program. Residents may use the City authorized blue trash bag, a regulation size purchased container, or lease a 90-gallon container. Residents choosing the smaller waste disposal options pay lower monthly collection fees. Recyclables are collected using a two-bin system (one for paper, one for commingled). Bins are provided by the City and can be picked up at the city Utility Office. Waste disposal and recycling collection services are provided weekly. Republic Services provides the current curbside and waste disposal service through a contract with the City of Bellefontaine. The number of households served by this program varies from month-to-month, but covers approximately 4,600 homes (the reported number of single family households that receive service). Apartments are served if they can be serviced like a single-family home (no high density apartments with dumpsters for trash). Republic and the District cooperatively provided toters to a large apartment complex to pilot a multi-family housing program in 2013. The multi-family housing pilot conducted in 2013 demonstrated a cost savings and proved the District recycling center (MRF) had sufficient space to handle the materials.

MEASUREMENT OF SUCCESS: Recycling tonnages increased 7% from 2012 tonnages. Households participating in curbside increased. In fact, yearly increases have been documented since 2010.

STRENGTHS AND WEAKNESSES: In the past lack of issuing violations was a problem; this has improved due to a change in procedures. The most serious violations are now left at the curb if improperly packaged. Frequent communications between the City and the District improves the city's program. There are still continued challenges for getting all residents to recycle. Discrepancies between set out rates and recycling center reports improved when materials were directed to the District recycling center (MRF). Recycling curbside service does not extend to larger multi-family housing.

Program Name: Lake Township PAYT/Curbside Recycling

IMPLEMENTATION DATE: 2004 - ongoing

WHO WILL IMPLEMENT: Lake Township offers an option based PAYT/curbside recycling program serviced by the private sector. Calls between the District and the Township monitored the management of the program. Education was delivered from the District via pamphlets, flyers, websites, social media, and direct communications.

WHO WILL BENEFIT: Residents of Lake Township

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: The PAYT program accepts cardboard, mixed paper, and commingled recyclables. Mixed paper includes: newspaper, magazines, glossy inserts, junkmail, chipboard, and paper. Commingled recyclables include: glass (clear, brown, and green), plastics #1 and #2, aluminum cans, bi-metal cans, steel cans, and cartons. Separating collection routes between the city and township is not possible therefore Lake Township recyclables are included with Bellefontaine.

STRATEGY/PROGRAM GOAL: To lower customer trash disposal costs and reduce landfilled waste.

STRATEGY/PROGRAM DESCRIPTION: Non-subscription curbside recycling is collected on a weekly basis using a two-bin system (one for paper, one for commingled). Republic Services provided bins and serviced the current curbside contract. This is a community-based program where the Township contracts for waste collection services with a hauler on behalf of the resident leaving no other options for waste collection service to Lake Township residents.

MEASUREMENT OF SUCCESS: No notable changes from prior years.

STRENGTHS AND WEAKNESSES: There are continued challenges for getting all residents to recycle.

Program Name: Village of West Liberty PAYT/Curbside Recycling

IMPLEMENTATION DATE: May 2006 - ongoing

WHO WILL IMPLEMENT: West Liberty offers a PAYT/curbside recycling program. The Village provided trash collection services and contracted curbside recycling collection services with a private sector hauler.

WHO WILL BENEFIT: Residents of the Village of West Liberty

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Accepts cardboard, mixed paper, and commingled recyclables. Mixed paper includes: newspaper, magazines, glossy inserts, junkmail, chipboard, and paper. Commingled recyclables include: glass (clear, brown, and green), plastics #1 and #2, aluminum cans, bi-metal cans, steel cans, and cartons. Approximately 126 tons of recyclables (50 tons mixed recyclables and 76 tons mixed paper) were collected from the Village of West Liberty.

STRATEGY/PROGRAM GOAL: To lower customer trash disposal costs and reduce landfilled waste.

STRATEGY/PROGRAM DESCRIPTION: Non-subscription curbside recycling is collected on a weekly basis using a two-bin system (one for paper, one for commingled). The Village provided bins and contracted with Republic Services for collection service.

MEASUREMENT OF SUCCESS: Recycling tonnages increased 4% from 2012 tonnages.

STRENGTHS AND WEAKNESSES: West Liberty has a high household participation rate, approximately 88%.

DROP-OFF RECYCLING, FS

In 2006, the District developed a plan to provide drop-off recycling locations that were convenient, easy to use, pleasant to visit, available 24/7, and included the concept of PAYT. In 2007, the first "model" drop-off recycling center was constructed and opened. Construction included underground conduit, utility poles, concrete improvements, a small shed, fencing, landscaping, lights, and video surveillance cameras. The developed site was equipped with three 33-yard roll-offs for recyclables, 8-yard roll-offs for trash (number of containers varies per site), and a bag vending system (housed in the shed). This model was used to develop and construct a total of 15 drop-off recycling centers located throughout the County. In 2013, construction of the 16th location at the Indian Lake Campgrounds, referred to as North Side, was underway.

Residents drop-off recyclable materials and trash in the appropriate well-marked containers. Anyone using the drop-off sites for trash disposal must use the colored PAYT bags that can be purchased at the on-site vending machine or at select retail locations in the County. User fees are charged for trash bags only. In 2013, PAYT drop-off bags cost $2.00 each.

Materials accepted are cardboard, mixed paper, and commingled recyclables. Separate containers are provided for the three collection streams. Mixed paper includes: newspaper, magazines, glossy inserts, junkmail, chipboard, and paper. Commingled recyclables include: glass (clear, brown, and green), plastics #1 and #2, aluminum cans, bi-metal cans, steel cans, and cartons. Household batteries and plastic film are placed in separate material slots at the shed.

Each of the drop-off recycling centers had a "monitor" who quietly supervised their particular center. Monitors visited the site three times a week, before and after each weekend and one more time during the week. Each monitor checked the recycling containers to report on capacity, vending machines, PAYT trash containers, and the general site conditions (illegal dumping, loose litter, a light that isn't working, etc.) After each visit the monitor logs onto the internet and filed a report on a special webpage. The information is downloaded instantly to the District's database.

The District funds, negotiates all collection and processing contracts, coordinates between the participating villages and haulers, and provides education through publications, pamphlets and flyers along with promotional items. Republic Services held the contract in 2013.

Challenges include changing needs with seasons and tourism. Determination of what containers were needed was sometimes a guessing game. Holiday schedules and container issues were also a struggle. Plastic film (plastic bags) collection was problematic consuming about a third of labor time to service the containers that filled up and overflowed regularly. Illegal dumping and contamination were other issues. On-site video surveillance helped in locating people incorrectly using or dumping at the recycling centers. Letters were sent to violators via postal

service to notify steps needed to correct the action. Container sizes and collection service was monitored constantly.

On a positive note, the recycling centers were available 24/7. Those choosing to use the drop-off recycling centers have the ability to control how much trash is created and how much they will pay for the service. Because of provided education, the public was armed with the knowledge the less trash they create, the more money they will save. Approximately 0.09 tons per person (429 pounds per person) are being recycled through the drop-off recycling centers. This calculation was determined from the number of persons per community (2010 population census) and the average tonnage recycled from 2011 through 2013.

Drop-off Recycling Center	2013 Tonnage Recycled
Belle Center Village	124
DeGraff Village	148
East Liberty	97
Huntsville Village	123
Lakeview Village	192
Middleburg	84
Moundwood	116
Quincy Village	69
Rushsylvania Village	62
Russells Point Village	107
West Liberty Village	137
West Mansfield	97
Jefferson Township (Zanesfield)	11
Bellefontaine (Campbell Hill)	150
Bellefontaine (S. Detroit Street)	452

ELECTRONICS, HOUSEHOLD HAZARDOUS WASTE, and LEAD-ACID BATTERIES

Program Name: Household Hazardous Waste Education

IMPLEMENTATION DATE: 1994 - ongoing

WHO WILL IMPLEMENT: The District provided technical support, awareness and education on household hazardous wastes.

WHO WILL BENEFIT: Logan County residents

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: any household hazardous wastes

STRATEGY/PROGRAM GOAL: To educate Logan County residents on the safe and proper disposal of household hazardous waste.

STRATEGY/PROGRAM DESCRIPTION: HHW education and awareness was provided to the residents through the District's website. Website promotes use of environmentally friendly products and directs residents to use CHaRM for HHW materials. On average,

approximately six phone calls per week are fielded about HHW materials with more in the spring, summer and fall and fewer in the winter.

MEASUREMENT OF SUCCESS: Education was difficult to monitor success. Participation and volumes at CHaRM decreased.

STRENGTHS AND WEAKNESSES: One weakness in this program is the inability to determine whether all residents of the County have received education on household hazardous wastes.

Program Name: Household Battery Collection

IMPLEMENTATION DATE: 1998 - ongoing (curbside battery collection ceased and drop-off collection began in 2006)

WHO WILL IMPLEMENT: District collects and directs batteries to appropriate outlets.

WHO WILL BENEFIT: Logan County residents

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Approximately 3 tons of household batteries were collected.

STRATEGY/PROGRAM GOAL: To divert batteries from the landfill.

STRATEGY/PROGRAM DESCRIPTION: To provide an easy and cost-effective method for residents to properly dispose of batteries. Residents placed batteries in clear plastic zip lock bags and dropped at the shed at all drop-off recycling centers. The collected batteries were weighed, packaged in buckets, and shipped to Battery Solutions in Michigan.

MEASUREMENT OF SUCCESS: The diversion of batteries from the landfill for proper disposal.

STRENGTHS AND WEAKNESSES: This was convenient for residents and available at no charge. Using the drop-off sites made this available to all residents. It was difficult to get all residents participating.

Program Name: Center for Hard to Recycle Materials (CHaRM)

IMPLEMENTATION DATE: 2008 - ongoing

WHO WILL IMPLEMENT: District collects and directs materials to appropriate outlets.

WHO WILL BENEFIT: Logan County residents

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: In 2013 acceptable materials included: paint, car products, household cleaners, HHW toxic materials, television sets, all electronics, fluorescent light tubes, scrap tires, used oil, lead-acid batteries. Approximately 108 tons were collected. An acceptable material list is maintained on the District's website.

STRATEGY/PROGRAM GOAL: To recycle or properly dispose of hard to recycle materials properly. It is a goal of the County Commissioners to provide greater access and more availability to residents for hard to recycle materials.

STRATEGY/PROGRAM DESCRIPTION: CHaRM is an acronym for Center for Hard to Recycle Materials. The center is located at the Logan County Solid Waste District headquarters. Residents of Logan County bring acceptable materials to the building marked CHaRM where District staff unload vehicles and weigh materials in the covered drive thru building. The District charges user fees and reserves the right to charge any fees and fluctuate fees based on materials, markets, or management methods. User fees and hours of operation are available on the District's website.

MEASUREMENT OF SUCCESS: The District measured number of cars participating and pounds or number of materials accepted. Annual declines of cars participating and material accepted was trending until year 2013. In 2013, 581 cars participated in dropping off 15,336 pounds of HHW, 72 TV's and 372 tires. The below table shows metrics monitored for CHaRM.

Year	# cars	pounds HHW	# of TVS	# of Tires
2009	837	44,273	345	641
2010	621	4,423	176	402
2011	600	5,232	176	401
2012	380	4,416	64	249
2013	581	15,336	72	372

STRENGTHS AND WEAKNESSES: The center is extremely popular with the residents. Set user fees are adequate for material handling. However, staff training, health monitoring, material management, space requirement, and resource requirements are challenges.

Program Name: Lead-Acid Battery Strategy

IMPLEMENTATION DATE: 1990-current

WHO WILL IMPLEMENT: Lead-acid batteries are accepted at CHaRM. Retailers selling lead-acid batteries collect used batteries for recycling. The District monitors annual surveys for quantities recycled.

WHO WILL BENEFIT: Logan County residents

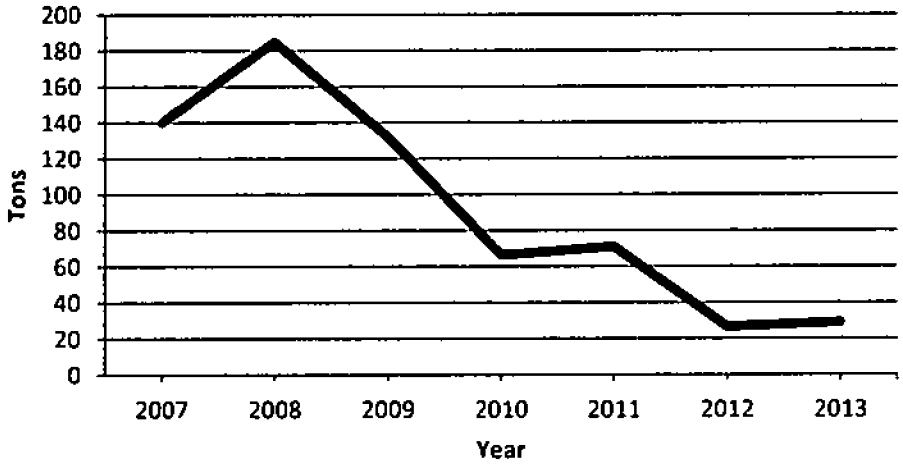
AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: 26.75 tons of lead-acid batteries were recycled in 2013.

STRATEGY/PROGRAM GOAL: To keep these batteries out of the waste stream and ensure that they are recycled or disposed of properly.

STRATEGY/PROGRAM DESCRIPTION: The website directs residents to outlets available (CHaRM, scrap yards, automotive repair and maintenance operations, automotive supply retail establishments, etc).

MEASUREMENT OF SUCCESS: The District has recorded a decline in recycled batteries. The law prohibiting disposal in solid or hazardous waste landfills and requiring retailers to take back batteries went into effect in 2008. The District believes a higher number of batteries were recycled but not captured in the surveys.

Figure IV-1 - Lead-acid Battery Data



STRENGTHS AND WEAKNESSES: Retailers offering take back programs are convenient for residents and more outlets are available. Unfortunately data reporting from take back retailers is

voluntary. With more people using take back retailers because of the convenience, battery data is not being captured. Thus it appears less batteries are being recycled.

INDUSTRIAL RECYCLING AND REDUCTION

Program Name: Commercial and Industrial Business Surveys

IMPLEMENTATION DATE: 2005 - ongoing

WHO WILL IMPLEMENT: The District conducts an organized survey of commercial and industrial businesses.

WHO WILL BENEFIT: Logan County residents and businesses

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: All types of materials are targeted for recycling. The survey conducted for the reference year resulted in 22,760 tons of recyclable materials being reported for the commercial sector. (Note: This volume includes 7,000 tons that were removed from combined residential/commercial recycling volumes as shown in Table IV-5. Removing the 7,000 tons equates to 15,760 tons of commercial recyclables.) For the industrial sector, the survey resulted in 52,298.7 tons of recyclable materials being reported.

STRATEGY/PROGRAM GOAL: To create contact between the District and the commercial and industrial businesses in efforts to obtain accurate waste disposal and recycling data.

STRATEGY/PROGRAM DESCRIPTION: The District employed a variety of methods and approaches (internet, email, and phone) to survey businesses and industries throughout the county. Both industrial and commercial survey forms were available online. They were often used as a guideline for businesses and industries which did not already have a developed system for waste-related and recyclable data keeping. Only occasionally were forms filled out completely. The District made use of any information in any form provided.

MEASUREMENT OF SUCCESS: Data reported by an area business easily depicts the materials and tonnages of waste disposed and recycled. Yearly reporting is crucial to tracking recycling and waste disposal trends and for planning future programs and support services.

STRENGTHS AND WEAKNESSES: Changing personnel in businesses and loss of point of contact became an obstacle for obtaining some businesses data. Some data was in units that are not easily integrated and/or combined with other data. There is no data collection for point of sale returns or "take backs".

OTHER FACILITIES

Program Name: Recycling Processing Center (MRF)

IMPLEMENTATION DATE: 2009 - ongoing

WHO WILL IMPLEMENT: The District owns and operates.

WHO WILL BENEFIT: Residents of the district will benefit as will residents in other counties in the region that send waste to the facility.

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: 3,738 tons of recyclables were processed in 2013

STRATEGY/PROGRAM GOAL: To maintain an infrastructure that contributes in a meaningful way to the community, overhead of the Department, and Zero Waste while optimizing the availability and containing costs for services.

STRATEGY/PROGRAM DESCRIPTION: The District purchased a 4.49-acre lot that housed a building that would provide 26,700 square foot for processing and storage space and 9,000 square foot for mixed office and education space located at 1100 S. Detroit Street,

Bellefontaine, Ohio. The processing space was equipped with a basic sorting line, two vertical balers, and one forklift (equipped with a scale). Materials are processed in a dual stream (fiber and commingled), baled, stored, and marketed.

Processing levels in 2013 were a little over 3,700 tons per year. The basic sorting line relies on manual separation of commingled recyclables. The facility operates one shift, five days a week. Jobs and Family Services Department supplies some labor but most labor was supplied by the Logan County Jail's Work Release inmate program. Typically the jail supplies five people working approximately 7 hours a day. The number of persons fluctuates as low as three or as much as eight. The District employs: one Supervisor, one Operator, and one Lead Sorter. A maintenance Technician is shared between the MRF and the Drop-off sites. A roll-off truck (capital and maintenance expenses) is also shared between the MRF and Drop-off sites.

A grant was awarded from Ohio EPA Community Grant in 2013 to construct a Glass Recycling Depot to assist with sorting of the mixed glass and transportation. A copy of the grant application is located in **Appendix G.**

MEASUREMENT OF SUCCESS: Over the last four years the MRF has increased its throughput four-fold.

STRENGTHS AND WEAKNESSES: Not all materials could be processed as marketable recyclables. Some materials (materials in which markets could not be found) were hauled to the landfill. These materials were combined with other program trash and so a specific amount could not be measured. Commodity markets can have volatile swings making budgeting and forecasting challenging and adding risk. The processing facility has played an integral part in the growth of the infrastructure and thereby the recycling volumes. Growth and demand are requiring additional processing capacity. The addition of the glass depot has helped. The workforce supplied by Jobs and Family Services is intermittently adequate and on other occasions has been inadequate. The "temporary" labor force is insufficient and unsustainable.

Program Name: Cherokee Run Landfill Expansion

IMPLEMENTATION DATE: 1994

WHO WILL IMPLEMENT: The District works with the owner of the Cherokee Run Landfill, the local Health Department and Lake Township to ensure adequate and safe disposal of the District's solid waste. The District does not provide any funding to this program, only coordination.

WHO WILL BENEFIT: Residents of the district will benefit as will residents in other counties in the region that send waste to the facility.

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: None

STRATEGY/PROGRAM GOAL: To maintain adequate capacity and effective cost of disposal rates.

STRATEGY/PROGRAM DESCRIPTION: Through this program the District has instituted regular meetings with Republic to discuss District issues and needs. The District closely monitors the situation and the filling rate of the Cherokee Run Landfill. An expansion permit was received in 2011. Construction is scheduled to begin in 2014 once the vertical space in the existing landfill footprint is filled.

MEASUREMENT OF SUCCESS: Timely expansion of the landfill without service interruption.

STRENGTHS AND WEAKNESSES: Any landfill expansion process can have many strengths and weaknesses. To date Republic has been very receptive to District and Health Department input as well as host agreements with Lake Township.

OTHER PROGRAMS

Program Name: County Assistance

IMPLEMENTATION DATE: 1991 - ongoing

WHO WILL IMPLEMENT: As authorized in Ohio Revised Code 3734.57, the Board of Directors of the District has the authority to administer funds to the "County to defray the added costs of maintaining roads and other public facilities and of providing emergency and other public services resulting from the location and operation of a solid waste facility within the county under the District's approved solid waste management plan."

WHO WILL BENEFIT: Logan County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: n/a

STRATEGY/PROGRAM GOAL: To defray expenses for hosting a regional landfill which serves thirty other counties.

STRATEGY/PROGRAM DESCRIPTION: Revenues were not appropriated to this program. They were re-directed to the Logan County Sheriffs Office to assist with enforcement activities.

MEASUREMENT OF SUCCESS: None.

STRENGTHS AND WEAKNESSES: Substantially lowered revenues suspended funding this program.

Program Name: Developing County-wide Waste Collection

IMPLEMENTATION DATE: 1998 - ongoing

WHO WILL IMPLEMENT: The District educates and provides technical assistance to the surrounding villages and townships about the benefits of PAYT programs.

WHO WILL BENEFIT: Villages and Townships of Logan County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Same materials recycled throughout the county.

STRATEGY/PROGRAM GOAL: To expand PAYT to the smaller communities within the county.

STRATEGY/PROGRAM DESCRIPTION: Success of the PAYT drop-offs peaked more interest in rural communities than traditional PAYT curbside programs. The District was able to put in place thirteen drop-off locations in rural communities (does not include urban locations).

MEASUREMENT OF SUCCESS: The District has three communities with PAYT curbside programs with documented increases in recycling volumes and fifteen communities with PAYT drop-off centers.

STRENGTHS AND WEAKNESSES: Less traditional PAYT discussion has occurred with the opening of the PAYT drop-off centers. PAYT drop-off centers throughout the county provide a solution to the rising waste disposal costs for rural residents.

Program Name: Disaster Debris Management

IMPLEMENTATION DATE: continuing as needed

WHO WILL IMPLEMENT: The Logan County Emergency Management Agency in coordination with the District.

WHO WILL BENEFIT: The County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Although no specific materials are targeted for recycling, the District will provide education about separating recyclable materials and yard waste from other general debris for management purposes.

STRATEGY/PROGRAM GOAL: To provide assistance to the Logan County Emergency Management Agency in responding to a natural disaster.

STRATEGY/PROGRAM DESCRIPTION: Responding to natural disasters, such as flood events, tornados, and severe storms, requires a great deal of coordination and time. Although Logan County's Emergency Management Agency (EMA) is the lead agency for coordinating responding activities, the District is committed to assisting the EMA during a disaster event.

The county emergency operations plan includes a section (Annex M) dedicated to debris management. A copy of Annex M of the emergency operations plan is contained in **Appendix H.**

The emergency operations plan includes provisions that establish a debris management team that names the director of the Logan County Emergency Management Agency and the coordinator of the District as co-chairs. Other members of the debris management team include representatives of: The Logan County Health District; Cherokee Run Landfill; Ohio EPA; the Logan County Engineer; the Logan County Commissioners; and officials of the affected jurisdictions.

In addition to acting as co-chair of the debris management team, the District Coordinator will also serve as the debris manager during a debris-generating event. As debris manager, the District Coordinator will coordinate operations and finance areas of debris management. Coordination duties will include contacts with affected jurisdictions and scheduling and coordination of resources conducting debris operations. Finance support will include: contacts and negotiations with contractors, contract negotiations, support of and coordination with jurisdiction officials for expenses and scheduling; and documentation of all resources, personnel, materials, and costs for reimbursement purposes.

The District assisted with some flood debris collection in the spring of 2012 that was relatively minor. In June 2013, the straight-line wind storm that swept through Ohio did major damage to Bellefontaine and many areas of the county. The District took the lead in the FEMA damage assessment and followed up with a National Emergency Grant request for $1.5 million in aid to clean up storm debris. The grant was awarded to the Logan County Jobs and Family Services with the solid waste district identified as the Project Manager. The grant was used to create a training program that screened and hired crew members to clean up debris. Equipment was leased and purchased.

MEASUREMENT OF SUCCESS: The District's involvement contributed to the overall operation of the County.

STRENGTHS AND WEAKNESSES: A strength is having an established process in place to handle disasters. This will aid in efficient use of time, resources, and money.

Program Name: Grant Subsidies Program

IMPLEMENTATION DATE: 1993 - ongoing

WHO WILL IMPLEMENT: The District may provide one-time funding for special recycling projects or zero waste events.

WHO WILL BENEFIT: Logan County residents and/or businesses

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: n/a

STRATEGY/PROGRAM GOAL: To provide subsidies for special projects and zero waste events.

STRATEGY/PROGRAM DESCRIPTION: Grant subsidies to governmental entities for purchase of materials or items made from recycled materials was suspended in 2013 due to budget restrictions. In 2013, the District provided materials and some education for several zero waste events held.

MEASUREMENT OF SUCCESS: Subsidies have raised awareness and encouraged residents and businesses to try zero waste events. Subsidies increased education for reducing waste.

STRENGTHS AND WEAKNESSES: Financial contributions help to stimulate interest. However, funding is limited and is solely dependent on monies leftover from regular budget items. Program outreach and education was restricted because of thinness of District staffing.

Program Name: Health Department Assistance

IMPLEMENTATION DATE: 1991 - ongoing

WHO WILL IMPLEMENT: As authorized in Ohio Revised Code Section 3734.57, the District provides funding "to boards of health within the district, if solid waste facilities are located within the district, for the enforcement of this chapter and rules adopted and orders and terms and conditions of permits, licenses, and variances issued under it; to boards of health for collecting and analyzing water samples from public or private wells on lands adjacent to solid waste facilities that are contained in the approved or amended plan of the district; to boards of health within the district for enforcing laws prohibiting open dumping; and to boards of health within the district that are on the approved list under Section 3734.08 of the Revised Code for the training and certification required for their employees responsible for solid waste enforcement by rules adopted under division (L) of Section 3734.02 of the Revised Code."

WHO WILL BENEFIT: Logan County residents

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: n/a

STRATEGY/PROGRAM GOAL: To provide funding to Logan County Board of Health for activities described in ORC 3734.57(B).

STRATEGY/PROGRAM DESCRIPTION: Funding provided to the Health Department by the District was used for implementing the activities described in ORC 3734.57(B). In 2013, the District provided $75,000 in funding to the Health District to assist in monitoring the Cherokee Run Landfill, which included ground water monitoring and litter prevention and littering calls.

MEASUREMENT OF SUCCESS: The Health Department was required by the District to submit yearly reports on the activities implemented each year with the funding provided by the District. In 2013 the Health Department did not submit a written yearly report. Instead the Health Department provided verbal reports during the policy committee meetings. The verbal report for 2013 is located in the meeting minutes found in **Appendix I.**

STRENGTHS AND WEAKNESSES: The major strength to this program is the protection that is afforded to the health and safety of the District's residents. The major weakness of this program is that the funding provided does not help the District achieve the goals of the state solid waste management plan nor does it help to further recycling and waste reduction in the County.

Program Name: Local Law Enforcement - Litter

IMPLEMENTATION DATE: Uncertain - ongoing

WHO WILL IMPLEMENT: The District provides funding to the Sheriff's Department to support enforcement of litter laws in the District.

WHO WILL BENEFIT: Logan County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: n/a

STRATEGY/PROGRAM GOAL: To provide the resources necessary to enforce laws prohibiting litter and illegal dumping as well as laws related to the transportation of solid waste.

STRATEGY/PROGRAM DESCRIPTION: In 2013, the District provided a $50,000 allocation to the Sheriff's Department. The money to the local sheriff department allowed for a dedicated deputy to enforce laws prohibiting litter and illegal dumping as well as laws related to the transportation of solid waste. The District paid for the deputy directly. The deputy provided periodic verbal updates to the commissioners. Over the past several years, the Sheriff's Department has been drastically reduced because of budget cuts resulting in minimal time devoted to litter pick up and enforcement.

MEASUREMENT OF SUCCESS: Continued collaboration between the District and Sheriff's Department on a weekly basis.

STRENGTHS AND WEAKNESSES: The reduced budget of the Sheriff Department has significantly impacted the success of this program. This program does not contribute to the District's achievement of the goals of the state plan nor does the funding provide further waste reduction and recycling for the District.

Program Name: Market Development projects

IMPLEMENTATION DATE: 1996 - ongoing

WHO WILL IMPLEMENT: The District may give funding to various agencies for approved market development projects. The funding provided is to be administered strictly at the Board of Director's discretion.

WHO WILL BENEFIT: Various agencies and recycling markets

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: n/a

STRATEGY/PROGRAM GOAL: To provide meaningful support of recycling markets.

STRATEGY/PROGRAM DESCRIPTION: To maintain appropriate funds to approved projects requesting 50% funding or less. This is a program with enormous potential for abuse. Therefore, the District did not advertise or promote this program. The District provided a small line item to authorize very limited activity in this area. In 2013, no programs or initiatives were operated. Market development assistance went to Habitat for Humanity's Re-Store in 2006.

MEASUREMENT OF SUCCESS: n/a

STRENGTHS AND WEAKNESSES: Since there is potential for abuse the District and the Board of Directors have direct involvement in the requests thereby decreasing the funding available for these projects. Funding is limited.

Program Name: Municipal/Township Assistance

IMPLEMENTATION DATE: Uncertain when program originally began

WHO WILL IMPLEMENT: As authorized in ORC Section 3734.57 the Board of Directors of the District has the authority to administer funds "...to individual municipal corporations and townships within the district to defray their added costs of maintaining roads and other public facilities and of providing emergency and other public services resulting from the location and operation within their boundaries of composting, energy or resource recovery, incineration, or recycling facility that either is owned by the district or is furnishing solid waste management facility or recycling services to the district or pursuant to a contract or agreement with the board of county commissioners or directors of the district"

WHO WILL BENEFIT: Communities receiving funds

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: n/a

STRATEGY/PROGRAM GOAL: To defray community expenses for hosting composting, energy or resource recovery, incineration, or recycling facilities.

STRATEGY/PROGRAM DESCRIPTION: This is a grant program that is administered by the District for allowable expenditures by local communities. Local communities can submit requests for funding for qualifying projects. These requests are reviewed by and approved by the District, and often project approvals contain restrictions. Communities are reimbursed for expenditures, but the money is not disbursed to a community until the District receives reimbursable expenditures. No grants were awarded in 2013.

MEASUREMENT OF SUCCESS: While there isn't a direct measure of success for this program, the District contributes to the successful operation of the County.

STRENGTHS AND WEAKNESSES: Residential benefits are indirect.

Program Name: Private Recyclers/Processors

IMPLEMENTATION DATE: pre-HB592 - ongoing

WHO WILL IMPLEMENT: The District is aware that private recyclers/processors, such as Sims Brothers, Inc., are operating in the District as outlets available for recycling materials. The District does not provide any assistant to these private recyclers/processors.

WHO WILL BENEFIT: Logan County residents

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Accept newspaper, glass (clear, brown, and green), plastics #1 and #2, aluminum cans, bi-metal cans, steel cans, ferrous and non-ferrous scrap metal, magazines and glossy inserts, junk mail, cardboard and chipboard, tires, batteries, wood, and other materials.

STRATEGY/PROGRAM GOAL: To maintain a meaningful drop off and buy back program for residents of Logan County to recycle material.

STRATEGY/PROGRAM DESCRIPTION: Private recyclers/processors operated in the District and accepted materials from residents/businesses for recycling. Surveys to obtain their recycling data were conducted annually. Recyclers served as an alternate opportunity for recycling. In general, tires were the only material charged a user fee. In 2013, the Industrial Committee worked with KLCB to encourage one private recycler to enter the bulk styrofoam recycling business. Steps were taken to secure equipment.

MEASUREMENT OF SUCCESS: The District had no definitive way to measure success of private companies. The District continued to annually survey for measurement.

STRENGTHS AND WEAKNESSES: The District has no control over a private sector company. Reliance is placed in the private sector to ensure processing of District recyclables. Accurate and complete data has often proved challenging to collect.

Program Name: Waste Sort

IMPLEMENTATION DATE: 2006 - ongoing

WHO WILL IMPLEMENT: The District

WHO WILL BENEFIT: By understanding what/how residents are discarding waste; the District can tailor specific solutions to the results found in the waste sort.

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Materials to be targeted for recycling will be determined from the waste sort.

STRATEGY/PROGRAM GOAL: The primary purpose of the study is to examine the quantity and composition of waste in order to characterize the strengths and weaknesses of waste programs around the county.

STRATEGY/PROGRAM DESCRIPTION: Waste sorts were not conducted in 2013.

MEASUREMENT OF SUCCESS: Recycling rates and set out rates would have been measured.

STRENGTHS AND WEAKNESSES: A waste sorts identify violations and materials discarded that could be captured.

OTHER RESIDENTIAL/COMMERCIAL RECYCLING

Program Name: Agricultural Community Assistance

IMPLEMENTATION DATE: 1998-ongoing

WHO WILL IMPLEMENT: The District worked with the Co-op Extension office, Soil and Water Conservation District and Farm Bureau to provide recycling services to the agricultural community on an as needed basis.

WHO WILL BENEFIT: Agricultural community

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: No specific materials were targeted to be reduced or recycled. Materials recycled from the agricultural community were no longer separately tracked.

STRATEGY/PROGRAM GOAL: To provide solid waste management services as required in the agricultural community.

STRATEGY/PROGRAM DESCRIPTION: The District assists the agricultural community by directing oil and chemicals to appropriate outlets for proper handling. Through the United States Department of Agriculture – Natural Resources Conservation Service – Conservation Security Program (CSP) farmers are given annual payments for recycling all farm lubricants during the year providing they show proof (receipts or equivalent) of lubricants brought onto the farm and proof of recycling. The District's role is to provide education so that farmers can receive payment from CSP.

The agricultural community preferred to keep its relationship with the District informal, preferring to receive assistance from the District, as it is needed rather than relying on regular programming.

MEASUREMENT OF SUCCESS: The District monitored the success of this program by remaining in contact with Co-op Extension, Soil and Water Conservation and the Farm Bureau. Achieved success is when the District or some other service provider provides a regular recycling outlet or cost-effective disposal option for the needs of the agricultural community.

STRENGTHS AND WEAKNESSES: One associated program weakness is limited outreach to the agricultural community. If the agricultural community needs assistance, they contact the District. The District and the agricultural community both seem to work well with this arrangement.

Program Name: Fiber Collection - Commercial and Institutional Recycling Assistance

IMPLEMENTATION DATE: 1999 - ongoing

WHO WILL IMPLEMENT: The District contacted area businesses both existing and new.

WHO WILL BENEFIT: Business and commerce in Logan County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: All types of materials were targeted for recycling and source reduction. A heavy emphasis was placed on retrieving cardboard from the commercial sector.

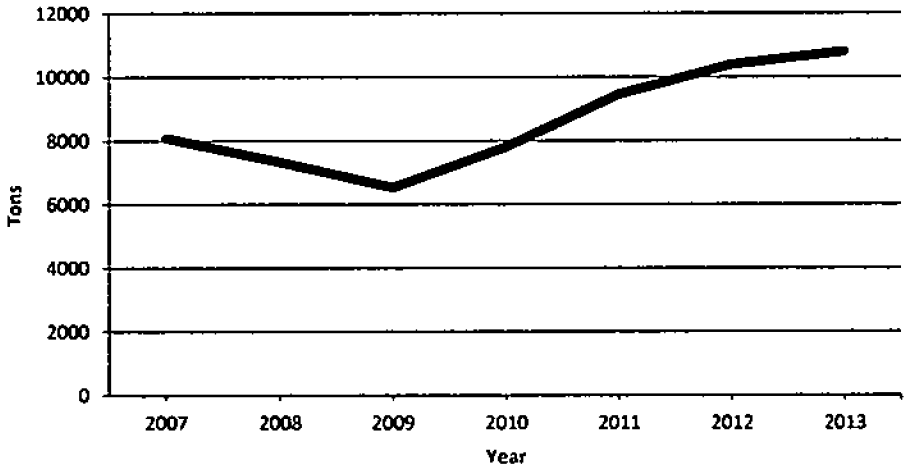
STRATEGY/PROGRAM GOAL: This program goal is to assist the commercial and institutional sectors in efforts to source reduce and/or recycle. Ultimately the end goal will result in more

recycling from this sector. The District served as an instrument to help set up a fiber collection route in 2006.

STRATEGY/PROGRAM DESCRIPTION: Initially businesses were contacted by the District to explore recycling of fibers, specifically cardboard. When interest was identified a connection was made to available haulers. Businesses then worked independently of the District to contract haulers for service. Once the District MRF was operational and capable of handling the recycling stream, the District developed a rebate program to encourage haulers to expand customers and gain more material to recycle. Rebates were offered specifically for cardboard and some fibers processed at the District MRF. Rebates were paid to haulers based on amount, method of delivery, condition of material, and current market values for commodities less something. Provision of an incentive created a self-motivated system where haulers actively pursued customer accounts alleviating most of District outreach/involvement.

MEASUREMENT OF SUCCESS: Success was increased service for business accounts and increased recycling volumes. Accounts and volumes have increased. (Note: This chart includes cardboard volumes for all residential and commercial programs.)

Figure IV-2- Cardboard Data



STRENGTHS AND WEAKNESSES: A heavy focus was on cardboard, however, there are additional materials that also can be diverted from the waste stream. Monetary incentives encourage haulers to service business accounts.

Program Name: Fiber Collection - County Government Recycling Pick-up

IMPLEMENTATION DATE: Exact implementation date unknown, several years ago

WHO WILL IMPLEMENT: District provides collections services to county governments.

WHO WILL BENEFIT: Local government businesses in the County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Emphasis was placed on paper, cardboard, newspaper, magazines, and glossy inserts. However a small amount of plastics and aluminum beverage containers are collected. Data is not separately tracked.

STRATEGY/PROGRAM GOAL: To provide full-service recycling to all local governments in the County.

STRATEGY/PROGRAM DESCRIPTION: Additional local government offices were not contacted by the District to determine office buildings where recycling could occur. The past clients were maintained and provided recycling bins at the office building for weekly collection service. The number of bins needed was determined by the amount of generated

material and the amount of space available. The District still serviced this collection route without assessing user fees. (Note: The intent of program implementation which has not occurred at this level to date is for private sector service haulers to provide the bins and services at costs that are lower than disposal costs.)

MEASUREMENT OF SUCCESS: The goal is to get all government sites, not just county government sites, on a recycling program. This has been difficult to achieve with the current program operations. Milestones achieved, no matter how small, towards program efficiency were measured for success.

STRENGTHS AND WEAKNESSES: Helping area governmental offices develop recycling programs is a strength. Publicity throughout the county to recycle, even in the work place, is an excellent means for awareness to the public about recycling. Another potential strength is providing recycling options that are lower than disposal costs. The District has many challenges to overcome to turn this into an efficient program where fees are assessed which include: making this route attractive to haulers, ensuring haulers can provide service of disposal and recycling at rates cheaper than current disposal costs, educating government offices on benefits, and training for employees and appropriate custodial personnel.

Program Name: Logan County Schools Cardboard and Paper Recycling

IMPLEMENTATION DATE: 1999 - ongoing

WHO WILL IMPLEMENT: The District works with Logan County schools to find a suitable recycling contract for school-generated cardboard and paper.

WHO WILL BENEFIT: Schools in Logan County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: This program collected cardboard, mixed paper, and commingled materials. Data is not separately tracked.

STRATEGY/PROGRAM GOAL: To "package" commercial generators together to provide recycling service through a "master contract" with private haulers.

STRATEGY/PROGRAM DESCRIPTION: Schools were continuing to collect cardboard, paper, and commingled materials. Each classroom has a nineteen gallon recycling container (provided by the District). The District helped the schools negotiate a service fee based on their individual service. Service fees are flat monthly fees based on collection container size (a variety of collection methods with use of toters or trailers; some have cardboard only cotainers) and weekly service. Included in the service fee are costs for recycling container rental, collection, hauling and processing.

MEASUREMENT OF SUCCESS: Success was measured by an increase in recycling, adequate service, and service efficiency.

STRENGTHS AND WEAKNESSES: This program operated as a self-sustaining rate program; thus, the service fees charged to the schools met the costs of the program. Uniform container size for all school campus helped make the collection of materials more efficient, simple, and cost effective.

Program Name: Other District Recycling Collections

IMPLEMENTATION DATE: Late 1990's - ongoing

WHO WILL IMPLEMENT: The District

WHO WILL BENEFIT: County Communities

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Roadside litter collection. Materials collected are estimated and included with the Recycling Processing Center (MRF).

STRATEGY/PROGRAM GOAL: To keep Logan County beautiful.

STRATEGY/PROGRAM DESCRIPTION: Any recycling provided by the District which does not fall into another waste reduction or recycling program. Namely roadside litter collection, however, any other recycling opportunities were included. In 2013, roadside clean-up programs with jail inmates and juvenile offenders; Adopt-A-Road groups, and continuous monitoring of the roads and highways by police and sheriff deputies continued.

MEASUREMENT OF SUCCESS: Keeping county roads picked up and litter free.

STRENGTHS AND WEAKNESSES: Continuing roadside clean-up and providing service work for jail inmates and juvenile offenders were program strengths. Outcomes have led to cleaner roadways and requesting trash haulers to improve their tarping systems to reduce roadway littering.

Program Name: PAYT Incentive Program

IMPLEMENTATION DATE: 2006 - ongoing

WHO WILL IMPLEMENT: The District

WHO WILL BENEFIT: Communities implementing PAYT Recycling Centers programs

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: All recyclable materials targeted at PAYT Recycling Centers.

STRATEGY/PROGRAM GOAL: To provide monetary incentives to communities which offer their residents PAYT Recycling Centers.

STRATEGY/PROGRAM DESCRIPTION: The PAYT Rebate Program originally was intended to encourage increased participation in available non-subscription curbside recycling programs. Through implementation this has become an incentive program for PAYT Recycling Centers. The District gave monetary incentive funds to an eligible community based on the weight of residential recyclable material collected through the community's PAYT Recycling Center program. This monetary incentive was paid for with District funds and was distributed during the first quarter of the year. The District emphasized using the rebate money to encourage residents to recycle more, through educational and promotional efforts and/or incentive programs such as giving gift certificates to residents who recycle.

MEASUREMENT OF SUCCESS: Increased the number of communities hosting PAYT Recycling Centers.

STRENGTHS AND WEAKNESSES: Monetary incentives generate revenues for the hosting community. When market pricing is low there are not enough revenues from sale of recyclables for distribution. Communities can come to expect the monetary incentive.

RESIDENTIAL SECTOR EDUCATION AND AWARENESS

Program Name: Litter Prevention and Recycling Education

IMPLEMENTATION DATE: 1996 - ongoing

WHO WILL IMPLEMENT: District

WHO WILL BENEFIT: Residents, schools, and businesses of Logan County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: No specific materials. Education and awareness for recyclable materials is provided.

STRATEGY/PROGRAM GOAL: To educate residents, schools, and industry on good environmental practices and to maintain a positive environmental image in Logan County.

STRATEGY/PROGRAM DESCRIPTION: Below is a brief outline of these activities:

- Promoted Recycle, Ohio! Month.
- Held Environmental Outreach Day for children.
- Assisted with Logan County Clean Committee.

- Assisted in planning Great Miami River Cleanup.
- Advertised for Earth Day.
- Guided tours of material recovery facility.
- Provided one new scholarship to graduating high school students. Award is for $2,000 toward tuition each year and is renewable for four years. Three scholarships are in the renewable stage.
- Awarded 1 teacher grant for outstanding environmental projects. Award is a maximum of $1,500.
- Awarded 1 high school science research grant for original scientific research. Award is a maximum of $1,100.
- Worked in conjunction with OSU Extension office to provide a one day seminar on composting which included a speaker and hands-on application.
- Offered rain barrels and compost bins for sale to public.
- The KLBC continued to sponsor an annual awards program to honor high school scholarship winners, science fair participants, and recycling contest winners from local schools.

District typically had one, two, or more advertisements (newspaper) running daily promoting recycling or specific events such as CHaRM, electronic recycling, or high clean-up programs. A great deal of education and awareness was provided for PAYT recycling centers and CHaRM.

MEASUREMENT OF SUCCESS: Education and awareness programs are difficult to measure and determine success.

STRENGTHS AND WEAKNESSES: During District and Logan County Clean Committee events, the resident volunteer support system was lacking. District staff constraints resulted in less outreach to school age children (especially the high schools), teachers, and adults.

Program Name: Web Page Development

IMPLEMENTATION DATE: 2005 - ongoing

WHO WILL IMPLEMENT: The District

WHO WILL BENEFIT: Logan County residents and businesses

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: No specific materials are targeted.

STRATEGY/PROGRAM GOAL: To provide greater advertising, education and awareness of available recycling programs to Logan County residents and businesses and to increase access to information available from the District.

STRATEGY/PROGRAM DESCRIPTION: The web page served as an informational tool for the area residents and businesses on all waste reduction and recycling programs, available recycling opportunities, educational resources, collection events, yard waste management programs and facilities, and waste disposal. The site is easy, interactive and updated at least monthly. The following items at a minimum, were outlined on the web page:

- Subscription and non-subscription curbside recycling communities; recyclable materials collected; recycling collection days; specifics on containers and how to recycle;
- Drop-off recycling communities; recyclable materials collected; recycling availability days;
- PAYT program communities; PAYT program details and costs; contact information for residents;

- Special collection days and hours of operation; materials accepted; event location; and
- Community yard waste programs; materials accepted; available outlets; costs for disposal, if any.

In addition, the District developed and maintained a Facebook page.

MEASUREMENT OF SUCCESS: Facebook page was tied into the webpage to monitor number of people reached. Success is difficult to quantitatively measure.

STRENGTHS AND WEAKNESSES: Strength is 24-hour information access for residents. A weakness is need for continual updates with accurate information to be an effective communication tool.

SCRAP TIRE PROGRAMS

Program Name: Waste Tire Management Program

IMPLEMENTATION DATE: 1993 - ongoing

WHO WILL IMPLEMENT: The District provides education, maintains a list of available scrap tire outlets, and accepts tires at CHaRM. User fees are assessed on tires accepted at CHaRM. In addition, private businesses and processors provide outlets for scrap tires at a nominal fee.

WHO WILL BENEFIT: Residents of Logan County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: In 2013, 12.6 tons of tires were collected from all collections.

STRATEGY/PROGRAM GOAL: To provide outlets for recycling and disposing of scrap tires properly.

STRATEGY/PROGRAM DESCRIPTION: This program provided education to residents about the proper disposal of waste tires and available District outlets. The program also directly provided management opportunities for scrap tires to residents by accepting tires at CHaRM. A drop-box for tires was located at the County Engineer's office for use only by engineers.

MEASUREMENT OF SUCCESS: Open dumping persisted but at a low level.

STRENGTHS AND WEAKNESSES: As a management program, this is a strong program. The message is out about proper disposal of scrap tires. Outlets are available and convenient, however, user fees may be a weakness.

YARD WASTE PROGRAMS

Program Name: Bellefontaine City Yard Waste Management

IMPLEMENTATION DATE: 2000 - ongoing

WHO WILL IMPLEMENT: The City of Bellefontaine operates the compost facility and provides seasonal curbside collection of leaves.

WHO WILL BENEFIT: Residents of the City of Bellefontaine.

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: In 2013, the compost facility accepted 677 tons of leaves, brush and general yard waste.

STRATEGY/PROGRAM GOAL: To provide a yard waste opportunity for City residents in order to keep yard waste from being disposed in the landfill.

STRATEGY/PROGRAM DESCRIPTION: The City of Bellefontaine operated one Class IV compost facility located at North County Road 32. A satellite yard waste site was opened in 2012 to handle debris and yard waste from the windstorm disaster on June 28, 2012. The City provided residents with curbside collection of leaves only on a seasonal basis. The collection duration lasted until all the leaves were collected; approximately two to three weeks in the fall each year. Collected leaves were used for land application.

MEASUREMENT OF SUCCESS: Keeping this program easily accessible for the residents diverted large amounts of yard waste from the landfill. The success of this program depends on continuing the curbside collection and maintaining the compost facility. The District tracked the yard waste collected by this program to measure the success.

STRENGTHS AND WEAKNESSES: A strong benefit to this program is that there are no direct costs to the residents.

Program Name: Daylay Egg Farm Compost Facility

IMPLEMENTATION DATE: n/a

WHO WILL IMPLEMENT: Daylay Egg Farm is a private company that operates a Class III composting facility. The District did not have any affiliations with the company, did not provide funding, and did not track material composted.

WHO WILL BENEFIT: private sector operations

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: 559 tons of animal wastes

STRATEGY/PROGRAM GOAL: n/a

STRATEGY/PROGRAM DESCRIPTION: n/a

MEASUREMENT OF SUCCESS: n/a

STRENGTHS AND WEAKNESSES: n/a

Program Name: DeGraff Village Leaf Collection

IMPLEMENTATION DATE: n/a

WHO WILL IMPLEMENT: Village of DeGraff services department

WHO WILL BENEFIT: Village of DeGraff residents

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Leaf collection only

STRATEGY/PROGRAM GOAL: To give village residents curbside leaf collection.

STRATEGY/PROGRAM DESCRIPTION: The Village of DeGraff did not operate a compost facility. Collected leaves were given to a local dairy farmer for bedding. The leaves were collected in the fall for a set time period. The Village also offered a spring cleanup to pick up storm damage tree limbs or branches. When brush was collected the village contracted a chipper and hauled away the mulch.

MEASUREMENT OF SUCCESS: The Village did not track the leaf collection amounts. They perform this service based on resident response.

STRENGTHS AND WEAKNESSES: The program received good participation. However, since the Village did not track the quantities of material managed, no quantities can be credited to the District's recycling and waste reduction rate.

Program Name: Quincy Village Leaf Collection and Compost Facility

IMPLEMENTATION DATE: n/a

WHO WILL IMPLEMENT: Village of Quincy services department

WHO WILL BENEFIT: Village of Quincy residents

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Brush and leaf collection only.

STRATEGY/PROGRAM GOAL: To assist the residents as much as possible in the diversion of yard waste from the landfill.

STRATEGY/PROGRAM DESCRIPTION: The services department cleared any storm damage debris, cleaned the streets and offered curbside leaf collection during the fall. Collected leaves were land applied. The Village did operate a small Class IV compost facility, which was not available to the residents.

MEASUREMENT OF SUCCESS: The District monitored the materials collected as well as the ability of the Village to implement this program.

STRENGTHS AND WEAKNESSES: The Village of Quincy provided its residents with an alternative to land filling yard waste by providing for the collection of leaves. The Village's composting facility is not open to the public. That combined with the seasonal nature of the curbside collection program means that the yard waste management program in Quincy was not available to residents year-round.

Program Name: West Liberty Village Curbside Yard Waste Collection and Compost Facility

IMPLEMENTATION DATE: n/a

WHO WILL IMPLEMENT: Village of West Liberty service department

WHO WILL BENEFIT: Village of West Liberty residents

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: In 2013, approximately 466 tons of mixed brush, limbs, and trees were collected.

STRATEGY/PROGRAM GOAL: To assist the residents as much as possible in the diversion of yard waste from the landfill.

STRATEGY/PROGRAM DESCRIPTION: The Village of West Liberty owns their own trash hauling trucks, which they utilized to collect yard waste from the Village residents. Collection was provided to the residents at no charge and was offered year-round. The Village collected the materials, transported it the Village's Class IV compost facility, and then located end-users. Access to the composting facility was limited to Village employees. Thus, the compost facility was not available for public use.

MEASUREMENT OF SUCCESS: The District monitored the quantity of material collected as well as the ability of the Village to implement this program.

STRENGTHS AND WEAKNESSES: The Village of West Liberty provided its residents with an alternative to land filling yard waste by providing for collection at the curb. In addition, the Village tracked the quantity of material that is composted thereby allowing the District to credit that material to its waste reduction and recycling rate. The Village's composting facility, however, was not open to the public.

Program Name: Cherokee Run Compost Facility

IMPLEMENTATION DATE: n/a

WHO WILL IMPLEMENT: This facility is located at Cherokee Run Landfill.

WHO WILL BENEFIT: This facility is open to all District residents for yard waste composting.

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Materials recycled are leaves, brush and grass clippings. Ohio EPA compost facility data reported 156.2 tons of yard waste materials at this facility.

STRATEGY/PROGRAM GOAL: To maintain a composting facility to divert yard waste from the landfill.

STRATEGY/PROGRAM DESCRIPTION: Hours of operation coincided with the landfill. District residents were permitted to bring their yard waste materials, for a fee, to the compost facility. All compost was maintained on the property and made available to workers if so desired. Compost was not land applied or sold to residents.

MEASUREMENT OF SUCCESS: This operation remained small, mostly due to the rural demographics and the availability of the District's municipalities to operate their own yard waste programs. Measured increases in the amount of material accepted at the facility show success.

STRENGTHS AND WEAKNESSES: Because the Cherokee Run Landfill, and hence the composting facility, is located in a rural area, it was not conveniently accessible to residents. In

addition, residents were charged a fee to use the facility, which might have discouraged residents from using it as a yard waste management option. On the positive side, the presence of the composting facility provided another potential management option to residents.

Program Name: Yard Waste Management Education

IMPLEMENTATION DATE: mid 1990's-ongoing

WHO WILL IMPLEMENT: The District educates the residents on composting and yard waste management.

WHO WILL BENEFIT: Logan County residents

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Approximately 2,502 tons of yard waste was accepted at the composting facilities in 2013. (Note: this tonnage amount is not directly related to this program, the tonnage is provided to demonstrate yard waste tracked and composted within the District.) This tonnage of yard waste was a result of normal resident activities as well as continuing clean-up activities from storms.

STRATEGY/PROGRAM GOAL: To provide education on composting and proper yard waste management.

STRATEGY/PROGRAM DESCRIPTION: In 2013, due to District staffing constraints the education provided was via the District website. The District continued to explore the possibility of supporting or creating a countywide yard waste management, organic composting facility.

MEASUREMENT OF SUCCESS: Successful yard waste management education will result in more residents implementing measures to divert yard waste from landfills. However, unless a survey is conducted, it is difficult to determine how many residents are implementing alternative management programs for their yard waste. Surveys were not conducted.

STRENGTHS AND WEAKNESSES: The major strength to this program is education on how to properly manage one of the largest components of the waste stream. One weakness is the difficulty in quantifying the effect education has on back yard composting and diversion from landfills. In 2013, staffing constraints were a weakness for implementing educational outreach.

G. Total Waste Generation: Historical Trends of Disposal Plus Waste Reduction

Table IV-7 "Total Waste Generation Based upon Disposal plus Waste Reduction" reports the waste reduced, recycled, composted, land applied, incinerated, and landfilled from Ohio EPA's data records (as voluntarily reported by businesses to Ohio EPA), and business surveys conducted to obtain 2013 data. Potential discrepancies or errors in actual reported data could have resulted from reporting errors on surveys, non-response from surveyed entities, or mischaracterization of the type of waste at solid waste facilities.

Table IV-7: Total Waste Generation Based Upon Disposal Plus Waste Reduction

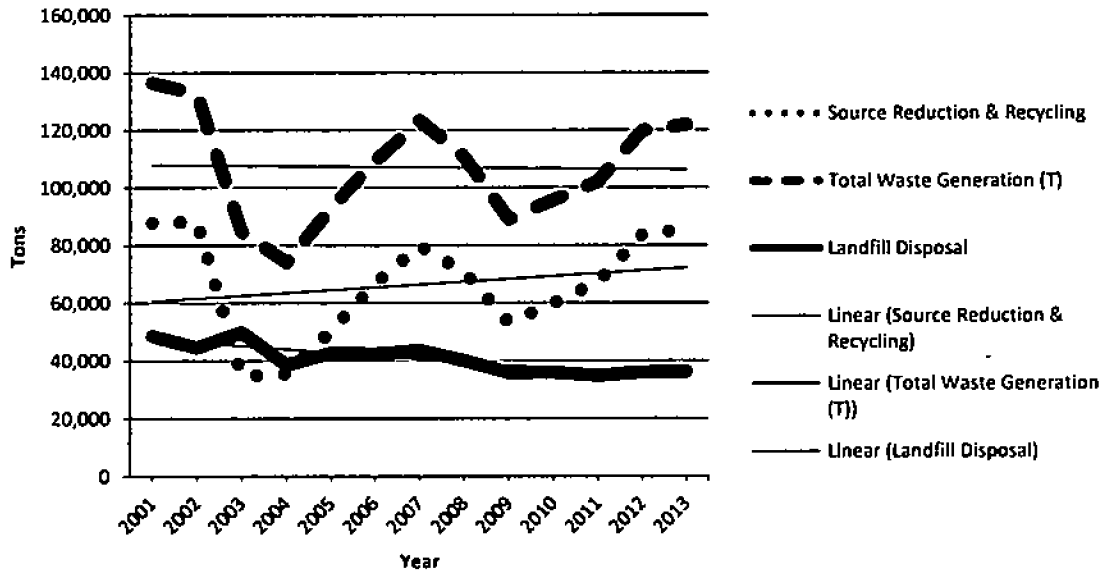
Year	Management Method Used (TPY)						Total Waste Generation (T)
	Source Reduction & Recycling	Yard Waste Composting	Yard Waste Land Application	Incineration	MSW Composting	Landfill Disposal	
2001	87,941	0	0	0	0	48,556	136,497
2002	88,195	0	0	0	0	44,565	132,760
2003	30,878	3,860	0	0	0	49,928	84,666
2004	31,417	4,034	0	0	0	38,599	74,050
2005	33,145	17,225	0	0	0	42,658	93,028
2006	64,472	2,294	0	0	0	42,312	109,078
2007	77,772	2,018	0	0	0	43,596	123,386
2008	68,459	2,249	0	0	0	39,995	110,703
2009	48,776	4,479	0	0	0	35,806	89,061
2010	56,787	3,025	0	0	0	35,865	95,677
2011	60,853	6,477	0	0	0	34,822	102,152
2012	80,513	3,114	0	0	0	36,052	119,679
2013	74,581	2,502	0	0	0	36,285	113,368

Source:

District Annual Reports and Ohio EPA Facility Data Reports

Figure IV-3 below shows the historical trends of waste recycling, disposal, and generation.

Figure IV-3 Historical Waste Reduction, Disposal and Generation



H. Reconciliation of Waste Generation

Total waste generation is calculated in Section IV.D and Section IV.G using different methodologies. The determination must be made as to which calculated method for waste generation is more accurate for the District. In both methodologies total waste generation is

marginally different. Closer examination shows the difference in calculated methods differs either in residential/commercial waste generation or industrial waste generation calculations. Calculated methods in Section IV.D show less residential/commercial and greater industrial waste generation than calculated in Section IV.G.

Historically the residential/commercial sector calculates higher generation rates than national averages and as discussed further in this section, higher than similar populated Ohio counties. Thus, for this plan update the calculated method in Section IV.G, based on reported disposal and recycling, is believed to be the more accurate representation of residential/commercial and industrial waste generations. The waste generation estimates provided in Table IV-8 "Adjusted Reference Year Total Waste Generation for the District" will be used throughout the remainder of the plan, to predict waste composition, to make projections for each year of the planning period, and to determine management capacity processing needs.

Table IV-8: Adjusted Reference Year Total Waste Generation for the District

Type of Waste	Generation Rate (lbs/person/day)	Tons/Year
Residential/Commercial[1]	6.06	50,138
Industrial[2]	52.06	56,867
Exempt[3]	0.77	6,364
Total Waste Generation	**13.69**	**113,368**

Source:

[1]Tons/Year = Residential/Commercial waste (Table III-1) + Recycling (Table IV-5)

[2]Tons/Year = Industrial Waste (Table III-1) + Industrial Recycling (Table IV-6)

[3]Exempt Generation Rate is taken from Table IV-3

Population: Table IV-1

Sample Calculations (R/C):

Tons/Year = Tons Disposed + Tons Recycled

$$58{,}632 \text{ (tons/year)} = 33{,}301 \text{ (tons/year)} + 25{,}331 \text{ (tons/year)}$$

$$\text{Generation Rate (lbs/person/day)} = \frac{\text{Total Waste (tons/yr)} \times 2{,}000 \text{ (lb/ton)}}{\text{(District Population)} \times 365 \text{ days/year}}$$

$$6.06 = \frac{50{,}138 \times 2{,}000}{45{,}369 \times 365}$$

Even though it follows historical trends, the District has doubts the higher generation rate is an accurate generation rate for the residential/commercial sector. As the District looks to reconcile the waste generation for the reference year, the question of "is it really all our waste" resurfaces. Working towards zero waste has the District closely examining the calculation of waste generation (recycling plus disposal) in the residential/commercial sector. For the past twenty years the District has believed waste disposal reports may not be a very accurate representation of Logan County waste disposal habits. There are a few factors leading to this question and the desire to determine the answer.

The County is rural. Waste generation is calculated on a pounds per person basis, our community calculates a high waste generation rate, when compared to other similarly populated counties in Ohio. Below is a table comparing residential/commercial waste generation rates for 2013 between similarly populated counties.

County	Population (2013)	Waste Generation Rate
Ashland County	53,043	4.03
Auglaize County	45,814	4.79
Brown County	44,264	4.65
Crawford County	42,808	4.44
Darke County	51,571	5.86
Logan County	45,369	6.06
Mercer County	41,715	4.60
Preble County	42,283	3.63

Not only is the District's waste generation rate higher than these similar Ohio counties, it is higher than neighboring North Central Ohio Solid Waste District. North Central Ohio's generation rate is 4.85 pounds/person/day with a combined total population of 324,851 (consisting of Allen, Champaign, Hardin, Madison, Shelby and Union Counties).

Why the higher rate? An explanation could be a misreporting of waste disposal at the Cherokee Run Landfill. In other words, waste from other counties may be identified as Logan County waste when it reaches the landfill. The predominant hauler in the area services Logan County and the surrounding counties. In some instances one side of the road is Logan and the other side is a neighboring county. Collection logistics and routing makes it challenging and difficult to correctly report waste disposal data once it reaches the landfill for disposal. Also, District fees levied on waste disposal are lower than surrounding District fees. District levied tier fees are $1/$2/$1, neighboring districts of North Central Ohio and Auglaize levy $5.00 and $9.00 generation fees, respectively. In the current system of levied fees and collection routes, waste could be misreported as Logan County waste once it reaches the landfill for disposal. The District must address this issue in this Plan Update and will be implementing a study. If the waste is not Logan County waste, then how can the District reduce or recycle it?

I. Waste Composition

1. *Residential/Commercial Sectors*

The District estimated the residential/commercial sector waste stream composition in Table IV-9, "Estimated Residential/Commercial Waste Stream Composition for the District for the Reference Year" using the national waste composition averages provided by U.S. EPA's "Municipal Solid Waste Generation, Recycling, and Disposal in the United States Tables and Figures for 2012" published in February 2014. The total waste generation (from Table IV-8) was multiplied by the estimated percentage of the waste stream for each commodity (from U.S. EPA).

Table IV-9: Estimated Residential/Commercial Waste Stream Composition for the District for the Reference Year

Waste Stream Material	Percentage of the Waste Stream[1]	Tons	Percentage of the Waste Stream[2]	Adjusted Tons
Cardboard	11.8%	5,916	19.5%	9,777
Newspaper	3.3%	1,655	1.3%	652
Office Papers	3.0%	1,504	3.0%	1,504
Other Paper	9.2%	4,613	9.2%	4,613
Glass	4.6%	2,306	2.6%	1,304
HHW	0.0%	0	0.0%	0
Ferrous Metals	6.0%	3,008	15.0%	7,521
Aluminum	1.4%	702	1.4%	702
Non-Ferrous Metals	0.8%	401	0.8%	401
Batteries	1.2%	602	1.2%	602
Plastics	12.7%	6,367	4.7%	2,356
Rubber	1.1%	552	1.1%	552
Scrap Tires	1.9%	953	1.9%	953
Textiles	5.7%	2,858	3.0%	1,504
Used Oil	0.0%	0	0.0%	0
Wood	6.3%	3,159	6.3%	3,159
Other	1.8%	902	1.8%	902
Food Scraps	14.1%	7,069	12.1%	6,067
Yard Trimmings	13.5%	6,769	13.5%	6,769
Misc. Organic Wastes	1.6%	802	1.6%	802
Totals	100.0%	50,138	100.0%	50,138

Source:
[1]Percentages from U.S. EPA "Municipal Solid Waste Generation, Recycling, and Disposal in the United States Tables and Figures for 2012" published February 2014

[2]Adjusted percent composition based on reported recycling.

Notes:

- An estimate for commingled recyclables is not separately defined for waste composition purposes. It is assumed to be included with individual material breakdowns.

- Oil and HHW are not separately identified in US EPA's waste characterization estimates. The District adjusted the characterizations to include oil and HHW.

2. *Industrial Sector*

Surveys are the best mechanism to obtain information on industrial waste composition providing generation data is included by waste stream. In some cases industries may not be able to separate their generation or waste disposal by type of material and/or industry response to the surveys may be low. Both cases were prevalent in the District industrial surveys. The industrial sector data collected for the District was based on fourteen industries and of the data received only recycling data was categorized by material waste stream. For waste stream characterization, the District is estimating non-responding industry waste generation and responding industry waste generation.

To estimate industrial waste composition Appendix JJ of the *Format* provides an estimated waste generation by type of waste stream. This estimate was then added to the recycling survey data because in some waste stream types reports of recycling were higher than generation. A ratio of total estimated to total reported was used to determine tonnages per material. The estimated industrial waste composition is shown in Table IV-10 "Estimated Waste Composition for the Reference Year".

Table IV-10: Estimated Industrial Waste Composition for the Reference Year in the District

Waste Stream Type	TPY	% of Waste Stream in Generation
Batteries	2.6	0.00%
Food	559.0	0.89%
Glass	26663.8	42.39%
Ferrous	22804.8	36.26%
Non-Ferrous	5254.5	8.35%
Non-Exempt Foundry Sand	30.7	0.05%
Cardboard	674.0	1.07%
Paper	30.3	0.05%
Plastics	2585.4	4.11%
Rubber	0.0	0.00%
Textiles	113.9	0.18%
Wood	378.0	0.60%
Stone/Clay/Sand	30.7	0.05%
Non-Hazardous Chemicals	1787.0	2.84%
Other	1508.8	2.40%
Commingled	472	0.75%
Grand Total	**62,895.21**	

Source:

District Industrial Waste Survey for calendar year 2013 solid waste generation by type of waste and SIC number.

Total Waste generation for each type of waste and SIC number may be found in Appendix F Generated.

Demonstration shows possible distribution of waste stream for the industrial sector.

Section V Planning Period Projections and Strategies

A. Planning Period

Ohio law requires solid waste management plans to develop projections for population, waste generation, and waste reduction, a minimum of ten years into the future, and provide strategies to meet waste management needs for those ten years. Districts must establish a planning period which begins the calendar year following the draft plan due date for the District. The first year of this Plan Update's planning period is 2016 to extend sixteen years to 2031.

B. Population Projections

The District's population projections are presented in Table 5-1, "District Population Projections". The population estimate from Section IV for the 2013 reference year is 45,369. The estimate excludes population estimates for the Village of Ridgeway because more than 50 percent of the political subdivisions' residents live outside Logan County in Hardin County. Ohio Law requires population of municipalities located in more than one solid waste management district be added to only the solid waste management district containing the largest portion of the jurisdiction's population.

Table V-1: District Population Projections

Year	County Population[1]	Adjustments	Total District Population
		Village of Ridgeway	
2013	45,481	(112)	45,369
2014	45,646	(112)	45,534
2015	45,810	(112)	45,698
2016	45,768	(112)	45,656
2017	45,726	(112)	45,614
2018	45,684	(112)	45,572
2019	45,642	(112)	45,530
2020	45,600	(112)	45,488
2021	45,522	(112)	45,410
2022	45,444	(112)	45,332
2023	45,366	(112)	45,254
2024	45,288	(112)	45,176
2025	45,210	(112)	45,098
2026	45,086	(112)	44,974
2027	44,962	(112)	44,850
2028	44,838	(112)	44,726
2029	44,714	(112)	44,602
2030	44,590	(112)	44,478
2031	44,458	(112)	44,346

Source:

[1]Reference Year 2013 Population from Table IV-1. Populations for years 2015, 2020, 2025, and 2030 are taken from Ohio Department of Development (http://development.ohio.gov/files/research/P6090.pdf)

Sample Calculation:

Year 2015 - Year 2013 = Amount change in population between projected year data

45,810 - 45,841 = -31

$$\frac{\text{Amount of change in population}}{\text{Number of years in projection}} = \text{Incremental change per year}$$

-31 / 2 = -15.5

Year 2013 Population + Incremental change per year = 2014 Population

2014 Population = 45,481 + -15.5 = 45,646

C. Waste Generation Projections

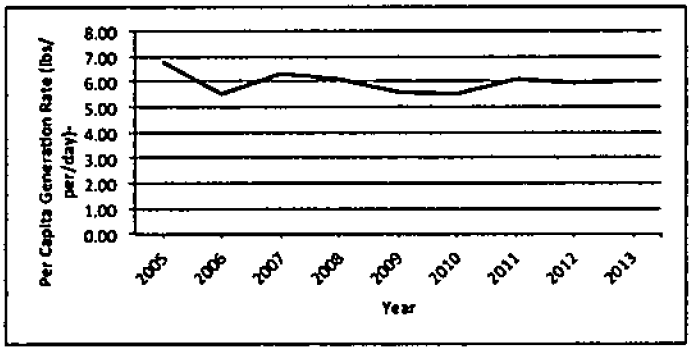
1. *Residential/Commercial Sector*

The most widely accepted method of estimating projected solid waste quantities is to establish per capita waste generation factors. As seen in Figure V-1, the residential/commercial waste generated incremental annual increases and decreases of waste from 2006-2012.

Figure V-1 Historical Trends in Residential/Commercial Waste Generation

Year	Per Capita Generation Rate
2005	6.78
2006	5.54
2007	6.35
2008	6.07
2009	5.58
2010	5.50
2011	6.09
2012	5.99
2013	6.06

median	6.06
average	6.00



It is expected waste generation will remain at the median of 6.06 pounds per person per day. As shown in Table V-2, "District Residential/Commercial Waste Generation" waste generation decreases from 50,138 tons in 2013 to 49,007 tons in 2031.

Table V-2: District Residential/Commercial Waste Generation (TPY)

Year	District Population[1]	Per Capita Generation Rate (lbs/person/day)[2]	Total Residential/Commercial Generation (Tons)
2013	45,369	6.06	50,138
2014	45,534	6.06	50,319
2015	45,698	6.06	50,501
2016	45,656	6.06	50,455
2017	45,614	6.06	50,408
2018	45,572	6.06	50,362
2019	45,530	6.06	50,316
2020	45,488	6.06	50,269
2021	45,410	6.06	50,183
2022	45,332	6.06	50,097
2023	45,254	6.06	50,011
2024	45,176	6.06	49,924
2025	45,098	6.06	49,838
2026	44,974	6.06	49,701
2027	44,850	6.06	49,564
2028	44,726	6.06	49,427
2029	44,602	6.06	49,290
2030	44,478	6.06	49,153
2031	44,346	6.06	49,007

Notes:
Per Capita Generation Rate as shown above is rounded to the nearest hundredths. For generation calculations the per capita generation rate was rounded to the nearest ten-thousandths.

Source:

[1]Population projections from Table V-1

[2]Per Capita Generation Rate from Table IV-8.

Sample Calculation:

Total Residential/Commercial Generation (TPY) =

$$\frac{\text{District Population (persons)} \times \text{Per Capita Generation Rate (lb/person/day)} \times 365 \text{ (days/year)}}{\text{2000 pounds/ton}}$$

$$50{,}138 \text{ TPY} = \frac{45{,}369 \times 6.06 \times 365}{2000}$$

2. Industrial Sector

Recycling and waste disposal data were added together to determine industrial waste generation for the reference year. In order to estimate waste generations through the planning period, the Ohio Department of Job and Family Services, Bureau of Labor Market Information (BLMI) research was consulted.

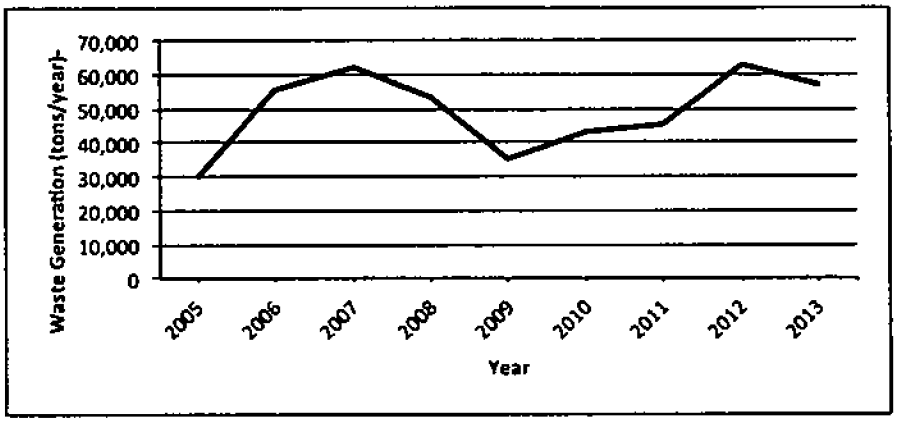
BLMI updates employment projections every two years for use in long-range economic and employment trends. Logan County is part of the Central Ohio Region. The BLMI, projects manufacturing employment in the District's region of Ohio will decrease 0.1 percent from 2010

to 2020. Resulting in an annual decrease of 0.01%. Historical generation fluctuated from a high of 62,541 tons to a low of 29,945 over an eight-year time span as shown in Figure V-2, "Historical Trends in Industrial Waste Generation". The 2013 waste generation is higher than the median.

Figure V-2 Historical Trends in Industrial Waste Generation

Year	Waste Generation
2005	29,945
2006	55,681
2007	61,668
2008	53,003
2009	35,266
2010	43,314
2011	45,524
2012	62,451
2013	56,877

median	53,003
average	49,303



The planning period projects incremental annual decreases of waste generation to mirror the expected decline in manufacturing employment through 2020. Decreases will occur as a result of decreases in industrial employment, not decreases in the amount of waste generated per employee. The industries surveyed for this report preparation fall within the manufacturing categories that are expected to decline.

The District's industrial waste generation projections are presented in Table 5-3, "Projected Industrial Waste Generation".

Table V-3: Projected Industrial Waste Generation (tons)

SIC	Year																		
Category	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
20	2,034	2,034	2,034	2,034	2,034	2,033	2,033	2,033	2,033	2,033	2,032	2,032	2,032	2,032	2,032	2,031	2,031	2,031	2,031
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
27	446	446	446	446	446	446	446	446	446	446	446	446	446	445	445	445	445	445	445
28	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	1,022	1,022	1,021	1,021	1,021	1,021	1,021	1,021	1,021	1,021	1,021	1,021	1,020	1,020	1,020	1,020	1,020	1,020	1,020
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	20,403	20,401	20,399	20,397	20,395	20,393	20,391	20,389	20,387	20,384	20,382	20,380	20,378	20,376	20,374	20,372	20,370	20,368	20,366
33	6,424	6,424	6,423	6,422	6,422	6,421	6,420	6,420	6,419	6,418	6,418	6,417	6,417	6,416	6,415	6,415	6,414	6,413	6,413
34	1,236	1,236	1,235	1,235	1,235	1,235	1,235	1,235	1,235	1,235	1,234	1,234	1,234	1,234	1,234	1,234	1,234	1,234	1,234
35	318	318	318	318	318	318	318	318	318	318	318	318	318	318	318	318	318	318	318
36	444	444	444	444	444	444	443	443	443	443	443	443	443	443	443	443	443	443	443
37	24,272	24,269	24,267	24,264	24,262	24,260	24,257	24,255	24,252	24,250	24,247	24,245	24,243	24,240	24,238	24,235	24,233	24,230	24,228
38	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
39	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Totals	56,867	56,861	56,855	56,850	56,844	56,838	56,833	56,827	56,821	56,816	56,810	56,804	56,799	56,793	56,787	56,781	56,776	56,770	56,764

Projected Growth For Manufacturing Industries Annual Percent Employment Change
-0.01%

Source:

Industrial Generation by SIC Code for 2012 from Table IV-2 is adjusted to correspond to total industrial waste on Table IV-8

Change in industrial generation is calculated based on the annual decrease of 0.01%.

Sample Calculation:

(Waste generated in previous year) + (waste generated in previous year x assumed growth rate) = waste generated in estimated year

2014 SIC Code 20 (2,035) + (2,035 x -0.01%) = 2,034

3. Total Waste Generation

Total waste generation projections during the planning period are presented in Table 5-4, "Total Waste Generation for the District during the Planning Period (in TPY)".

Table V-4: Total Waste Generation for the District During the Planning Period (in TPY)

Year	Residential/ Commercial[1] (tons)	Industrial[2] (tons)	Exempt[3] (tons)	Total Waste (tons)	Generation Rate lbs/person/day
2013	50,138	56,867	6,364	113,368	13.69
2014	50,319	56,861	6,364	113,544	13.66
2015	50,501	56,855	6,364	113,720	13.64
2016	50,455	56,850	6,364	113,668	13.64
2017	50,408	56,844	6,364	113,616	13.65
2018	50,362	56,838	6,364	113,564	13.65
2019	50,316	56,833	6,364	113,512	13.66
2020	50,269	56,827	6,364	113,460	13.67
2021	50,183	56,821	6,364	113,368	13.68
2022	50,097	56,816	6,364	113,276	13.69
2023	50,011	56,810	6,364	113,184	13.70
2024	49,924	56,804	6,364	113,092	13.72
2025	49,838	56,799	6,364	113,000	13.73
2026	49,701	56,793	6,364	112,858	13.75
2027	49,564	56,787	6,364	112,715	13.77
2028	49,427	56,781	6,364	112,572	13.79
2029	49,290	56,776	6,364	112,430	13.81
2030	49,153	56,770	6,364	112,287	13.83
2031	49,007	56,764	6,364	112,135	13.86

Source:

[1]Residential/Commercial Waste from Table V-2

[2]Industrial Waste from Table V-3

[3]Exempt Waste for 2013 from Table IV-8. Exempt Waste is projected to remain at the same levels as 2013 for each year of planning period.

Sample Calculation:

Total Waste = Residential/Commercial + Industrial + Exempt

113,368 tons = 50,138 tons + 56,877 tons + 6,364 tons

$$\text{Generation Rate (lb/person/day)} = \frac{\text{Total Waste Generated (tons)} \times 2{,}000 \text{ lbs/ton}}{\text{Population} \times 365 \text{ days/year}}$$

$$13.69 \text{ lbs/person/day} = \frac{113{,}368 \text{ tons} \times 2{,}000 \text{ lbs/ton}}{45{,}369 \text{ persons} \times 365 \text{ days/year}}$$

D. Projections for Waste Stream Composition

The relative composition of the District's waste stream is not expected to change significantly over the planning period, therefore no projections are provided.

E. Waste Reduction Strategies through the Planning Period

The State Plan requires solid waste management districts to propose implementation (or continue) waste reduction strategies which will enable the District to meet the goals established in the state plan. The District's 2010 Plan implemented waste reduction strategies that complied with the eight goals of the *2001 State Plan*. The director of the Ohio EPA working with the Solid Waste Management Advisory Council has prepared and adopted another state plan, the *2009 State Plan*, which introduced a number of programming changes to the goals.

This section discusses the waste reduction strategies that will be used throughout the planning period; those strategies that will be implemented to meet the state plan. Even though the *2009 State Plan* was adopted, solid waste management districts are not required to follow the changes to the goals until a new plan format is adopted; however, the District will be required to meet the *2009 State Plan* goal in its next plan update. In order to progress the District closer to meeting those goals, this plan meets the *2001 State Plan* goals. A brief listing of the state plan goals from the *1995*, *2001*, and *2009 State Plan* goals are presented below:

1995 State Plan Goals	2001 State Plan Goals	2009 State Plan Goals
#1 = Access	#1 = Access	#1 = Infrastructure
#2 = Waste Reduction & Recycling Rates	#2 = Waste Reduction & Recycling Rates	#2 = Waste Reduction & Recycling Rates
#3 = Informational and Technical Assistance on Source Reduction	#3 = Source Reduction	#3 = Outreach & Education – minimum required programs
#4 = Informational and Technical Assistance on Recycling and Reuse	#4 = Technical and Informational Assistance	#4 = Outreach & Education – outreach and marketing plan
#5 = Restricted Wastes and HHW	#5 = Restricted Wastes and HHW	#5 = Restricted Solid Wastes, HHW & Electronics
#6 = Reporting	#6 = Economic Incentives	#6 = Economic Incentives
#7 = Market Development Strategy (optional)	#7 = Market Development	#7 = Measure Greenhouse Gas Reduction
	#8 = Reporting	#8 = Market Development
		#9 = Reporting

The following shows the full slate of programming that the District will implement throughout the planning period.

Program/Strategy	2001 State Plan Goals							
	#1	#2	#3	#4	#5	#6	#7	#8
Industrial Committee			X	X				
Bellefontaine PAYT	X	X	X			X		
Lake Township PAYT	X	X	X			X		
Village of West Liberty PAYT	X	X	X			X		
Belle Center Village Drop-Off Recycling Center	X	X	X			X		
DeGraff Village Drop-Off Recycling Center	X	X	X			X		
East Liberty Drop-Off Recycling Center	X	X	X			X		
Huntsville Village Drop-Off Recycling Center	X	X	X			X		
Lakeview Village Drop-Off Recycling Center	X	X	X			X		
Middleburg Drop-Off Recycling Center	X	X	X			X		
Moundwood Drop-Off Recycling Center	X	X	X			X		
Quincy Village Drop-Off Recycling Center	X	X	X			X		
Rushsylvania Village Drop-Off Recycling Center	X	X	X			X		
Russells Point Drop-Off Recycling Center	X	X	X			X		
West Liberty Village Drop-Off Recycling Center	X	X	X			X		
West Mansfield Drop-Off Recycling Center	X	X	X			X		
Jefferson Township (Zanesfield) Drop-Off Recycling Center	X	X	X			X		
North Side Drop-Off Recycling Center	X	X	X			X		
Bellefontaine-Campbell Hill Drop-Off Recycling Center	X	X	X			X		
Bellefontaine-S. Detroit Street Drop-Off Recycling Center	X	X	X			X		
Fiber Collection Program		X						
Other District Recycling Collections		X						
Commercial and Industrial Business Surveys		X						X
Litter Prevention and Recycling Education			X	X	X			
District Website			X	X				
Household Hazardous Waste Education				X	X			
Household Battery Collection					X			
Lead-Acid Battery Strategy				X	X			
Center for Hard To Recycle Materials (CHaRM)					X			
Waste Tire Management Program					X			
Bellefontaine City Yard Waste Management					X			
Cherokee Run Compost Facility					X			
Private Compost Facilities					X			
DeGraff Village Leaf Collection					X			
Quincy Village Compost Facility					X			
West Liberty Village Curbside Yard Waste Collection and Compost Facility					X			
Organics Initiatives				X	X			
Program Improvements/Revisions						X		
Market Development Projects							X	
Grant Subsidies Program							X	
Health Department Assistance								
Local Law Enforcement - Litter								
County Assistance								
Municipal/Township Assistance								
Agricultural Community Assistance								
Disaster Debris Management								
Private Recyclers/Processors		X						
Material Processing Facility (MRF)		X						
Waste Sort								
Planning Studies and Advisory Committee								
Number of Programs/Strategies Per Goal	19	24	22	6	13	20	2	1

In 2007, the District set an ambitious goal to achieve zero waste, a diversion of 90 percent of waste from landfills, by 2020. Zero waste is underway achieving a 68 percent diversion rate in 2013. The District credits success to incentivizing recycling collection with pay as you throw programs. Achieving Zero Waste is not possible without aggressive programs for minimization, reduction and diversion of waste, as well as high participation in those programs. To this end, the District will strive to educate the community with special emphasis on low-participating sectors and minimization (reduces the waste), incentives for proper disposal (make sure the waste makes it into the system), recycling and composting (diverting the waste from landfills). Rate increases on pay as you throw and increased enforcement will bring about better public awareness and incentivize the preferred opportunities. Food composting will increase the opportunities – infrastructure that still needs developed.

Some of the capital improvements planned for the MRF are dependent on grant funding. The District intends to actively and aggressively seek grants as a funding mechanism throughout the planning period. The District will work with Ohio EPA for grants as well as look beyond for other grant opportunities. These improvements depend largely on grant funding. The District has not included a program specifically identified as "aggressive grant writing" but understands aggressiveness is needed to receive the grant to implement portions of the capital improvements. If grant funding is not secured, improvements will be scaled back and possibly postponed. For planning purposes, this plan update assumes the MRF will make modifications to process single stream recyclables, however, the District reserves the right not to move forward. Adding single stream processing will be dependent upon demand and contract agreements with collection/haulers and communities serviced. The District may not add single stream processing if the relationships (between collection/hauler and curbside communities) and service do not foster single stream collection.

In preparing this Plan Update, the District developed a Plan to Zero Waste for achieving zero waste located in **Appendix J**. The Zero Waste Resolution is located in **Appendix K**.

Program Name: Industrial Committee

FUTURE STRATEGY/PROGRAM CHANGES: This committee strengthens communications of the involved parties. A goal of meeting four times a year for the committee is established. A focus will be producer responsibility, green purchasing, green buildings, new technologies, greenhouse gas emissions, organics, etc. The District would like to see this expand to commercial generators. Commercial businesses will be invited to take part in communication meetings. The meetings will be modeled after industrial committee meetings. A focus will be reducing/eliminating plastic bags, collecting glass, recovering food waste, and implementing recycling programs.

Program Name: Bellefontaine City PAYT/Curbside Recycling

FUTURE STRATEGY/PROGRAM CHANGES: The City's program is in need of new energy. PAYT rate increases are a regular component of incentivizing recycling. However, progress (in terms of increased tons) is relatively short-lived. The District will strive to "break-through" with the low-income neighborhoods/community which has historically been the lowest participation. Incentives to recycle through rate setting will continue to be a focus of meeting with the District, the City, and their contracted provider. In addition, the City, the District and the contractor will begin discussions to empirically evaluate the value in dollars and diversions of converting to single stream collection. Simplifying the system is generally regarded as having significant potential for the city to save money on collection and offer greater participation and more

complete diversion of accepted materials. The District assumes the contractor will convert to single stream during this planning cycle. If so, discussions with the stakeholders, haulers, and District will consider best collection method practices and campaigns for awareness.

Program Name: Lake Township PAYT/Curbside Recycling
FUTURE STRATEGY/PROGRAM CHANGES: Although never investigated, the Township is thought to have a relatively low set out rate. Incentives to recycle through rate setting will be a new focus of meeting with the District, the Township and their contracted provider. In addition, Bellefontaine, the District and the contractor will begin discussions to empirically evaluate the value in dollars and diversions of converting to single stream collection. Simplifying the system is generally regarded as having significant potential for the Township to save money on collection and offer greater participation and more complete diversion of accepted materials. The District assumes the contractor will convert to single stream during this planning cycle. If so, discussions with the stakeholders, haulers, and District will consider best collection method practices and campaigns for awareness.

Program Name: West Liberty PAYT/Curbside Recycling
FUTURE STRATEGY/PROGRAM CHANGES: The Village, despite high participation in past years has seen a continued decline in tons diverted through the curbside program. Data indicates that the reason is increased participation at local drop-off recycling which is available 24/7, compared to the once a week container collection. Incentives to recycle through rate setting will continue to be a focus of meeting with the District, the Village and their contracted provider. In addition, the Village the District and the contractor will begin discussions to empirically evaluate the value in dollars and diversions of converting to single stream collection. Simplifying the system is generally regarded as having significant potential for the Village to save money on collection and offer greater participation and more complete diversion of accepted materials. The District assumes the contractor will convert to single stream during this planning cycle. If so, discussions with the stakeholders, haulers, and District will consider best collection method practices and campaigns for awareness. Alternatively, the District will consider the value to the Village of discontinuing the curbside program and expanding the drop-off capacity.

Program Name: Drop-Off Recycling Center
FUTURE STRATEGY/PROGRAM CHANGES: Bag fees will increase to $3.00 per bag in 2016 and a new "mini-bag" priced at $1.75 may be available. Improved payment options will be explored and implemented if economically feasible. For example, add machines, convert credit card readers to chipped and possibly wireless or mobile applications.

The maintenance of drop-off centers could be improved. Over this planning period methods will optimize machine maintenance and single-use bag containers. The bag vendor management methods will be analyzed and equalities set (refers to stores selling PAYT bags for District). Possible changes include introducing late fees and credit limits.

As participation in the PAYT drop-off program continues to climb, the District will consider the potential value of diversion, savings and efficiencies of single stream collection. Underperforming sites could have a reduced number of total containers, releasing the extra containers to over-performing sites. Single stream collection would generally make collection more efficient, as all available containers could accept all materials.

The following drop-off centers will operate through the planning period.

Belle Center Village	Russells Point
DeGraff Village	West Liberty
Huntsville Village	West Mansfield
Lakeview Village	Jefferson Township
Middleburg	North Side
Moundwood	Campbell Hill
Quincy Village	S. Detroit Street
Rushsylvania	East Liberty

Program Name: Fiber Collection Program – Commercial and Institutional Recycling Assistance
Future Strategy/Program Changes: Commercial and institutional generators will continue to be educated on setting up a fiber collection route. Work will include technical assistance, waste audits, zero waste training, etc. In addition, while economically feasible, rebates will be offered to haulers for cardboard as described in Section IV.

Program Name: Fiber Collection Program – County Government recycling Pick-up
Future Strategy/Program Changes: Haulers will be contacted via phone to explore interest in collection service of government offices. The District will offer technical assistance to train office employees and custodial staff.

Program Name: Logan County Schools Cardboard Recycling
Future Strategy/Program Changes: School cardboard and paper recycling will continue as markets, quantities and resources permit.

Program Name: Other District Recycling Collections
Future Strategy/Program Changes: Roadside cleanup and Adopt-A-Road groups will continue.

Program Name: Commercial and Industrial Business Surveys
Future Strategy/Program Changes: Surveys for both the commercial and industrial sectors will continue annually. Efforts will be increased to capture the data (number) of lead-acid batteries being recycled at private sector establishments.

Program Name: Litter Prevention and Recycling Education
Future Strategy/Program Changes: The goal for education will be a partnership approach for the District with other groups and organizations performing the implementation. No permanent staff are planned to be added within the District budget. Significant efforts will be dedicated to identifying and linking our education efforts with other existing programs and agencies with "built-in" audiences and proven accomplishments. Possible partners or cooperative efforts to be explored are with the Police Departments and local Cooperative Extension. Grants may be awarded to these agencies and organization to integrate the District message into their existing outreach efforts. Project specific grants will be awarded based on projected audience size and improved participation and/or tons diverted. All grant applications will be required to project these achievements. Awards will require reporting on actual achievements in terms of surveyed improvements in participation or empirical estimates of increased diversion or decreased violations. An education plan, provided in **Appendix L**, frames the education messages, measurables, and schedules.

In addition to the education plan, education "projects" and actions to assist these projects will also be coordinated for the planning period. To assist with these projects, and other District operation duties, a permanent internship program will be established. The internship is categorized under this program and will have no expected expense allocations. The exact list of programming will be decided by the District on an annual basis, priority projects (by audience) include:

School Education

- Promote Keep America Beautiful Recycle Bowl competition.
- Develop school curriculum for K-6 teachers to use.
- Provide monthly articles for school newsletters and website.
- Conduct pilot projects at high schools such as: rain gardens, food waste composting, and waste reduction activities.

Teacher Education

- Develop a video resource following recyclables placed at curb and drop-off center through processing.
- Make a dedicated teacher navigation tool on the website.
- Coordinate with school principals to deliver in-service day workshops or presentations.

Youth Education

- Hire interns to manage social media: Facebook and Twitter.
- Increase promotional give-aways (t-shirts, lunch bags, water bottles, etc.)
- Promote video resource to youth groups (CYO, Boy Scouts, Girl Scouts, 4-H, etc.)

Adult Education

- Re-invigorate a compost seminar on an annual basis.
- Continue to sell rain and compost barrels.
- Educate on waste avoidance, home composting, benefits of recycling, Zero Waste, manufacturer responsibility, reuse and donating.
- Encourage green purchasing, resource conservation and recycling.
- Implement Master Recycler Program. A program that trains community members so they can share this information with their neighbors. Members of the community to be peer educators and outreach into their communities.

Stakeholder Education

- Create and distribute an annual report to highlight key accomplishments and maintain an online Dashboard that tracks recycling, composting and refuse tonnages in order to track the efforts to divert waste.
- Explore buy recycled programs.

The District maintains a list (published on the website) of retailers and businesses available which offer point of sale returns or "take back" programs. A few businesses offer "take back" programs for plastic grocery bags, computers, cell phones, lead-acid batteries, and ink cartridges. These types of "take back" programs help alleviate burdens to the District and will be continually pursued in local businesses.

Program Name: District Website
FUTURE STRATEGY/PROGRAM CHANGES: The website will be maintained and expanded, possibly with user accounts, loyalty features, surveys, incentives, adult and youth specific navigation areas.

Program Name: Household Hazardous Waste Education
FUTURE STRATEGY/PROGRAM CHANGES: Education will continue to be provided on the website.

Program Name: Household Battery Collection
FUTURE STRATEGY/PROGRAM CHANGES: Batteries will continue to be collected at all drop-off recycling center locations.

Program Name: Lead –Acid Battery Strategy
FUTURE STRATEGY/PROGRAM CHANGES: Lead-acid batteries will continue to be collected at CHaRM and available outlets listed on the website.

Program Name: CHaRM – Center for Hard to Recycle Materials
FUTURE STRATEGY/PROGRAM CHANGES: Programmatic operations will continue. To address challenges identified in staff training and resources the District will contract with the Logan County HAZMAT team to handle material operations at CHaRM. This is scheduled to begin in 2015. Awareness may be measured by monitoring hits on the website, Facebook, and Twitter as a metric about public interest.

Program Name: Waste Tire Management Program
FUTURE STRATEGY/PROGRAM CHANGES: Waste tires will continue to be collected at CHaRM.

Program Name: Bellefontaine City Yard Waste Management
FUTURE STRATEGY/PROGRAM CHANGES: All yard waste programs will be targeted to integrate open burning education through microgrants to local Fire Departments.

Program Name: Cherokee Run Compost Facility
FUTURE STRATEGY/PROGRAM CHANGES: All yard waste programs will be targeted to integrate open burning education through microgrants to local Fire Departments.

Program Name: Private Compost Facilities
FUTURE STRATEGY/PROGRAM CHANGES: All yard waste programs will be targeted to integrate open burning education through microgrants to local Fire Departments.

Program Name: DeGraff Village Leaf Collection
FUTURE STRATEGY/PROGRAM CHANGES: All yard waste programs will be targeted to integrate open burning education through microgrants to local Fire Departments.

Program Name: Quincy Village Leaf Collection and Compost Facility
FUTURE STRATEGY/PROGRAM CHANGES: All yard waste programs will be targeted to integrate open burning education through microgrants to local Fire Departments.

Program Name: West Liberty Village Curbside Yard Waste Collection and Compost Facility

FUTURE STRATEGY/PROGRAM CHANGES: All yard waste programs will be targeted to integrate open burning education through microgrants to local Fire Departments.

Program Name: Organics Initiatives

FUTURE STRATEGY/PROGRAM CHANGES: Yard waste according to the waste composition, is 14% of the waste stream. Food waste comprises an additional 12%. These two streams comprise a large component of waste which needs to be captured for recycling to help meet the District's Zero Waste goals. Current practice of disposing of food waste at landfills is not sustainable and is environmentally undesirable. Initiatives for organics programs will be a large focus during this plan update and are slated for implementation in the short-term (2016-2018). These initiatives include:

1. Expand marketing of compost products. The District will educate on the benefits of using compost for gardening and landscaping by publishing education articles on the website and local newspapers.
2. Explore alternatives for managing yard waste. Evaluate existing infrastructure for managing yard waste (back-yard composting, chipping, etc.). Encourage expansion of compost processing at compost facilities in the County. Survey the operating compost facilities to determine expansion plans and challenges or impediments to expand. After summarizing the results the District will create a matrix of challenges and solutions to explore areas where the District can assist in expansion.
3. Explore alternatives for managing food waste composting. Raise awareness and set ambitious targets for food waste reduction. Set-up a reuse and donation system to food banks or food rescue organizations. Review types of technology for treating food waste and possibly conduct a study for appropriate means, mechanism and mode of source-separated food waste collection and delivery for both commercial and residential sectors. Consider implementing pilot programs or facilities. Take steps to work with chamber of commerce, regional planning commission, and board of county commissioners to encourage food waste composting facilities to locate to the county by engaging the stakeholders and hosting meetings as often as needed. Technologies to be considered will include a range of options: from static pile aerobic digestion (compost) to more sophisticated methods such as in-vessel anaerobic digestion with methane recovery and energy generation. More elaborate methods would necessitate cooperative projects with any of the following: urban wastewater plants, commercial food waste generators, utility companies, etc.

Program Name: Program Improvements/Revisions (formerly PAYT Incentive Program)

FUTURE STRATEGY/PROGRAM CHANGES: Budgets for this category of expenditure are substantially increased, beginning in 2016, to fund activities of larger scope than in the past. Consulting with the community, the Board of Directors will determining on an annual basis how to best spend the available allocation to implement new or improved programs. Allocations are likely to change from year to year and may be made in any proportion deemed most promising, based on real opportunities to improve diversions. Likely uses are: grants or allocations to study or pilot program improvements, capital improvements at facilities to increase diversions, and community incentive programs (rewards/rebates).

All interested parties may seek these funds. Project specific grants will be awarded based on projected audience size and improved participation and/or tons diverted. All grant applications will be required to project these achievements. Awards will require reporting on actual achievements in terms of surveyed improvements in participation or empirical estimates of

increased diversion or decreased violations. With the explicit exception of community incentives (rewards/rebates), these funds will not be used to offset existing program operational expenses. The intent is to propel programs towards the next level of recycling. Examples of improvements include: public space recycling; multi-family housing programs; organic collections or programs; glass restaurant recycling, development of recyclable collection points for businesses, restaurants and offices; replacement curbside bins with multi-colored bins to better separate recyclables and improve participation (if single stream conversion is not implemented); and development of a curbside inspection program to improve program compliance.

The District reserves the right to reduce funding this program should the District experience a decrease in revenues at anytime during the planning period.

Program Name: Market Development Projects
FUTURE STRATEGY/PROGRAM CHANGES: There are three stages to recycling: collecting recyclables; manufacturing recycled-content products; and selling recycled-content products. The District may assist with funding that will foster businesses that manufacture and market recycled-content products and/or strengthen demand for those products. Eligible projects may target post-consumer, post-commercial, and post-industrial recycled material. Projects have not yet been identified and funding is very limited.

Program Name: Grant Subsidies Program
FUTURE STRATEGY/PROGRAM CHANGES: Rather than subsidies, focus will be directed to zero waste education. The District sees an opportunity to provide educational grants in the future. At this time funds are being directed to other programming. Activities and expenses are not directed toward this program for this plan update. This program will serve as a place-holder.

Program Name: Health Department Assistance
FUTURE STRATEGY/PROGRAM CHANGES: The District plans to administer funds to the Health Department throughout the planning period; however, the District reserves the right to discontinue funding this program should the District experience a decrease in revenues at anytime during the planning period.

Program Name: Local Law Enforcement - Litter
FUTURE STRATEGY/PROGRAM CHANGES: The District plans to administer funds to Local Law Enforcement throughout the planning period; however, the District reserves the right to reduce or discontinue funding this program should the District experience a decrease in revenues at anytime during the planning period.

Program Name: County Assistance
FUTURE STRATEGY/PROGRAM CHANGES: No changes are planned.

Program Name: Municipal/Township Assistance
FUTURE STRATEGY/PROGRAM CHANGES: Funding is not planned in the planning period, but should revenues become available may be administered for this program.

Program Name: Agricultural Community Assistance
FUTURE STRATEGY/PROGRAM CHANGES: No changes are planned.

Program Name: Disaster Debris Management
FUTURE STRATEGY/PROGRAM CHANGES: Due to low income in prior years, the intended allocations to these purposes have been delayed. This plan update renews the promise of creating resources to cope with natural or man-made disaster.

Program Name: Private Recyclers/Processors
FUTURE STRATEGY/PROGRAM CHANGES: No changes are planned.

Program Name: Materials Processing Facility (MRF)
FUTURE STRATEGY/PROGRAM CHANGES: Operations of the MRF will continue through the planning period. The MRF presents many challenges ranging from resources, revenues, expenditures, employment, design, material handling, market volatility, etc. Research for optimizing the MRF will be a constant endeavor.

One of the many facets of MRF operations is change. The newest discussions involve single stream processing. Curbside recyclables are collected and delivered to the MRF by private industry. Discussion regarding single stream is currently taking place between the municipalities and contractors servicing them. The relationship between the municipalities and the contracted collector/hauler is the major and only factor to add single stream processing capacity. The District has a team relationship with the municipalities and the haulers but has no control. If the municipalities or hauler switches to single stream the MRF needs to be able to handle and process the flow of recyclable materials. This plan lays out a plan to modify the current processing operations to handle single stream should this happen.

Capital improvements to add single stream processing capabilities to the MRF are planned over three-years. The phase modifications to single stream are planned beginning in 2019. Modifications include installation of equipment and concrete changes and installation of equipment.

Additional operational capital projects include truck costs for new packer/recycling trucks and a roll-off (expected in 2016 and 2017). These will include an expanded monitoring system to include buying/installing some camera systems that can move from location to location to target problem areas for enforcement. As well as operational improvements over the next four years to include:

- Modifications to reconfigure loading dock in 2016
- Replacement of baler in 2017
- Modifications to containment area and building expansion in 2018
- Installation of fire suppression system in 2019

These improvements and schedules are best estimates. These improvements depend largely on grant funding. If grant funding is not secured, improvements will be scaled back and possibly postponed. For planning purposes, this plan update assumes the MRF will make modifications to process single stream recyclables, however, the District reserves the right not to move forward. Adding single stream processing will be dependent upon demand and contract agreements with collection/haulers and communities serviced. The District may not add single stream processing if the relationships (between collection/hauler and curbside communities) and service do not foster single stream collection.

MRF user fees are expected for this planning period. At this time no specific rates, not even a scope have been considered. The District will refer to Technical Advisory Committee convened on matters. The District sells recycling materials as commodities on the market. More description regarding revenues earned can be found in Section VIII.

The District is planning to complete a study during this plan update to evaluate public ownership and operation of the MRF versus a publicly owned and privately operated (specifically a separate non-profit entity) MRF.

Program Name: Waste Sort

FUTURE STRATEGY/PROGRAM CHANGES: From time-to-time the District has conducted waste studies to determine participation, set-out rates, diversions and estimate remaining commodities in the waste stream. These studies have been performed based on need and opportunity which cannot be predicted at this time. Therefore, this Plan projects that further waste studies will be conducted as necessary and feasible. No specific allocation is made to this effort as it is usually conducted in cooperation with the municipality, using in-house resources

Program Name: Planning Studies and Advisory Committees

FUTURE STRATEGY/PROGRAM CHANGES: There have been a few obstacles on the journey towards Zero Waste. In order to move past these obstacles, studies and advisory committees are needed to answer specific questions and contribute to knowledge and progress. Investigating high waste generation rates (it is a possibility as much as 20,000 tons of waste disposal may be misreported as Logan County waste), evaluating components of single stream recycling operations, and evaluating ownership and operation of the MRF are three planned studies. These studies are slated for implementation in the short-term (2016-2018) to provide time for infrastructure changes and advancements in programs if needed. In addition, a Sustainability Technical Advisory Committee (TAC) with the specific goal of advising priorities and choices on the subjects of Zero Waste, education, and sustainability will be formed. The Sustainability TAC will consist of three members and meet at least twice a year.

Waste Reduction Projections

The District's residential/commercial waste reduction strategies are presented in Table V-5, "Residential/Commercial Waste Reduction Strategies". To reach Zero Waste a 90 percent reduction needs to be achieved. The projections provided in this plan update with the current strategies are conservative and do not include the magnitude of waste misreporting or recycling food waste and single stream curbside programs. Projections provided in this plan are described in more detail below:

Program/Strategy	Assumptions Used for Future Projections
Bellefontaine PAYT	In 2013, this community recycled about 287 lbs/HHLD. The volume of materials collected in the curbside community has grown an average of 1.6% over the last three years. The average increase of 1.6% is projected annually beyond 2013.
Lake Township PAYT	Included with Bellefontaine PAYT.
Village of West Liberty PAYT	In 2013, this community recycled about 388 lbs/HHLD. Material volumes are expected to remain flat through the planning period because volumes have fluctuated up and down each year. For instance, one year the volumes increased 4% and the next it decreased 4%.
Belle Center Village Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a conservative projection that is below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. Material volumes from this site increased an average of 10.1% from 2011 to 2013.
DeGraff Village Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a conservative projection that is below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. Material volumes from this site increased an average of 8.4% from 2011 to 2013.
East Liberty Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a tad aggressive but below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. Material volumes from this site increased an average of 5.5% from 2011 to 2013.
Huntsville Village Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a conservative projection that is below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. Material volumes from this site increased an average of 10.1% from 2011 to 2013.
Lakeview Village Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a conservative projection that is below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. Material volumes from this site increased an average of 6.8% from 2011 to 2013.
Middleburg Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a conservative projection that is below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. Material volumes from this site increased an average of 8.9% from 2011 to 2013.
Moundwood Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a tad aggressive but below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. Material volumes from this site increased an average of 3.7% from 2011 to 2013.
Quincy Village Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a conservative projection that is below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. Material volumes from this site increased an average of 11% from 2011 to 2013.
Rushsylvania Village Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a conservative projection that is below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. Material volumes from this site increased an average of 6.1% from 2011 to 2013.
Russells Point Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a conservative projection that is below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. Material volumes from this site increased an average of 10.3% from 2011 to 2013.
West Liberty Village Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a conservative projection that is below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. Material volumes from this site increased an average of 7.9% from 2011 to 2013.
West Mansfield Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a conservative projection that is below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. Material volumes from this site increased an average of 10.8% from 2011 to 2013.
Jefferson Township (Zanesfield) Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a conservative projection that is below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. This site came online in 2013.
North Side Drop-Off Recycling Center	Drop-off sites are collecting approximately 187 pounds per person. The average pounds per person rate was applied to Stokes Township population of 4,588 to determine a 2014 estimated tonnage. A projected annual increase of 6% is used thereafter.
Bellefontaine-Campbell Hill Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a conservative projection that is below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. Material volumes from this site increased an average of 10.6% from 2011 to 2013.

Program/Strategy	Assumptions Used for Future Projections
Bellefontaine-S. Detroit Street Drop-Off Recycling Center	A projected annual increase of 6% is used. This is a conservative projection that is below the cumulative (includes all 15 drop-offs) drop-off increase of 8%. Material volumes from this site increased an average of 6.2% from 2011 to 2013.
Fiber Collection Program	No projections because material quantities are already included with Commercial Business Surveys.
Other District Recycling Collections	No estimated projections. Any recycling through litter clean-up is included with other programming.
Commercial & Industrial Business Surveys	Projected to increase at 0.5% annually.
Litter Prevention and Recycling Education	n/a
District Website	n/a
Household Hazardous Waste Education	n/a
Household Battery Collection	Projected to increase at 0.5% annually.
Lead-Acid Battery Strategy	No projections because material quantities are already included with other programming.
Center for Hard To Recycle Materials (CHaRM)	Projected to increase at 0.5% annually.
Waste Tire Management Program	Projected to increase at 0.5% annually.
Bellfontaine City Yard Waste Management	Projected to increase at 0.5% annually. These projections do not include estimated increased volume with implemented organic initiatives. A separate table is provided in Appendix J.
Cherokee Run Compost Facility	Projected to increase at 0.5% annually. These projections do not include estimated increased volume with implemented organic initiatives. A separate table is provided in Appendix J.
Private Compost Facilities	Projected to increase at 0.5% annually. These projections do not include estimated increased volume with implemented organic initiatives. A separate table is provided in Appendix J.
DeGraff Village Leaf Collection	No estimated projections.
Quincy Village Compost Facility	No estimated projections.
West Liberty Village Curbside Yard Waste Collection and Compost Facility	Projected to increase at 0.5% annually. These projections do not include estimated increased volume with implemented organic initiatives. A separate table is provided in Appendix J.
Organics Initiatives	No projections because material quantities are included with other programming.
Program Improvements/Revisions	n/a
Market Development Projects	n/a
Grant Subsidies Program	n/a
Health Department Assistance	n/a
Local Law Enforcement - Litter	n/a
County Assistance	n/a
Municipal/Township Assistance	n/a
Agricultural Community Assistance	n/a
Disaster Debris Management	n/a
Private Recyclers/Processors	Projected to increase at 0.5% annually.
Materials Processing Facility	No projections because material quantities are included with other programming.
Waste Sort	No estimated recycling projections.
Planning Studies and Advisory Committee	No estimated recycling projections.

Table V-5: Residential/Commercial Waste Reduction Strategies

Strategy	Type of Material Reduced and/or Recycled[1]	Year									
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Source Reduction Strategies											
None	n/a	0	0	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0	0	0
Recycling Strategies											
Bellefontaine PAYT	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL	659	634	645	655	665	676	687	698	709	720
Lake Township PAYT	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Village of West Liberty PAYT	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL	126	113	113	113	113	113	113	113	113	113
Belle Center Village Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	124	137	145	154	163	173	183	194	206	218
DeGraff Village Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	148	164	174	184	195	207	219	233	247	261
East Liberty Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	97	107	113	120	127	135	143	152	161	171
Huntsville Village Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	123	136	144	153	162	172	182	193	204	217
Lakeview Village Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	192	213	226	239	254	269	285	302	320	339
Middleburg Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	84	93	99	104	111	117	124	132	140	148
Moundwood Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	116	129	137	145	154	163	173	183	194	206
Quincy Village Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	69	76	81	85	91	96	102	108	114	121
Rushsylvania Village Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	62	69	73	78	82	87	92	98	104	110
Russells Point Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	107	119	126	134	142	150	159	169	179	190
West Liberty Village Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	137	152	161	171	181	192	203	216	229	242
West Mansfield Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	97	107	113	120	127	135	143	152	161	171
Jefferson Township (Zanesfield) Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	11	12	13	13	14	15	16	17	18	19
North Side Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	0	429	455	482	511	542	574	609	645	684
Bellefontaine-Campbell Hill Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	150	166	176	187	198	210	222	235	250	265
Bellefontaine-S. Detroit Street Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	452	501	531	563	597	633	670	711	753	799

Table V-5: (cont'd) Residential/Commercial Waste Reduction Strategies

Strategy	Type of Material Reduced and/or Recycled[1]	Year									
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Fiber Collection Program	OCC, OffP, ONP, MxP, Mag, PBd	24	24	included with Commercial Business Surveys Totals							
Other District Recycling Collections	tires	0	0	0	0	0	0	0	0	0	0
Commercial Business Surveys	commingled, mixed steel, aluminum, appliances, PL, MxP, OCC, ONP, OffP, food, batteries, oil, wood, textiles, tires, other	17,689	17,777	17,866	17,956	18,045	18,136	18,226	18,317	18,409	18,501
Litter Prevention and Recycling Education	education/outreach	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
District Website	education	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Household Hazardous Waste Education	education	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Household Battery Collection	batteries	3	3	3	3	3	3	3	3	3	3
Lead-Acid Battery Strategy	education	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Center for Hard To Recycle Materials (CHaRM)	HHW, electronics, batteries, ST, used paints, used oils, mercury	75	76	76	76	77	77	77	78	78	79
Waste Tire Management Program	scrap tires	328	329	331	333	334	336	338	339	341	343
Bellefontaine City Yard Waste Management	yard waste	677	680	684	687	691	694	698	701	705	708
Cherokee Run Compost Facility	yard waste	156	157	158	159	159	160	161	162	163	163
Private Compost Facilities	yard waste	1,203	1209	1215	1221	1227	1234	1240	1246	1252	1258
DeGraff Village Leaf Collection	yard waste	0	0	0	0	0	0	0	0	0	0
Quincy Village Compost Facility	yard waste	0	0	0	0	0	0	0	0	0	0
West Liberty Village Curbside Yard Waste Collection and Compost Facility	yard waste	466	468	471	473	475	478	480	483	485	487
Organics Initiatives	education/outreach	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
PAYT Incentive Program	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Market Development Projects	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Grant Subsidies Program	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Health Department Assistance	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Local Law Enforcement - Litter	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
County Assistance	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Municipal/Township Assistance	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Community Assistance	metals, oil	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Disaster Debris Management	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Private Recyclers/Processors	App, Auto, scrap metal, FE, NonFe, all paper, OCC, PL #1 and #2, GL, electronics	436	438	440	442	444	447	449	451	453	456
Materials Processing Facility	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL,	974	698	already included in other categories							
Waste Sort	n/a	0	0	0							
Planning Studies and Advisory Committee	n/a	0	0	0							
Grand Totals		24,785	24,789	24,313	24,569	24,833	25,106	25,391	25,685	25,991	26,308

Table V-5 (cont'd): Residential/Commercial Waste Reduction Strategies

Strategy	Type of Material Reduced and/or Recycled[1]	Year								
		2023	2024	2025	2026	2027	2028	2029	2030	2031
Source Reduction Strategies										
None		0	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0	0
Recycling Strategies										
Bellefontaine PAYT	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL	732	744	756	768	780	792	805	818	831
Lake Township PAYT	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Village of West Liberty PAYT	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL	113	113	113	113	113	113	113	113	113
Belle Center Village Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	231	245	260	276	292	310	328	348	369
DeGraff Village Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	277	294	311	330	350	371	393	417	442
East Liberty Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	181	192	203	215	228	242	256	272	288
Huntsville Village Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	230	244	258	274	290	307	326	345	366
Lakeview Village Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	360	381	404	429	454	482	510	541	574
Middleburg Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	157	167	177	187	198	210	223	236	250
Moundwood Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	218	231	245	260	275	292	309	328	347
Quincy Village Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	128	136	144	153	162	172	182	193	205
Rushsylvania Village Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	117	124	131	139	147	156	165	175	186
Russells Point Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	201	213	226	239	254	269	285	302	320
West Liberty Village Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	257	272	289	306	324	344	364	386	409
West Mansfield Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	181	192	203	215	228	242	256	272	288
Jefferson Township (Zanesfield) Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	20	21	23	24	26	27	29	30	32
North Side Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	725	768	814	863	915	970	1,028	1,090	1,155
Bellefontaine-Campbell Hill Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	280	297	315	334	354	375	398	422	447
Bellefontaine-S. Detroit Street Drop-Off Recycling Center	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL, Household Batteries	846	897	951	1,008	1,069	1,133	1,201	1,273	1,349

Table V-5 (cont'd): Residential/Commercial Waste Reduction Strategies

Strategy	Type of Material Reduced and/or Recycled[1]	Year								
		2023	2024	2025	2026	2027	2028	2029	2030	2031
Fiber Collection Program	OCC, OffP, ONP, MxP, Mag, PBd	included with Commercial Business Surveys Totals								
Other District Recycling Collections	tires	0	0	0	0	0	0	0	0	0
Commercial and Industrial Business Surveys	commingled, mixed steel, aluminum, appliances, PL, MxP, OCC, ONP, OffP, food, batteries, oil, wood, textiles, tires, other	18,594	18,687	18,780	18,874	18,968	19,063	19,158	19,254	19,351
Litter Prevention and Recycling Education	education/outreach	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
District Website	education	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Household Hazardous Waste Education	education	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Household Battery Collection	batteries	3	3	3	3	3	3	3	3	3
Lead-Acid Battery Strategy	education	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Center for Hard To Recycle Materials (CHaRM)	HHW, electronics, batteries, ST, used paints, used oils, mercury	79	79	80	80	81	81	81	82	82
Waste Tire Management Program	scrap tires	345	346	348	350	352	353	355	357	359
Bellefontaine City Yard Waste Management	yard waste	712	715	719	722	726	730	733	737	741
Cherokee Run Compost Facility	yard waste	164	165	166	167	167	168	169	170	171
Private Compost Facilities	yard waste	1265	1271	1277	1284	1290	1297	1303	1310	1316
DeGraff Village Leaf Collection	yard waste	0	0	0	0	0	0	0	0	0
Quincy Village Compost Facility	yard waste	0	0	0	0	0	0	0	0	0
West Liberty Village Curbside Yard Waste Collection and Compost Facility	yard waste	490	492	495	497	500	502	505	507	510
Organics Initiatives	education/outreach	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
PAYT Incentive Program	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Market Development Projects	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Grant Subsidies Program	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Health Department Assistance	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Local Law Enforcement - Litter	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
County Assistance	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Municipal/Township Assistance	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Community Assistance	metals, oil	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Disaster Debris Management	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Private Recyclers/Processors	App, Auto, scrap metal, FE, NonFe, all paper, OCC, PL #1 and #2, GL, electronics	458	460	462	465	467	469	472	474	477
Materials Processing Facility	OffP, ONP, MxP, Mag, OCC, PBd, SC, AC, PL, GL	already included with other categories								
Waste Sort	n/a	0								
Planning Studies and Advisory Committee	n/a	0								
	Grand Totals	26,638	26,982	27,340	27,712	28,099	28,503	28,925	29,366	29,826

The District's industrial waste reduction strategies are presented in Table V-6, "Industrial Waste Reduction Strategies". Industrial historic recycling rose to almost 60,000 tons in 2012 but dropped in 2013 as shown in Figure V-3, "Historical Industrial Recycling". Industry is pro-active in efforts to achieve zero waste. It is expected recycling will continue and will most likely have fluctuations dependent on economy. For planning purposes industrial sector recycling is projected to remain flat at 52,299, which is slightly below the thirteen-year median of 52,342 tons through year 2023. Beginning in 2024, a slight 0.25% annual increase is projected for the remaining planning years. This increase is estimated in attempts to project economic trends. An increased annual recycling volume will boost the waste reduction rate closer to 94% by the end of the planning period.

Figure V-3 Historical Industrial Recycling

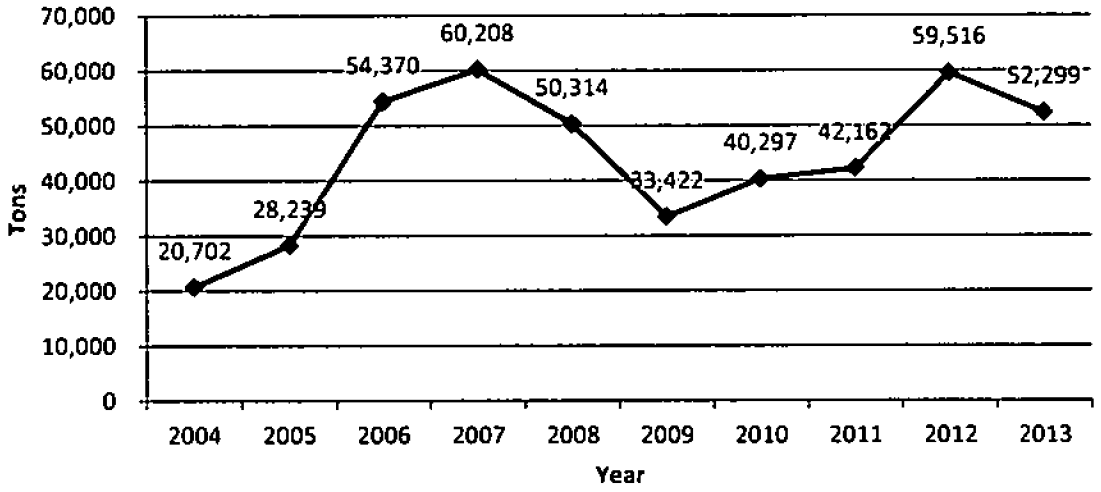


Table V-6: Industrial Waste Reduction Strategies

Strategy	Type of Material Reduced and/or Recycled[1]	Year									
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Source Reduction Strategies											
none		0	0	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0	0	0
Recycling Strategies											
Commercial and Industrial Business Surveys	GL, aluminum, steel, PL, MxP, OCC, ONP, OffP, food, batteries, oil, tires, wood, textiles, stone/clay/sand, other	52,299	52,299	52,299	52,299	52,299	52,299	52,299	52,299	52,299	52,299
	Subtotal	52,299	52,299	52,299	52,299	52,299	52,299	52,299	52,299	52,299	52,299
Education and Awareness Strategies											
Industrial Committee	education/outreach	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Subtotal	0	0	0	0	0	0	0	0	0	0
Other Waste Reduction Strategies											
none		0	0	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0	0	0
	Grand Totals	52,299	52,299	52,299	52,299	52,299	52,299	52,299	52,299	52,299	52,299

Table V-6 (cont'd): Industrial Waste Reduction Strategies

Strategy	Type of Material Reduced and/or Recycled[1]	Year								
		2023	2024	2025	2026	2027	2028	2029	2030	2031
Source Reduction Strategies										
none		0	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0	0
Recycling Strategies										
Commercial and Industrial Business Surveys	App, LaB, Food, GL, Fe, NonFe, OCC, ONP, OffP, MxP, PL, Rubber, ST, Textiles, Used Oil, Wood, Electronics, YW, other	52,299	52,430	52,561	52,692	52,824	52,956	53,088	53,221	53,354
	Subtotal	52,299	52,430	52,561	52,692	52,824	52,956	53,088	53,221	53,354
Education and Awareness Strategies										
Commercial/Industrial Sector Recycling Recognition Program	education/outreach	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Subtotal	0	0	0	0	0	0	0	0	0
Other Waste Reduction Strategies										
none		0	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0	0
	Grand Totals	52,299	52,430	52,561	52,692	52,824	52,956	53,088	53,221	53,354

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SECTION VI Methods of Management: Facilities and Programs to be Used

This section focuses upon projections of solid waste generation in the District including residential, commercial, industrial and some special categories of waste. It also focuses on waste reduction strategies that will be implemented by the District to manage the solid waste generation.

A. District Methods for Management of Solid Waste

1. Calculation of Capacity Needs

Table VI-1 "Waste Management Methods Used and Processing Capacity Needed for Each Year of the Planning Period" was completed by entering the total amount of waste generated in each year of the planning period, then indicating the amounts of waste expected to be managed by each method. For each year the amounts estimated for each management method were calculated by subtracting the amount of waste source reduced from the projected waste generation. For example, the amount of landfill tonnage required was determined by subtracting all waste reduction and recycled amounts from the estimated waste generation for that given year. In preparing Tables VI-1, VI-2, and VI-3, the District used the waste generation and waste reduction estimates from Section V. The information provided for the reference year was based upon reported quantities.

Table VI-1: Waste Management Methods Used and Processing Capacity Needed for Each Year of the Planning Period

Year	Tons of SW Generated	Tons Source Reduced	Net Tons to be Managed by SWMD	Management Method Used and Processing Capacity Required in TPD and TPY			
				Recycling	Transfer	Yard Waste Composting	Landfilling
2013	113,368	0	113,368	74,582	1,522	2,502	36,284
2014	113,544	0	113,544	74,573	1,529	2,515	36,457
2015	113,720	0	113,720	74,085	1,556	2,528	37,108
2016	113,668	0	113,668	74,328	1,543	2,540	36,800
2017	113,616	0	113,616	74,579	1,530	2,553	36,484
2018	113,564	0	113,564	74,840	1,516	2,566	36,158
2019	113,512	0	113,512	75,111	1,502	2,578	35,822
2020	113,460	0	113,460	75,393	1,488	2,591	35,476
2021	113,368	0	113,368	75,686	1,471	2,604	35,078
2022	113,276	0	113,276	75,990	1,454	2,617	34,669
2023	113,184	0	113,184	76,307	1,436	2,630	34,247
2024	113,092	0	113,092	76,768	1,413	2,644	33,681
2025	113,000	0	113,000	77,243	1,388	2,657	33,100
2026	112,858	0	112,858	77,733	1,361	2,670	32,454
2027	112,715	0	112,715	78,240	1,333	2,683	31,792
2028	112,572	0	112,572	78,763	1,305	2,697	31,113
2029	112,430	0	112,430	79,303	1,276	2,710	30,416
2030	112,287	0	112,287	79,863	1,246	2,724	29,700
2031	112,135	0	112,135	80,442	1,214	2,737	28,955

Source:
Tons of Solid Waste Generated from Table V-4
Tons Source Reduced from Table V-5 and Table V-6
Net Tons to be Managed by SWMD = Tons of Solid Waste Generated - Tons Source Reduced
113,368 = 113,368 - 0
Recycling Management Method from Table V-5 and Table V-6
Transfer Management Method for 2013 from Table III-3
Transfer method decreases annually proportional to waste landfilled.
2014 transferred tons = 2013 transferred tons / 2013 landfilled tons * 2014 landfilled tons
2014 = 1,522 / 36,284 * 36,457 = 1,529 tons
Yard Waste Management Method from Table V-5 and Table V-6
Landfilling = Net Tons - Recycling - Yard Waste Composting
36,284 = 113,368 - 74,581 - 2,502

After completing this table for the total waste generated, the same table was developed separately for the residential/commercial (Table VI-2) and industrial sectors (Table VI-3).

Table VI-2: Summary for Residential/Commercial Waste Management Methods

Year	Tons Generated	Management Method in TPY				
		Source Reduction & Recycling	Incineration	Composting	Landfilling	Ash Disposal
2013	50,138	22,283	0	2,502	25,352	0
2014	50,319	22,274	0	2,515	25,531	0
2015	50,501	21,786	0	2,528	26,188	0
2016	50,455	22,029	0	2,540	25,886	0
2017	50,408	22,280	0	2,553	25,575	0
2018	50,362	22,541	0	2,566	25,255	0
2019	50,316	22,812	0	2,578	24,925	0
2020	50,269	23,094	0	2,591	24,584	0
2021	50,183	23,387	0	2,604	24,192	0
2022	50,097	23,691	0	2,617	23,788	0
2023	50,011	24,008	0	2,630	23,372	0
2024	49,924	24,338	0	2,644	22,943	0
2025	49,838	24,682	0	2,657	22,499	0
2026	49,701	25,041	0	2,670	21,990	0
2027	49,564	25,416	0	2,683	21,465	0
2028	49,427	25,807	0	2,697	20,924	0
2029	49,290	26,215	0	2,710	20,365	0
2030	49,153	26,642	0	2,724	19,787	0
2031	49,007	27,088	0	2,737	19,181	0

Source:
Tons Generated from Table V-4

Source Reduction and Recycling Tons Managed from Table V-5
Composting Management Method Table from Table V-5

Sample Calculation:
Landfilling = Tons Generated - Source Reduction & Recycling - Incineration Waste Reduction - Composting
2013 Landfilling = 50,116 - 22,282 - 0 - 2,502 = 25,330 tons

Table VI-3: Summary for Industrial Waste Management Methods

Year	Tons Generated	Management Method In TPY				
		Source Reduction & Recycling	Incineration	MSW Composting	Landfilling	Ash Disposal
2013	56,867	52,299	0	0	4,568	0
2014	56,861	52,299	0	0	4,562	0
2015	56,855	52,299	0	0	4,556	0
2016	56,850	52,299	0	0	4,551	0
2017	56,844	52,299	0	0	4,545	0
2018	56,838	52,299	0	0	4,539	0
2019	56,833	52,299	0	0	4,534	0
2020	56,827	52,299	0	0	4,528	0
2021	56,821	52,299	0	0	4,522	0
2022	56,816	52,299	0	0	4,517	0
2023	56,810	52,299	0	0	4,511	0
2024	56,804	52,430	0	0	4,374	0
2025	56,799	52,561	0	0	4,238	0
2026	56,793	52,692	0	0	4,101	0
2027	56,787	52,824	0	0	3,963	0
2028	56,781	52,956	0	0	3,825	0
2029	56,776	53,088	0	0	3,687	0
2030	56,770	53,221	0	0	3,549	0
2031	56,764	53,354	0	0	3,410	0

Source:
Tons Generated from Table V-4

Source Reduction and Recycling Tons Managed from Table V-6

Sample Calculation:
Landfilling = Tons Generated - Source Reduction & Recycling - Incineration Waste Reduction
2013 Landfilling = 56,877 - 52,299 -0 - 0 = 4,578 tons

B. Demonstration of Access to Capacity

The District will manage its waste through a combination of landfills, recycling programs/ facilities, transfer stations, and composting facilities during the planning period. For each management method to be used by the District, the names of the facilities, the processing capacity, and the amount of waste from the District to be accepted has been provided. The appropriate information is entered in Tables VI-4(a) through VI-4(d). These tables are used to provide the applicable information for each management method used by the District - landfilling, recycling, transfer, composting, incineration, and/or resource recovery.

Table VI-4(a) "Waste Management Method: Landfill", shows nine in-state and three out-of-state landfills managing District solid waste. Two landfills (Celina and Crawford) receiving District waste are expected to run out of permitted air space capacity to handle waste in the planning period. It is predicted waste from these two landfills will be redirected to Cherokee Run Landfill. This predication is based on the assumption that the in-district landfill will be the closest to direct haul and transfer waste.

Table VI-4A:Waste Management Method: Landfill

Facilities Used by District Name and Location (County & State)	Average Daily Waste (Tons)[1]	Remaining Capacity (2013)		Airspace (2013)	
		AMDWRL (Tons)[1]	Years Left[1]	Gross (cubic yards)[1]	Net (tons)[1]
In-District Landfills					
Cherokee Run Landfill (Logan County, Ohio)	1,226	4,500	41.5	19,091,997	14,636,870
Out-Of-District Landfills					
Celina Sanitary Landfill (Mercer County, Ohio)	527	499	6.9	624,611	412,243
Wood County Landfill (Wood County, Ohio)	499	499	12.9	763,784	396,022
Beech Hollow Landfill (Jackson County, Ohio)	1,493	4,000	47.1	28,288,500	19,716,450
Hancock County Landfill (Hancock County, Ohio)	425	750	34.5	5,817,101	4,123,171
Stony Hollow Inc. (Montgomery County, Ohio)	1,133	4,500	20.8	6,943,271	6,174,649
County Environmental of Wyandot (Wyandot County, Ohio)	622	4,500	150.9	21,141,861	24,028,797
Franklin County Sanitary Landfill (Franklin County, Ohio)	3,567	8,000	24.9	35,008,572	25,381,241
Crawford County Sanitary Landfill (Crawford County, Ohio)	727	1,200	10.5	2,551,232	2,091,174
Out-Of-State Landfills					
EQ Industrial Services Processing Facility	n/a	n/a	n/a	n/a	n/a
Indianapolis Resource Recovery Facility	n/a	n/a	n/a	n/a	n/a
Medassure of Indiana Treatment Facility	n/a	n/a	n/a	n/a	n/a
Total	**10,219**	**28,448**	**350**	**120,230,929**	**96,960,617**

AMDWR=Allowable Maximum Daily Waste Receipt

Source:

[1] - 2013 Ohio Facility Data Reports Table 13

Table VI-4A (Cont'd): Waste Management Method: Landfill

Facilities Used by District Name and Location (County & State)	Tons of District SW Managed								
	2013	2014	2015	2016	2017	2018	2019	2020	2021
In-District Landfills									
Cherokee Run Landfill (Logan County, Ohio)	32,741	32,897	33,484	33,207	32,921	32,627	32,332	32,019	31,660
Direct Haul	32,724	32,879	33,467	33,190	32,904	32,610	32,315	32,003	31,644
Shelby County Transfer Station	17	17	17	17	17	17	17	17	16
Out-Of-District Landfills									
Celina Sanitary Landfill (Mercer County, Ohio)[1]	8	8	8	8	8	8	0	0	0
Direct Haul	8	8	8	8	8	8	0	0	0
Wood County Landfill (Wood County, Ohio)[2]	2	2	2	2	2	2	2	2	2
Direct Haul	2	2	2	2	2	2	2	2	2
Beech Hollow Landfill (Jackson County, Ohio)	3	3	3	3	3	3	3	3	3
Direct Haul	3	3	3	3	3	3	3	3	3
Hancock County Landfill (Hancock County, Ohio)	26	26	27	26	26	26	26	25	25
Direct Haul	26	26	27	26	26	26	26	25	25
Stony Hollow Inc. (Montgomery County, Ohio)	1,479	1,486	1,513	1,500	1,487	1,474	1,460	1,446	1,430
Direct Haul	13	13	13	13	13	13	13	13	13
Waste Management Of Ohio - Lima	1,466	1,473	1,499	1,487	1,474	1,461	1,447	1,433	1,417
County Environmental of Wyandot (Wyandot County, Ohio)	70	70	72	71	70	70	69	68	68
Direct Haul	70	70	72	71	70	70	69	68	68
Franklin County Sanitary Landfill (Franklin County, Ohio)	21	21	21	21	21	21	21	21	20
Waste Management of Ohio Transfer & Recycling	21	21	21	21	21	21	21	21	20
Crawford County Sanitary Landfill (Crawford County, Ohio)[3]	18	18	18	18	18	18	18	18	17
Delaware County Transfer Station	18	18	18	18	18	18	18	18	17
Out-Of-State Landfills									
Indiana Landfills	1,916	1,925	1,960	1,944	1,927	1,910	1,892	1,874	1,853
TOTAL Direct Haul Waste Disposal	34,762	34,927	35,551	35,257	34,954	34,641	34,320	33,988	33,607
TOTAL Transferred Waste Disposal	1,522	1,529	1,557	1,544	1,530	1,517	1,503	1,488	1,471
Total Landfilled	36,284	36,457	37,108	36,800	36,484	36,158	35,822	35,476	35,078

Source:
2013 Ohio Facility Data Reports Table 14
Projected Total Landfilled is from Table VI-1.
Notes:
[1]Without additional permits, airspace at Celina Sanitary Landfill will run out in about year 2019. If Celina Sanitary Landfill no longer accepts waste, it is assumed waste will be disposed in Cherokee Run Landfill.
[2]Without additional permits, airspace at Wood County Landfill will run out in about year 2026. If Wood County Landfill no longer accepts waste, it is assumed waste will be disposed in Cherokee Run Landfill.
[3]Without additional permits, airspace at Crawford County Sanitary Landfill will run out in about year 2023. If Crawford County Sanitary Landfill no longer accepts waste, it is assumed the waste will be disposed in Cherokee Run.
Sample Calculation:
Projected value for each Landfill is calculated as a ratio based on the 2013 distribution.

$$\text{Cherokee Run Landfill 2014} = \frac{\text{2013 Cherokee Run Disposal} \times \text{2013 Total Disposal}}{\text{2014 Total Disposal}}$$

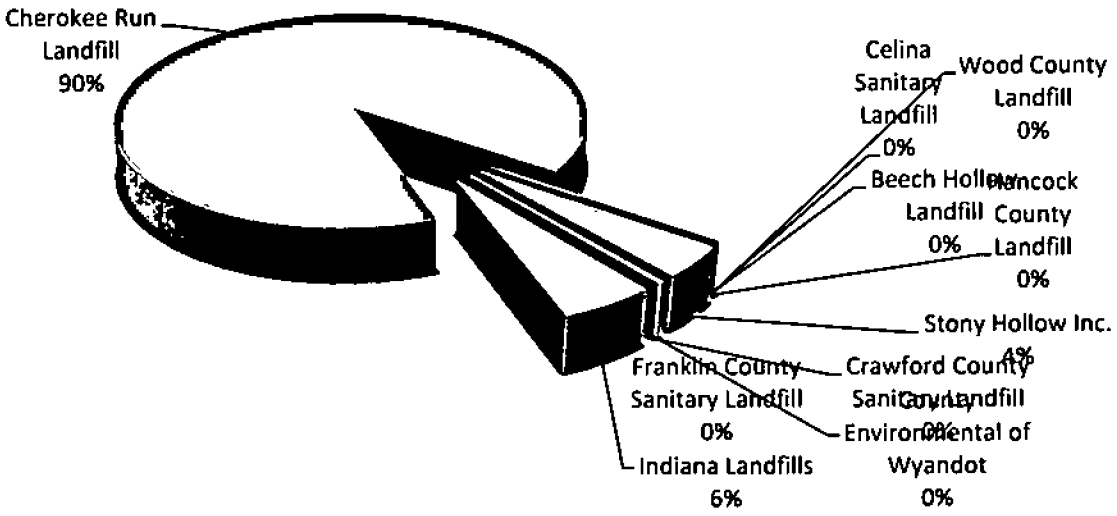
32,879 Tons = 32,724 x
36,284 36,457

Table VI-4A (Cont'd): Waste Management Method: Landfill

Facilities Used by District Name and Location (County & State)	Tons of District SW Managed									
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
In-District Landfills										
Cherokee Run Landfill (Logan County, Ohio)	31,291	30,927	30,416	29,892	29,310	28,712	28,099	27,469	26,823	26,150
Direct Haul	31,275	30,911	30,400	29,876	29,295	28,697	28,084	27,455	26,809	26,137
Shelby County Transfer Station	16	16	16	16	15	15	15	14	14	14
Out-Of-District Landfills										
Celina Sanitary Landfill (Mercer County, Ohio)[1]	0	0	0	0	0	0	0	0	0	0
Direct Haul	0	0	0	0	0	0	0	0	0	0
Wood County Landfill (Wood County, Ohio)[2]	2	2	2	2	0	0	0	0	0	0
Direct Haul	2	2	2	2	0	0	0	0	0	0
Beech Hollow Landfill (Jackson County, Ohio)	3	3	3	3	3	3	3	3	2	2
Direct Haul	3	3	3	3	3	3	3	3	2	2
Hancock County Landfill (Hancock County, Ohio)	25	25	24	24	23	23	22	22	21	21
Direct Haul	25	25	24	24	23	23	22	22	21	21
Stony Hollow Inc. (Montgomery County, Ohio)	1,413	1,396	1,373	1,349	1,323	1,296	1,268	1,240	1,211	1,180
Direct Haul	12	12	12	12	12	11	11	11	11	10
Waste Management Of Ohio - Lima	1,401	1,384	1,361	1,337	1,311	1,284	1,257	1,229	1,200	1,170
County Environmental of Wyandot (Wyandot County, Ohio)	67	66	65	64	63	61	60	59	57	56
Direct Haul	67	66	65	64	63	61	60	59	57	56
Franklin County Sanitary Landfill (Franklin County, Ohio)	20	20	19	19	19	18	18	18	17	17
Waste Management of Ohio Transfer & Recycling	20	20	19	19	19	18	18	18	17	17
Crawford County Sanitary Landfill (Crawford County, Ohio)[3]	17	0	0	0	0	0	0	0	0	0
Delaware County Transfer Station	17	0	0	0	0	0	0	0	0	0
Out-Of-State Landfills										
Indiana Landfills	1,831	1,809	1,779	1,748	1,714	1,679	1,643	1,606	1,569	1,529
TOTAL Direct Haul Waste Disposal	33,214	32,827	32,285	31,728	31,109	30,474	29,823	29,155	28,469	27,755
TOTAL Transferred Waste Disposal	1,454	1,420	1,396	1,372	1,345	1,318	1,290	1,261	1,231	1,200
Total Landfilled	34,669	34,247	33,681	33,100	32,454	31,792	31,113	30,416	29,700	28,955

As seen in Figure VI-1, Cherokee Run Landfill located in Logan County, Ohio reported receiving 90 percent of the District's waste. Out of state landfills took about 6 percent. The majority of the District's waste stays in-district for final waste disposal.

Figure VI-1 Landfills Used by the District in 2013



Waste flows to the landfills either by direct haul or through a transfer facility. Approximately 96 percent of the waste was direct hauled, meaning a refuse truck picked up waste from clients and directly hauled that waste to a landfill for disposal. The remaining 4 percent of waste is managed through a transfer facility before being landfilled. In 2013 transfer facilities managing District waste reported using the following landfills as destination landfills:

Transfer Facilities	Destination Landfill
Shelby County Transfer Station	100% Cherokee Run Landfill
Waste Management of Ohio – Lima	100% Stony Hollow Landfill
Waste Management of Ohio Transfer and Recycling	33% Franklin County Sanitary Landfill 67%
Delaware County Transfer Station	100% Crawford County Sanitary Landfill

Table VI-4(a) assumes the transfer facility distribution to landfills will remain as identified above throughout the planning period.

Tables VI-4 (b), VI-4 (c), VI-4 (d) and VI-4 (e) present projections for incinerators, transfer, recycling and composting facilities. The District has assumed the facilities used in the reference year will be used to manage future projected municipal solid waste unless otherwise noted. The District is assuming the identified facilities will continue to process equivalent amounts of waste during the planning period. The District anticipates recycling operations will remain in operation throughout the planning period and will continue to provide sufficient capacity for recyclables generated within the District. Tables VI-4 (b), VI-4 (c), VI-4 (d) and VI-4 (e) should be used as a guide.

Table VI-4B: Waste Management Method: Incinerator

Facilities Used by District Name and Location (County & State)	Processing Capacity (TPY)	Tons of District SW Managed																		
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
In-District Facilities																				
None																				
Out-of-District Facilities																				
None																				
Out-of-State Facilities																				
None																				
Total		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table VI-4C: Waste Management Method: Transfer

Facilities Used by District Name and Location (County & State)	Tons of District SW Managed																		
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
In-District Facilities																			
None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out-of-District Facilities																			
Waste Management of Ohio Transfer and Recycling	21	21	21	21	21	21	21	21	20	20	20	19	19	19	18	18	17	17	17
Shelby County Transfer Station	17	17	17	17	17	17	17	17	16	16	16	16	15	15	15	14	14	14	13
Ohio - Lima Transfer Facility	1,466	1,473	1,499	1,487	1,474	1,461	1,447	1,433	1,417	1,401	1,367	1,344	1,321	1,296	1,269	1,242	1,214	1,186	1,155
Delaware County Solid Waste TF	18	18	18	18	18	18	18	18	17	17	17	17	16	16	16	15	15	15	14
Total	1,522	1,529	1,556	1,543	1,530	1,516	1,502	1,488	1,471	1,454	1,419	1,396	1,371	1,345	1,317	1,289	1,261	1,231	1,199

Source:

The total waste transferred is from Table VI-1. However, Table VI-1 did not account for unpermitted airspace at Crawford County Landfill. This table differs by those small tonnages.

Sample Calculation:

Projected value for each Transfer Facility is calculated as a ratio based on the 2013 distribution.

$$\text{Waste Management Of Ohio Transfer and Recycling Facility 2014} = \frac{\text{WM of Ohio Transfer \& Recycling 2013}}{\text{Total 2013}} \times \text{Total 2014}$$

$$21 \text{ tons} = \frac{21 \text{ tons}}{1{,}522 \text{ tons}} \times 1{,}529 \text{ tons}$$

Table VI-4D: Waste Management Method: Recycling

Facilities Used by District Name and Location (County & State)	Tons of District SW Managed																		
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Processors/Recyclers/Brokers (recyclables managed through these entities as reported on surveys)	8,127	8,126	8,073	8,099	8,127	8,155	8,185	8,215	8,247	8,280	8,315	8,365	8,417	8,470	8,526	8,583	8,641	8,702	8,766
Commercial Businesses (recyclables managed through commercial businesses includes recyclables sent to processors/recyclers/brokers)	11,311	11,310	11,236	11,272	11,311	11,350	11,391	11,434	11,478	11,525	11,573	11,643	11,715	11,789	11,866	11,945	12,027	12,112	12,200
Haulers (Majority of recycling haulers also serve as processor or broker. Recycling is included in the processors/recyclers/brokers)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Industry Businesses (recyclables managed through industry businesses includes recyclables sent to processors/recyclers/brokers)	52,299	52,292	51,950	52,121	52,297	52,480	52,670	52,868	53,073	53,286	53,509	53,832	54,165	54,509	54,864	55,231	55,610	56,002	56,409
Curbside (recyclables managed through curbside programs)	785	785	780	782	785	788	791	794	797	800	803	808	813	818	823	829	835	841	847
Drop-off (recyclables managed through drop-off programs)	1,969	1,969	1,956	1,962	1,969	1,976	1,983	1,990	1,998	2,006	2,015	2,027	2,039	2,052	2,066	2,079	2,094	2,108	2,124
Center for Hard to Recycle Materials	91	91	90	91	91	91	92	92	92	93	93	94	94	95	95	96	97	97	98
Total	74,582	74,573	74,085	74,328	74,579	74,840	75,111	75,393	75,686	75,990	76,307	76,768	77,243	77,733	78,240	78,763	79,303	79,863	80,442

Source:

The total recycled is from Table VI-1

The total recycled for each facility is from Table V-5 and as reported on surveys.

Table VI-4E: Waste Management Method: Composting

Facilities Used by District Name and Location (County & State)	Tons of District SW Managed																	
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Bellefontaine City Yard Waste Management (Logan County, Ohio)	677	680	684	687	691	694	698	701	705	708	712	715	719	722	726	730	733	737	741
Cherokee Run Compost Facility (Logan County, Ohio)	156	157	158	159	159	160	161	162	163	163	164	165	166	167	167	168	169	170	171
New Day Farms, North - Pullet Farm (Logan County, Ohio)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DeGraff Village Leaf Collection (Logan County, Ohio)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy Village Compost Facility (Logan County, Ohio)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Liberty Village Curbside Yard Waste (Logan County, Ohio)	466	468	471	473	475	478	480	483	485	487	490	492	495	497	500	502	505	507	510
Ohio Hi-Point Career Center (Logan County, Ohio)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Park Enterprise Construction Co Inc (Marion County, Ohio)	1203	1,209	1,215	1,221	1,227	1,234	1,240	1,246	1,252	1,258	1,265	1,271	1,277	1,284	1,290	1,297	1,303	1,310	1,316
Totals	2,502	2,515	2,528	2,540	2,553	2,566	2,578	2,591	2,604	2,617	2,630	2,644	2,657	2,670	2,683	2,697	2,710	2,724	2,737

Source:

The total composted is from Table VI-1

Sample Calculation:

Projected value for each Compost Facility is calculated as a ratio based on the 2013 distribution.

$$\text{Bellefontaine City YW Management 2014} = \frac{\text{Bellefontaine City YW Management 2013}}{\text{Total 2013}} \times \text{Total 2014}$$

$$680 \text{ tons} = \frac{677 \text{ tons}}{2{,}502 \text{ tons}} \times 2{,}515 \text{ tons}$$

C. Schedule for Facilities and Programs: New, Expansions, Closures, Continuations

Table VI-5, "Implementation Schedule for Facilities, Strategies, Programs and Activities: Dates and Description," presents descriptions and dates of operation for each facility, program or activity presented in the Plan Update.

Table VI-5: Implementation Schedule for Facilities, Strategies, Programs and Activities: Dates and Description

NAME OF FACILITY, STRATEGY, PROGRAM, OR ACTIVITY	LOCATION	DESCRIPTION OF PROGRAM OR FACILITY	APPROXIMATE DATE WHEN	
			OPERATIONS BEGIN	OPERATIONS CEASE
COMMERICAL/INDUSTRIAL SECTOR				
Industrial Committee	Logan County	strategy designed to bridge together industries and SWMD	2005	continue through planning period
Commercial and Industrial Business Surveys	Logan County	survey	2005	continue through planning period
CURBSIDE RECYCLING, SUBSCRIPTION				
Bellefontaine PAYT	City of Bellefontaine	non-subscription curbside	1992	continue through planning period
Lake Township PAYT	Lake Township	non-subscription curbside	2004	continue through planning period
Village of West Liberty PAYT	Village of West Liberty	non-subscription curbside	2006	continue through planning period
DROP-OFF PROGRAMS				
Drop-off Recycling, FS, Rural	Belle Center Village	full service	2009	continue through planning period
	DeGraff Village	full service	1990	continue through planning period
	East Liberty PAYT	full service	2010	continue through planning period
	Huntsville Village	full service	2010	continue through planning period
	Lakeview Village	full service	2010	continue through planning period
	Middleburg	full service	1999	continue through planning period
	Moundwood	full service	2008	continue through planning period
	Quincy Village	full service	2010	continue through planning period
	Rushsylvania Village	full service	1990	continue through planning period
	Russells Point	full service	2010	continue through planning period
	West Liberty Village	full service	1999	continue through planning period
	West Mansfield PAYT	full service	2009	continue through planning period
	Jefferson Township (Zanesfield)	full service	2013	continue through planning period
	North Side	full service	2014	continue through planning period
Drop-off Recycling, FS, Urban	Bellefontaine - Campbell Hill	full service	2008	continue through planning period
	Bellefontaine - S. Detroit Street	full service	2010	continue through planning period

Table VI-5 (cont'd): Implementation Schedule for Facilities, Strategies, Programs and Activities: Dates and Description

NAME OF FACILITY, STRATEGY, PROGRAM, OR ACTIVITY	LOCATION	DESCRIPTION OF PROGRAM OR FACILITY	APPROXIMATE DATE WHEN	
			OPERATIONS BEGIN	OPERATIONS CEASE
OTHER PROGRAMS				
Fiber Collection Program	Logan County	three focus areas for collecting fibers: commercial and institutional, county government, and schools	1999	continue through planning period
Other District Recycling Collections	Logan County	provide roadside litter collection	existing	continue through planning period
Litter Prevention and Recycling Education	Logan County	provides education and awareness for recyclable materials	1996	continue through planning period
District Website	Logan County	provide advertising, education and awareness of available recycling programs	2005	continue through planning period
Household Hazardous Waste Education	Logan County	education to safe and proper disposal of household hazardous waste	1994	continue through planning period
Household Battery Collection	Logan County	household battery collection at all drop-off locations	1998	continue through planning period
Lead-Acid Battery Strategy	Logan County	maintain a list of all outlets and education to proper disposal	1990	continue through planning period
Center for Hard To Recycle Materials (CHaRM)	Logan County	outlet for hard to recycle materials	2008	continue through planning period
Waste Tire Management Program	Logan County	provide outlets for recycling and disposing of scrap tires	1993	continue through planning period
Bellefontaine City Yard Waste Management	Logan County	provide a yard waste opportunity for City residents	2000	continue through planning period
Cherokee Run Compost Facility	Logan County	yard waste drop site for a fee	existing	continue through planning period
Private Compost Facilities	Logan County	private company composting	existing	continue through planning period
DeGraff Village Leaf Collection	Logan County	leaf collection	existing	continue through planning period
Quincy Village Compost Facility	Logan County	brush and leaf collection	existing	continue through planning period
West Liberty Village Curbside Yard Waste Collection and Compost Facility	Logan County	mixed yard waste collection	existing	continue through planning period
Organics Initiatives	Logan County	raise awareness for food waste reduction, continue to help establish a reuse and donation system, review treatment technologies, collection and delivery mechanisms, and pilot programs	2016	continue through planning period
Program Improvements/Revisions	Logan County	program designed to give monetary incentives to study or pilot program improvements, capital improvements to increase diversions, and community incentive programs	2006	continue through planning period
Market Development Projects	Logan County	funding to various agencies for approved market development projects	1996	continue through planning period
Grant Subsidies Program	Logan County	assist with grants for zero waste education	1993	continue through planning period
Health Department Assistance	Logan County	ORC 3734.57 allowable expenditure for Logan County Board of Health activities	1991	continue through planning period

Table VI-5 (cont'd): Implementation Schedule for Facilities, Strategies, Programs and Activities: Dates and Description

NAME OF FACILITY, STRATEGY, PROGRAM, OR ACTIVITY	LOCATION	DESCRIPTION OF PROGRAM OR FACILITY	APPROXIMATE DATE WHEN	
			OPERATIONS BEGIN	OPERATIONS CEASE
Local Law Enforcement - Litter	Logan County	provide resources to enforce laws prohibiting litter and illegal dumping	existing	continue through planning period
County Assistance	Logan County	ORC 3734.57 allowable expenditure to defray county expenses for hosting a regional landfill	1991	continue through planning period
Municipal/Township Assistance	Logan County	to defray expenses for hosting a regional landfill	existing	continue through planning period
Agricultural Community Assistance	Logan County	provide recycling services to the agricultural community	1998	continue through planning period
Disaster Debris Management	Logan County	provide assistance to the Logan County Emergency Management Agency in responding to a natural disaster	existing	continue through planning period
Private Recyclers/Processors	Logan County	independent recyclers/processors operating in the District	existing	continue through planning period
Material Processing Facility	Logan County	processing center for recyclables; capital improvements planned, capital expenses planned, and modification to single stream processing planned	2009	continue through planning period
Waste Sort	Logan County	waste studies conducted as necessary and feasible	existing	continue through planning period
Planning Studies and Advisory Committee	Logan County	waste generation rate study, single stream recycling operation study, MRF ownership & operation study	2016 through 2018	continue through planning period

D. Identification of Facilities

The Logan County Solid Waste Management District will not be designating any facilities as part of this solid waste management plan. Table VI-6, "Facilities Identified and Current Designations" indicated any Ohio EPA permitted and licensed facility may have accepted waste from the District in the past and that may accept waste in the future. This list is not intended to be an endorsement of these facilities nor does it preclude the acceptance of waste at facilities that are not listed.

Table VI-6: Facilities Identified and Current Designations

Facilities Currently Identified Name/Location (SWMD, State)	Designated Facilities Name/Location (SWMD, State)
Landfills	
Ohio EPA permitted and licensed solid waste landfills	none
Transfer Facilities	
Ohio EPA permitted and licensed solid waste landfills	none
Transfer Facilities	
Ohio EPA permitted and licensed solid waste landfills	none

E. Authorization Statement to Designate

The Board of County Commissioners of the Logan County Solid Waste Management District is hereby authorized to establish facility designations in accordance with Section 343.014 of the Ohio Revised Code after this plan has been approved by the Director of the Ohio Environmental Protection Agency.

The District reserves the right to implement facility designations, and to adopt District rules concerning facility designations.

F. Waiver Process for Undesignated Facilities

The District reserves the right to implement facility designations, and to adopt District rules concerning facility designations. Should the District implement facility designations, in accordance with ORC 343.01(I)(2), the District will use the following procedure for issuing a waiver to allow solid waste to flow to facilities other than those designated by the District:

1.) Applicant submits a written request for waiver to the District at the following address:

Logan County Board of Commissioners
117 E. Columbus Avenue
Bellefontaine, Ohio 43311

2.) Written request shall include:

- Name and address of generator.
- Annual quantity (tonnage) of material being redirected.
- Type and nature of material being redirected.
- Facility where material will be disposed.
- Reason for waiver request.

Within 90 days of receipt of the waiver request, the District will act. Evaluation of a waiver request will be based on projections contained in the approved plan under Section 3734.53(A)(6) and (A)(7) and implementation and financing of the approved plan. Should the waiver be consistent with plan projections and will not adversely impact plan implementation and financing, the District may grant a waiver allowing solid waste to be taken to an undesignated facility for a minimum period of one year.

G. Siting Strategy for Facilities

The District will rely upon the Ohio EPA siting strategy contained in Ohio Administrative Code 3745-27, 3745-30, and 3745-37 as well as other available siting criteria guidance from the Southwest District Office.

H. Contingencies for Capacity Assurance and District Program Implementation

The District does not foresee any circumstance that would significantly limit the disposal or recycling capacity available for District waste.

The programs outlined in Section V and summarized in Table VI-5 are designed to set minimum standards for the recycling programs offered to the various sectors in the most financially feasible manner possible.

If the in-district landfill were to close unexpectedly the District will make emergency provisions for interim transfer while the situation is evaluated and a revised Plan Update can be developed. A material change in circumstances will be immediately declared and a long-term transfer strategy will be evaluated in an early plan amendment side-by-side with any new landfill proposals. The District may need to consider an in-district transfer facility. If so, an interim site will be chosen by the Board of Directors, based on recommendations from the Policy Committee and the District Coordinator and on available grant and loan opportunities from a short list of potential sites:

1. District's storage/processing facility;
2. Cooperation with Allied Waste/Republic Waste at Cherokee Run Landfill; or
3. Part of a brownsfield development project at Chile's Landfill.

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Section VII Measurement of Progress Toward Waste Reduction Goals

As discussed in Section V, the *2001 State Solid Waste Management Plan* (*2001 State Plan*) establishes eight goals districts are required to achieve in their solid waste management plans. These goals are important to further recycling and waste minimization within the District. However, Goals #1 and Goals #2 are considered primary goals when evaluating a District's plan for compliance with the *State Plan*.

The *2001 State Plan* mandates that the Logan County Solid Waste Management District comply with either Goal #1 or Goal #2. Solid Waste Management Districts are encouraged to attempt to demonstrate compliance with both goals of the *2001 State Plan* but are required to demonstrate compliance with only one goal or the other.

Goal #1 of the *2001 State Plan*: - Access to Alternative Waste Management Opportunities

The solid waste management district shall provide access to recycling and waste minimization opportunities for municipal solid waste to its residents and businesses. In order to achieve Goal #1, solid waste management districts must:

- Ensure that at least 90 percent of the residential sector population in each county of the solid waste management district has access to recycling opportunities. These recycling opportunities must be in place within three years of obtaining an approved solid waste management plan and must collect a minimum of five materials that have been determined to be highly amenable to recycling in the *2001 State Plan*.

- Evaluate the waste reduction and recycling rate for the residential/commercial sector. Solid waste management districts that have a residential/commercial waste reduction and recycling rate of less than 25 percent must establish a target rate to be achieved by the third year after approval of the solid waste management plan. The target rate must be higher than the rate in the reference year.

- Ensure that commercial and institutional generators have access to recycling opportunities for the management of solid waste.

- Evaluate the waste reduction and recycling rate for the industrial sector. Solid waste management districts that have an industrial waste reduction and recycling rate of less than 66 percent must establish a target rate to be achieved by the third year after approval of the solid waste management plan. The target rate must be higher than the rate in the reference year.

- Demonstrate that the solid waste management district has programs in place to encourage participation in available recycling opportunities, both through education and awareness and financial incentives.

Goal #2 of the *2001 State Plan* - Waste Reduction and Recycling Rates

The solid waste management district shall reduce and/or recycle at least 25 percent of the solid waste generated in the residential/commercial sector and at least 66 percent of the solid waste generated in the industrial sector.

A. District Will Comply with Goal(s) Identified

The District will demonstrate compliance with Goal #1 and Goal #2:

B. Demonstration of Compliance with Goal #1

1. *Residential Sector*

   a. Service Area

   The service area for the District is one service area and encompasses all of Logan County that falls within the District's jurisdiction. The District's total population for the year 2013 was 45,369.

   b. Access

   According to the *Format*, Access is defined as the "presence" of waste reduction/recycling services or opportunities. Opportunities are defined as drop-off recycling service, non-subscription curbside collection programs, subscription curbside collection programs, centralized material recovery facility service, or a combination of any of these services. In addition, each of the opportunities used to demonstrate compliance with Goal #1 must collect a minimum of five materials that are defined as highly amendable to recycling in the *2001 State Plan*. Table 7-1, "Materials in the Municipal Solid Waste Stream That Are Highly Amenable to Recovery" identifies materials highly amenable to recovery for the available opportunities.

Table VII-1 Materials in the Municipal Solid Waste Stream That Are Highly Amenable to Recovery

Material	Residential Sector	Commercial/Institutional Sector
Corrugated Cardboard		x
Mixed Paper		
Office Paper		x
Newspaper	x	x
Glass Containers	x	
Steel Containers	x	x
Aluminum Containers	x	x
Plastic Containers	x	
Scrap Tires		
Used Motor Oil		
Textiles		
Lead-Acid Batteries		
Major Appliances		
Household Hazardous Waste		
Wood Pallets and Packaging		
Food Waste		
Yard Waste		

[1] From the *2001 State Solid Waste Management Plan*

The *Format* prescribes a formula for solid waste management districts to use to determine the percentage of the population that has access to recycling opportunities. This formula assigns population credits corresponding to the number of residents that can be assumed to have access to the opportunity. The amount of the credit assigned is dependent upon the type of recycling service being provided.

Non-subscription Curbside: A solid waste management district can take credit for the entire residential population that is serviced by a qualifying non-subscription curbside recycling service. In the reference year three municipalities and/or townships offered non-subscription curbside recycling services. This service is expected to continue through the planning period. Materials accepted are:

- Mixed paper (paper, magazines, glossy inserts, junkmail, chipboard, and newspaper)
- Commingled Recyclables (clear glass, brown glass, green glass, plastics #1 and #2, aluminum cans, steel cans, bi-metal cans, ferrous and non-ferrous metals)
- Cardboard

Non-subscription opportunities can credit the entire population of each community.

Subscription Curbside: A solid waste management district can take credit for 25 percent of the residential population that has the opportunity to subscribe to the curbside recycling service. No subscription curbside services were offered in 2013 or will be offered during the planning period within the District.

Drop-off Recycling Services: The number of people the *Format* designates as being served by a drop-off recycling service and can be credited towards achieving Goal #1 depends upon two factors: whether the drop-off is located in an urban or rural area; and whether the drop-off is offered on a full-time or part-time basis.

An urban area is defined as any municipality or township with a population of 5,000 or more, and a rural area is any municipality or township with a population less than 5,000. To be considered full-time, a drop-off must be available for use by the public at least 40 hours per week and collect at least five materials. A part-time drop-off is one that is available less than 40 hours per week but is made available to the public at a regularly scheduled time at least once a month. Based upon these criteria, there are four classifications of drop-offs to which population credits are assigned:

- Full-time, urban drop-off - assigned a standard population credit of 5,000.
- Full-time, rural drop-off - assigned a standard population credit of 2,500.
- Part-time, urban drop-off – assigned a standard population credit of 2,500.
- Part-time, rural drop-off – assigned a standard population credit of 2,500.

Full-time, Rural Drop-offs: Thirteen full-time, rural drop-off locations were available in the reference year. Another drop-off location became available in 2014 making a total of fourteen locations. All drop-offs are expected to continue through the planning period. Drop-off locations are available seven days a week, 24 hours a day. Materials accepted are:

- Mixed paper (paper, newspaper, magazines, glossy inserts, junkmail, and chipboard)

- Commingled Recyclables (clear glass, brown glass, green glass, plastics #1 and #2, aluminum cans, steel cans, bi-metal cans, ferrous and non-ferrous metals)
- Cardboard
- Household batteries

Full-time, Urban Drop-offs: Two full-time, urban drop-off locations were available in the reference year. All drop-offs are expected to continue through the planning period. Drop-off locations are available seven days a week, 24 hours a day. Materials accepted are:

- Mixed paper (paper, newspaper, magazines, glossy inserts, junkmail, and chipboard)
- Commingled Recyclables (clear glass, brown glass, green glass, plastics #1 and #2, aluminum cans, steel cans, bi-metal cans, ferrous and non-ferrous metals)
- Cardboard
- Household batteries

Part-time, Urban Drop-offs: There were no part-time, urban drop-off locations within the District or planned for the planning years.

Part-time, Rural Drop-Offs: There were no part-time, urban drop-off locations within the District or planned for the planning years.

The District is demonstrating access with three non-subscription curbside programs, two full-service urban drop-offs, and fourteen full-service rural drop-offs. All opportunities collect a minimum of five materials defined as highly amenable to recycling which are: newspaper, glass containers, steel containers, aluminum containers, and plastic containers. Additional materials are accepted.

In 2013, based on the recycling opportunities that were available to residents, the District was providing 100 percent of the residential population with access to recycling opportunities. The District's demonstration of compliance with Goal #1 is presented in Table VII-2, "Calculation of Access for Residential Sector".

Table VII-2: Calculation Of Access for Residential Sector: Logan County Service Area

Program	Reference Year (Year 2013)		Year 2016	
	Population w/Access	Access Credit	Population w/Access	Access Credit
Non-subscription Curbside				
City of Bellefontaine	13,193	13,193	13,276	13,276
Lake Township	632	632	636	636
Village of West Liberty	1,782	1,782	1,793	1,793
Subscription Curbside				
none	0	0	0	0
Full Service Drop-Off (rural area)				
Belle Center Village	803	2,500	808	2,500
DeGraff Village	1,270	2,500	1,278	2,500
East Liberty	988	2,500	994	2,500
Huntsville Village	427	2,500	430	2,500
Lakeview Village	1,055	2,500	1,062	2,500
Middleburg	1,136	2,500	1,143	2,500
Moundwood	3,565	2,500	3,587	2,500
Quincy Village	688	2,500	692	2,500
Rushsylvania Village	507	2,500	510	2,500
Russells Point	1,368	2,500	1,377	2,500
West Liberty Village	1,782	2,500	1,793	2,500
West Mansfield	675	2,500	679	2,500
Jefferson Township (Zanesfield)	2,911	2,500	2,929	2,500
North Side	Opened in 2014		4,588	2,500
Full Service Drop-Off (urban area)				
Bellefontaine - Campbell Hill	13,193	5,000	13,276	5,000
Bellefontaine - S. Detroit Street	13,193	5,000	13,276	5,000
Part Time Drop-Off (rural area)				
none				
Part Time Drop-Off (urban area)				
none				
Total Population with Access	n/a	58,107	n/a	60,705
Population in service area	45,481	n/a	45,768	n/a
Access Percentage		128%		133%

Population in service area excludes Village of Ridgeway

c. Participation

1.) Education and Awareness

The strategies identified in Section V Part E. for Goal #3 and Goal #4 adequately address the requirements for education and awareness to demonstrate compliance with the participation standard of Goal #1. Programs with specific messages toward Goal #1 are:

- Litter Prevention and Recycling Education
- District website
- PAYT curbside programs
- Drop-off recycling centers

2.) Financial Incentives

The District has historically provided financial incentive to encourage greater participation in available recycling programs. Specific financial incentive program to help meet access (i.e., for curbside and drop-off programs) are:

- PAYT curbside programs
- Drop-off recycling centers
- Program Improvements/Revisions

2. *Commercial/Institutional*

a. Service Area

The service area for the District is one service area that encompasses all of Logan County that falls within the District's jurisdiction. The District's total population for the year 2013 was 45,481.

b. Access

Commercial/institutional businesses are able to use the residential drop-off recycling containers. Businesses are directed to set up their own recycling accounts with the various available providers offering collection services in the area. The following providers offer collection or processing:

Facility/Activity	Type of Facility/Activity	Materials Accepted for Recycling
Rumpke	Hauler, Processor	ONP, MxP, OCC, PL, Wood, SC, AC
Waste Management	Hauler, Processor	OCC
Dayton Glass Plant	Processor, end user	GL, Wood
Sims Brothers Recycling	Scrap yard, buyback	App, Auto, scrap metal, FE, NonFe, all paper, OCC, PL#1 and #2, GL, electronics
Republic	Hauler	OCC, OffP, ONP, MxP, Mag, PBd
MRF (Material Processing Facility)	Processor	OCC, OffP, ONP, MxP, Mag, PBd, SC, AC, PL, GL

The private haulers offering collection services do assess a user fee. The District maintains a list of providers.

c. Participation

1.) Education and Awareness

The strategies identified in Section V, Part E. for Goal #3 and Goal #4 adequately address the requirements of education and awareness to demonstrate

compliance with the participation standard of Goal #1. Education and awareness are provided to the commercial/institutional sector through Commercial and Institutional Recycling Assistance program, the web page, and assistance as needed given by District staff.

C. Calculating Goal #2, the Waste Reduction Rate (WRR)

The formula below is required by the *Format* to calculate the tons of waste reduction (TWR):

$$TWR_i = R_i + (C_i - NC_i) + (I_i - A_i) + RA_i \qquad (1)$$

where:

- TWR_i = the Tons of Waste Reduction for year *i*
- R_i = tons of waste source reduced and Recycled in year *i*
- C_i = tons of waste Composted in year *i*
- NC_i = tons of Non-Compostables delivered for composting, separated for landfilling in year *i*
- I_i = tons of waste Incinerated in year *i*
- A_i = tons of incerator Ash plus bypass waste in year *i*
- RA_i = tons of Recycled incerator Ash in year *i*

The following formula should be used to estimate generation based upon disposal and waste reduction amounts:

$$EGDWR_i = TWR_i + DL_i \qquad (2)$$

where:

- $EGDWR_i$= Estimated Generation based upon Disposal plus Waste Reduction in year *i*
- DL_i = tons of waste Disposed in sanitary Landfills in year *i*

The waste reduction rate can be calculated by dividing the sum from equation **(1)** of equation **(2)**:

$$WRR_i = \frac{TWR_i}{EGDWR_i} * 100$$

where:

- WRR_i = the Waste Reduction Rate in year *i* as a percent

Residential/commercial waste reduction rate calculations for 2013:

$$TWR_i = R_i + (C_i - NC_i) + (I_i - A_i) + RA_i$$

$$= 22{,}283 \text{ tons} + (2{,}502 \text{ tons} + 0) + (0 - 0) + 0$$

$$= \mathbf{24{,}785} \text{ tons}$$

$$EGDWR_i = TWR_i + DL_i$$

= 24,785 tons + 25,352 tons
= **50,137** tons

$$WRR_i = \frac{TWR_j}{EGDWR_i} * 100$$

$$= \frac{24{,}785 \text{ tons}}{50{,}137 \text{ tons}} * 100$$

= **49.4 %**

The waste reduction rate for the residential/commercial sector in the year 2013 is 49.4 percent. The reference year waste reduction rate and the rate for each year of the planning period are presented in Table VII-3, "Annual Rate of Waste Reduction: Residential/Commercial Waste". Exempt waste is excluded from these calculations. As shown in Table VII-3, the waste reduction rate continues to increase throughout the planning period. Since the waste reduction rate for residential/commercial sector is greater than the state targeted 25 percent, the District does not need to establish a target rate to be achieved by the third year after approval of this plan.

Table VII-3: Annual Rate of Waste Reduction: Residential/Commercial Waste

Year	Recycling	Composting	Non-Compostables	Landfill	Tons Waste Reduction	Population	Waste Reduction Rate (%)	Per Capita Waste Reduction Rate (lb/person/day)
2013	22,283	2,502	0	25,352	24,785	45,369	49.43%	2.99
2014	22,274	2,515	0	25,531	24,789	45,534	49.26%	2.98
2015	21,786	2,528	0	26,188	24,314	45,698	48.14%	2.92
2016	22,029	2,540	0	25,886	24,569	45,656	48.69%	2.95
2017	22,280	2,553	0	25,575	24,833	45,614	49.26%	2.98
2018	22,541	2,566	0	25,255	25,107	45,572	49.85%	3.02
2019	22,812	2,578	0	24,925	25,391	45,530	50.46%	3.06
2020	23,094	2,591	0	24,584	25,685	45,488	51.10%	3.09
2021	23,387	2,604	0	24,192	25,991	45,410	51.79%	3.14
2022	23,691	2,617	0	23,788	26,308	45,332	52.52%	3.18
2023	24,008	2,630	0	23,372	26,638	45,254	53.27%	3.23
2024	24,338	2,644	0	22,943	26,982	45,176	54.05%	3.27
2025	24,682	2,657	0	22,499	27,339	45,098	54.86%	3.32
2026	25,041	2,670	0	21,990	27,711	44,974	55.76%	3.38
2027	25,416	2,683	0	21,465	28,099	44,850	56.69%	3.43
2028	25,807	2,697	0	20,924	28,503	44,726	57.67%	3.49
2029	26,215	2,710	0	20,365	28,925	44,602	58.68%	3.55
2030	26,642	2,724	0	19,787	29,366	44,478	59.74%	3.62
2031	27,088	2,737	0	19,181	29,826	44,346	60.86%	3.69

Source:

Recycling values taken from Table VI-2
Composting values taken from Table VI-2
Landfill values taken from Table VI-2
Populations values taken from Table V-1

Sample Calculation:

2013 Tons Waste Reduction = Recycling + (Composting - Non Compostables)

24,785 tons = 22,283 tons + (2,502 tons - 0)

$$\text{Waste Reduction Rate} = \frac{\text{Tons of Waste Reduced}}{\text{(Tons of Waste Reduced + Tons of Waste Landfilled)}}$$

$$49.43\% = \frac{24{,}785 \text{ tons}}{(24{,}785 \text{ tons} + 25{,}352) \text{ tons}}$$

$$\text{Per Capita Waste Reduction Rate} = \frac{\text{Tons of Waste Reduced (tons) x 2000 lb/ton}}{\text{(District Population x 365 days)}}$$

$$2.99 \text{ lb/person/day} = \frac{24{,}785 \text{ tons x 2000 lb/ton}}{(45{,}369 \text{ persons x 365 days})}$$

Industrial waste reduction rate calculations for 2013:

$TWR_i = R_i + (C_i - NC_i) + (I_i - A_i) + RA_i$

= 52,299 tons + (0 + 0) + (0 -0) + 0
= **52,299** tons

$EGDWR_i = TWR_i + DL_i$

= 52,299 tons + 4,568 tons
= **56,867** tons

$$WRR_i = \frac{TWR_i}{EGDWR_i} * 100$$

$$= \frac{52{,}299 \text{ tons}}{56{,}867 \text{ tons}} * 100$$

= **92.0%**

The waste reduction rate for the industrial sector in the year 2013 is 92%. The reference year waste reduction rate and each year of the planning period are calculated in Table VII-4, "Annual Rate of Waste Reduction: Industrial Waste". The waste reduction rate for the industrial sector is above the state target of 66 percent.

Table VII-4: Annual Rate of Waste Reduction: Industrial Waste

Year	Recycling	Composting	Non-Compostable	Incineration	Incinerator Ash and Bypass Waste	Ash Recycled	Landfill	Tons Waste Reduction	Population	Waste Reduction Rate (%)	Per Capita Waste Reduction Rate (lb/person/day)
2013	52,299	0	0	0	0	0	4,568	52,299	45,369	91.97%	6.32
2014	52,299	0	0	0	0	0	4,562	52,299	45,534	91.98%	6.29
2015	52,299	0	0	0	0	0	4,556	52,299	45,698	91.99%	6.27
2016	52,299	0	0	0	0	0	4,551	52,299	45,656	92.00%	6.28
2017	52,299	0	0	0	0	0	4,545	52,299	45,614	92.00%	6.28
2018	52,299	0	0	0	0	0	4,539	52,299	45,572	92.01%	6.29
2019	52,299	0	0	0	0	0	4,534	52,299	45,530	92.02%	6.29
2020	52,299	0	0	0	0	0	4,528	52,299	45,488	92.03%	6.30
2021	52,299	0	0	0	0	0	4,522	52,299	45,410	92.04%	6.31
2022	52,299	0	0	0	0	0	4,517	52,299	45,332	92.05%	6.32
2023	52,299	0	0	0	0	0	4,511	52,299	45,254	92.06%	6.33
2024	52,430	0	0	0	0	0	4,374	52,430	45,176	92.30%	6.36
2025	52,561	0	0	0	0	0	4,238	52,561	45,098	92.54%	6.39
2026	52,692	0	0	0	0	0	4,101	52,692	44,974	92.78%	6.42
2027	52,824	0	0	0	0	0	3,963	52,824	44,850	93.02%	6.45
2028	52,956	0	0	0	0	0	3,825	52,956	44,726	93.26%	6.49
2029	53,088	0	0	0	0	0	3,687	53,088	44,602	93.51%	6.52
2030	53,221	0	0	0	0	0	3,549	53,221	44,478	93.75%	6.56
2031	53,354	0	0	0	0	0	3,410	53,354	44,346	93.99%	6.59

Source:

Recycling values taken from Table VI-3

Composting values taken from Table VI-3

Landfill values taken from Table VI-3

Populations values taken from Table V-1

Sample Calculation:

2013 Tons Waste Reduction = Recycling + Composting - NonCompostable + Ash Recycled

52,299 tons = 52,299 tons + 0 - 0 + 0 tons

$$\text{Waste Reduction Rate} = \frac{\text{Tons of Waste Reduced}}{(\text{Tons of Waste Reduced} + \text{Tons of Waste Landfilled})}$$

$$91.97\% = \frac{52{,}299 \text{ tons}}{(52{,}299 \text{ tons} + 4{,}568 \text{ tons})}$$

$$\text{Per Capita Waste Reduction Rate} = \frac{\text{Tons of Waste Reduced} \times 2000}{(\text{District Population} \times 365 \text{ days})}$$

$$6.32 \text{ lb/person/day} = \frac{52{,}299 \text{ tons} \times 2{,}000 \text{ lb/ton}}{(45{,}369 \text{ persons} \times 365 \text{ days})}$$

Table VII-5, "Annual Rate of Waste Reduction: Total District Solid Waste", demonstrates the total District waste reduction rate for the reference year and the remaining years of the planning period.

Table VII-5: Annual Rate of Waste Reduction: Total District Solid Waste

Year	Recycling	Composting	Non-Compostables	Incineration	Incinerator Ash and ByPass Waste	Ash Recycled	Landfill	Tons Waste Reduction	Population	Waste Reduction Rate (%)	Per Capita Waste Reduction Rate (lb/person/day)
2013	74,582	2,502	0	0	0	0	36,284	77,084	45,369	67.99%	9.31
2014	74,573	2,515	0	0	0	0	36,457	77,088	45,534	67.89%	9.28
2015	74,085	2,528	0	0	0	0	37,108	76,613	45,698	67.37%	9.19
2016	74,328	2,540	0	0	0	0	36,800	76,868	45,656	67.62%	9.23
2017	74,579	2,553	0	0	0	0	36,484	77,132	45,614	67.89%	9.27
2018	74,840	2,566	0	0	0	0	36,158	77,406	45,572	68.16%	9.31
2019	75,111	2,578	0	0	0	0	35,822	77,690	45,530	68.44%	9.35
2020	75,393	2,591	0	0	0	0	35,476	77,984	45,488	68.73%	9.39
2021	75,686	2,604	0	0	0	0	35,078	78,290	45,410	69.06%	9.45
2022	75,990	2,617	0	0	0	0	34,669	78,607	45,332	69.39%	9.50
2023	76,307	2,630	0	0	0	0	34,247	78,937	45,254	69.74%	9.56
2024	76,768	2,644	0	0	0	0	33,681	79,412	45,176	70.22%	9.63
2025	77,243	2,657	0	0	0	0	33,100	79,900	45,098	70.71%	9.71
2026	77,733	2,670	0	0	0	0	32,454	80,404	44,974	71.24%	9.80
2027	78,240	2,683	0	0	0	0	31,792	80,923	44,850	71.79%	9.89
2028	78,763	2,697	0	0	0	0	31,113	81,459	44,726	72.36%	9.98
2029	79,303	2,710	0	0	0	0	30,416	82,014	44,602	72.95%	10.08
2030	79,863	2,724	0	0	0	0	29,700	82,587	44,478	73.55%	10.17
2031	80,442	2,737	0	0	0	0	28,955	83,180	44,346	74.18%	10.28

Source:

Recycling values taken from Table VI-1

Composting values taken from Table VI-1

Landfill values taken from Table VI-1

Populations values taken from Table V-1

Sample Calculation:

2013 Tons Waste Reduction = Recycling + Composting - NonCompostable + Ash Recycled

77,084 tons = 74,582 tons + 2,502 - 0 + 0 tons

$$\text{Waste Reduction Rate} = \frac{\text{Tons of Waste Reduced}}{\text{(Tons of Waste Reduced + Tons of Waste Landfilled)}}$$

$$67.99\% = \frac{77{,}084 \text{ tons}}{(77{,}084 \text{ tons} + 36{,}284 \text{ tons})}$$

$$\text{Per Capita Waste Reduction Rate} = \frac{\text{Tons of Waste Reduced} \times 2000}{\text{(District Population} \times 365 \text{ days)}}$$

$$9.31 \text{ lb/person/day} = \frac{77{,}084 \text{ tons} \times 2{,}000 \text{ lb/ton}}{(45{,}369 \text{ persons} \times 365 \text{ days})}$$

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SECTION VIII: Cost and Financing of Plan Implementation

The budget presented in Section VIII meets the District goals of maintaining an infrastructure which contributes in a meaningful way to the community and the overhead of the department, optimizing availability and costs of these services, adapting to spiral changes in industry and larger economic conditions, and preparing community for long-term challenges.

A. Funding Mechanisms and Amount of Money Generated

1. *District Disposal Fees*

The primary funding mechanism of the District is collection of revenues from tiered solid waste disposal fees which are levied in accordance with ORC Section 3734.57(B). As presented in Table VIII-1, the District's existing fee structure is: $1.00 per ton of solid waste that is generated within the District and disposed at a solid waste landfill located within the District (Tier 1); $2.00 per ton of solid waste that is generated outside the District but within Ohio and disposed at a solid waste landfill located within the District (Tier 2); and $1.00 per ton of solid waste that is generated outside of Ohio and disposed at a solid waste landfill located within the District (Tier 3).

However, upon approval of this amended plan by the Director of Ohio EPA, the District solid waste disposal fee for solid waste disposed in the District will be:

$1.00 per ton on solid waste generated In-District,
$3.00 per ton on solid waste generated Out-of-District, but inside the State of Ohio,
$1.00 per ton on solid waste generated Out-of-State.

It is expected that early September 2016, the director of Ohio EPA will issue an order approving this Plan Update. Not later than fourteen days after the director issues this order, the policy committee will notify by certified mail, the owner or operator of each solid waste disposal facility that is required to collect the solid waste disposal fees, the following: 1) the approval date of the Plan Update from the director of Ohio EPA, and 2) the amount of the amended fees. For the new district disposal fee structure of $1.00 per ton In-District, $3.00 per ton Out-of-District, and $1.00 per ton Out-of-State, the only in District facility requiring notification from the District is the Cherokee Run Landfill.

Collection of the new disposal fee structure will commence on the first day of the second month following the month in which notification is sent to the Cherokee Run Landfill. The new disposal fee structure is anticipated to go into effect November 1, 2016. This fee structure is planned till 2026, at which point, is planned to change in to $1.00:$2.00:$1.00 for the remainder of the planning period. The District will have another plan update prior to the 2026 revised fee structure and will re-evaluate the structure during that plan update process.

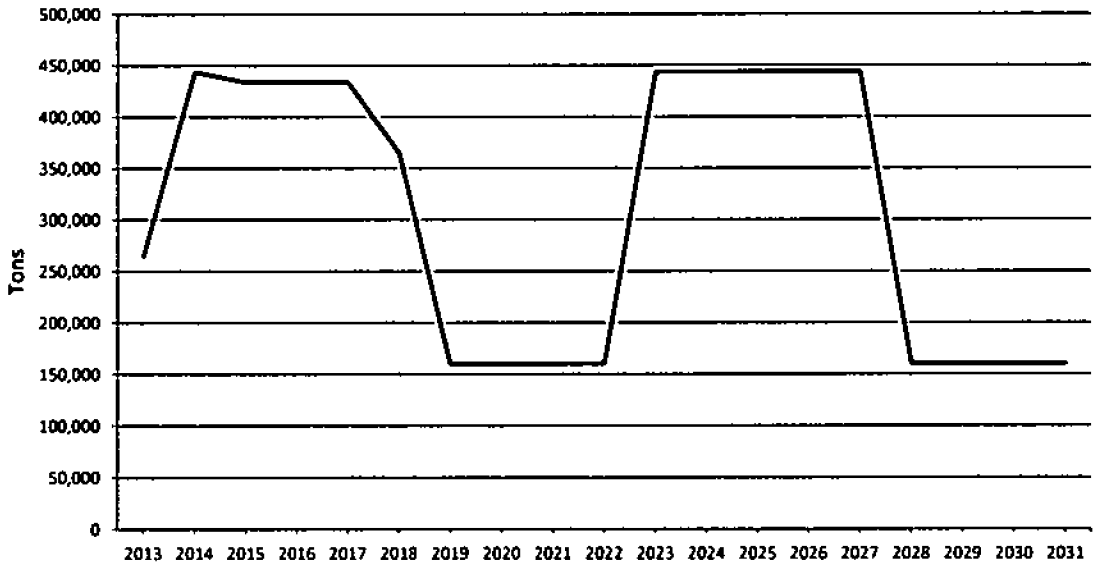
Revenues shown in Table VIII-1, "District Disposal Fee Schedule and Revenues Generated" for years 2013 and 2014 are actual revenues based on District collected disposal fees as reported in the quarterly fee reports. It should be noted that the tonnages that are presented for 2013 and 2014 represent tonnages for which fees were remitted in 2013 and 2014 and not tonnages that were reported as accepted at landfill facilities in 2013 and 2014.

The District operates on a cash accounting basis, and, as a result, tonnages for fee tracking purposes are not recorded until fee revenue is actually received from a landfill facility.

Projected Revenues (See **Appendix M** for detailed revenue forecast calculations.)
Tier 1 disposal volumes, beyond 2014, are forecasted using an average historic (past six years) estimate. The calculated historic average volume is expected to remain flat through the planning period. Revenues were then calculated by multiplying the forecasted volumes by $1.00 per ton; the in-district fee structure.

Tier 2 revenues are dependent on economic activity and contract cycles. These revenues are more complex and can vary significantly. Historically Tier 2 disposal fee volumes and thus, revenue follow a wave curve. This is demonstrated in Table VIII-1. Year 2013 volumes are less than 265,000 tons while year 2014 volumes are greater than 440,000 tons. The District is forecasting a projected wave curve for the planning period. Increased tonnages received in 2014 are forecasted to remain constant through 2017. Year 2018 is a combined estimate of three-fourths at the higher tonnages and one-fourth at the lower tonnages (conservative estimate). Lower tonnages are forecasted 2019 through 2022, higher tonnages 2023 through 2027, and finally lower tonnages 2028 through end of planning period. This is shown in Figure VIII-1 "Projected Tier 2 Tonnages".

Figure VIII-1 Projected Tier 2 Tonnages



The forecasted low years are based on 2009 through 2012 four-year average (low years of tonnages). The forecasted high years are based on 2014 received tonnages. Revenues were then calculated by multiplying the forecasted volumes by the out-of-district fee structure.

Revenues earned from Tier 3 disposal fees have historically been flat and minimal. There is no reliance on Tier 3 fees for revenue. In forecasting future revenues no revenue is projected for planning year revenues.

Table VIII-1: District Disposal Fee Schedule and Revenues Generated

Year	Fee Schedule ($/ton)			Tons Disposed in the District			Expected Total District Fee Revenue	Actual District Fee Revenues Collected
	In-District	Out-of-District	Out-of State	In-District (InD) Tier 1	Out-of-District (OOD) Tier 2	Out-of State (OOS) Tier 3		
2013	$1.00	$2.00	$1.00	26,268.35	264,239.48	51.63		$554,798.93
2014	$1.00	$2.00	$1.00	25,863.05	443,600.18	250.08		$913,313.49
2015	$1.00	$2.00	$1.00	26,240.60	433,352.90	256.89	$893,203.28	
2016	$1.00	$2.00	$1.00	26,240.60	325,014.67	0.00	$1,001,284.61	
		$3.00			108,338.22			
2017	$1.00	$3.00	$1.00	26,240.60	433,352.90	0.00	$1,326,299.28	
2018	$1.00	$3.00	$1.00	26,240.60	365,110.43	0.00	$1,121,571.87	
2019	$1.00	$3.00	$1.00	26,240.60	160,383.02	0.00	$507,389.65	
2020	$1.00	$3.00	$1.00	26,240.60	160,383.02	0.00	$507,389.65	
2021	$1.00	$3.00	$1.00	26,240.60	160,383.02	0.00	$507,389.65	
2022	$1.00	$3.00	$1.00	26,240.60	160,383.02	0.00	$507,389.65	
2023	$1.00	$3.00	$1.00	26,240.60	443,600.18	0.00	$1,357,041.14	
2024	$1.00	$3.00	$1.00	26,240.60	443,600.18	0.00	$1,357,041.14	
2025	$1.00	$3.00	$1.00	26,240.60	443,600.18	0.00	$1,357,041.14	
2026	$1.00	$2.00	$1.00	26,240.60	443,600.18	0.00	$913,440.96	
2027	$1.00	$2.00	$1.00	26,240.60	443,600.18	0.00	$913,440.96	
2028	$1.00	$2.00	$1.00	26,240.60	160,383.02	0.00	$347,006.63	
2029	$1.00	$2.00	$1.00	26,240.60	160,383.02	0.00	$347,006.63	
2030	$1.00	$2.00	$1.00	26,240.60	160,383.02	0.00	$347,006.63	
2031	$1.00	$2.00	$1.00	26,240.60	160,383.02	0.00	$347,006.63	

Notes:

Actual District Fee Revenues are based on cash accounting. Tonnages shown for waste disposal are accrual accounting.

Excludes exempt waste

Year 2018 OOD waste tonnages were calculated based on three fourths of the year at higher tonnages and one fourth of the year at lower tonnages.

Sample Calculation:

Calculated Disposal Fee Revenue = (InD fee * Tons disposed InD) + (OOD fee * Tons disposed OOD) + (OOS fee * Tons disposed OOS)

2014 calculated disposal fee revenues = ($1 * 25,863.05 tons) + ($2 *443,600.18 tons) + ($1 * 250.08 tons) = $913,313.49

2. *Generation Fee*

The District does not collect revenues in accordance with Section 3734.573 of the ORC. The generation fee is a surcharge that any solid waste management district may levy on waste generated within its borders, regardless of where in Ohio the waste is disposed. The fee is collected by Ohio landfills, incinerators, energy recovery, and solid waste composting facilities remitted to the "sending" district. If waste is not hauled directly to one of these facilities but goes through a transfer station, then the generation fee is to be collected by the transfer station instead. Generation fees of $5.00 per ton or less must be ratified by representatives of 60 percent of the district's total population, according to ORC 3734.573(B). Generation fees of more than $5.00 per ton must be ratified by

representatives of 75 percent of the district's total population, according to ORC 3734.573(C).

The District is not ratifying a generation fee with this Plan Update thus Table VIII-2, "Generation Fee Schedule and Revenues" as required by the *Format* is not completed. The District does not anticipate ratifying a generation fee during the planning period covered by this Plan Update. The District reserves the right to authorize and collect generation fees should the primary funding mechanism (tiered disposal fees) cease providing sufficient revenues for plan implementation.

3. *Summary of District Revenues*

Table VIII-3, "Summary of Revenue Generated and Mechanisms Used", includes all the funding mechanisms that will be used and the total amount of revenue generated by each method for each year of the planning period. The District's primary funding mechanisms are the District disposal fees. The District also receives alternate revenues from user fees, grants, other, and sale of recyclables.

Table VIII-3: Summary of Revenue Generated and Mechanisms Used

Year	Tier Fee Revenues	User Fees	Grants	Other	Reimbursements	Recycling Revenue	Total Revenue Generated
2013	$554,798.93	$206,012.14	$1,051,967.11	$21,407.91	$12,295.80	$360,936.03	$2,207,417.92
2014	$913,313.49	$273,403.48	$432,716.75	$69,625.37	$9,915.45	$398,724.10	$2,097,698.64
2015	$893,203.28	$280,535.00	$0.00	$0.00	$12,400.00	$314,616.99	$1,500,755.27
2016	$1,001,284.61	$342,415.26	$150,000.00	$0.00	$12,400.00	$388,857.38	$1,894,957.25
2017	$1,326,299.28	$352,687.72	$150,000.00	$0.00	$12,400.00	$393,134.82	$2,234,521.81
2018	$1,121,571.87	$363,268.35	$150,000.00	$0.00	$12,400.00	$397,459.30	$2,044,699.52
2019	$507,389.65	$374,166.40	$150,000.00	$0.00	$12,400.00	$401,831.35	$1,445,787.40
2020	$507,389.65	$385,391.39	$150,000.00	$0.00	$12,400.00	$406,653.33	$1,461,834.37
2021	$507,389.65	$396,953.13	$0.00	$0.00	$12,400.00	$411,533.17	$1,328,275.95
2022	$507,389.65	$408,861.73	$50,000.00	$0.00	$12,400.00	$416,471.56	$1,395,122.94
2023	$1,357,041.14	$421,127.58	$0.00	$0.00	$12,400.00	$421,885.70	$2,212,454.41
2024	$1,357,041.14	$433,761.41	$50,000.00	$0.00	$12,400.00	$427,370.21	$2,280,572.75
2025	$1,357,041.14	$446,774.25	$0.00	$0.00	$12,400.00	$432,926.02	$2,249,141.41
2026	$913,440.96	$460,177.48	$50,000.00	$0.00	$12,400.00	$438,986.99	$1,875,005.42
2027	$913,440.96	$473,982.80	$0.00	$0.00	$12,400.00	$445,132.80	$1,844,956.56
2028	$347,006.63	$488,202.28	$50,000.00	$0.00	$12,400.00	$451,364.66	$1,348,973.58
2029	$347,006.63	$502,848.35	$0.00	$0.00	$12,400.00	$458,135.13	$1,320,390.12
2030	$347,006.63	$517,933.80	$50,000.00	$0.00	$12,400.00	$465,007.16	$1,392,347.59
2031	$347,006.63	$533,471.82	$0.00	$0.00	$12,400.00	$472,447.27	$1,365,325.72

Notes:

2013 are actual revenues reported on Ohio EPA submitted Quarterly Fee Reports.

Source:

Tier Fee revenues are from Table VIII-1.

User Fee revenues are from sale of PAYT bags and CHaRM. See Appendix M.

Grant revenues are projections based on anticipated grants received.

Other Revenue includes miscellaneous sale of equipment and vehicles, and miscellaneous refunds.

Reimbursements are monies collected from Lake Township PAYT. Expenses are shown on Table VIII-5.

Recycling Revenue are monies received from the sale of commodities. See Appendix M.

Sample Calculation:

Total Revenue = Disposal fee + Generation Fees + Grants + Other + Reimbursements + Recycling Revenue

2013 Total Revenue = $554,798.93 + $206,012.24 + $1,051,967.11 + $21,407.91 + $12,295.80 + $360,936.03 = $2,207,417.92

a.) Grants

Grants serve as other funding mechanisms available to the District. Many grants are available through various organizations, however, it is a tasking process to continually seek and receive grants. Uncertainty exists in grant awards and values.

In 2013 and 2014, as shown in Table VIII-3 the District received sizeable grant monies. Grant money received in 2013 and 2014 was from a Department of Labor National Emergency Grant (NEG). The purpose of the grant was to continue clearing debris from streams, roadways, cemeteries, and parks as a result of a windstorm in 2012. Over one million dollars in grant monies were received for this project. In addition to the NEG grant money, in 2014 a grant award of $113,500 was received from Ohio EPA community and market development grants which was used for improvements on the MRF.

Grants are needed to fund MRF capital improvement projects. For the planning period the District is anticipating receiving at least $150,000 every year from 2016 through 2020 then $50,000 every other year in grant money, totaling $1,000,000 over the next planning period. This is an aggressive projection behind which the District intends to actively and aggressively seek grants as a funding mechanism throughout the planning period. The District will work with Ohio EPA for grants as well as look beyond for other grant opportunities.

b.) Reimbursements

Reimbursements are related to services rendered from the District to local generators for which costs are recovered. Lake Township PAYT contracts with a private contract hauler. Republic, at the time of this Plan Update, holds the contract. The District's role is to consult and handle money to ensure program implementation and service continuation. The service is rendered; the contracted hauler invoices the District; the District pays the invoice; and then invoices Lake Township. The District acts as an administrative pass-through for the contract costs of the program. Since costs are recovered for these services, expenses match the reimbursements.

In 2014, an accounting error occurred for recording the revenue as a reimbursement. This accounting error shows less reimbursement revenue recorded on the quarterly fee report than was received.

c.) User Fees

User fees are another funding mechanism used by the District. User fees are charged on trash bags and materials accepted at CHaRM. To dispose of trash at any of the District drop-off recycling centers a fee is charged for the bag. In 2013, bag prices were $2.00 per bag. This was increased to $2.50 in 2014 and in 2016 is expected to increase to $3.00. The drop-off recycling centers earn enough money to offset trash pick-up and disposal costs. This program is designed to be sustainable, so the price of bags will be structured to pay for program expenses.

The user fee rate schedule for materials brought to CHaRM is structured to cover the costs of program implementation. Thus CHaRM is self-sustaining.

(For detailed planning period user fee revenue estimate calculations see **Appendix M.**)

d.) Recycling Revenue

The District receives revenues from the sale of recyclables managed (processed) by the District. Ultimately market conditions determine the revenue received. Revenues in 2013 and 2014 are actual monies and years 2015 through the planning period are projected. (See **Appendix M** for detailed planning period revenue estimate calculations.)

e.) Other

Actual revenues are shown for 2013 and 2014. Other revenues are unpredictable and are excluded in the planning period.

Figure VIII-2, "2013 District Funding Mechanism Contribution", shows the percentage each funding mechanism contributed to the reference year revenues. In this figure grant monies were excluded. Money received in 2013 came from an NEG grant award used for specific storm disaster management, not for District operations.

Figure VIII-2 2013 District Funding Mechanism Contribution

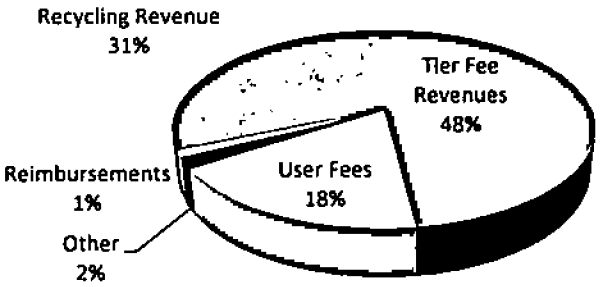
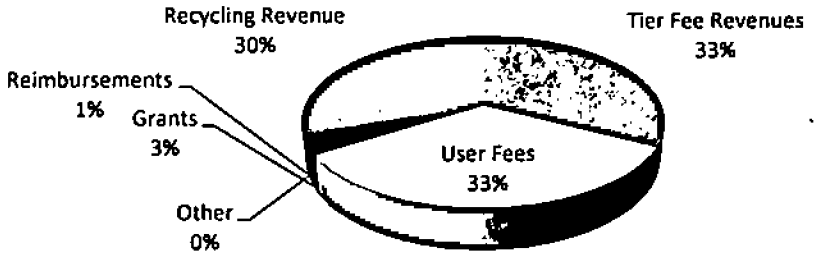


Figure VIII-3, "2020 District Funding Mechanism Contribution", shows the percentage each funding mechanism contributed four years into the planning period. Future projections plan for less dependency on Tier 2 waste disposal revenues.

Figure VIII-3 2020 District Funding Mechanism Contribution



B. Costs of Plan Implementation

Under this plan update the District will budget to retire the debt service by year 2020 and move forward with major initiatives to improve MRF operations and handling of recyclable materials. This will require capital investments in the form of trucks, equipment, and building modifications as well as investment in equipment for single stream processing equipment. Under the budget projections in this section, a portion of the capital investments will be financed by secured grants and the remainder additional funds generated with an increased disposal fee.

A loan was secured in 2009 to cover costs to build pay-as-you-throw drop-off recycling centers, purchase property for MRF operations, and purchase equipment for operations of the MRF. The total loan amount of $1,885,000 was rolled over until year 2013. Debt service as provided by Logan County's Auditor office is shown in Table VIII-4, "Anticipated Loans Secured by the District". The length of the loan is financed for twenty years, however the District is planning to retire the debt service by year 2020. The column labeled "Early Payoff Schedule" represents the District's goal payment schedule. The early payoff debt schedule is deducted under the expense projections in this section.

Table VIII-4: Anticipated Loans Secured by the District

Year	Loans Obtained by the District		Interest Rate	Length of Loan	Annual Debt Service	Early Payoff Schedule
	Lending Institution	Loan Amount				
2013	Fifth Third Bank	$1,885,000.00	NA	20 years	$124,537.33	$124,537.33
2014	NA	NA	NA	NA	$121,075.00	$121,075.00
2015	NA	NA	NA	NA	$124,575.00	$400,000.00
2016	NA	NA	NA	NA	$122,975.00	$400,000.00
2017	NA	NA	NA	NA	$121,375.00	$400,000.00
2018	NA	NA	NA	NA	$124,775.00	$400,000.00
2019	NA	NA	NA	NA	$123,075.00	$200,000.00
2020	NA	NA	NA	NA	$121,375.00	$0.00
2021	NA	NA	NA	NA	$124,462.50	$0.00
2022	NA	NA	NA	NA	$122,212.50	$0.00
2023	NA	NA	NA	NA	$124,962.50	$0.00
2024	NA	NA	NA	NA	$122,587.50	$0.00
2025	NA	NA	NA	NA	$125,212.50	$0.00
2026	NA	NA	NA	NA	$122,587.50	$0.00
2027	NA	NA	NA	NA	$124,837.50	$0.00
2028	NA	NA	NA	NA	$121,950.00	$0.00
2029	NA	NA	NA	NA	$123,800.00	$0.00
2030	NA	NA	NA	NA	$125,500.00	$0.00
2031	NA	NA	NA	NA	$122,050.00	$0.00
2032	NA	NA	NA	NA	$123,600.00	$0.00

Notes:

Initial loan was taken in 2009, however, the loan was rolled over until year 2013. First loan payments were made in 2013.

Annual Debt Service represents the amortization schedule reported from Auditor's office. This is the minimum annual payment

Early Payoff Schedule represents the District's goal payment schedule to pay off the debt sooner.

Table VIII-5, "Estimated Cost for Plan Implementation, " includes a detailed breakdown of facilities, programs, and activities described previously throughout the Plan. Expenses shown in Table VIII-5 are actual expenses incurred for 2013 and 2014. Expenses beyond 2014 are projected expenses. An inflation rate of 3 percent was applied to all expenditures annually, unless otherwise noted. Some programs plan for major expenditures in the planning period. Before the District creates a large expense a review of the impact on monetary reserves as a result of such expense will be performed. The District will ensure nine months of reserves are available. Expense categories and projections include:

- Administration. District staff expenses include Payroll, PERS, Medicare, Health Insurance, and Workers Compensation Insurance. The District employs a Coordinator, office manager, field supervisor, field technician, and roll-off truck driver. Overhead expenses include telephone, postage, legal fees, consultant fees, workshops, travel costs, training materials, utilities, vehicle purchase and maintenance, and office equipment. In 2013 website costs were included with overhead expenses. Payroll, PERS, Medicare, and Workers Compensation Income are inflated annually at 1.5 percent. Health Insurance is inflated 3 percent annually.

  This Plan anticipates a decline in out-of-district disposal fee revenue in 2019 due to the expiration of the current Montgomery County/Miami County contract with Republic Waste/Cherokee Run Landfill. This Plan revision projects the decrease revenues to endure for 5 years, after which another large contract with an out-of-district user is anticipated and projected.

- Industrial Committee. The District provides funding to conduct at least one meeting a year for industrial representatives. Expenditures associated with this program are included in Administrative line items.

- Bellefontaine City PAYT/Curbside Recycling. Direct District expenses for this line item are not expected. Any assistance provided to the City of Bellefontaine is included in Administrative line items.

- Lake Township PAYT/Curbside Recycling. The District arranges for the services as needed such as negotiating contracts or managing the program on behalf of the Township. Curbside expenses shown on Table VIII-5 offset the reimbursement revenues (township reimburses District for program expenses) shown on Table VIII-3.

- Village of West Liberty PAYT/Curbside Recycling. Direct District expenses for this line item are not expected. Any assistance provided to the Village of West Liberty is included in Administrative line items.

- Drop-off Recycling, Rural and Urban. Includes construction, maintenance, repairs, hauling, processing, supplies, and signs. Construction of drop-off recycling centers was completed in 2013. Less expenses were incurred in 2014 and are projected throughout the planning period.

- Fiber Collection Route. Direct District expenses for this line item are not expected. Any assistance provided is included in Administrative line items.

- Other District Recycling Collections. With minimal revenues, funding allocated to this program was used elsewhere. In 2016, funding will be budgeted for expenses associated with supplies, materials, and other costs associated with Other District Recycling Collections.

- Commercial and Industrial Business Surveys. All expenses are included in Administrative line items.

- Litter Prevention and Recycling Education. District expenses include radio, television, available scholarships, annual awards, special promotions, contests, signs for Adopt-a-Road, etc. In 2016, expenses will increase to support partnerships to expand and boost school, teacher, youth, adult, and stakeholder education.

- District Website. All expenses in 2013 are included in Administrative line items. A budget of $1,000 annually is set for the planning period.

- Household Hazardous Waste Education. Expenditures were included in Administrative and Litter Prevention and Recycling Education line items.

- Lead/Acid Battery Strategy. The District provides education and maintains a list of county businesses that accept lead/acid batteries for proper disposal. Expenditures associated with this program are included in Administrative line items which are related to personnel resources, reproductions, and the website.

- C.H.a.R.M. The District charges residents user fees for using this service. User fees cover the expenses incurred. Expenses shown in 2013 and 2014 are less than revenues (as shown in Table 8-3). In these years labor expenses were incorporated in the Administrative line item. Also, 2014 expenses are low because most of disposal costs were paid out in 2015. Beginning in 2015, a contract for operations of CHaRM is planned with the county HAZMAT team. (Note: Labor expenses and supplies average roughly $10,000 from 2010 through 2014. An additional $11,000 in labor and supplies are expected in 2015 because of projected volumes and HAZMAT operations.

- Waste Tire Management. A budget of $5,000 annually is set for clean ups of waste tire clean ups.

- Organics Initiatives. A budget of $15,000 annually is set for organic initiatives. In Section V initiatives or introductory steps are planned to put organics recycling mainstream and on the move within the District. A budget of $15,000 annually is adequate for exploring alternatives and expanding markets, outreach, and education. It is not the District's intention to get into the business of collection or processing of organic materials. The "Program

Improvements/Revisions" program has available funding for coordination or facilitation of organic collection or processing that would be a new or improved program.

- Program Improvements/Revisions. The recycling processing center (MRF) in 2013, 2014 and 2015 provided rebate opportunities for recycling (drop-off) communities using a dollar per ton metric basis for incentives. Rebates were paid from money earned on the sale of recyclables and are dependent on market condition revenues. This program will expand, beginning in 2016, to fund activities of larger scope than in the past. An increase of funding to $50,000 annually is allocated. The Board of Directors will determine on an annual basis how to best spend the available allocation to implement new or improved programs. Allocations are likely to change from year to year and may be made in any proportion deemed most promising, based on real opportunities to improve diversions. Fund disbursements might be: grants or allocations to study or pilot program improvements, capital improvements at facilities to increase diversions, and community incentive programs (rewards/rebates). Specific examples for this planning period might include: public space recycling; multi-family housing recycling programs; organic collections or programs; glass restaurant recycling; development of recyclable collection points for businesses, restaurants and offices; replacement curbside bins; and development of curbside inspection program. (Note: Budget allocated for community incentive programs is a portion and will not exceed $20,000 annually.) Money will not be used for operational expenses. The District reserves the right to reduce funding this program should the District experience a decrease in revenues at anytime during the planning period.

- Market Development Projects. The District has the option of providing funding to various agencies for approved market development projects. The funding provided is to be administered strictly at the Board's discretion. A budget of $2,500 annually beginning in 2017 is budgeted. If the District sees higher than projected revenues it reserves the right to spend revenues for market development projects.

- Grant Subsidies Program. The District is changing the focus of this program from one-time funding for special recycling projects and zero waste events in the District to grant funding for zero waste education. The District sees an opportunity to provide educational grants in the future. At this time funds are being directed to other programming. Activities and expenses are not directed toward this program for this plan update. This program will serve as a place-holder. If the District sees higher than projected revenues it reserves the right to spend revenues for grant subsidies.

- Health Department Assistance. Funding is provided to the Health Department by the District to ensure the implementation of activities described in ORC 3734.57(B). A budget of $75,000 annually is set. The District will begin to build up a post closure landfill monitoring fund for the health department to ensure post closure care compliance with Ohio Administrative Code 3745-27-14. Fund allocations of $20,000 will be set aside annually. These allocations are not shown on Table VIII-5 as expenses because the expense has not yet occurred. A separate balance showing the accumulated reserve fund is shown on Table VIII-8.

- Local Law Enforcement – Litter. The District provides funding for a full-time sheriff deputy to assist with inmate labor in the recycling center. Additional funding was provided to the Sheriff's department for anti-littering and is budgeted in the future. The District reserves the right to spend more or less money for these services during the planning period revenue depending.

- County Assistance. Expenses are not anticipated.

- Municipal/Township Assistance. This is a grant program that is administered by the District for allowable expenditures by local communities. The District has the authority to administer funds "...to individual municipal corporations and townships within the district to defray their added costs of maintaining roads and other public facilities and of providing emergency and other public services resulting from the location and operation within their boundaries of composting, energy or resource recovery, incineration, or recycling facility that either is owned by the district or is furnishing solid waste management facility or recycling services to the district or pursuant to a contract or agreement with the board of county commissioners or directors of the district". Expenses are now covered by program improvements/revisions program.

- Agricultural Community Assistance. The agricultural community prefers to keep its relationship with the District informal, preferring to receive assistance from the District, as it is needed rather than relying on regular programming. No direct expenditures are expected.

- Disaster Debris Management. The District financially supports contractors, negotiates contracts, support of and coordination with jurisdiction officials for expenses and scheduling; and documentation of all resources, personnel, materials, and costs for reimbursement purposes. Expenses incurred in 2013 and 2014 were from the windstorm clean up projects covered by the NEG grant. The District will begin to build up the emergency disaster debris reserve fund in 2016. A reserve fund goal of $250,000 is set. Earmarking $20,000 a year for the next 12 years and $10,000 for the year after will achieve this goal. Since these funds will be set aside they are not shown on Table VIII-5 as expenses because the expense has not yet occurred. A separate balance showing the accumulated Disaster Debris reserve fund is shown on Table VIII-8. , Annual appropriation will depend entirely on revenues in the prior year. If the prior year is funded less than projected, appropriations may be reduced or eliminated.

- Private Recyclers/Processors. No District expenses for this program.

- Material Processing Facility. Processing operations, capital expenses, and rebates are expected. Processing operation expenses include employee wages and benefits, utilities, supplies, and maintenance. MRF operations are entirely self-sustaining; all operating expenses are covered by operating revenues. Capital improvements are external to this cost/revenue balance.

  Rebates are revenue shares offered for cardboard and office paper. Rebates are funded on market condition revenues up to a maximum of $54,900. Rebates fluctuate with the markets. No statutory regulated district revenues are involved. Rebates are reduced dollar for dollar as commodity revenues decrease. For budgeting purposes rebates are maxed at $54,900 each year.

  The District employs a maintenance, safety, and relief operations employee, an operations supervisor, and two operators. In 2014, employee turnover resulted in lower staffing costs. For planning projections it is assumed staffing expenses will increase at 2 percent inflation annually.

  Supplies, utilities, and maintenance expenses were projected to remain flat.

Capital expenses include truck costs for new packer/recycling trucks and a roll-off. Expenses for trucks are estimated at a total of $140,000 in 2016 and $150,000 in 2017.

Capital improvement expenses are budgeted at $590,000 over the next four years. The planned capital improvement schedule includes:

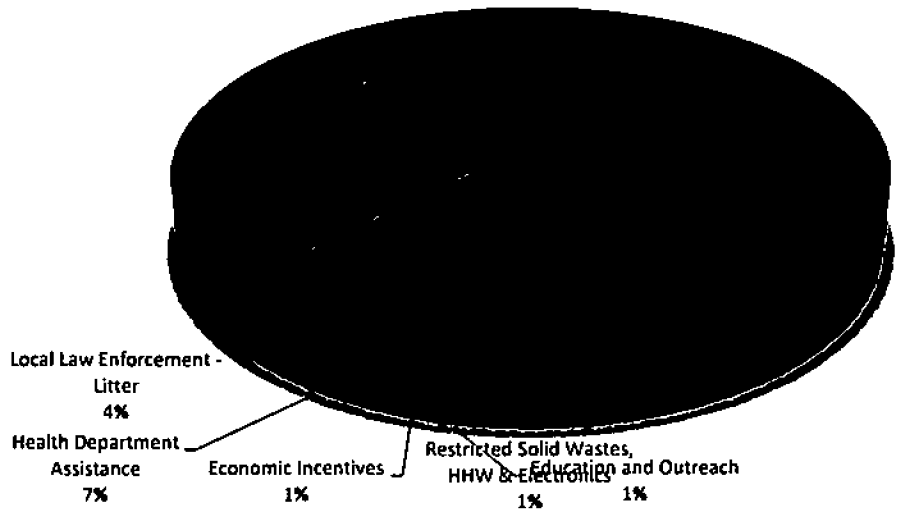
- Modifications to reconfigure loading dock in 2016 ($80,000)
- Replacement of baler in 2017 ($225,000)
- Modifications to containment area and building expansion in 2018 ($240,000)
- Installation of fire suppression system in 2019 ($45,000)

Additional capital improvement expenses, budgeted at $675,000, include costs to add single stream processing capabilities to the MRF. A three-year phased modification to single stream is planned beginning in 2019. Modifications include installation of equipment and concrete changes and installation of equipment.

These figures and schedules are best estimates. These improvements depend largely on grant funding. If grant funding is not secured, improvements will be scaled back and possibly postponed. For planning purposes, this plan update assumes the MRF will make modifications to process single stream recyclables, however, the District reserves the right not to move forward. Adding single stream processing will be dependent upon demand and contract agreements with collection/haulers and communities serviced. The District may not add single stream processing if the relationships (between collection/hauler and curbside communities) and service do not foster single stream collection.

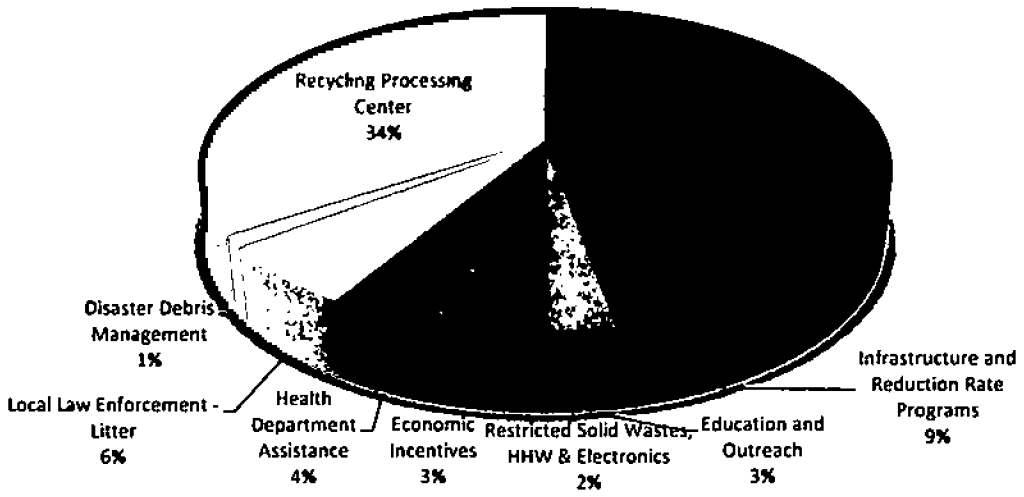
Reference year expenses per program, excluding NEG grant related expenses, are shown in Figure 8-2, "2013 Program Expenditures". The majority of the budget is spent on administrative and recycling processing center costs.

Figure VIII-4 2013 Program Expenditures



Budget distribution for the planning period is expected at roughly the same percentage, as shown in Figure 8-3, "2016 Program Expenditures". Percentage allocations are subject to change based on the continually changing needs of the programs.

Figure 8-5 2016 Program Expenditures



Revenues and expenses may change from projections anticipated in this Plan Update. If revenues increase beyond what is projected, additional revenues will be used to build at least a twenty-four-month reserve, pay off the loan, and allocated using the following distribution:

- 50% on infrastructure and reduction rate programs,
- 25% on economic incentive programs, and
- 25% on education and organic initiatives.

Nothing contained in these budget projections should be construed as a binding commitment by the District to expend a specific amount of money on a particular strategy, facility, program and/or activity. The Board of Directors, with the advice and assistance of District staff will review and revise the budget as needed to implement planned strategies, facilities, programs and/or activities as effectively as possible with funds available. Unanticipated excess revenues may be applied, to the extent that is practical and allowable, to other Plan Update implementation activities. The District reserves the right to revise the budget and reallocate funds as programs change or as otherwise determined to be in the best interest of the District.

Table VIII-5: Estimated Costs for Plan Implementation

Description	2013	2014	2015	2016	2017	2018	2019	2020	2021
Administration									
Payroll	$130,021	$146,946	$137,000	$139,055	$141,141	$143,258	$145,407	$147,588	$149,802
Medicare/BWC	$5,257	$4,221	$4,284	$4,349	$4,414	$4,480	$4,547	$4,616	$4,685
PERS	$17,767	$20,036	$20,336	$20,641	$20,951	$21,265	$21,584	$21,908	$22,236
Insurance	$13,055	$18,598	$19,528	$20,504	$21,529	$22,606	$23,736	$24,923	$26,169
Professional Development/Memberships	$1,699	$1,198	$1,234	$1,271	$1,309	$1,348	$1,389	$1,430	$1,473
Training/Travel	$923	$892	$919	$946	$975	$1,004	$1,034	$1,065	$1,097
Office Supplies, equipment, and postage	$7,709	$3,058	$2,400	$2,472	$2,546	$2,623	$2,701	$2,782	$2,866
Office Overhead	$22,848	$24,323	$25,053	$25,804	$26,578	$27,376	$28,197	$29,043	$29,914
Utilities	$12,331	$11,595	$11,943	$12,301	$12,670	$13,050	$13,442	$13,845	$14,261
Uniforms	$0	$0	$0	$0	$0	$0	$0	$0	$0
Vehicle Purchase/Lease	$30,809	$10,239	$0	$0	$0	$35,000	$0	$0	$0
Vehicle Maintenance, Insurance & Fuel	$11,889	$8,102	$8,345	$8,596	$8,854	$9,119	$9,393	$9,675	$9,965
Printing & Promotions	$23,165	$18,933	$19,501	$20,086	$20,689	$21,310	$21,949	$22,607	$23,286
Other consulting /contract services	$76,691	$77,778	$80,000	$80,000	$80,000	$80,000	$80,000	$80,000	$80,000
LOAN	$124,537	$121,075	$400,000	$400,000	$400,000	$400,000	$200,000	$0	$0
Subtotal	**$478,700**	**$466,995**	**$730,543**	**$736,026**	**$741,656**	**$782,438**	**$553,379**	**$359,482**	**$365,753**
Commercial/Industrial Sector									
Industrial Committee	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Infrastructure and Reduction Rate Programs									
Bellefontaine PAYT	$0	$0	$0	$0	$0	$0	$0	$0	$0
Lake Township PAYT	$12,371	$12,371	$12,400	$12,400	$12,400	$12,400	$12,400	$12,400	$12,400
Village of West Liberty PAYT	$0	$0	$0	$0	$0	$0	$0	$0	$0
Drop-off Recycling, Rural and Urban	$203,496	$141,120	$145,353	$149,714	$154,205	$158,832	$163,597	$168,504	$173,560
Fiber Collection Program	Included with Admin Costs								
Other District Recycling Collections	$0	$0	$0	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Commercial and Industrial Business Surveys	Included with Admin Costs								
Subtotal	**$215,867**	**$153,491**	**$157,753**	**$167,114**	**$171,605**	**$176,232**	**$180,997**	**$185,904**	**$190,960**
Education and Outreach									
Litter Prevention and Recycling Education	$10,234	$11,540	$12,500	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
District Website	Included with Admin Costs and Education Costs	$1,539	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Subtotal	**$10,234**	**$13,078**	**$13,500**	**$51,000**	**$51,000**	**$51,000**	**$51,000**	**$51,000**	**$51,000**

Table VIII-5: Estimated Costs for Plan Implementation

Description	2013	2014	2015	2016	2017	2018	2019	2020	2021
Restricted Solid Wastes, HHW & Electronics									
Household Hazardous Waste Education	Included with Admin Costs and Education Costs								
Household Battery Collection	Included with CHaRM Costs								
Lead-Acid Battery Strategy	Included with CHaRM Costs								
CHaRM	$5,646	$567	$21,000	$21,630	$22,279	$22,947	$23,636	$24,345	$25,075
Waste Tire Management Program	$1,761	$1,886	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Bellfontaine City Yard Waste Management	$0	$0	$0	$0	$0	$0	$0	$0	$0
Cherokee Run Compost Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0
Private Compost Facilities	$0	$0	$0	$0	$0	$0	$0	$0	$0
DeGraff Village Leaf Collection	$0	$0	$0	$0	$0	$0	$0	$0	$0
Quincy Village Compost Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0
West Liberty Village Curbside Yard Waste Collection and Compost Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0
Organics Initiatives	$0	$0	$0	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000
Subtotal	**$7,407**	**$2,453**	**$26,000**	**$41,630**	**$42,279**	**$42,947**	**$43,636**	**$44,345**	**$45,075**
Economic Incentive Program									
Program Improvements/Revisions	$14,250	$11,453	$11,453	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
Subtotal	**$14,250**	**$11,453**	**$11,453**	**$50,000**	**$50,000**	**$50,000**	**$50,000**	**$50,000**	**$50,000**
Market Development Programs									
Market Development Projects	$0	$0	$0	$0	$2,500	$2,500	$2,500	$2,500	$2,500
Subtotal	**$0**	**$0**	**$0**	**$0**	**$2,500**	**$2,500**	**$2,500**	**$2,500**	**$2,500**
Other Programs Strategies									
Grant Subsidies Program	$0	$0	$0	$0	$0	$0	$0	$0	$0
Health Department Assistance	$93,750	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000
Local Law Enforcement - Litter	$49,868	$103,277	$112,755	$116,138	$119,622	$123,210	$126,907	$130,714	$134,635
County Assistance	$0	$0	$0	$0	$0	$0	$0	$0	$0
Municipal/Township Assistance	$0	$0	$0	$0	$0	$0	$0	$0	$0
Agricultural Community Assistance	$0	$0	$0	$0	$0	$0	$0	$0	$0
Disaster Debris Management	$1,056,024	$169,171	$0	$0	$0	$0	$0	$0	$0
Private Recyclers/Processors	$0	$0	$0	$0	$0	$0	$0	$0	$0
Recycling Processing Center (MRF) Rebates	$46,886	$34,929	$54,900	$54,900	$54,900	$54,900	$54,900	$54,900	$54,900
Supplies, Utilities, Maintenance	$163,407	$161,657	$158,600	$158,600	$158,600	$158,600	$158,600	$158,600	$158,600
Staffing	$220,488	$180,879	$217,528	$221,879	$226,316	$230,843	$235,460	$240,169	$244,972
Capital Expenses	$16,534	$181,911	$0	$220,000	$475,000	$240,000	$270,000	$225,000	$225,000
Subtotal	**$1,646,957**	**$906,824**	**$618,783**	**$846,516**	**$1,109,438**	**$882,553**	**$920,866**	**$884,383**	**$893,107**
Totals	**$2,373,416**	**$1,554,292**	**$1,558,032**	**$1,892,286**	**$2,168,478**	**$1,987,670**	**$1,802,377**	**$1,577,614**	**$1,598,395**

Table VIII-5: Estimated Costs for Plan Implementation

Description	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Administration										
Payroll	$152,049	$154,329	$156,644	$158,994	$161,379	$163,800	$166,257	$168,751	$171,282	$173,851
Medicare/BWC	$4,755	$4,826	$4,899	$4,972	$5,047	$5,123	$5,199	$5,277	$5,357	$5,437
PERS	$22,570	$22,908	$23,252	$23,601	$23,955	$24,314	$24,679	$25,049	$25,425	$25,806
Insurance	$27,478	$28,851	$30,294	$31,809	$33,399	$35,069	$36,822	$38,664	$40,597	$42,627
Professional Development/Memberships	$1,518	$1,563	$1,610	$1,658	$1,708	$1,759	$1,812	$1,866	$1,922	$1,980
Training/Travel	$1,130	$1,164	$1,199	$1,235	$1,272	$1,310	$1,349	$1,389	$1,431	$1,474
Office Supplies, equipment, and postage	$2,952	$3,040	$3,131	$3,225	$3,322	$3,422	$3,524	$3,630	$3,739	$3,851
Office Overhead (real estate taxes)	$30,812	$31,736	$32,688	$33,669	$34,679	$35,719	$36,791	$37,894	$39,031	$40,202
Utilities	$14,688	$15,129	$15,583	$16,050	$16,532	$17,028	$17,539	$18,065	$18,607	$19,165
Uniforms	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Vehicle Purchase/Lease	$0	$0	$0	$35,000	$0	$0	$0	$0	$0	$35,000
Vehicle Maintenance, Insurance & Fuel	$10,264	$10,572	$10,889	$11,216	$11,552	$11,899	$12,256	$12,623	$13,002	$13,392
Printing & Promotions	$23,984	$24,704	$25,445	$26,208	$26,994	$27,804	$28,638	$29,497	$30,382	$31,294
Other consulting /contract services	$80,000	$80,000	$80,000	$80,000	$80,000	$80,000	$80,000	$80,000	$80,000	$80,000
LOAN	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	**$372,198**	**$378,823**	**$385,634**	**$427,637**	**$399,838**	**$407,246**	**$414,866**	**$422,706**	**$430,775**	**$474,079**
Commercial/Industrial Sector										
Industrial Committee	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Infrastructure and Reduction Rate Programs										
Bellefontaine PAYT	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Lake Township PAYT	$12,400	$12,400	$12,400	$12,400	$12,400	$12,400	$12,400	$12,400	$12,400	$12,400
Village of West Liberty PAYT	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Drop-off Recycling, Rural and Urban	$178,766	$184,129	$189,653	$195,343	$201,203	$207,239	$213,456	$219,860	$226,456	$233,250
Fiber Collection Program	included with Admin Costs									
Other District Recycling Collections	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Commercial and Industrial Business Surveys	included with Admin Costs									
Subtotal	**$196,166**	**$201,529**	**$207,053**	**$212,743**	**$218,603**	**$224,639**	**$230,856**	**$237,260**	**$243,856**	**$250,650**
Education and Outreach										
Litter Prevention and Recycling Education	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
District Website	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Subtotal	**$51,000**	**$51,000**	**$51,000**	**$51,000**	**$51,000**	**$51,000**	**$51,000**	**$51,000**	**$51,000**	**$51,000**

Table VIII-5: Estimated Costs for Plan Implementation

Description	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Restricted Solid Wastes, HHW & Electronics										
Household Hazardous Waste Education	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Household Battery Collection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Lead-Acid Battery Strategy	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
CHaRM	$25,827	$26,602	$27,400	$28,222	$29,069	$29,941	$30,839	$31,764	$32,717	$33,699
Waste Tire Management Program	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Bellfontaine City Yard Waste Management	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Cherokee Run Compost Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Daylay Egg Farm Compost Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
DeGraff Village Leaf Collection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Quincy Village Compost Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
West Liberty Village Curbside Yard Waste Collection and Compost Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Organics Initiatives	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000
Subtotal	$45,827	$46,602	$47,400	$48,222	$49,069	$49,941	$50,839	$51,764	$52,717	$53,699
Economic Incentive Program										
Program Improvements/Revisions	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
Subtotal	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
Market Development Programs										
Market Development Projects	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
Subtotal	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
Other Programs Strategies										
Grant Subsidies Program	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Health Department Assistance	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000
Local Law Enforcement - Litter	$138,674	$142,835	$147,120	$151,533	$156,079	$160,762	$165,584	$170,552	$175,669	$180,939
County Assistance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Municipal/Township Assistance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Agricultural Community Assistance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Disaster Debris Management	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Private Recyclers/Processors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Recycling Processing Center (MRF) Rebates	$54,900	$54,900	$54,900	$54,900	$54,900	$54,900	$54,900	$54,900	$54,900	$54,900
Supplies, Utilities, Maintenance	$158,600	$158,600	$158,600	$158,600	$158,600	$158,600	$158,600	$158,600	$158,600	$158,600
Staffing	$249,872	$254,869	$259,966	$265,166	$270,469	$275,878	$281,396	$287,024	$292,764	$298,620
Capital Improvements & Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$677,046	$686,204	$695,586	$705,199	$715,048	$725,140	$735,480	$746,076	$756,933	$768,058
Totals	**$1,394,738**	**$1,416,658**	**$1,439,173**	**$1,497,301**	**$1,486,059**	**$1,510,466**	**$1,535,542**	**$1,561,307**	**$1,587,781**	**$1,649,986**

C. Funds Allocated from ORC 3734.57(B), ORC 3734.572 and ORC 3734.573

The District collects revenues from fees authorized under ORC Section 3734.57(B), ORC 3734.572 and/or ORC 3734.573, and allocations of these monies must be made in accordance with the requirements of ORC Section 3734.57(G). In Table VIII-6, "Revenues and Allocations in Accordance with ORC 3734.57, ORC 3734.572 and ORC 3734.573," below, the amount of money to be allocated in each allowable use category for each year of the planning period is shown.

Table VIII-6: Revenues and Allocations in Accordance with ORC 3734.57, ORC 3734.572, and ORC 3734.573

Year	Total Annual Revenue ($)	Allocations of ORC 3734.57 and ORC 3734.573 Revenue For the Following Purposes:											Cumulative Balance
		1	2	3	4	5	6	7	8	9	10	Total Budget Allocation ($)	
													$824,045
2013	$2,207,418	354,163	1,875,634	93,750	0	0	0	49,868	0	0	0	2,373,416	$658,047
2014	$2,097,699	345,920	1,030,096	75,000	0	0	0	103,277	0	0	0	1,554,292	$1,201,453
2015	$1,500,755	330,543	1,039,734	75,000	0	0	0	112,755	0	0	0	1,558,032	$1,144,176
2016	$1,894,957	336,026	1,365,123	75,000	0	0	0	116,138	0	0	0	1,892,286	$1,146,847
2017	$2,234,522	341,656	1,632,201	75,000	0	0	0	119,622	0	0	0	2,168,478	$1,212,891
2018	$2,044,700	382,438	1,407,022	75,000	0	0	0	123,210	0	0	0	1,987,670	$1,269,920
2019	$1,445,787	353,379	1,247,092	75,000	0	0	0	126,907	0	0	0	1,802,377	$913,330
2020	$1,461,834	359,482	1,012,418	75,000	0	0	0	130,714	0	0	0	1,577,614	$797,551
2021	$1,328,276	365,753	1,023,007	75,000	0	0	0	134,635	0	0	0	1,598,395	$527,432
2022	$1,395,123	372,198	808,865	75,000	0	0	0	138,674	0	0	0	1,394,738	$527,817
2023	$2,212,454	378,823	820,001	75,000	0	0	0	142,835	0	0	0	1,416,658	$1,323,613
2024	$2,280,573	385,634	831,420	75,000	0	0	0	147,120	0	0	0	1,439,173	$2,165,013
2025	$2,249,141	427,637	843,131	75,000	0	0	0	151,533	0	0	0	1,497,301	$2,916,854
2026	$1,875,005	399,838	855,141	75,000	0	0	0	156,079	0	0	0	1,486,059	$3,305,800
2027	$1,844,957	407,246	867,459	75,000	0	0	0	160,762	0	0	0	1,510,466	$3,640,291
2028	$1,348,974	414,866	880,092	75,000	0	0	0	165,584	0	0	0	1,535,542	$3,453,722
2029	$1,320,390	422,706	893,048	75,000	0	0	0	170,552	0	0	0	1,561,307	$3,212,806
2030	$1,392,348	430,775	906,338	75,000	0	0	0	175,669	0	0	0	1,587,781	$3,017,372
2031	$1,365,326	474,079	919,968	75,000	0	0	0	180,939	0	0	0	1,649,986	$2,732,712

Notes: Total Annual Revenues include carry over revenues from prior years beginning in 2009 as shown in Table VIII-8

1 - Preparation and monitoring of plan implementation.
2 - Implementation of approved plan.
3 - Financial assistance to boards of health for solid waste enforcement.
4 - Financial assistance to defray the costs of maintaining roads and other public services related to the location or operation of solid waste facilities.
5 - Contracts with boards of health for collecting and analyzing samples from water wells adjacent to solid waste facilities.
6 - Out-of-state waste inspection program.
7 - Financial assistance to local boards of health to enforce ORC 3734.03 or to local law enforcement agencies having jurisdiction within the District for anti-littering.
8 - Financial assistance to local boards of health for employees to participate in Ohio EPA's training and certification program for solid waste operators and facility inspectors.
9 - Financial assistance to local municipalities and townships to defray the added cost of roads and services related to the operation of solid waste facilities.
10 - Payment of any expenses that are agreed to awarded or ordered to be paid under section 3745.35 of the Revised Code and any administrative costs incurred pursuant to that section.

D. Contingent Funding or Financing

Contingent funding should not be necessary to implement this 2016 Plan Update. Revenue sources identified and projected in Table VIII-3 are stable revenue sources.

The District may use any other statutorily authorized funding method for plan implementation that is or becomes available after this plan is approved to be implemented. These methods may include funds which become available due to legislative changes. Types of funding available to the District include loans, bonds, generation fees, or additional contractual agreements. The District may also consider soliciting corporate or private sponsors, donations, or in-kind services to finance some of its programs and activities. In addition, the District explicitly reserves the right to raise tier disposal fees on in-district waste.

The Board of Directors monitor revenues and expenses through quarterly reports prepared by the District Coordinator. The policy committee will assist the Board of Directors in its considerations of whether this contingency needs to be implemented. Any change in the tier fee requires the policy committee to approve the change and obtain ratification by the political subdivisions.

E. Summary of Costs and Revenues

In Table VIII-8, "Summary of District Revenues and Expenditures," the expected annual revenues followed by the annual costs for each facility, program, or activity for each year of the planning period are entered. The annual net revenues for each year have been determined previously and are given in Table VIII-3. This section is considered a part of the implementation schedule required in accordance with ORC Section 3734.53 (A)(12).

The District will begin to build up two reserve funds over this planning period beginning in 2016: the disaster debris reserve fund and the post closure landfill monitoring fund. A disaster debris reserve fund goal of $250,000 is set. Earmarking $20,000 a year for the next 12 years and $10,000 for the year after will achieve this goal. Annual appropriation to the disaster debris reserve fund will depend entirely on revenues in the prior year. If the prior year is funded less than projected, appropriations may be reduced or eliminated. Post closure landfill monitoring fund is allocating $30,000 per year throughout the planning period.

Since these funds will be set aside they will not be shown on Table VIII-5 as expenses. A separate balance showing allocations to the disaster debris reserve fund and post closure landfill monitoring fund are shown at the bottom of Table VIII-8.

Table VIII-8: Summary of District Revenues and Expenditures

	2013	2014	2015	2016	2017	2018	2019	2020	2021
Beginning Balance	$824,045	$658,047	$1,201,453	$1,144,176	$1,146,847	$1,212,891	$1,269,920	$913,330	$797,551
Revenues									
Tier Fees	$554,799	$913,313	$893,203	$1,001,285	$1,326,299	$1,121,572	$507,390	$507,390	$507,390
User Fees	$206,012	$273,403	$280,535	$342,415	$352,688	$363,268	$374,166	$385,391	$396,953
Grants	$1,051,967	$432,717	$0	$150,000	$150,000	$150,000	$150,000	$150,000	$0
Other	$21,408	$69,625	$0	$0	$0	$0	$0	$0	$0
Reimbursements	$12,296	$9,915	$12,400	$12,400	$12,400	$12,400	$12,400	$12,400	$12,400
Recycling Revenue	$360,936	$398,724	$314,617	$388,857	$393,135	$397,459	$401,831	$406,653	$411,533
Subtotal Revenue	**$2,207,418**	**$2,097,699**	**$1,500,755**	**$1,894,957**	**$2,234,522**	**$2,044,700**	**$1,445,787**	**$1,461,834**	**$1,328,276**
Expenditures									
Administration	$478,700	$466,995	$730,543	$736,026	$741,656	$782,438	$553,379	$359,482	$365,753
Commercial/Industrial Sector	$0	$0	$0	$0	$0	$0	$0	$0	$0
Infrastructure and Reduction Rate Programs	$215,867	$153,491	$157,753	$167,114	$171,605	$176,232	$180,997	$185,904	$190,960
Education and Outreach	$10,234	$13,078	$13,500	$51,000	$51,000	$51,000	$51,000	$51,000	$51,000
Restricted Solid Wastes, HHW & Electronics	$7,407	$2,453	$26,000	$41,630	$42,279	$42,947	$43,636	$44,345	$45,075
Economic Incentive Program	$14,250	$11,453	$11,453	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
Market Development Program	$0	$0	$0	$0	$2,500	$2,500	$2,500	$2,500	$2,500
Other Program Strategies	$1,646,957	$906,824	$618,783	$846,516	$1,109,438	$882,553	$920,866	$884,383	$893,107
Total Expenditures	**$2,373,416**	**$1,554,292**	**$1,558,032**	**$1,892,286**	**$2,168,478**	**$1,987,670**	**$1,802,377**	**$1,577,614**	**$1,598,395**
Difference	**-$165,998**	**$543,406**	**-$57,277**	**$2,671**	**$66,044**	**$57,029**	**-$356,590**	**-$115,779**	**-$270,119**
Total Ending Balance	**$658,047**	**$1,201,453**	**$1,144,176**	**$1,146,847**	**$1,212,891**	**$1,269,920**	**$913,330**	**$797,551**	**$527,432**
Disaster Debris Reserve Fund Allocation	**$0**	**$0**	**$0**	**$20,000**	**$20,000**	**$20,000**	**$20,000**	**$20,000**	**$20,000**
Post Closure Landfill Monitoring Fund Allocation				**$30,000**	**$30,000**	**$30,000**	**$30,000**	**$30,000**	**$30,000**
Net Available Balance	**$658,047**	**$1,201,453**	**$1,144,176**	**$1,096,847**	**$1,162,891**	**$1,219,920**	**$863,330**	**$747,551**	**$477,432**

Table VIII-8: Summary of District Revenues and Expenditures

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Beginning Balance	$527,432	$527,817	$1,323,613	$2,165,013	$2,916,854	$3,305,800	$3,640,291	$3,453,722	$3,212,806	$3,017,372
Revenues										
Tier Fees	$507,390	$1,357,041	$1,357,041	$1,357,041	$913,441	$913,441	$347,007	$347,007	$347,007	$347,007
User Fees	$408,862	$421,128	$433,761	$446,774	$460,177	$473,983	$488,202	$502,848	$517,934	$533,472
Grants	$50,000	$0	$50,000	$0	$50,000	$0	$50,000	$0	$50,000	$0
Other	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Reimbursements	$12,400	$12,400	$12,400	$12,400	$12,400	$12,400	$12,400	$12,400	$12,400	$12,400
Recycling Revenue	$416,472	$421,886	$427,370	$432,926	$438,987	$445,133	$451,365	$458,135	$465,007	$472,447
Subtotal Revenue	**$1,395,123**	**$2,212,454**	**$2,280,573**	**$2,249,141**	**$1,875,005**	**$1,844,957**	**$1,348,974**	**$1,320,390**	**$1,392,348**	**$1,365,326**
Expenditures										
Administration	$372,198	$378,823	$385,634	$427,637	$399,838	$407,246	$414,866	$422,706	$430,775	$474,079
Commercial/Industrial Sector	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Infrastructure and Reduction Rate Programs	$196,166	$201,529	$207,053	$212,743	$218,603	$224,639	$230,856	$237,260	$243,856	$250,650
Education and Outreach	$51,000	$51,000	$51,000	$51,000	$51,000	$51,000	$51,000	$51,000	$51,000	$51,000
Restricted Solid Wastes, HHW & Electronics	$45,827	$46,602	$47,400	$48,222	$49,069	$49,941	$50,839	$51,764	$52,717	$53,699
Economic Incentive Program	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
Market Development Program	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
Other Program Strategies	$677,046	$686,204	$695,586	$705,199	$715,048	$725,140	$735,480	$746,076	$756,933	$768,058
Total Expenditures	**$1,394,738**	**$1,416,658**	**$1,439,173**	**$1,497,301**	**$1,486,059**	**$1,510,466**	**$1,535,542**	**$1,561,307**	**$1,587,781**	**$1,649,986**
Difference	**$385**	**$795,796**	**$841,400**	**$751,841**	**$388,947**	**$334,490**	**-$186,569**	**-$240,917**	**-$195,433**	**-$284,660**
Total Ending Balance	**$527,817**	**$1,323,613**	**$2,165,013**	**$2,916,854**	**$3,305,800**	**$3,640,291**	**$3,453,722**	**$3,212,806**	**$3,017,372**	**$2,732,712**
Disaster Debris Reserve Fund Allocation	**$20,000**	**$20,000**	**$20,000**	**$20,000**	**$20,000**	**$10,000**	**$0**	**$0**	**$0**	**$0**
Post Closure Landfill Monitoring Fund Allocation	**$30,000**	**$30,000**	**$30,000**	**$30,000**	**$30,000**	**$30,000**	**$30,000**	**$30,000**	**$30,000**	**$30,000**
Net Available Balance	**$477,817**	**$1,273,613**	**$2,115,013**	**$2,866,854**	**$3,255,800**	**$3,600,291**	**$3,423,722**	**$3,182,806**	**$2,987,372**	**$2,702,712**

Section IX: District Rules

A. Existing Rules

The Logan County Solid Waste District is hereby authorized to adopt rules in accordance with and pursuant to Division (F) of Section 343.01 of the ORC and Division (C) of Section 3734.53 of the ORC, to the extent any such rules are determined by the Board from time to time to be necessary or desirable to implement any provision or to accomplish any objective of this Solid Waste Management Plan.

B. Proposed Rules

The Logan County Solid Waste District is not proposing any rules at this time.

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APPENDIX A

Resolution Establishing the Logan County Solid Waste Management District

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RESOLUTION NO. 138 -89

A RESOLUTION ESTABLISHING THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT

The Board of County Commissioners of Logan County, Ohio, met in regular session on March 9, 1989, in the offices of the Board in the County Courthouse, Bellefontaine, Ohio, with the following members present:

Edward K. Core Donald E. Corwin

John A. Jeffrey

The Clerk advised the Board that the notice requirements of Section 121.22 of the Ohio Revised Code and the implementing rules adopted by the Board pursuant thereto were complied with for the meeting

Edward K. Core offered the following preambles and resolution and moved their adoption, which motion was duly seconded by Donald E. Corwin:

WHEREAS, Amended Substitute House Bill No. 592 (the Bill), enacted by the 117th General Assembly of the State of Ohio (the State) and effective June 24, 1988, requires that the board of county commissioners of each county within the State prior to March 24, 1989, establish and maintain its own "county solid waste management district" or, with the boards of county commissioners of one or more other counties, establish by agreement and maintain a "joint solid waste management district" pursuant to Section 343.01 of the Revised Code, as amended by the Bill; and

WHEREAS, this Board has investigated the options available at this time concerning the establishment of a county "solid waste management district," including the recommendations of citizens and organizations concerned with the efficient and environmentally sound disposal for the solid waste from Logan County;

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Logan County, Ohio, that:

Section 1. Except where the context indicates otherwise, the following terms as used in this resolution shall have the meaning ascribed to them in this Section:

a. "County" means the County of Logan, Ohio.

b. "County Board" means the Board of County Commissioners of the County.

c. "Director" means the Director of Environmental Protection of the State.

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d. "District" means the solid waste management district established by this resolution to be known as the "Logan County Solid Waste Management District".

e. "District Board" means the Board of Directors of the District, comprised of the members of the County Board.

f. "District Plan" means the solid waste management plan required to be prepared for the District by the Policy Committee and implemented by the District Board pursuant to and in accordance with Sections 3734.52 through 3734.57 of the Revised Code.

g. "Policy Committee" means the solid waste management policy committee required to be established and convened by the District Board pursuant to and in accordance with Section 3734.54 of the Revised Code.

Section 2. The County hereby establishes the District which shall be comprised of all the incorporated and unincorporated territory within the County.

Section 3. Until the District Plan is approved under Section 3734.55 of the Revised Code, (i) the District Board shall perform only such duties and exercise only such powers as pertain to the establishment of the District and to the preparation, adoption, approval and submission of the District Plan to the Director for approval and expend funds only for that purpose and for the purposes otherwise authorized by resolution of the Policy Committee under Section 3734.57 of the Revised Code, and (ii) the County Board shall continue to perform the duties and exercise the powers conferred upon and performed and exercised by the County Board under Chapter 343 of the Revised Code as that chapter and those duties and powers existed immediately prior to the effective date of the Bill. Any rules adopted by the County Board under division (F) of Section 343.01 of the Revised Code immediately prior to the effective date of the Bill shall remain in effect within the territory of any garbage and refuse disposal district of the County as it may have existed on the effective date of the Bill until they are superseded by rules authorized to be adopted under the District Plan approved under Section 3734.55 of the Revised Code.

Section 4. Upon the approval of the District Plan under Section 3734.55 of the Revised Code, to the extent provided for in the District Plan and permitted by law, all right, title and interest of the County in or to any property or rights under any instrument or agreement or any proceedings before any State or federal governmental, administrative or judicial authority shall be vested in the District, and the District shall assume, and be responsible for the performance of, any then existing obligations of the County.

Section 5. Subject to the foregoing provisions of Sections 3 and 4, the District Board shall have all powers, authority and duties conferred or imposed upon solid waste management districts under Chapter 343 and Sections 3734.52 through 3734.57 of the Revised Code and shall have control of and manage the District in accordance with the Bill and Chapters 343 and 3734 of the Revised Code and bylaws which it shall adopt in accordance therewith for the regulation of its affairs and the conduct of its business.

Section 6. In the event that fees collected by the District are not sufficient for the purpose, the County shall pay all operating costs and expenses incurred by the District, including costs and expenses incurred by the Policy Committee in the preparation of the District Plan.

Section 7. In the event that the District Board or the Policy Committee uses an employee of the County in the service of the District, including without limitation the County sanitary engineer or employees in the sanitary engineering department, the County shall provide to the District Board information necessary to determine the direct cost and expense to the County of the provision of that employee's service to the District, and the District Board shall reimburse the County for such direct cost and expense to the extent that fees collected by the District are sufficient for the purpose.

Section 8. All amounts advanced by the County to pay operating costs and expenses of the District at the direction of the District Board shall be deemed to be costs and expenses of the District and shall be reimbursed to the County to the extent that fees collected by the District are sufficient for the purpose.

Section 9. The County shall be entitled to be reimbursed for the cost and expense to the County of the provision of an employee's service to the District or operating costs and expenses of the District advanced by the County at the direction of the District Board only upon invoice submitted to the fiscal officer of the District, together with appropriate and supporting documentation.

Section 10. No real or personal property or any rights or interests therein are being contributed by the County to the District at this time. In the event that real or personal property or any rights or interests therein are proposed to be contributed by the County to the District in the future, the respective rights of the County and the District in that property, or rights or interests therein shall be established by a resolution supplemental to this resolution. The respective rights of the County and the District in any real or personal property, or rights or interests therein, acquired by the District shall be established by the District Board not later than the time of such acquisition.

Section 11. This Board finds and determines that all formal actions of this Board concerning and relating to the adoption of this resolution were taken in an open meeting of this Board and that all deliberations of this Board and of any committees that resulted in those formal actions were in meetings open to the public in compliance with the law.

Section 12. This resolution shall take effect immediately upon its adoption.

Voting aye thereon:

Edward C. Cox   Donald E. Casamin

John a. Jeffrey

The foregoing is a true and correct extract from the minutes of the meeting on March 9, 1989, of the Board of County Commissioners of Logan County, Ohio, showing the adoption of the resolution above set forth.

Judith L. Thomas
Clerk, Board of County Commissioners
of Logan County, Ohio

APPENDIX B

Public Notices and Comments

APPENDIX C

Resolutions and Certification Statement

Certification Statement for the Draft Plan

For the Logan County Solid Waste Management District,

We as representatives of the Logan County Solid Waste Management District Policy Committee, do hereby certify that to the best of our knowledge and belief, the statements, demonstrations, and all accompanying materials that comprise the District Solid Waste Management Plan, and the availability of and access to sufficient solid waste management facility capacity to meet the solid waste management needs of the district for the fifteen year period covered by the Plan are accurate and are in compliance with the requirements in the *District Solid Waste Management Plan Format*, version 3.0.

[signature]	12-15-15
County Commissioner or Designee	Date Signed
[signature]	12-15-15
Municipal Officer or Designee	Date Signed
[signature]	12-15-15
Township Representative	Date Signed
[signature]	12/15/2015
Health Commissioner or Designee	Date Signed
Generator Representative	Date Signed
Member Representing General Interests of Citizens	Date Signed
[signature]	12/15/2015
Public Citizen Representative	Date Signed

RESOLUTION No. 01-22-16

Resolution Adopting
the Solid Waste Management Plan

A resolution declaring that the amended Solid Waste Management Plan for the Logan County Solid Waste Management District has been adopted.

WHEREAS, the District completed the draft amended Solid Waste Management Plan and submitted it to the Ohio Environmental Protection Agency for review and comment on March 16, 2015, and the Ohio Environmental Protection Agency provided comments in a non-binding advisory opinion on April 30, 2015:

WHEREAS, this Solid Waste Management District Policy Committee has reviewed the non-binding advisory opinion received from the Ohio Environmental Protection Agency and taken into consideration these comments, incorporating changes into the amended Plan where necessary;

WHEREAS, this Solid Waste Management District Policy Committee has conducted a 30-day public comment period, and public hearing held on January 21, 2016, to provide the public an opportunity to have input in this Plan;

NOW, THEREFORE, BE IT RESOLVED that the Solid Waste Management Policy Committee of the Logan County Solid Waste Management District

1. Adopts the amended Plan for the Logan County Solid Waste Management District; and
2. Certifies that, to the best of our knowledge and belief, the statements, demonstrations, and all accompanying materials that comprise the District's Plan, and availability of and access to sufficient solid waste management facility capacity to meet the solid waste management needs of the District for the 15-year period covered by the Plan, are accurate and are in compliance with the requirements of the District Solid Waste Management Plan Format, version 3.0.

Motion made by Robert Bottom, seconded by Spencer Reames.
Upon call of the roll the following vote resulted:

Members	Yea	Nay	Abstain	Not Present
Mr. John Bayliss, Chairman (Alt)	X			
Mr. Victor Klingelhofer	X			
Mr. Robert Bottom	X			
Mr. Spencer Reames	X			
Mr. Boyd Hoddinott (Alt)	X			
Mr. Scott Coleman				X

RESOLUTION No. 5-10-16

Resolution Certifying Ratification
of the Solid Waste Management Plan

A resolution declaring that the amended Solid Waste Management Plan for the Logan County Solid Waste Management District has been ratified in accordance with Section 3734.55 of the Ohio Revised Code.

WHEREAS, the District held a public hearing on January 21, 2016, and the Solid Waste Management District Policy Committee adopted the amended Solid Waste Management Plan on January 21, 2016;

WHEREAS, this Solid Waste Management District Policy Committee has received copies of resolutions and ordinances approving the amended Plan from the Logan County Board of County Commissioners, the legislative body of the largest municipality (City of Bellefontaine), and from legislative jurisdictions representing at least 60 percent of the population within the District;

NOW, THEREFORE, BE IT RESOLVED that the Solid Waste Management Policy Committee of the Logan County Solid Waste Management District declares the amended Plan for the Logan County Solid Waste Management District to be ratified in accordance with Section 3734.55 of the Ohio Revised Code, and shall cause the amended Plan to be submitted to the Director of the Ohio Environmental Protection Agency for review.

This resolution shall be in effect immediately upon its adoption.

Motion made by Robert Bottom, seconded by Spencer Reames.
Upon call of the roll the following vote resulted:

Members	Yea	Nay	Abstain	Not Present
Mr. John Bayliss, Chairman (Alt)	X			
Mr. Victor Klingelhofer				X
Mr. Robert Bottom	X			
Mr. Spencer Reames	X			
Mr. Boyd Hoddinott (Alt)				X
Mr. Scott Coleman				X
Mayor Ben Stahler (Alt)	X			

2009-2024 Solid Waste Plan Ratification Records

Political Subdivision	Projected Population	County Approval Rate	Approved	Date Approved
Belle Center village	801	0.00%		
Bellefontaine city	13,167	29.00%	X	2/23/2016
De Graff village	1,268	0.00%		
Huntsville village	430	0.00%		
Lakeview village	1,054	2.32%	x	3/7/2016
Quincy village	691	0.00%		
Ridgeway village (pt.)	excluded from calculation			
Rushsylvania village	503	1.11%	X	4/14/2016
Russells Point village	1,366	3.01%	x	3/21/2016
Valley Hi village	209	0.46%	x	2/11/2016
West Liberty village	1,781	3.92%	x	3/7/2016
West Mansfield village	671	1.48%	X	4/5/2016
Zanesfield village	196	0.00%		
Bloomfield Township	427	0.94%	X	3/28/2016
Bokescreek township	568	0.00%		
Harrison township	1,635	0.00%		
Jefferson township	2,057	0.00%		
Lake township	638	1.41%	X	2/23/2016
Liberty township	1,242	0.00%		
McArthur township	1,587	0.00%		
Miami township	584	0.00%		
Monroe township	1,569	3.46%	x	2/8/2016
Perry township	967	2.13%	x	2/8/2016
Pleasant township	913	2.01%	x	2/9/2016
Richland township	1,671	3.68%	x	3/25/2016
Rushcreek township	1,706	3.76%	X	3/21/2016
Stokes township	3,523	0.00%		
Union township	823	1.81%	x	
Washington township	2,207	0.00%		
Zane township	1,142	0.00%		
TOTAL	**45,396**	**60.50%**		**RATIFIED**

County Commissioners	x	2/4/2016

population numbers used were based on Ohio 2014 populaion estimates.

RESOLUTION NO. 05-2016

APPROVING THE SOLID WASTE MANAGEMENT PLAN OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT

WHEREAS, the Logan County Solid Waste Management District, by its Solid Waste Policy Committee, has adopted a Solid Waste Management Plan for the District; and

WHEREAS, pursuant to Ohio Revised Code Section 3734.55(B), the Board of County Commissioners and the legislative authority of each municipal corporation or township under the jurisdiction of the District, must approve or disapprove the Plan by ordinance or resolution; and

WHEREAS, the Harrison Township Trustees, Logan County, Ohio have reviewed the Plan and considered it at a duly called meeting; and

WHEREAS, the Plan furthers the public interest; and

NOW BE IT THEREFORE RESOLVED, that the Solid Waste Management Plan of the Logan County Solid Waste Management District, adopted by the Solid Waste Policy Committee on January 21, 2016 is hereby approved;

AND BE IT FURTHER RESOLVED, that a copy of this Resolution of Approval shall promptly be delivered, or caused to be delivered, to the Solid Waste Management Policy Committee of the Logan County Solid Waste Management District.

Motion made by Gary Campbell, II, seconded by David Jackson
Upon call of the roll the following vote resulted:

Trustees	Yea	Nay
Dan Coll		X
David B Jackson		X
Gary L Campbell II		X

Resolution duly adopted this 19th day of April, 2016.

President

Judith Hartzler
Fiscal Officer/Witness

Mr. Gary Campbell, II moved the adoption of the following resolution #05-16:

> NOW THEREFORE BE IT RESOLVED, by the Board of Trustees of Harrison Township, Logan County, Ohio has reviewed the plan and considered it at a duly called meeting, does hereby agree to APPROVE OR DISAPPROVE the Solid Waste Management Plan of Logan County Solid Waste Management District in pursuant to Ohio Revised Code Section 3734.55(B).

Mr. David Jackson seconded the resolution and the roll being called upon it adoption, the vote resulted as follows:

Mr. Darin Collins.....Nay
Mr. David Jackson.....Nay
Mr. Gary Campbell, II.....Nay

Adopted this 15th day of March, 2016, Judith Hartzler, Fiscal Officer

Harrison Township Trustees have voted unanimously to DISAPPROVE the Solid Waste Management Plan of Logan County Solid Waste Management District in pursuant to Ohio Revised Code Section 3734.55(B).

The Board of Township Trustees of Rushcreek Township, County of Logan, State of Ohio, met in regular session on March 7, 2016, commencing at 5:30 p.m., at Township Hall, Rushsylvania, Ohio, with the following members present: Mr. Rick Kennedy, Mr. Robert Schrader, and Mr. Michael Hamilton.

The Fiscal Officer advised the Board of Trustees that the notice requirements of Section 121.22 of the Revised Code and the implementing rules adopted by the Board pursuant thereto were complied with for the meeting.

Mr. Rick Kennedy moved the adoption of the following preambles and resolution:

A RESOLUTION APPROVING THE DRAFT SOLID WASTE MANAGEMENT PLAN OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT.

WHEREAS, the Board of County Commissioners of Logan County have established the Logan County Solid Waste Management District (the "District") and have established and convened a "solid waste management policy committee" in accordance with the Section 3734.54 of the Revised Code (the "Policy Committee") to prepare a "solid waste management plan" for the District as required by Section 3734.54 (the "Plan"); and

WHEREAS, the Policy Committee completed the draft amended Solid Waste Management Plan and submitted it to the Ohio Environmental Protection Agency for review and comment on March 16, 2015, and the Ohio Environmental Protection Agency provided comments in a non-binding advisory opinion on April 30, 2015; and

WHEREAS, the Policy Committee has reviewed the non-binding advisory opinion received from the Ohio Environmental Protection Agency for preliminary review and comment in accordance with Sections 3734.54 and 3734.55 of the Revised Code; and

WHEREAS, the Policy Committee received the Director's written, non-binding advisory opinion regarding the draft Plan, made certain modifications to the draft Plan and has adopted and submitted to this legislative authority a copy of the draft Plan for the District as so modified (the "Final Draft Plan"), and

WHEREAS, this legislative authority is required by Division (B) of Section 3734.55 of the Revised Code to approve or disapprove the Final Draft Plan within 90 days after receiving a copy of the Final Draft Plan and has been requested to approve the Final Draft Plan;

NOW, THEREFORE, BE IT RESOLVED, by the Board of Township Trustees of Rushcreek, County of Logan, State of Ohio, that:

Section 1. The Final Draft Plan is hereby approved in the form submitted to this legislative authority and presently on file with the Clerk of this legislative authority.

Section 2. The Clerk of this legislative authority is hereby authorized and directed to mail or otherwise deliver promptly a certified copy of this resolution to the Policy Committee.

Section 3. This Board finds and determines that all formal actions of this Board concerning and relating to the adoption of this resolution were taken in an open meeting of this Board and that all deliberations of this Board that resulted in those formal actions were in meetings open to the public in compliance with the law.

Section 4. This resolution shall be in full force and effect from and immediately upon its adoption.

Mr. Michael Hamilton seconded the motion.
Upon call of the roll the following vote resulted:

Members	Yea	Nay	Abstain	Not Present
Rick Kennedy, Trustee	✓	—	—	—
Robert Schneider, Trustee	X	—	—	—
Michael Hamilton, Trustee	✓	—	—	—

The forgoing is a true and correct excerpt from the minutes of the meeting on March 7, 2016, of the Board of Towaship Trustees of Rushcreek Township, showing the adoption of the resolution herein above set forth.

J Andrew Johnson, Fiscal Officer

ORDINANCE NO: 16 – 1131

AN ORDINANCE APPROVING THE SOLID WASTE MANAGEMENT PLAN IN THE VILLAGE OF RUSSELLS POINT AND DECLARING AN EMERGENCY IN THE VILLAGE OF RUSSELLS POINT, OHIO

WHEREAS, the Logan County Solid Waste Management District, by its Solid Waste Policy Committee, has adopted a Solid Waste Management Plan for the District; and

WHEREAS, pursuant to Ohio Revised Code Section 3734.55(B), the Board of County Commissioners and the legislative authority of each municipal corporation or township under the jurisdiction of the District, must approve or disapprove the Plan by ordinance or resolution; and

WHEREAS, the Village of Russells Point, Logan County, Ohio has reviewed the Plan and considered it at a duly called meeting; and

WHEREAS, the Plan furthers the public interest;

NOW, THEREFORE, BE IT ORDAINED, by the Council of the Village of Russells Point, Ohio:

SECTION I: That the Solid Waste Management Plan of the Logan County Solid Management District, adopted by the Solid Waste Policy Committee on January 21, 2016, is hereby approved.

SECTION II: That a copy of this Ordinance of Approval shall promptly be delivered, or caused to be delivered, to the Solid Waste Management Policy Committee of the Logan County Solid Waste Management District.

SECTION III: That it is found and determined that all formal actions of this Council concerning and relating to the adoption of this ordinance were adopted in an open meeting of this council and that all deliberations of this Council, and any of its committees that resulted in such formal action, were in meetings open to the public in compliance with all legal requirements of the Ohio Revised Code.

SECTION IV: That this Ordinance is hereby declared to be an emergency measure necessary for the immediate preservation of the public peace, health and safety in the Village of Russells Point in order to comply with applicable deadlines that will enhance the health and safety of the Village. This Resolution shall go into immediate effect provided that it receives a two thirds vote of all members of Village Council.

John Huffman
President Pro Tem of Council

Robin Reames
Mayor

Attested: Jeff Weidner
Jeff Weidner
Fiscal Officer

Approved as to form:
Robert N. Eshenbaugh Jr.
Village Solicitor

Passed this 21st day of March, 2016.

Ohio, met in Regular session on Tuesday, 1st-9, 2016, commencing at 6:00 o'clock, p.m., at 5844 Twp Rd 201, Bellefontaine, Ohio, with the following members present:

Mr. David King Mr. Rob Kauffman

Mr. Stephen Yoder

The Clerk advised the Board of Trustees that the notice requirements of Section 121.22 of the Revised Code and the implementing rules adopted by the Board pursuant thereto were complied with for the meeting.

David King move the adoption of the following preambles and resolution:

A RESOLUTION APPROVING THE DRAFT SOLID WASTE MANAGEMENT PLAN OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT.

WHEREAS, the Board of County Commissioners of Logan County have established the Logan County Solid Waste Management District (the "District") and have established and convened a "solid waste management policy committee" in accordance with the Section 3734.54 of the Revised Code (the "Policy Committee") to prepare a "solid waste management plan" for the District as required by Section 3734.54 (the "Plan"); and

WHEREAS, the Policy Committee completed the draft amended Solid Waste Management Plan and submitted it to the Ohio Environmental Protection Agency for review and comment on March 16, 2015, and the Ohio Environmental Protection Agency provided comments in a non-binding advisory opinion on April 30, 2015; and

WHEREAS, the Policy Committee has reviewed the non-binding advisory opinion received from the Ohio Environmental Protection Agency for preliminary review and comment in accordance with Sections 3734.54 and 3734.55 of the Revised Code; and

WHEREAS, the Policy Committee received the Director's written, non-binding advisory opinion regarding the draft Plan, made certain modifications to the draft Plan and has adopted and submitted to this legislative authority a copy of the draft Plan for the District as so modified (the "Final Draft Plan"); and

WHEREAS, this legislative authority is required by Division (B) of Section 3734.55 of the Revised Code to approve or disapprove the Final Draft Plan within 90 days after receiving a copy of the Final Draft Plan and has been requested to approve the Final Draft Plan;

NOW, THEREFORE, BE IT RESOLVED, by the Board of Township Trustees of the Union Township, County of Logan, State of Ohio, that:

Section 1. The Final Draft Plan is hereby approved in the form submitted to this legislative authority and presently on file with the Clerk of this legislative authority.

Section 2. The Clerk of this legislative authority is hereby authorized and directed to mail or otherwise deliver promptly a certified copy of this resolution to the Policy Committee.

Section 3. This Board finds and determines that all formal actions of this Board concerning and relating to the adoption of this resolution were taken in an open meeting of this Board and that all deliberations of this Board that resulted in those formal actions were in meetings open to the public in compliance with the law.

Section 4. This resolution shall be in full force and effect from and immediately upon its adoption.

Mr. Rob Kauffman seconded the motion.
Upon call of the roll the following vote resulted:

Members	Yea	Nay	Abstain	Not Present
King	✓	—	—	—
Yoder	✓	—	—	—
Kauffman	✓	—	—	—

The forgoing is a true and correct excerpt from the minutes of the meeting on Feb. 9, 2016, of the Board of Township Trustees of the Union Twp., showing the adoption of the resolution herein above set forth.

Rebecca J. Nelson
Fiscal Officer
Union Twp, Logan County

RESOLUTION NO. 02-0846

APPROVING THE SOLID WASTE MANAGEMENT PLAN OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT

WHEREAS, the Logan County Solid Waste Management District, by its Solid Waste Policy Committee, has adopted a Solid Waste Management Plan for the District; and

WHEREAS, pursuant to Ohio Revised Code Section 3734.55(B), the Board of County Commissioners and the legislative authority of each municipal corporation or township under the jurisdiction of the District, must approve or disapprove the Plan by ordinance or resolution; and

WHEREAS, the Perry Township Trustees, Logan County, Ohio have reviewed the Plan and considered it at a duly called meeting; and

WHEREAS, the Plan furthers the public interest; and

NOW BE IT THEREFORE RESOLVED, that the Solid Waste Management Plan of the Logan County Solid Waste Management District, adopted by the Solid Waste Policy Committee on January 21, 2016 is hereby approved;

AND BE IT FURTHER RESOLVED, that a copy of this Resolution of Approval shall promptly be delivered, or caused to be delivered, to the Solid Waste Management Policy Committee of the Logan County Solid Waste Management District.

Motion made by John Brose, seconded by Jeff Rosebrook
Upon call of the roll the following vote resulted:

Trustees	Yea	Nay
John Brose	✓	
Jeff Rosebrook	✓	
Tony Zerkle	✓	

Resolution duly adopted this 8th day of Feb., 2016.

John Brose
President

Cindy Stalling
Fiscal Officer/Witness

ORDINANCE NO. 2016-2

AN ORDINANCE APPROVING THE SOLID WASTE MANAGEMENT PLAN

WHEREAS, the Logan County Solid Waste Management District, by its Solid Waste Policy Committee, has adopted a Solid Waste Management Plan for the District; and

WHEREAS, pursuant to Ohio Revised Code Section 3734.55(B), the Board of County Commissioners and the legislative authority of each municipal corporation or township under the jurisdiction of the District, must approve or disapprove the Plan by ordinance or resolution; and

WHEREAS, the Village of Valley Hi, Logan County, Ohio have reviewed the Plan and considered it at a duly called meeting; and

WHEREAS, the Plan furthers the public interest; and

NOW THEREFORE BE IT ORDAINED, that the Solid Waste Management Plan of the Logan County Solid Management District, adopted by the Solid Waste Policy Committee on January 21, 2016, is hereby approved;

AND BE IT FURTHER ORDAINED, that a copy of this Ordinance of Approval shall promptly be delivered, or caused to be delivered, to the Solid Waste Management Policy Committee of the Logan County Solid Waste Management District.

Motion made by Eric McCreary, seconded by Stephen Roshon
Upon call of the roll the following vote resulted:

Stephen Roshon - Yea
Eric McCreary - Yea
Larry Strohacker - Yea

Passed this 11th day of February, 2016.

~~Mayor~~ Clerk Treasurer

President of Council

The Board of Township Trustees of the Pleasant Township, County of Logan, State of Ohio, met in regular session on February 9, 20016, commencing at 7:30 o'clock, p.m., at the Township Hall, Lewistville, Ohio, Logan County, Ohio, with the following members present:

Mr. Victor Klingelhofer Mr. Stephen Sanders

Mr. Jeffrey Schindewolf

The Clerk advised the Board of Trustees that the notice requirements of Section 121.22 of the Revised Code and the implementing rules adopted by the Board pursuant thereto were complied with for the meeting.

Mr. Klingelhofer move the adoption of the following preambles and resolution:

A RESOLUTION APPROVING THE DRAFT SOLID WASTE MANAGEMENT PLAN OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT.

WHEREAS, the Board of County Commissioners of Logan County have established the Logan County Solid Waste Management District (the "District") and have established and convened a "solid waste management policy committee" in accordance with the Section 3734.54 of the Revised Code (the "Policy Committee") to prepare a "solid waste management plan" for the District as required by Section 3734.54 (the "Plan"); and

WHEREAS, the Policy Committee completed the draft amended Solid Waste Management Plan and submitted it to the Ohio Environmental Protection Agency for review and comment on March 16, 2015, and the Ohio Environmental Protection Agency provided comments in a non-binding advisory opinion on April 30, 2015; and

WHEREAS, the Policy Committee has reviewed the non-binding advisory opinion received from the Ohio Environmental Protection Agency for preliminary review and comment in accordance with Sections 3734.54 and 3734.55 of the Revised Code; and

WHEREAS, the Policy Committee received the Director's written, non-binding advisory opinion regarding the draft Plan, made certain modifications to the draft Plan and has adopted and submitted to this legislative authority a copy of the draft Plan for the District as so modified (the "Final Draft Plan"); and

WHEREAS, this legislative authority is required by Division (B) of Section 3734.55 of the Revised Code to approve or disapprove the Final Draft Plan within 90 days after receiving a copy of the Final Draft Plan and has been requested to approve the Final Draft Plan;

NOW, THEREFORE, BE IT RESOLVED, by the Board of Township Trustees of the Pleasant Township, County of Logan, State of Ohio, that:

Section 1. The Final Draft Plan is hereby approved in the form submitted to this legislative authority and presently on file with the Clerk of this legislative authority.

Mr. Sanders seconded the motion.
Upon call of the roll the following vote resulted:

Members	Yea	Nay	Abstain	Not Present
Mr. Klingelhofer	X	—	—	—
mr. Sanders	X	—	—	—
mr. Schindewolf	X	—	—	—

The forgoing is a true and correct excerpt from the minutes of the meeting on February 9, 2016. of the Board of Township Trustees of the Pleasant Township, showing the adoption of the resolution herein above set forth.

Joan Downing, Fiscal Officer

Logan County Commissioners

The Colonial Building
117 E. Columbus Ave. Suite 100 • Bellefontaine, Ohio 43311
(937) 599-7283 • (937) 599-7268 (Fax)

John Bayliss • Tony Core • Dustin Wickersham

BRIAN DUNN
SPECIAL PROJECTS COORDINATOR

NACY D. KIRBY
CLERK/ADMINISTRATOR

Resolution No. 61-16

The Logan County Board of Commissioners met in regular open session on this date of February 4, 2016 with the full board present.

Mr. Anthony E. Core moved that the following resolution be adopted:

RE: A RESOLUTION APPROVING THE DRAFT SOLID WASTE MANAGEMENT PLAN OFTHE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT.

WHEREAS, the Board of County Commissioners of Logan County have established the Logan County Solid Waste Management District (the "District") and have established and convened a "solid waste management policy committee" in accordance with the Section 3734.54 of the Revised Code (the "Policy Committee") to prepare a "solid waste management plan" for the District as required by Section 3734.54 (the "Plan"); and

WHEREAS, the Policy Committee completed the draft amended Solid Waste Management Plan and submitted it to the Ohio Environmental Protection Agency for review and comment on March 16, 2015, and the Ohio Environmental Protection Agency provided comments in a non-binding advisory opinion on April 30, 2015; and

WHEREAS, the Policy Committee has reviewed the non-binding advisory opinion received from the Ohio Environmental Protection Agency for preliminary review and comment in accordance with Sections 3734.54 and 3734.55 of the Revised Code; and

WHEREAS, the Policy Committee received the Director's written, non-binding advisory opinion regarding the draft Plan, made certain modifications to the draft Plan and has adopted and submitted to this legislative authority a copy of the draft Plan for the District as so modified (the "Final Draft Plan"); and

WHEREAS, this legislative authority is required by Division (B) of Section 3734.55 of the Revised Code to approve or disapprove the Final Draft Plan within 90 days after receiving a copy of the Final Draft Plan and has been requested to approve the Final Draft Plan;

NOW, THEREFORE, BE IT RESOLVED, by the Logan County Board of Commissioners that:

Section 1. The Final Draft Plan is hereby approved in the form submitted to this legislative authority and presently on file with the Clerk of this legislative authority.

Section 2. The Clerk of this legislative authority is hereby authorized and directed to mail or otherwise deliver promptly a certified copy of this resolution to the Policy Committee.

Section 3. This Board finds and determines that all formal actions of this Board concerning and relating to the adoption of this resolution were taken in an open meeting of this Board and that all deliberations of this Board that resulted in those formal actions were in meetings open to the public in compliance with the law.

Section 4. This resolution shall be in full force and effect from and immediately upon its adoption.

Mr. John Bayliss seconded the motion.

Roll call resulted as follows:

Mr. Dustin A. Wickersham, President — yes

Mr. Anthony E. Core, Vice President — yes

Mr. John Bayliss, Member — yes

I, Kacy D. Kirby, Clerk/Administrator, hereby certify this to be a true copy of the proceedings as taken from the minutes of the meeting of the Logan County Commissioners on this date of February 4, 2016.

Kacy D. Kirby, Clerk/Administrator

The Board of Township Trustees of the Lake Twp, County of Logan, State of Ohio, met in regular session on 2/23/, 2016, commencing at 7:30 o'clock, p.m., at 900 S. Detroit, Bellefontaine, Ohio, with the following members present:

William P. Martin James Welsh

Peter F. Stolle

The Clerk advised the Board of Trustees that the notice requirements of Section 121.22 of the Revised Code and the implementing rules adopted by the Board pursuant thereto were complied with for the meeting.

James Welsh move the adoption of the following preambles and resolution:

A RESOLUTION APPROVING THE DRAFT SOLID WASTE MANAGEMENT PLAN OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT.

WHEREAS, the Board of County Commissioners of Logan County have established the Logan County Solid Waste Management District (the "District") and have established and convened a "solid waste management policy committee" in accordance with the Section 3734.54 of the Revised Code (the "Policy Committee") to prepare a "solid waste management plan" for the District as required by Section 3734.54 (the "Plan"); and

WHEREAS, the Policy Committee completed the draft amended Solid Waste Management Plan and submitted it to the Ohio Environmental Protection Agency for review and comment on March 16, 2015, and the Ohio Environmental Protection Agency provided comments in a non-binding advisory opinion on April 30, 2015; and

WHEREAS, the Policy Committee has reviewed the non-binding advisory opinion received from the Ohio Environmental Protection Agency for preliminary review and comment in accordance with Sections 3734.54 and 3734.55 of the Revised Code; and

WHEREAS, the Policy Committee received the Director's written, non-binding advisory opinion regarding the draft Plan, made certain modifications to the draft Plan and has adopted and submitted to this legislative authority a copy of the draft Plan for the District as so modified (the "Final Draft Plan"); and

WHEREAS, this legislative authority is required by Division (B) of Section 3734.55 of the Revised Code to approve or disapprove the Final Draft Plan within 90 days after receiving a copy of the Final Draft Plan and has been requested to approve the Final Draft Plan;

NOW, THEREFORE, BE IT RESOLVED, by the Board of Township Trustees of the Lake Twp, County of Logan, State of Ohio, that:

Section 1: The Final Draft Plan is hereby approved in the form submitted to this legislative authority and presently on file with the Clerk of this legislative authority.

Section 2. The Clerk of this legislative authority is hereby authorized and directed to mail or otherwise deliver promptly a certified copy of this resolution to the Policy Committee.

Section 3. This Board finds and determines that all formal actions of this Board concerning and relating to the adoption of this resolution were taken in an open meeting of this Board and that all deliberations of this Board that resulted in those formal actions were in meetings open to the public in compliance with the law.

Section 4. This resolution shall be in full force and effect from and immediately upon its adoption.

William Nichols seconded the motion.
Upon call of the roll the following vote resulted:

Members	Yea	Nay	Abstain	Not Present
William Nichols	✓	—	—	—
James Kish	✓	—	—	—
Peter Stolly	✓	—	—	—

The forgoing is a true and correct excerpt from the minutes of the meeting on 2/23, 2016, of the Board of Township Trustees of the Lake Twp, showing the adoption of the resolution herein above set forth.

Peter F Stolly

James Kish

William D. Nichols

RECORD OF ORDINANCES

BARRETT BROTHERS - DAYTON, OHIO Form 82305

Ordinance No. _____ *Passed* _____

RESOLUTION NO 2016-02

A RESOLUTION APPROVING THE PLAN UPDATE AS SUBMITTED BY THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT

WHEREAS, the Logan County Solid Waste Management District has submitted a plan update to be reviewed by the Legislative Authority of the Village of Lakeview; and,

WHEREAS, the Legislative Authority of the Village of Lakeview has reviewed said plan update and desires to approve said update;

NOW, THEREFORE, BE IT RESOLVED by the Council of the Village of Lakeview, Ohio, a majority of its members concurring that:

1. The plan update as submitted by the Logan County Solid Waste Management District is hereby approved.
2. This resolution shall become in full force and effect upon adoption and at the earliest time provided by law.

Attested: Rebecca Sparrow
Fiscal Officer

Ryan Shoffstall, Mayor

Passed: 03-07-16

Approved: 03-07-16

RESOLUTION 2016-R6

APPROVING THE SOLID WASTE MANAGEMENT PLAN OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT

WHEREAS, the Logan County Solid Waste Management District, by its Solid Waste Policy Committee, has adopted a Solid Waste Management Plan for the District; and

WHEREAS, pursuant to Ohio Revised Code Section 3734.55 (B), the Board of County Commissioners and the legislative authority of each municipal corporations or township under the jurisdiction of the District, must approve or disapprove the Plan by Resolution; and

WHEREAS, the Village of West Liberty Council, Logan County, Ohio have reviewed the Plan and considered it at a duly called meeting; and

WHEREAS, the Plan furthers the public interest; and

NOW BE IT FURTHER RESOLVED, that a copy of this Resolution of Approval shall promptly be delivered, or caused to be delivered, to the Solid Waste Management Policy Committee of the Logan County Solid Waste Management District.

This Resolution is an emergency measure made necessary to protect the health, safety and welfare of the Village of West Liberty and shall be effect after the signing by Mayor, Clerk, and President of Council.

PASSED: March 7, 2016

SIGNED: _____
Mayor Gregory J. Hostetler

ATTEST: _____
Clerk Cindee M. Boyd

APPROVED: March 7, 2016

SIGNED: _____
Michael J. Hostetler
President of Council

RESOLUTION NO. R16-07

A RESOLUTION APPROVING THE DRAFT SOLID WASTE MANAGEMENT PLAN (UPDATE 2016) OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT.

WHEREAS, the Board of County Commissioners of Logan County have established the Logan County Solid Waste Management District (the "District") and have established and convened a "solid waste management policy committee" in accordance with the Section 3734.54 of the Revised Code (the "Policy Committee") to prepare a "solid waste management plan" for the District as required by Section 3734.54 (the "Plan"); and

WHEREAS, the Policy Committee completed a draft Plan and submitted it to the Ohio Environmental Protection Agency ("OEPA") for review and comment on March 16, 2015, and the Director of the OEPA provided comments in a non-binding advisory opinion on April 30, 2016 (the "Opinion"); and

WHEREAS, the Policy Committee has reviewed the Opinion for preliminary review and comment in accordance with Sections 3734.54 and 3734.55 of the Revised Code; and

WHEREAS, the Policy Committee, after reviewing the Opinion, made certain modifications to the draft Plan and has adopted and submitted to this legislative authority a copy of the draft Plan for the District as so modified (the "Final Draft Plan"); and

WHEREAS, this legislative authority is required by Division (B) of Section 3734.55 of the Revised Code to approve or disapprove the Final Draft Plan within 90 days after receiving a copy of the Final Draft Plan and has been requested to approve the Final Draft Plan;

NOW, THEREFORE, BE IT RESOLVED, by the Council of the City of Bellefontaine, Ohio:

SECTION I: That the Final Draft Plan is hereby approved in the form submitted to this legislative authority and presently on file with the Clerk of this legislative authority.

SECTION II: That the Clerk of this legislative authority is hereby authorized and directed to mail or otherwise deliver promptly a certified copy of this resolution to the Policy Committee.

SECTION III: That this Council finds and determines that all formal actions of this Council concerning and relating to the adoption of this resolution were taken in an open meeting of this Council and that all deliberations of this Council that resulted in those formal actions were in meetings open to the public in compliance with the law.

SECTION IV: That this Resolution shall take effect and be in force from and immediately upon its adoption.

Passed: 3.23, 2016

President of Council

Attest: Bonnie Patterson
Clerk of Council

Approved: 3.23, 2016

Mayor

Director of Law

UTILITIES COMMITTEE

V:\Client Documents - C City Of Bellefontaine\Ordinances\2016\Resolution - Authorizing Draft Solid Waste Management Plan.Doc

RESOLUTION NO. 1-2016

APPROVING THE SOLID WASTE MANAGEMENT PLAN OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT

WHEREAS, the Logan County Solid Waste Management District, by its Solid Waste Policy Committee, has adopted a Solid Waste Management Plan for the District; and

WHEREAS, pursuant to Ohio Revised Code Section 3734.55(B), the Board of County Commissioners and the legislative authority of each municipal corporation or township under the jurisdiction of the District, must approve or disapprove the Plan by ordinance or resolution; and

WHEREAS, the Bloomfield Township Trustees, Logan County, Ohio have reviewed the Plan and considered it at a duly called meeting; and

WHEREAS, the Plan furthers the public interest; and

NOW BE IT THEREFORE RESOLVED, that the Solid Waste Management Plan of the Logan County Solid Waste Management District, adopted by the Solid Waste Policy Committee on January 21, 2016 is hereby approved;

AND BE IT FURTHER RESOLVED, that a copy of this Resolution of Approval shall promptly be delivered, or caused to be delivered, to the Solid Waste Management Policy Committee of the Logan County Solid Waste Management District.

Motion made by Andrew Kipker, seconded by Kyle Knief
Upon call of the roll the following vote resulted:

Trustees	Yea	Nay
[illegible]	✓	
Kyle Knief	✓	
Kelly Cipriano	✓	

Resolution duly adopted this 14th day of March, 2016.

[illegible]
President

Laura A. Magoto
Fiscal Officer/Witness

RESOLUTION NO. 2016-04-01R

APPROVING THE SOLID WASTE MANAGEMENT PLAN OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT

WHEREAS, the Logan County Solid Waste Management District, by its Solid Waste Policy Committee, has adopted a Solid Waste Management Plan for the District; and

WHEREAS, pursuant to Ohio Revised Code Section 3734.55(B), the Board of County Commissioners and the legislative authority of each municipal corporation or township under the jurisdiction of the District, must approve or disapprove the Plan by ordinance or resolution; and

WHEREAS, the Village of West Mansfield Council, Logan County, Ohio have reviewed the Plan and considered it at a duly called meeting; and

WHEREAS, the Plan furthers the public interest;

NOW, BE IT THEREFORE RESOLVED, that the Solid Waste Management Plan of the Logan County Solid Waste Management District, adopted by the Solid Waste Policy Committee on January 21, 2016 is hereby approved;

AND BE IT FURTHER RESOLVED, that a copy of this Resolution of Approval shall promptly be delivered, or caused to be delivered, to the Solid Waste Management Policy Committee of the Logan County Solid Waste Management District.

Motion made by Libby Wykstra, seconded by Bethanie Musser

Upon call of the roll the following vote resulted:

Derrick Detrick	Yes	Bethanie Musser	Yes
Ed Kise	Yes	Stephanie Stephens	Yes
Jennifer Frazier	Yes	Libby Wykstra	Yes

Resolution duly adopted this fifth day of April, 2016.

Mayor

Council President

Fiscal Officer

RESOLUTION NO. 2016-04-11-01

APPROVING THE SOLID WASTE MANAGEMENT PLAN OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT

WHEREAS, the Logan County Solid Waste Management District, by its Solid Waste Policy Committee, has adopted a Solid Waste Management Plan for the District; and

WHEREAS, pursuant to Ohio Revised Code Section 3734.55(B), the Board of County Commissioners and the legislative authority of each municipal corporation or township under the jurisdiction of the District, must approve or disapprove the Plan by ordinance or resolution; and

WHEREAS, the Stokes Township Trustees, Logan County, Ohio have reviewed the Plan and considered it at a duly called meeting; and

WHEREAS, the Plan furthers the public interest; and

NOW BE IT THEREFORE RESOLVED, that the Solid Waste Management Plan of the Logan County Solid Waste Management District, adopted by the Solid Waste Policy Committee on January 21, 2016 is hereby approved;

AND BE IT FURTHER RESOLVED, that a copy of this Resolution of Approval shall promptly be delivered, or caused to be delivered, to the Solid Waste Management Policy Committee of the Logan County Solid Waste Management District.

Motion made by Orvil Wickersham, seconded by Dennis Wischmeyer
Upon call of the roll the following vote resulted:

Trustees	Yea	Nay
Dennis Wischmeyer	X	
Robert Lehman	X	
Orvil Wickersham	X	

Resolution duly adopted this 11th day of April, 2016.

Chairman

Fiscal Officer/Witness

The Board of Township Trustees of the Stokes Township, County of Logan, State of Ohio, met in regular session on April 11, 2016, commencing at eight o'clock, p.m., at the Stokes Township Building, 275 S. Oak St, Lakeview, Ohio, with the following members present:

Dennis Wischmeyer
Robert Lehman
Orvil Wickersham

The Fiscal Officer advised the Board of Trustees that the notice requirements of Section 121.22 of the Revised Code and the implementing rules adopted by the Board pursuant thereto were complied with for the meeting.

Orvil Wickersham moved the adoption of the following preambles and resolution:

A RESOLUTION APPROVING THE DRAFT SOLID WASTE MANAGEMENT PLAN OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT.

WHEREAS, the Board of County Commissioners of Logan County have established the Logan County Solid Waste Management District (the "District") and have established and convened a "solid waste management policy committee" in accordance with the Section 3734.54 of the Revised Code (the "Policy Committee") to prepare a "solid waste management plan" for the District as required by Section 3734.54 (the "Plan"); and

WHEREAS, the Policy Committee completed the draft amended Solid Waste Management Plan and submitted it to the Ohio Environmental Protection Agency for review and comment on March 16, 2015, and the Ohio Environmental Protection Agency provided comments in a non-binding advisory opinion on April 30, 2015; and

WHEREAS, the Policy Committee has reviewed the non-binding advisory opinion received from the Ohio Environmental Protection Agency for preliminary review and comment in accordance with Sections 3734.54 and 3734.55 of the Revised Code; and

WHEREAS, the Policy Committee received the Director's written, non-binding advisory opinion regarding the draft Plan, made certain modifications to the draft Plan and has adopted and submitted to this legislative authority a copy of the draft Plan for the District as so modified (the "Final Draft Plan"); and

WHEREAS, this legislative authority is required by Division (B) of Section 3734.55 of the Revised Code to approve or disapprove the Final Draft Plan within 90 days after receiving a copy of the Final Draft Plan and has been requested to approve the Final Draft Plan;

NOW, THEREFORE, BE IT RESOLVED, by the Board of Township Trustees of the Stokes Township, County of Logan, State of Ohio, that:

Section 1. The Final Draft Plan is hereby approved in the form submitted to this legislative authority and presently on file with the Fiscal Officer of this legislative authority.

Section 2. The Fiscal Officer of this legislative authority is hereby authorized and directed to mail or otherwise deliver promptly a certified copy of this resolution to the Policy Committee.

Section 3. This Board finds and determines that all formal actions of this Board concerning and relating to the adoption of this resolution were taken in an open meeting of this Board and that all deliberations of this Board that resulted in those formal actions were in meetings open to the public in compliance with the law.

Section 4. This resolution shall be in full force and effect from and immediately upon its adoption.

Robert Lehman seconded the motion.

Upon call of the roll the following vote resulted:

Members	Yea	Nay	Abstain	Not Present
Dennis Wischmeyer	x	___	___	___
Robert Lehman	x	___	___	___
Orvil Wickersham	x	___	___	___

The forgoing is a true and correct excerpt from the minutes of the meeting on April 11, 2016, of the Board of Township Trustees of the Stokes Township, showing the adoption of the resolution herein above set forth.

Fiscal Officer, Stokes Township

RESOLUTION NO. 10-12

APPROVING THE SOLID WASTE MANAGEMENT PLAN OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT

WHEREAS, the Logan County Solid Waste Management District, by its Solid Waste Policy Committee, has adopted a Solid Waste Management Plan for the District; and

WHEREAS, pursuant to Ohio Revised Code Section 3734.55(B), the Board of County Commissioners and the legislative authority of each municipal corporation or township under the jurisdiction of the District, must approve or disapprove the Plan by ordinance or resolution; and

WHEREAS, the Monroe Township Trustees, Logan County, Ohio have reviewed the Plan and considered it at a duly called meeting; and

WHEREAS, the Plan furthers the public interest; and

NOW BE IT THEREFORE RESOLVED, that the Solid Waste Management Plan of the Logan County Solid Waste Management District, adopted by the Solid Waste Policy Committee on January 21, 2016 is hereby approved;

AND BE IT FURTHER RESOLVED, that a copy of this Resolution of Approval shall promptly be delivered, or caused to be delivered, to the Solid Waste Management Policy Committee of the Logan County Solid Waste Management District.

Motion made by Mr. Bradley, seconded by Mr. Barns
Upon call of the roll the following vote resulted:

Trustees	Yea	Nay
Dale Barns	✓	
D. E. Bradley	✓	

Resolution duly adopted this 8th day of February, 2016.

Dale Barns
President

Abigail Mills
Fiscal Officer/Witness

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RECORD OF ORDINANCES

Dayton Legal Blank, Inc. Form No. 30043

Ordinance No. _____ *Passed* _____, 20____

ORDINANCE NO. 1091-16

AN ORDINANCE APPROVING THE SOLID WASTE MANAGEMENT PLAN

WHEREAS, the Logan County Solid Waste Management District, by its Solid Waste Policy Committee, has adopted a Solid Waste Management Plan for the District; and

WHEREAS, pursuant to Ohio Revised Code Section 3734.55(B), the Board of County Commissioners and the legislative authority of each municipal corporation or township under the jurisdiction of the District, must approve or disapprove the Plan by ordinance or resolution; and

WHEREAS, the Village of Rushsylvania, Logan County, Ohio have reviewed the Plan and considered it at a duly called meeting; and

WHEREAS, the Plan furthers the public interest; and

NOW THEREFORE BE IT ORDAINED, that the Solid Waste Management Plan of the Logan County Solid Management District, adopted by the Solid Waste Policy Committee on January 21, 2016, is hereby approved;

AND BE IT FURTHER ORDAINED, that a copy of this Ordinance of Approval shall promptly be delivered, or caused to be delivered, to the Solid Waste Management Policy Committee of the Logan County Solid Waste Management District.

Motion made by Darrel Bradford, seconded by Patricia Wilson
Upon call of the roll the following vote resulted:

Dave Harris yea
Jason Miller yea
Tim Rader yea
Deb Harbour yea

Passed this 4th day of April, 2016.

Patricia Everson
Mayor

President of Council

RESOLUTION NO. 4-16

APPROVING THE SOLID WASTE MANAGEMENT PLAN OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT

WHEREAS, the Logan County Solid Waste Management District, by its Solid Waste Policy Committee, has adopted a Solid Waste Management Plan for the District; and

WHEREAS, pursuant to Ohio Revised Code Section 3734.55(B), the Board of County Commissioners and the legislative authority of each municipal corporation or township under the jurisdiction of the District, must approve or disapprove the Plan by ordinance or resolution; and

WHEREAS, the RICHLAND Township Trustees, Logan County, Ohio have reviewed the Plan and considered it at a duly called meeting; and

WHEREAS, the Plan furthers the public interest; and

NOW BE IT THEREFORE RESOLVED, that the Solid Waste Management Plan of the Logan County Solid Waste Management District, adopted by the Solid Waste Policy Committee on January 21, 2016 is hereby approved:

AND BE IT FURTHER RESOLVED, that a copy of this Resolution of Approval shall promptly be delivered, or caused to be delivered, to the Solid Waste Management Policy Committee of the Logan County Solid Waste Management District.

Motion made by PHIL ALLOWAY, seconded by KEVIN PETERSON
Upon call of the roll the following vote resulted:

Trustees	Yea	Nay
PHIL ALLOWAY	AYE	
KEVIN PETERSON	Aye	

Resolution duly adopted this 8th day of APRIL, 2016.

Phil Alloway
~~President~~ TRUSTEE

Dutchess Anderson
Fiscal Officer/Witness

RESOLUTION NO. 2016-04-01R

APPROVING THE SOLID WASTE MANAGEMENT PLAN OF THE LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT

WHEREAS, the Logan County Solid Waste Management District, by its Solid Waste Policy Committee, has adopted a Solid Waste Management Plan for the District; and

WHEREAS, pursuant to Ohio Revised Code Section 3734.55(B), the Board of County Commissioners and the legislative authority of each municipal corporation or township under the jurisdiction of the District, must approve or disapprove the Plan by ordinance or resolution; and

WHEREAS, the Village of West Mansfield Council, Logan County, Ohio have reviewed the Plan and considered it at a duly called meeting; and

WHEREAS, the Plan furthers the public interest;

NOW, BE IT THEREFORE RESOLVED, that the Solid Waste Management Plan of the Logan County Solid Waste Management District, adopted by the Solid Waste Policy Committee on January 21, 2016 is hereby approved;

AND BE IT FURTHER RESOLVED, that a copy of this Resolution of Approval shall promptly be delivered, or caused to be delivered, to the Solid Waste Management Policy Committee of the Logan County Solid Waste Management District.

Motion made by Libby Wykstra, seconded by Bethanie Musser

Upon call of the roll the following vote resulted:

Derrick Detrick	Yes	Bethanie Musser	Yes
Ed Kise	Yes	Stephanie Stephens	Yes
Jennifer Frazier	Yes	Libby Wykstra	Yes

Resolution duly adopted this fifth day of April, 2016.

Mayor

Council President

Fiscal Officer

RECORD OF PROCEEDINGS

DEGRAFF VILLAGE COUNCIL

REGULAR SESSION

The Legislative Body of VILLAGE OF DEGRAFF convened in regular session from 7:00 P.M. to 8:53 P.M. in the 107 S. Main Street - DeGraff, OH 43318-0309.

Mayor Jennifer Bowman called the meeting to order and led the assembly in the Pledge of Allegiance with the following members and visitors present:

Sue E. Walls	Present	Dennis Stout	Present
Jenny LeClair	Present	Kelli Kreglow Stephens	Present
Chuck Bertschman	Present	Beth Neeley	Present

EMPLOYEES: George Piersall, Police Chief; David Reames, Fire Chief; Miranda Warren, Solicitor.

MINUTES: Beth Neeley moved to suspend the reading of the previous Minutes, and to approve them as written and submitted by the Fiscal Officer; second by Dennis Stout. Votes were: Sue E. Walls, Aye; Jenny LeClair, Aye; Cguck Bertschman, Aye; Dennis Stout, Aye; Kelli Kreglow Stephens, Aye; Beth Neeley, Aye. ***Motion***

EXCUSE ABSENCE(S): None

VISITORS: Mary E. Dyke, Pat Brown, Staci Powell, Nathan Dunham (Media WPKO/WBLL).

Mary Beth Dyke was introduced to council by Chief Piersall as a recommendation for the DeGraff Police Department as an Auxiliary Patrol Officer.

Staci Powell was in attendance to request an Encroachment Easement of six and a half (6-1/2 feet) of property on at 112 S Koke Street, Lot 11 needed to allow her to finalize a pending sale of her property. Following discussion; Chuck Bertschman moved to approve Resolution 16-07, an Encroachment Easement for 112 S Koke Street, Lot 11; seconded by Beth Neeley. Votes were: Sue E. Walls, Aye; Jenny LeClair, Aye; Chuck Bertschman, Aye; Dennis Stout, Aye; Kelli Kreglow Stephens, Aye; Beth Neeley, Aye.

Motion

Pat Brown was in attendance on behalf of the Friends of DeGraff, and the DeGraff Country Fair Community Organizations to present the respective Volunteering Projects planned for the Neighborhood Community Grant opportunity. Both Organizations have proposed Community Volunteering commitments (including labor and materials) that will cover the next two (2) years.
Following discussion:

Dennis Stout moved to approve the Friends of DeGraff Volunteering Proposal for the Village over the next two (2) years as presented by Pat Brown, commencing with 2016 - 2018; second by Sue E. Walls. Votes were: Sue E. Walls, Aye; Jenny LeClair, Aye; Chuck Bertschman, Aye; Dennis Stout, Aye; Kelli Kreglow Stephens, Aye; Beth Neeley, Aye.

Motion

RECORD OF PROCEEDINGS

DEGRAFF VILLAGE COUNCIL

REGULAR SESSION

Chuck Bertschman moved to approve the DeGraff Country Fair Committee's Volunteering Proposal for the Village over the next two (2) years as presented by Pat Brown, commencing with 2016-2018; second by Beth Neeley. Votes were: Sue E. Walls, Aye; Jenny LeClair, Aye; Chuck Bertschman, Aye; Dennis Stout, Aye; Kelli Kreglow Stephens, Aye; Beth Neeley, Aye. ***Motion***

Pat Brown requested that the DeGraff Country Fair Committee be allowed to use the village park facilities to accommodate the participating Fair Vendors and their employees during the fair week, from August 24th – August 27th and to be allowed to use the picnic tables, and bleachers downtown during the DeGraff Country Fair. Chuck Bertschman moved to approve the request by the DeGraff Country Fair for use of the Park and facilities; second by Kelli Kreglow Stephens. Votes were: Sue E. Walls, Aye; Jenny LeClair, Aye; Chuck Bertschman, Aye; Dennis Stout, Aye; Kelli Kreglow Stephens, Aye; Beth Neeley, Aye. ***Motion***

EMPLOYEE REPORTS:

Zoning: Mayor Bowman gave council a status report on Zoning operations that she received from Merle Orsborne.

Solicitor: Miranda Warren, Solicitor informed council on the status of pending and proposed easement matters. Miranda also reported that she is getting some very helpful information from other local Mayor's Court Entities; and that there have been offers made to assist with the re-startup (DeGraff conducted a Mayor's court several years ago) of a local DeGraff Mayor' Court. Mayor Bowman also noted that she has been in contact with other entities on the matter. Mayor Bowman and the Solicitor plan to attend the State training in January and February 2017 for Mayor's Court. Conducting Mayor's Court will generate and keep court fine revenues local.

STREET COMMITTEE: No Committee report. The committee had a lack of quorum; the employee was the only one who showed up. The committee members requested a reminder prior to the meeting. Mayor Bowman reported that she had discussed the street sign(s) (Corporation Sign, and Speed Limit Sign) on East Miami Street with Jason; and that both signs were placed in the proper location. She also informed council that there are three (3) options for correcting the misspelling of the Village name from Degraff to the proper spelling of "DeGraff" as follows: replace the small "g" with a large "G"; reface the whole sign; or replace the sign. But the correction will be made.

SAFETY COMMITTEE: Nothing to report.

Police Department: Chief Piersall recommended Mary Beth Dyke to be hired as an Auxiliary Patrol Officer for the Police Department, contingent on a passed physical and background check. Following discussion; Chuck Bertschman moved to approve the recommendation to hire Mary Beth Dyke as an Auxiliary Patrol Officer, contingent on a passed physical and background check; second by Dennis Stout. Votes were: Sue E Walls, Aye; Jenny LeClair, Aye; Chuck Bertschman, Aye; Dennis Stout, Aye; Kelli Kreglow Stephens, Aye; Beth Neeley, Aye. ***Motion***

Chief Piersall informed council that the village is currently in compliance with all required Standard Reporting. He also noted that he will be installing a camera at the back of the Annex Bldg.

Volunteer Fire Department: Nothing to report.

RECORD OF PROCEEDINGS

DEGRAFF VILLAGE COUNCIL

REGULAR SESSION

FINANCE COMMTTEE: The Fiscal Officer gave a status report to the Mayor and Council concerning the recent United States Department of Agriculture Compliance Review and Security Inspection for the Village of DeGraff in regards to the water tower loan with the United States Department of Agriculture (USDA). Linda noted that the review went well; but there are a few matters that will require further responses. The Village will need to address providing ADA non-compliances for the restrooms; and create a Water Reserve Fund for the water tower Ordinance 10-13. The Fiscal Officer will be responding to all these issues as soon as she gathers requested information from other departments and financial reports.

PARK COMMITTEE: The committee reported that the water has been turned on; and presented a status report of current park activities, including the repairs needed for the concession stand door. The port-a-pot needs to be relocated. The Fiscal Officer reported that the Logan County Health Department is scheduled to conduct the annual Concession Stand Inspection on April 20, 2016. The committee also recommended that Ms. Brianna Zimmerman be allowed to paint a historical mural on the back of the park restrooms as her Volunteer project for the Neighborhood Community Grant, under the supervision of Local Artist Carrie Minnich of DeGraff. Sue E. Walls moved to approve Ms. Zimmerman's request to paint a historical mural on the back of the park restrooms as her volunteer project within the two (2) year grant term; second by Dennis Stout. Votes were: Sue E. Walls, Jenny LeClair, Aye; Chuck Bertschman, Aye; Dennis Stout, Aye; Kelli Kreglow Stephens, Aye; Beth Neeley, Aye. ***Motion***

CEMETERY: Reported on the status of the cemetery grounds storm damage and clean-up effort following the recent wind-storm two weeks ago. The Cemetery Trustees tried to contact individuals who had expressed concerns for specific grave sites; and missing ornaments/flowers. They have not received any responses of this date.

JOINT SEWER BOARD: The Village of Quincy hired Ron Klime as an Independent Contractor to assist with the operations at the Quincy-DeGraff W.W.T.P Facility. Mayor Bowman reported to council that members of the JSB approved Quincy Solicitor Steve Fansler to create the Ordinance for this new Independent Contractor for Quincy. The next meeting is scheduled for May 2, 2016 at 7:00pm.

LIBRARY: Nothing

ORDINANCES/RESOLUTIONS: Resolution 16-08: A resolution to request an Amendment to the Certificate of Revenues, for the purpose of creating Enterprise Reserve Fund 5761 (Water); in the amount of $ 15,049.00 in accordance with reserve amount per Agreement with USDA Ordinance Number 10-13. Following discussion; Chuck Bertschman moved to approve Resolution 16-08; second by Kelli Kreglow Stephens. Votes were Sue E. Walls, Aye; Jenny LeClair, Aye; Chuck Bertschman, Aye; Kelli Kreglow Stephens, Aye; Beth Neeley, Aye. ***Resolution 16-08***

Resolution 16-09: Following discussion on the Logan County Solid Waste District Contingency Plan proposed to the village council at the March 15th meeting by Angie Payne, Coordinator for the Logan County Solid Waste Management District; Sue E. Walls moved to adopt the proposed plan as previously presented by Ms. Payne; second by Dennis Stout. Votes were: Sue E. Walls, Aye; Jenny LeClair, Aye; Chuck Bertschman, Aye; Dennis Stout, Aye; Kelli Kreglow Stephens, Aye; Beth Neeley, Aye.

Resolution 16-09

RECORD OF PROCEEDINGS

DEGRAFF VILLAGE COUNCIL

REGULAR SESSION

OLD BUSINESS: Legacy Pipeline will be hosting a public meeting at the Riverside Local High School on April 28th to update residents on the natural gas issue. Mayor Jennifer Bowman requested that all officials try to attend the public meeting on April 28th.

NEW BUSINESS: Following discussion on the 2016 Annual Spring Garage Sales; Dennis Stout moved to set the first Saturday in June (June 4th) as the Community wide garage sale date; second by Kelli Kreglow Stephens. Votes were: Sue E. Walls, Aye; Jenny LeClair, Aye; Chuck Bertschman, Aye; Dennis Stout, Aye; Kelli Kreglow Stephens, Aye; Beth Neeley, Aye. ***Motion***

Following discussion; Sue E. Walls moved to approve the third (3rd) Tuesday of June, July, and August 2016 as scheduled regular meetings for the summer recess; second by Chuck Bertschman. Votes were: Sue E. Walls, Aye; Jenny LeClair, Aye; Chuck Bertschman, Aye; Dennis Stout, Aye; Kelli Kreglow Stephens, Aye; Beth Neeley, Aye. ***Motion***

PAY BILLS: Beth Neeley moved to pay bills; second by Dennis Stout. Votes were: Sue E. Walls, Aye; Jenny LeClair, Aye; Chuck Bertschman, Aye; Dennis Stout, Aye; Kelli Kreglow Stephens, Aye; Beth Neeley, Aye. ***Motion***

ADJOURN: Mayor Jennifer L. Bowman adjourned the meeting at 8:53 pm.

The meeting was adjourned till May 3, 2016 at 7:00 P.M. at the 107 S. Main Street - DeGraff, OH 43318-0309.

Mayor

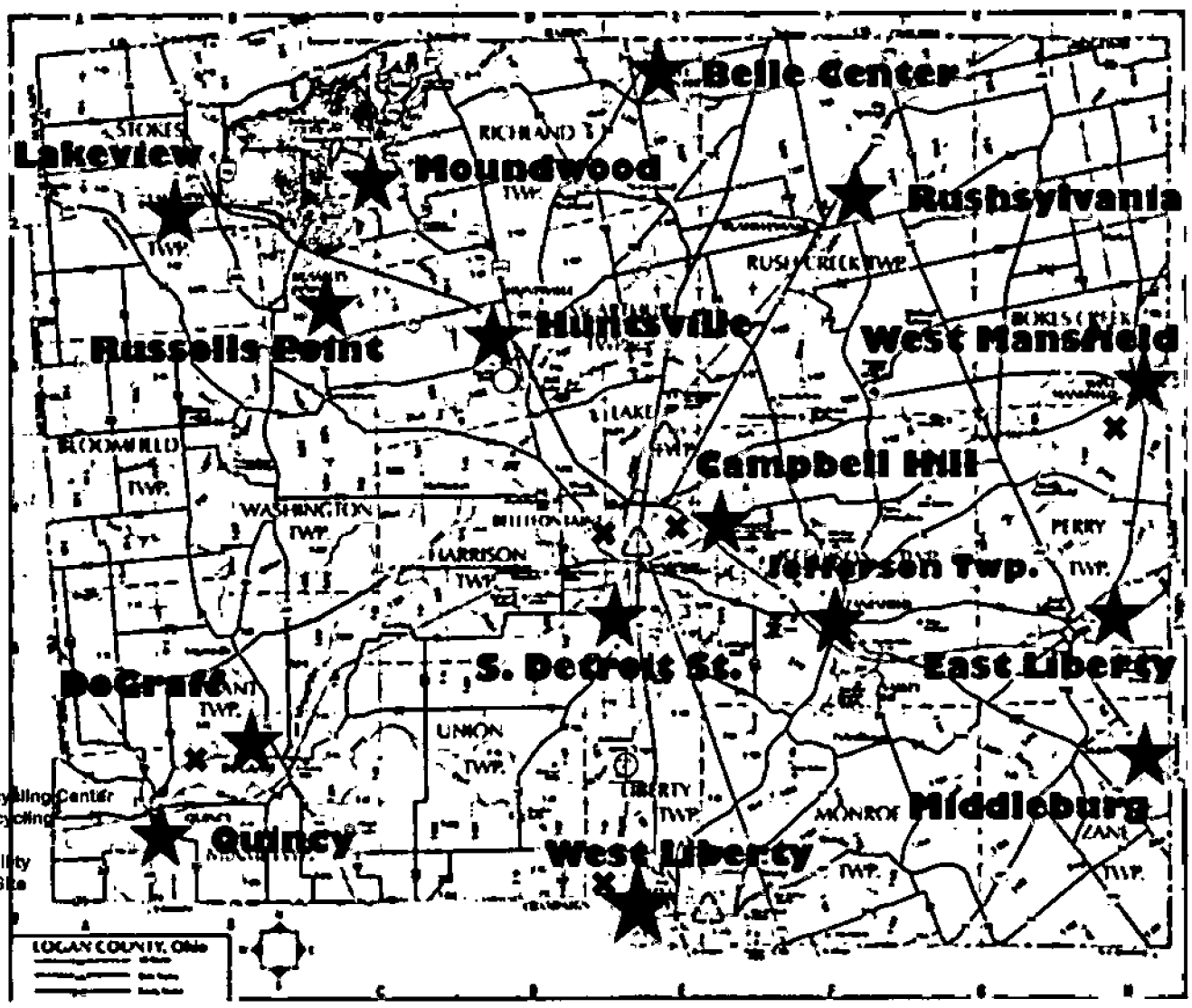
Fiscal Officer

All formal actions of the Legislative Body of VILLAGE OF DEGRAFF concerning and relating to the adoption of resolutions and/or motions passed at this meeting were adopted in a meeting open to the public, in compliance with the law, including Section 121.22 of the Ohio Revised Code.

APPENDIX D

District Map

Map of Logan County Recycling Centers



APPENDIX E

Blank Solid Waste Survey

Company Name		**SIC or NAICS CODE #**	
Number of Employees		**Operating Years**	
Address		**City**	
County		**Contact Person**	
Telephone		**Email**	

Please answer the following questions by putting a checkmark in the box provided next to either "yes" or "no". Feel free to provide any additional information in the space provided.

1. Does your company transport its own solid waste?	YES:	☐	NO:	☐
2. Does your company use products that are recycled?	YES:	☐	NO:	☐
3. Has your company made any changes in operation to reduce the amount of solid waste generated?	YES:	☐	NO:	☐

The following chart is provided to list the names of any landfills that the company uses to dispose of waste. Please specify if these facilities are captive. A captive facility is one that is used or owned solely by company.

NAME	ADDRESS	TYPE OF FACILITY	CAPTIVE
Allied Waste Industries, Inc. – Cherokee Run Landfill	2946 US Route 68 North Bellefontaine, OH 43311	Landfill	
			☐
			☐

Below, please check the description that best represents the recycling activities of your company.

☐	No, we currently do not recycle.
☐	No, we have stopped recycling.
☐	Informal, some employees chose to recycle.
☐	Informal, we recycle when there is a market available.
☐	Formal, the company has recently begun recycling.
☐	Formal, the company has been recycling for years.
☐	We are currently planning a recycling program.

If your company does recycle, please list the name of the facilities below :

NAME	ADDRESS	MATERIALS RECYCLED
(Continued on attached sheet)		

In the following table please specify the type and amount of waste generated as well as the means of its disposal:

Type of Waste	**Total Amount Generated***	**Total amount recycled**	**Total amount incinerated**	**Total amount composted**	**Total amount landfill**	**Other (please specify)**	**Time period represented****
Cardboard							
Office Paper							
Corrugated Paper							
Newspaper							
Fabric/Cloth							
Pallets							
Wood scrap							
Aluminum							
Ferrous metal							

Nonferrous Metal							
Glass							
Plastic							
Rubber inc Tires							
Stone/Clay/Sand							
Concrete							
Sludge							
Non-hazardous chemicals							
Electronics							
Composites							
Other							
TOTAL							

*Please specify the unite of measurement, If an exact measurement is unknown, a percentage may be used in those categories that apply.

** Please specify the period of time in which these measurements were taken, such as annually, biannually, etc.

Estimating Methods

TRASH

Size/# of containers	2yd	4d	6yd	8yd	compactor	open top
X-pulled week						
X-pulled Month						
Tons per Month						
Tons per Year						

RECYCLE

	Tons	Lbs.	Cubic Yards	Baled	Loose	Per/Week	Per/Month	Per/Year
OCC								
Newspaper								
Office Paper								
Metals								
Aluminum Cans								
Steel Cans								
Batteries								
#1 PET								
#2 HDPE								
Pallets / Wood								
Other (specify)								
Other (specify)								
Other (specify)								
Other (specify)								

Do you generate "universal waste" such as batteries or light bulbs? If so, how do you manage them?

Yes, these materials are managed to meet the US and Ohio EPA Universal Waste standards.

Do you have "waste" products that might be useful to another company or industry? e.g. saw dust & foam

Possibly

Additional comments:
ALL INFORMATION HELD IN STRICT CONFIDENTIALLY

If your company does recycle, please list the name of the facilities below :		
NAME	ADDRESS	MATERIALS RECYCLED

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APPENDIX F

Residential/Commercial and Industrial Recycling Data - Survey Results

Commercial Sector

Date Data Collected	Co-mingled (glass, metal and plastic)	Mixed glass	clear glass only	green glass only	brown glass only	Mixed Aluminum only	aluminum Used beverage containers (UBC) only	Mixed Steel only	steel used beverage containers (UBC) only	appliances only	Other metals	Mixed plastics
4/13/13							84.21					
5/25/14												
3/5/13								4.064		42.95		6.36
5/30/13							0.37					15.04
5/31/13	2.4	0	0	0	0	0	0	700	0	0	0	90.2
5/25/13	0	0	0	0	0	0	0	0	0	0	0	0
12/31/13												
5/24/13												
5/30/13												
5/24/13	0	0	0	0	0	0	0	0	0	0	0	0
5/27/13												
5/30/13	313.28					3.94		6.82				19.4
12/31/13	0	0	0	0	0	0	0	0	0	0	0	0
5/25/14	0	0	0	0	0	0	0	0	0	0	0	0.85
5/27/14	0	0	0	0	0	0	0	0	0	0	0	12
5/28/13												
5/24/13												
5/29/13							388.564	7047				
5/24/13												
5/29/11	0	0	0	0	0	0	0	0	0	0	0	0
5/25/14								0.66				9.76
5/15/11	0	0	0	0	0	0	0	0	0	0	0	0
5/23/13								10				
12/31/13												
5/29/13												
4/1/13								16.26				4.2
5/23/13												7.26
5/29/11	0	0	0	0	0	0	0	0	0	0	0	0
4/9/13										3.18		688.51
5/25/14	0	0	0	0	0	0	0	0	0	0	0	0
5/20/10	0	0	0	0	0	0	0	0	0	0	0	0
5/31/13	0	0	0	0	0	0	0	0	0	0	0	0
5/23/13												
4/11/14	49.55									13.48		427.68
3/22/13	2	0	0	0	0	75	0	3	0	3	0	138
5/23/13												
5/23/13												
5/23/13												
5/23/13												
12/31/13	0	0	0	0	0	0	0	0	0	0	0	0
5/23/13												
	367.23	0	0	0	0	78.94	473.144	7787.804	0	62.61	0	1419.26

Commercial Sector (cont'd)

Date Data Collected	pet plastic only	hdpe plastic only	Plastic Pallets Only	Mixed paper	cardboard only	newspaper only	magazines only	office paper only	Mixed Compost (co-compost)	food compost only	mixed yard waste compost only
4/13/13				16.75	461						
5/25/14					26.81						
3/5/13				4.81	0.87						
5/30/13				3.39	325.73						
5/31/13	0	0	0	32.2	1749	0	0	0	0	0	0
5/25/13	0	0	0	0	15	0	0	0	0	0	0
12/31/13								174.52			
5/24/13										1	23.3
5/30/13				0.56	53.34						
5/24/13	0	0	0	0	41.6	0	0	0	0	0	0
5/27/13											
5/30/13				30.51	32.43	94.27					
12/31/13	0	0	0	0	0	0	0	0	0	0	0
5/25/14	0	0	0	0	72.02	0	0	0	0	0	0
5/27/14	0	0	0	0	12	0	0	0	0	0	0
5/28/13											
5/24/13											
5/29/13											
5/24/13											
5/29/11	0	0	0	0	12	0	0	0	0	0	0
5/25/14				1.63	54.07						
5/15/11	0	0	0	1.9	22.5	0	0	0	0	0	0
5/23/13					26.4						
12/31/13					602.34						
5/29/13				5.24	47.8						
4/1/13					39.1						
5/23/13			335.4		702						
5/29/11	0	0	0	0	0	0	0	0	0	0	0
4/9/13				17.5865	73.85					3.7	
5/25/14	0	0	0	0	0	0	0	0	0	133.97	0
5/20/10	0	0	0	0	0	0	0	0	0	0	0
5/31/13	0	0	0	0	67.5	0	0	0	0	0	0
5/23/13					1092						
4/11/14				27.7	916.72					19.07	
3/22/13	0	0	0	12	203	0	0	0	0	0	0
5/23/13					42.34						
5/23/13					60.73						
5/23/13					60.73						
5/23/13					1092						
12/31/13	0	0	0	0	236.67	0	0	0	0	0	0
5/23/13					1092						
	0	0	335.4	154.2765	9233.55	94.27	0	174.52	0	157.74	23.3

Commercial Sector (cont'd)

Date Data Collected	trees, limbs, brush compost only	leaf compost only	Combined Hazardous Materials	batteries only	other "non-hazardous" chemicals	used oil only	mixed paint only	latex paint only	oil-based paint only	other hazardous materials	Rubber
4/13/13				0.005							
5/25/14											
3/5/13											
5/30/13											
5/31/13	0	0	0	0.01	7.6	2.8	0	0	0	0	0
5/25/13	0	0	0	10.8	0	0	0	0	0	0	0
12/31/13											
5/24/13											
5/30/13											
5/24/13	0	0	0	0	0	0	0	0	0	0	0
5/27/13											
5/30/13											
12/31/13	0	0	0	0	0	0	0	0	0	0	0
5/25/14	0	0	0	0	0	0	0	0	0	0	0
5/27/14	0	0	0	0	0	0	0	0	0	0	0
5/28/13											
5/24/13											
5/29/13											
5/24/13											
5/29/11	0	0	0	0	0	0	0	0	0	0	0
5/25/14											
5/15/11	0	0	0	0	0	0	0	0	0	5	0
5/23/13						0.44					
12/31/13											
5/29/13											
4/1/13											
5/23/13						28.8					
5/29/11	0	0	0	12	0	0		0	0	0	0
4/9/13				0.3075							
5/25/14	0	0	0	0	0	0	0	0	0	0	0
5/20/10	0	0	0	0.6	0	0.55	0	0	0	0	0
5/31/13	0	0	0	0	0	0	0	0	0	0	0
5/23/13											
4/11/14						152.95					
3/22/13	0	0	0	0.03	0	0	0	0	0	0	0
5/23/13											
5/23/13											
5/23/13											
5/23/13											
12/31/13	0	0	0	0	0	0	0	0	0	0	0
5/23/13											
	0	0	0	23.7525	7.6	185.54	0	0	0	5	0

Commercial Sector (cont'd)

Date Data Collected	waste tires only	Wood	pallets only	Textiles	used clothes only	Concrete	Sludge	Composites	Stone/Clay/Sand	Other	TOTAL
4/13/13		55.64									617.605
5/25/14											26.81
3/5/13				322.17							381.224
5/30/13										105.58	450.11
5/31/13	59.9	1198.5	1.6	0	0	0	0	0	0	0	3844.21
5/25/13	0	0	0	0	0	0	0	0	0	0	25.8
12/31/13											174.52
5/24/13											24.3
5/30/13											53.9
5/24/13	0	0	0	0	0	0	0	0	0	0	41.6
5/27/13											0
5/30/13	1.69		2.36								504.7
12/31/13	327.85	0	0	0	0	0	0	0	0	0	327.85
5/25/14	0	0	0	0	0	0	0	0	0	0	72.87
5/27/14	0	0	0	0	0	0	0	0	0	0	24
5/28/13											0
5/24/13											0
5/29/13											7435.564
5/24/13											0
5/29/11	0	0	0	0	0	0	0	0	0	0	12
5/25/14											66.12
5/15/11	0	0	0	0	0	0	0	0	0	1.11	30.51
5/23/13											36.84
12/31/13											602.34
5/29/13			480								533.04
4/1/13		132.84									192.4
5/23/13										28.8	1102.26
5/29/11	0	0	0	0	0	0	0	0	0	0	12
4/9/13		103.64									890.774
5/25/14	0	0	0	0	0	0	0	0	0	0	133.97
5/20/10	0	0	0	0	0	0	0	0	0	0	1.15
5/31/13	0	0	0	0	0	0	0	0	0	0	67.5
5/23/13											1092
4/11/14		301.43		55							1963.58
3/22/13	0	0	65	25	0	0	0	0	0	0	526.03
5/23/13											42.34
5/23/13											60.73
5/23/13											60.73
5/23/13											1092
12/31/13	0	0	0	0	0	0	0	0	0	0	236.67
5/23/13											
	389.44	1792.05	548.96	402.17	0	0	0	0	0	135.49	22760.047

Industrial Sector

SIC	Co-mingled (glass, metal and plastic)	Mixed glass	clear glass only	green glass only	brown glass only	Mixed Aluminum only	aluminum Used beverage containers (UBC) only	Mixed Steel only	steel used beverage containers (UBC) only	applianc es only	Other metals
3089	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0
8734	0	0	0	0	0	14.292	0.2	627.77	0	0.6	0
3231	0	26435	0	0	0	0	3.5	0	0	0	300
3451	0	0	0	0	0	0	0	42.68	0	0	0
5141	0	0	0	0	0	0	0	129	0	0	0
3089	0	0	0	0	0	0	0	0	0	0	0
3714	0	158.23	0	0	0	5176.1	0	2211.317	0	0	4.935
3711	0	14.27	0	0	0	79.43	0	20215.35	0	0	0
3231	0	56.25	0	0	0	0	0	0	0	0	0
3599	0	0	0	0	0	0	0	0	0	0	0
4731	0	0	0	0	0	0	0	191.67	0	0	0
3429	0	0	0	0	0	0	0	9.245	0	0	0
3599	0	0	0	0	0	0	0	21.3	0	0	0
		26663.75				5269.822	3.7	23448.332		0.6	304.935

Industrial Sector

SIC	Mixed plastics	pet plastic only	hdpe plastic only	Plastic Pallets Only	Mixed paper	cardboard only	newspaper only	magazines only	office paper only	Mixed Compost (co-compost)	food compost only
3089	72	0	0	0	0	40	0	0	0.75	0	0
2015	0	0	0	0	0	0	0	0	0	0	559
8734	0	0	0	0	2.27	799.23	0	0	0	0	0
3231	379	50	23	0	0	580	1.51	0	28	0	0
3451	0	0	0	0	0	.	0	0	0	0	0
5141	0	0	0	0	0	0	0	0	0	0	0
3089	90	0	480	0	0	54	0	0	0	0	0
3714	989.479	0	0	0	0	0	0	0	0	0	0
3711	427.68	0	0	0	0	0	0	0	0	0	0
3231	74	0	0	0	0	0	0	0	0	0	0
3599	0	0	0	0	0	0	0	0	0	0	0
4731	8.863	0	0	0	0	0	0	0	0	0	0
3429	0.245	0	0	0	0	0	0	0	0	0	0
3599	0	0	0	0	0	0.2	0	0	0	0	0
	2041.267	50	503		2.27	1473.43	1.51		28.75		559

Industrial Sector

SIC	mixed yard waste compost only	trees, limbs, brush compost only	leaf compost only	Combined Hazardous Materials	batteries only	other "non-hazardous" chemicals	used oil only	mixed paint only	latex paint only	oil-based paint only	other hazardous materials
3089	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0
8734	0	0	0	0	4.71	52.62	13.66	0	0	0	0
3231	0	0	0	0	0	0	0	0	0	0	0
3451	0	0	0	0	0	0	0	0	0	0	0
5141	0	0	0	0	0	0	0	0	0	0	0
3089	0	0	0	0	0	0	0	0	0	0	0
3714	0	0	0	0	0.749	4.0065	106.52	0	0	0	0
3711	0	0	0	0	1.92	1782.96	0	0	0	0	0
3231	0	0	0	0	0	0	0	0	0	0	0
3599	0	0	0	0	0	0	0	0	0	0	0
4731	0	0	0	170.9	0	0	0	0	0	0	0
3429	0	0	0	0	0	0	0	0	0	0	0
3599	0	0	0	0	0	0	0	0	0	0	0
				170.9	7.379	1839.5865	120.18				

Industrial Sector

SIC	Rubber	waste tires only	Wood	pallets only	Textiles	used clothes only	Concrete	Sludge	Composites	Stone/Clay/Sand	Other	TOTAL REC
3089	0	0	0	0	0	0	0	0	0	0	0	112.75
2015	0	0	0	0	0	0	0	0	0	0	0	559
8734	0	15.09	0	0	0	0	0	0	0	0	0	1530.442
3231	0	0	0	300	67	0	0	0	0	0	0	28167.01
3451	0	0	0	0	0	0	0	0	0	0	0	42.68
5141	0	0	0	0	0	0	0	0	0	0	0	129
3089	0	0	0	78	0	0	0	0	0	0	0	702
3714	0	0	0	0	46.92	0	0	0	0	30.69	362.74	9091.6865
3711	0	0	0	0	0	0	0	0	0	0	1146.1	23667.71
3231	0	0	0	0	0	0	0	0	0	0	0	130.25
3599	0	0	0	0	0	0	0	0	0	0	0	0
4731	0	0	0	0	0	0	0	0	0	0	0	371.433
3429	0	0	0	0	0	0	0	0	0	0	0	9.49
3599	0	0	0	0	0	0	0	0	0	0	0	21.5
												64534.9515
		15.09		378	113.92					30.69	1508.84	64534.9515

APPENDIX G

Ohio EPA Community Grant Application

2014

Statewide Glass Initiative Grant

Application

SUBMITTED TO:

Ohio Environmental Protection Agency
Scott J. Nally, Director

SUBMITTED BY:

THE LOGAN COUNTY SOLID WASTE DISTRICT

APPLICATION COVER SHEET

Applicant: **LOGAN COUNTY SOLID WASTE DISTRICT** Tax ID Number_____

County:LOGAN Solid Waste District: LOGAN COUNTY

Contact Person: Tom Erwin/Howard S Weinerman Title: Operations Manager/Consultant

Address: 1100 South Detroit Street

City: Bellefontaine Zip Code: 43311

Phone: 937/599-1253 or 614/589-6641 Fax: 937/599-3217

Email: tom@logancountyrecycles.com / hsweinerman@gmail.com

Project Type	Grant Funds Requested	Total
GLASS DEPOT	$80,000	$80,000

Jobs Created/Retained	Annually Projected Tons (TPY) of Glass
0.5 + FTE	**1000**

AUTHORIZED SIGNATURE FOR APPLICANT AGENCY

Upon submission of this grant application, the applicant will be bound by its contents. In the event the Ohio EPA accepts this proposal, the applicant will fully comply with the contents and conditions outlined in the grant proposal. I, the undersigned Authorized Official of the grant applicant, certify that the applicant possesses all necessary authority to undertake the proposed activities identified in this application. I certify the information in this grant application is accurate and complete.

_____

(Authorized Official's Printed Name) *(Authorized Official's Title)*

_____ _____

(Authorized Official's Signature) *(Date)*

EXECUTIVE SUMMARY

Overview of Logan County's Recycling Infrastructure:

Logan County is a ZERO WASTE COUNTY and, in 2009, the Logan County Solid Waste District borrowed $2 million to build a recycling center and more than a dozen full-service drop-off sites. After four consecutive years of double-digit growth of incoming commodities, the District has outgrown some of our current infrastructure. To continue handling the growth of existing programs as well as the demand created by new ones, additional capacity is needed. A $1.6 million dollar capital improvements program has been developed to meet the minimum requirements over the next 5 years.

The District is faced with difficult decisions regarding how to address the natural growth in material recovery from existing programs as well as the desire to expand services with new programs. Glass recycling has, and continues to be one of the biggest challenges.

Summary of Specific Challenges with Glass Recycling:

Prior to the opening of a reliable market for mixed glass in Dayton in the last year, the Logan County Solid Waste District was required to separate, transport and sell glass according to color. These activities represented a significant loss to the recycling center because the added sorting required additional people, additional containment, as well as separate transportation along greater distances. As a result, glass recycling was not a high priority with the District for expanded services.

The Logan County Solid Waste District is currently breaking even on the collection, sorting, transporting and sale about 40 tons per month of mixed glass in Dayton, Ohio. Although the mixed commodity is not more valuable, less sorting is needed, fewer containers are required and the travel distance is shorter. Glass is now marginally sustainable because it no longer loses money on every ton coming through the doors.

Additional glass recycling would divert significantly greater tons than most of the other options. However, the relatively low value of the commodity of glass makes new glass programs a poor investment choice unless the remaining transportation costs can be reduced further.

Overview of Proposed Glass Depot:

Timeline:
The proposed $80,000 project, scheduled for construction during the 4th Quarter of 2013, weather permitting, is a Glass Recycling Depot. The Depot would be operational on or before January 2014 and the result is expected to increase glass recycling from 500 to 1000 TPY.

Scope:
This phase of Depot construction will involve acquisition of a used, articulating front-end loader and construction of concrete pads adjacent to the existing loading dock and partitions to create a Glass Bunker for storage and equipment necessary to move glass from the bunker to the 40 Cubic Yard trailer for transport. The Glass Depot will be constructed alongside the existing long-side of the loading dock adjacent to the steps down to the Dispatch area. An existing half-wall along the dock will be reinforced at its foundations and two steel-reinforced concrete partitions will be constructed at right-

angles to create a "bay" to hold glass from the recycling center. A concrete pad will be poured at the base of the Depot. Minimal excavation will be required. The existing concrete slab of the dock will be elongated slightly to regain dock space lost in this effort. The Bellefontaine City Engineer (Tim Notestine) has indicated that no permits will be required for this project.

Initially, glass will be dumped into the bay and mechanically lifted into transport containers, utilizing an articulating front loader (example picture and spec shown below) to scoop the glass into large containers for transport. The transport containers will be approximately twice the size of current configuration with the intention of halving the number of trips to the end-user location. A private contractor will be used to move the full containers to the marketplace.

In the later part of this project, under separate funding and scope, the SWD intends to install air separation and an eddy current separator inside of the MRF along the Commingled line to separate light fragments from the glass. The air separator will remove the remaining light objects (plastics and aluminum), leaving only glass which, once separated, will be transported from the building and dumped directly into the depot for transport .

Financial and Operational Rationale for Funding:
This Depot is projected to transform glass recycling from a marginally sustainable (break-even) activity, to a profit center by transporting the glass in larger loads, with a goal of halving the unit cost of transportation. Projected net income from glass recycling within a Depot is approximately $17.50/ton, compared with net income of $0.00/ton in the present scheme. With an estimated 80 tons per month passing through the Depot, revenues are expected to support one part-time person. In addition, these changes will recover approximately 12 to 18 hours per month in demands on the roll-off truck, which is presently at its capacity with one truck and one driver. These "recovered" hours are essential to meeting the growing demands of the existing drop-sites as well as the (two) new ones.

When constructed, the Recycling Center will be able to free up time on the roll-off-truck to service the growing number of sites and the increasing number of container "pulls" at each site. The project will also free up containers which can be used to collect commercial glass (bars and restaurants) without mixing the materials in the Comingled stream, requiring manual separation later.

It is also part of a larger project that will include air-separation of glass from the lighter components in the Comingled stream, facilitating new commercial glass recovery programs on a smaller scale, best served within the Commingled collection routes.

With the help from the EPA grant to construct this first step, all advertising and signs around the construction will credit the agency for its participation, without which, this project would not have been built. The equipment purchased with glass funds would be permanently marked as having been purchased with grant fund provided by the EPA, explicitly identifying the Director and Governor in the markings. A sufficient font size will be used to assure visibility from 100 feet distance.

Proposed Project Supports State and Local Strategic and Educational Goals:
As a ZERO-WASTE County, the Solid Waste District has a strategic need to increase the significant tons of unrecovered glass in the residential and commercial waste stream,

particularly in the areas of commercial glass from bars and restaurants as well as greatly improved recovery of broken glass in the existing stream of residential, commingled recyclables, most of which is currently transported to the local landfill. This project is an important first step toward these goals.

PROJECT DETAILS

1. Project Budget:

OHIO EPA GLASS GRANT APPLICATION LOGAN CO SOLID WASTE DISTRICT

ITEM	GLASS DEPOT PROJECT Description of Cost	Quantity	Grant Funded	SWD Funded	kind Services	Total Cost
1	Surveying	1		$[illegible]00.00		$[illegible]00.00
2	Escavation	1	$[illegible],000.00			$[illegible],000.00
4	Construction of Push Walls	2	$[illegible]7,000.00			$[illegible]7,000.00
3	Foundations	2	Included in Item 5			Included in Item 5
5	Reinforcement of Dock Wall	1	Included in Item 5			Included in Item 5
6	Concrete Form & Pour	2	$[illegible]5,000.00			$[illegible]5,000.00
7	Purchase of Articulating Front Loader	1	$[illegible]0,000.00			$[illegible]0,000.00
8	20 CY Containers Pilot Glass Projects	2			$[illegible],000.00	$[illegible],000.00
9	Roll-off Truck Pulls for Pilot Containers	42			$[illegible],200.00	$[illegible],200.00
10	Administration and Reporting	1		$[illegible],000.00		$[illegible],000.00
	TOTAL PROJECT COST		$[illegible]0,000.00	$[illegible],800.00	$[illegible],200.00	$[illegible]7,000.00

The District's contributions will include:

1. The Depot Site;
2. Surveying of the area
3. Engineering of the Structures;
4. Supervision and Administration of the Project Construction and Grant Adminstration
5. (2) Demonstration projects for bar and restaurant glass in the areas of high concentrations of glass: The Lake area and Bellefontaine;

6. Development on an infinitely sortable database of Logan County Businesses, to assist in identifying prospective customers, sorted by location
7. Continued pursuit of air separation processes to increase the collection of glass from smaller companies and capture smaller fragments

2. Service Area:

All of Logan County will be served, as well as nearby villages outside of the county, who regularly use our facilities. The population of Logan County in 2013 is estimated at 45,858. Including a rough estimate of extra-Logan County users, it may easily be estimated to serve more than 50,000 people. The service areas of pilot glass projects far exceeds these numbers due to tens-of-thousands of visitors to Indian Lake during the summer season.

3 Diversion Rate:

The Baseline diversion rate for glass presently stands at about 40 TPM, but has been steadily growing. This project is not based primarily on added diversion as much as creating a sustainable management of the anticipated growth. The projected glass tonnage over the next two years is expected to grow to 80+ tons per month, including improved diversion of broken glass and the anticipated bar and restaurant diversion programs.

4 Sustainability:

As discussed previously, the Logan County Solid Waste District has experienced massive growth since 2009. Although the rate of growth has declined, the infrastructure developed in 2009 has been outgrown, particularly in the area of glass. Until recently, glass has been a drain on the District's resources – with a net negative income on every ton diverted. The recent addition of a processor nearby which is able to accept unsorted glass has raised the level of sustainability from negative to breakeven. This project is expected to reduce transportation costs adequately to contribute to the cost of operating and the retirement of the District's debt. Projected income on glass is estimated to increase from $0/ton to our minimum target of $17.50/ton.

5 Transferability

Reducing the cost of transporting glass to the market and facilitating glass diversion programs at sources of concentrated glass (bars and restaurants) would easily transfer to other communities, particularly areas with high seasonal traffic in restaurants and bars.

6 Performance

The District tracks glass sales through invoicing and an Accounts Receivable system. Current projections are 500 TPY, moving upwards to 750 TPY by the end of 2014 and 1000 TPY during 2015.

7 Material Sources

All of the District's drop-off sites, Curbside programs in Bellefontaine, W. Liberty and Lake Township as well as numerous small businesses.

8 Collection & Processing Capabilities

Glass is collected from residential programs and limited commercial / institutional programs commingled in the non-fiber portion of the dual stream system. This project will allow single stream collection of glass from commercial generator, transported to the District's central processing facility where it will be consolidated with glass separated on the commingled

sorting line for transport to markets. The full potential of this approach will not be realized until screening and air separation is added to the sorting facility.

9 Job Creation/Retention

This project is not a job creation effort. However, the savings on managing glass will support (assist in retention) the payroll of 0.5+ FTEs.

10 Facility/Site Details

The Glass Depot and related equipment will be located along the existing loading dock of the Logan County MRF, located at 1100 South Detroit Street in Bellefontaine Ohio. The primary contact on-site will be Tom Erwin, Operations Manager. Mr. Erwin's mobile number is 937-539-2227.

11 End Markets

The Rumpke-owned and operated glass facility in Dayton Ohio is the District's primary market.

12 Acknowledgement of Funding Source

With the help from the EPA grant to construct this first step, all advertising and signs around the construction will credit the agency for its participation, without which, this project would not have been built. The equipment purchased with glass funds would be permanently marked as having been purchased with grant fund provided by the EPA, explicitly identifying the Director and Governor in the markings. A sufficient font size will be used to assure visibility from 20 feet distance.

APPENDICES: Drawings, Typical Equipment Specs, Permitting Letter, Letters of Support

(NEW) ~$100,000

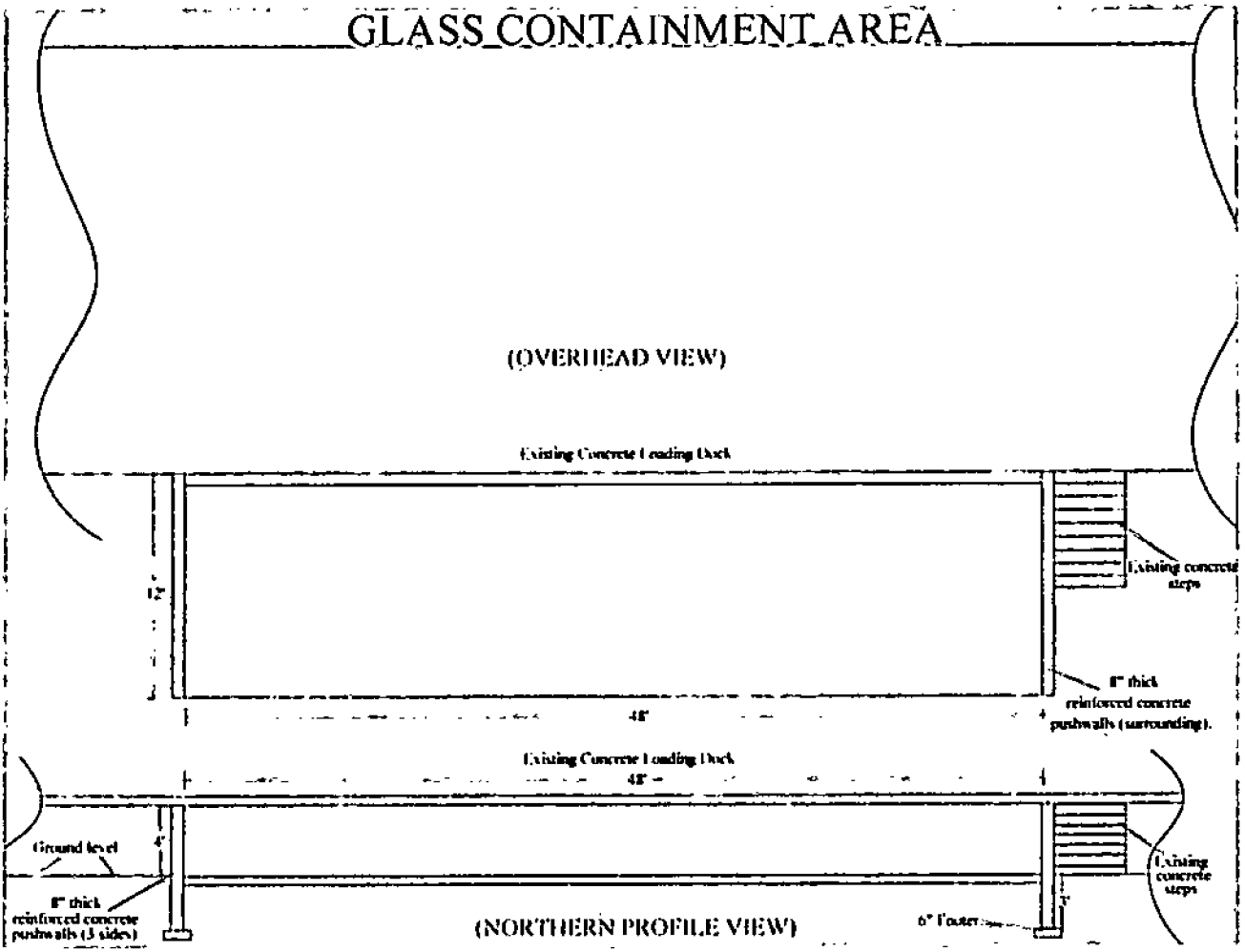
Rated load ~ 4000 pounds; 60 HP, water-cooled, four-cycle diesel engine

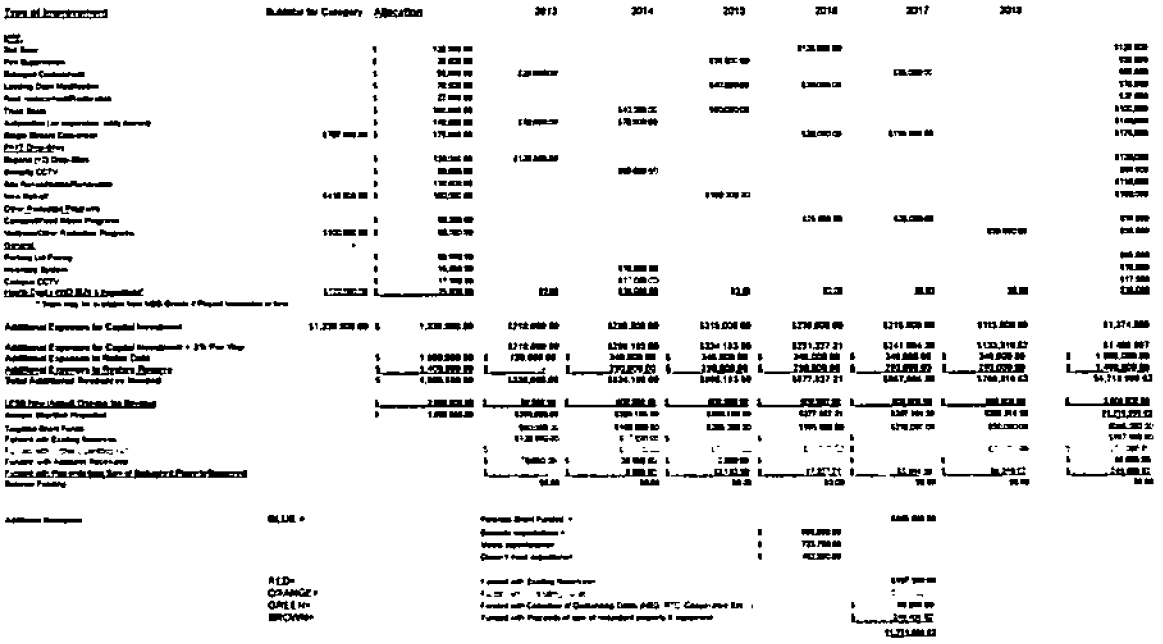
(USED)
Stk #: A41546; 2,142 Hours; 40 hp; CATERPILLAR 902; CAB WITH HEAT ONLY, SUSPENSION SEAT; 2 SPEED HYDROSTATIC DRIVE.

Equipment Specifications

Year	2003
Manufacturer	CATERPILLAR
Model	902
Price	**$38,995**
Location	Mosinee, Wisconsin
Serial Number	CAT00902A7ES01096

Condition	Used
Stock Number	A41546
Hours	2,142
Horse Power	40





LETTER FROM CITY ENGR REQUIRING NO PERMITS

Subject: RE: No Permit Required: Request for Letter

Date: Monday, October 14, 2013 9:51:02 AM Eastern Daylight Time

From: Tim Notestine

To: Howard S. Weinerman

I don't see where you need anything from us in this regards. I hope this works well for you.

From: Howard S. Weinerman [mailto:hsweinerman@gmail.com]
Sent: Wednesday, October 09, 2013 5:05 PM
To: Holly Maier; Tim Notestine
Cc: Tom Erwin; ANGEL PAYNE
Subject: No Permit required: Request for Letter

Tim, thanks for your quick response. We are submitting a grant application to the EPA for funding to build a small Glass Depot for hold enough glass to transport the commodity in larger volumes (40 CY instead of 20CY).

I've attached Tom's design. As you can see, we will be doing minimal excavation, constructing 2 small push walls and pouring 2 slabs.

We would greatly appreciate if you would provide us with a letter stating that no permits will be necessary to attach to the grant apptication.

We're hoping to submit this week, so your quick response would be helpful.

If you need further information, you can either call Tom or me. His mobile is 937/539-2227. Mine is 614/589-6641.

Thanks again!

Best,
Howard Weinerman
Consultant for the Logan County Solid Waste District

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APPENDIX H

Emergency Operations Plan – Annex M

DEBRIS MANAGEMENT – ESF #3

I. PURPOSE

The purpose of this annex is to provide for coordination of efforts in the clean-up, removal, and disposal of debris following a major emergency or disaster.

II. SITUATION & ASSUMPTIONS

A. Situation

1. Debris may be the result of natural, man-made, and technological hazards.
2. Logan County may experience events which result in large amounts of debris.
3. All communities have unique circumstances that impact types, amounts, and responses to debris; these may include types of local business/industry, land use, size of the community, topography, and economics.
4. Jurisdictions must be prepared to conduct emergency debris removal on their own during the initial phases of an emergency or disaster.
5. Individuals and businesses will be responsible for the removal and disposal of debris on private property.
6. Debris management activities can be a major burden on the time and resources of everyone affected.

B. Assumptions

1. Extraordinary demands will be placed on public and private resources for debris management following a disaster event.
2. A coordinated effort will be required to effectively collect, remove, and dispose of debris following a disaster.
3. Proper planning and conduct of debris operations will be vital to ensure cost effective and environmentally sound practices are used.
4. During major emergencies financial and/or material assistance from the state or federal government may be required.

III. CONCEPT OF OPERATIONS

A. Debris Management Team

1. Logan County will coordinate disaster-related debris management activities through the formation of a Debris Management Team.
   a. Team membership includes representation by the following: Logan County EMA, Logan County Solid Waste District, Logan County Health District, Logan County Litter Prevention & Recycling, Cherokee Run Landfill, Ohio EPA, Logan County Engineer, Logan County Commissioners, and officials of the affected jurisdictions.
   b. Representatives with specific expertise and state or federal liaisons may be added as needed.

2. The Debris Management Team will be activated by the EMA Director through the Emergency Operations Center (EOC) as soon as possible following the discovery that an event has generated debris that is hazardous or in large quantities.
3. The Director of the Logan County EMA and the Solid Waste District Coordinator (or consultant, as applicable) shall act as Co-Chairs of the Debris Management Team.
    a. The EMA Director will be responsible for planning and logistics functions.
        1) Planning coordination with the team will include prioritization of needed activities and determination of appropriate strategies for collection and disposal.
        2) Logistics support will include debris quantity calculations, preparation and submission of requests for state assistance through Ohio EMA, assessments for requests for federal assistance, and provision of needed materials for the conduct of debris collection and disposal. See Tab 1 to this annex, Debris Calculation Worksheet.
    b. The Solid Waste Coordinator shall serve as the Debris Manager. In this capacity he/she will have responsibility for coordinating the operations and finance areas of debris management activities.
        1) Operations coordination will include contacts with each affected jurisdiction and scheduling and coordination of resources conducting debris operations.
        2) Finance support will include contacts and negotiations with contractors, contract negotiations, support of and coordination with jurisdiction officials for expenses and scheduling, and documentation of all resources, personnel, materials, and costs for reimbursement purposes.
4. See Appendix 1 to this annex, Debris Management Fact Sheet, for guidance prepared by Ohio EMA and Ohio EPA on debris management planning and issues.
5. All required FEMA guidelines will be complied with in the disposal efforts. FEMA's Debris Management Guide (FEMA 325) provides detailed information and is available in the Logan County Emergency Operations Center (EOC).
6. Regular meetings will be conducted until operations are complete.

B. Phased Approach
1. The Logan County Debris Management Team will address debris issues using a phased approach. Following are the phases as they will be addressed:
    a. Phase One – Debris clearance to open access for emergency response vehicles and necessary traffic. This may be accomplished by jurisdiction officials due to the immediate nature of the situation.
    b. Phase Two – Debris issues affecting health and safety. This may include such issues as chemical, sewage, and flood contaminated debris, as well as dangerous limbs and trees, dead animals, and spoiled food.
    c. Phase Three – Other actions necessary to protect health and safety. This may include, but not be limited to, pest or rodent control activities associated with the presence of debris.
        1) "It is important to note that these activities may or may not qualify for reimbursement under a state or federal declaration; however, they may be critical to preventing the spread of disease.
    d. Phase Four – Remaining debris activities necessary to restore the county to pre-disaster condition.

C. Evaluation of Need

1. At the first debris team meeting the EMA Director will review the extent of the disaster and relate known information about debris. Team members will provide any response and debris information that they have up to the time of the meeting.
2. An assessment of debris issues will be made and items that need to be addressed will be identified.
3. Required actions will be prioritized based on the four phases of debris activities as listed in item B. above.
4. Mutual aid assistance from unaffected jurisdictions and from other counties will be used whenever possible.
   a. Assistance may be available from surrounding county health departments or solid waste districts.
   b. Written agreements should be signed to clarify the terms of the assistance. See Appendix 2 to this annex, Sample Mutual Aid Agreement.

D Environmental Compliance

1. Following a disaster event, compliance with environmental protection laws and regulations is still required
2. Ohio Environmental Protection Agency (Ohio EPA) and local health department officials will be participating on the Debris Management Team and will be consulted for applicable regulatory requirements.

E. Documentation

1. Documentation of debris management activities is important for potential reimbursement of costs. In addition, documentation is important to record activities performed and authorizations granted, and to develop a historical record for updating plans.
2. Documentation of activities is the responsibility of those performing work as well as those who provide oversight and direction.
3. At a minimum, documentation needs to address the following:
   a. Labor, equipment, rental fees and material costs
   b. Mutual-aid agreement expenses
   c. Use of volunteered resources, including labor
   d. Administrative expenses
   e. Disposal costs
   f. Types of debris collected, amounts of each type, and location of origin
4. Documentation must also meet State and/or FEMA standards in order for reimbursement of expenses to be approved See Tab 2 to this annex, Debris Ticket Format for Landfill Disposal.

F. Determination of Appropriate Strategy

1. Team members will discuss ideas, including the pros and cons of each, and determine the appropriate course of action for each phase Solutions will vary based on the type of debris to be addressed and the affected area.
2. Debris types may include:
   a. Woody and tree material
   b. Household goods, including furniture, personal belongings, and appliances

c. Food waste
d. Utility poles and wires
e. Hazardous materials and infectious waste
f. Vehicles and tires
g. Building materials
h. Animal carcasses
i. Silt and mud

3. Means of collection may include:
   a. Use of authorized waste transfer or disposal facilities
   b. Establishment of alternate or Temporary Debris Storage and Reduction (TDSR) sites
   c. Direct pickup
   d. Placement of dumpsters
4. Means of Reduction
   a. Incineration
   b. Grinding and chipping
   c. Separation
   d. Recycling
5. Means of Disposal
   a. Landfill disposal
   b. Incineration
   c. Sale or donation of reduced material
   d. Decontamination and reuse
6. Demolition of a structure may be the only option in certain instances when severe damage has occurred. This will only be recommended after all other options have been explored.
   a. Local building and zoning officers are required to inspect any buildings sustaining major damage.
   b. The Logan County Health District may also conduct inspection in certain cases and has the authority to condemn buildings.
   c. Permits for demolition are issued by the Logan County Building Authority.
   d. Responsibility for all costs and removal of debris from demolition is the responsibility of the property owner.
   e. When demolition is recommended, contracts and legal guidance will be necessary. See Appendix 7 to this annex, Demolition Checklist.

G. Types of Contracts

1. The following types of contracts may be used in conducting debris management operations.
   a. Time and Material: Under a time and material contract, the contractor is paid on the basis of time spent and resources utilized in accomplishing debris management tasks. The Federal Emergency Management Agency policy requires that the use of time and material contracts be limited to the first 72 work hours following a disaster event. See Appendix 4 to this annex, Sample Time and Materials Contract.

b. Lump Sum: A lump sum contract establishes a total price using a one item bid from a contractor. It should be used only when a scope of work is clearly defined, with areas of work and quantities of material clearly identified. See Appendix 5 to this annex, Sample Lump Sum Contract. Lump sum contracts can be defined in one of two ways:

1) Area Method, where the scope of work is based on a one time clearance of a specified area, or

2) Pass Method, where the scope of work is based on a certain number of passes through a specified area, such as a given distance along a right of way.

c. Unit Price A unit price contract is based on weight (tons) or volume (cubic yards) of debris hauled, and should be used when the scope of work is not well defined It requires close monitoring of collection, transportation, and disposal to ensure that quantities are accurate. A unit price contract may be complicated by the need to segregate debris for disposal. See Appendix 6 to this annex, Sample Unit Price Contract.

H. Qualified Contractors

1. A list of certified contractors for Logan County is maintained by the Logan County Building Authority and contains separate categories for types of work.

I. Right-of-Entry/Hold Harmless Agreements

1. Disaster response activities may require entering private property to remove debris that is a threat to the health and safety of occupants.

2. Entry onto private property will be made only when absolutely necessary Agreements will be necessary to protect private and public interests.

3. See Appendix 3, Sample Right-of-Entry/Hold Harmless Agreement.

a. The Logan County Prosecutor will provide legal counsel and review of all proposed agreements.

IV. ORGANIZATION & ASSIGNMENT OF RESPONSIBILITIES

A. Organization

1. Debris removal operations will be divided by public and private property.

a. Public Property/Rights-of-Way Debris Removal: Debris deposited on public lands including the right-of-way will be the responsibility of local government.

1) In some cases, where a health and/or safety threat exists, private property owners may move event-related debris to the public right-of-way for removal by government forces

2) Government forces or volunteers may assist private property owners if necessary to remove event-related debris that poses a health and/or safety threat.

b Private Property Debris Removal: Debris deposited on private property is the responsibility of the property owner.

1) In some cases, where a health and/or safety threat exists, private property owners may move event-related debris to the public right-of-way for removal by government forces.

a) Debris removal schedules will be published through local media outlets and provided to officials in affected jurisdictions for release to private individuals.

b) Instructions for separation of debris and steps to follow if assistance is required in getting debris to the curbside will be published with the removal schedules.

2) Volunteers or voluntary groups may assist property owners.

B. Assignment of Responsibilities

1. Agencies with primary responsibility for debris management are tasked with attending team meetings as often as practicable, participation in the planning process, and documentation of their actions.

a. EMA Director

1) Activate Debris Management Team, as necessary

2) Serve as a co-chair of the team

3) Update the team on disaster situation and known debris issues

4) Prepare and submit debris calculations and requests for assistance from the State of Ohio and FEMA.

5) Provide information to the County PIO for publication and distribution

b. Solid Waste Coordinator or Consultant

1) Serve as a co-chair of the team and as the Debris Manager

2) Coordinate contracted workers and government work forces

3) Coordinate debris management plans and activities with affected jurisdictions

4) Ensure that contracts and expenses follow FEMA guidelines

5) Collect and prepare records of financial transactions for reimbursement of debris removal activities

c. Logan County Health District

1) Assist in identification of health issues

2) Inspect and coordinate appropriate actions by restaurants and grocery stores in addressing contaminated or spoiled food

3) Provide monitors for temporary debris storage and reduction sites, as needed

4) Provide information about health risks and safety procedures to the team and to the County PIO for publication and distribution

d. Logan County Engineer

1) Assess debris issues in rights-of-way and on county roads

2) Provide debris clearance personnel and equipment, as available

e. Cherokee Run Landfill

1) Relate available options for activities that may be supported by the landfill

2) Provide monitoring for debris shipped to the landfill

3) Coordinate necessary permits and requests with Ohio EPA

f. Ohio EPA Representative

1) Coordinate with state and federal agencies, such as EPA and Ohio Historical Preservation Office to ensure compliance with environmental and historic preservation laws/regulations/policies

2) Evaluate and assist in selecting locations for TDSR sites

3) Determine appropriate environmental monitoring and ensure compliance with reporting requirements for TDSR sites

4) Assist in securing necessary permits

g. Officials of Affected Jurisdictions

1) Clear roadways and assess debris to be collected, as possible

2) Coordinate local debris operations through the county strategy

3) Distribute debris separation instructions and collection schedules to residents

4) Maintain proper documentation of local expenses for purposes of reimbursement and historical records

2. Secondary responsibilities apply to the following agencies or individuals. They will possibly have limited involvement in the planning process, but fill a vital role in the overall picture of debris management operations.

a Logan County Commissioners

1) Authorize necessary expenditures for debris operations

2) Coordinate with PIO to release information to the public

b. Logan County Prosecutor

1) Review insurance information and other assets to ensure benefits and resources are fully utilized

2) Review contracts to ensure compliance with FEMA requirements

3) Review rights-of-way and hold harmless agreements

4) Ensure compliance with historical preservation issues

c. Public Information Officer

1) Coordinate with county and local officials to release debris collection information

d. Private Citizens

1) Follow guidance provided for separation, drop-off, and/or collection of debris

2) Assist neighbors, as able

3) Report dangerous debris to local law enforcement

V. DIRECTION & CONTROL

A Activation of the Plan

1. The Debris Management Team will be a component of the Emergency Operations Center (EOC) and will coordinate and manage debris removal operations

2. The Team will be activated by the EMA Director when EOC staff and/or jurisdictional officials recognize that hazardous or excessive amounts of debris will present a problem.

B. Establishment of Debris Removal Priorities

1. When a debris-generating event occurs there is an immediate need for prioritization of actions.

a The first priority shall include roadways that allow ingress and egress to the critical public facilities such as fire stations, police stations, hospitals, and other critical facilities.

b. Other essential, but perhaps not critical facilities include schools, municipal buildings, water treatment plants, wastewater treatment plants, power generation units, airports, temporary shelters for disaster victims, etc.

c. The county will need to prioritize debris removal from roadways that allow ingress or egress to these facilities.

C. Environmental Compliance

1. Following a disaster event, compliance with environmental protection laws and regulations is still required.

2. Federal and State Environmental Protection Agencies and local Health Departments should be consulted for applicable regulatory requirements.

3. Hazardous waste will be a significant issue in the debris management strategy.

a. The county, township, city or village will work closely with Federal and State environmental protection agencies to ensure proper removal and disposal of hazardous waste.

b. Procedures for establishing a separate staging area for hazardous waste, to include lining with an impermeable material so chemicals do not leak into the groundwater and soil will need to be developed.

VI. CONTINUITY OF GOVERNMENT

A. Not used. Refer to Appendix 3 to the Basic Plan, Procedures for the Relocation and Safeguarding of Vital Records

VII. ADMINISTRATION & LOGISTICS

A. Temporary Debris Storage and Reduction Site

1. Some specific considerations when using these types of sites include:

a. Location: Care should be taken in selection of TDSR sites. Land use, proximity to housing, location of the nearest water table and/or public water supply, and other factors that may impact the use of the site should be taken into account.

b. Operations: Monitoring receipt of debris and verifying types of debris received are critical functions for successful operation of a TDSR site. Included in the attachments to this document is a sample TDSR site layout.

c. Closeout: In order to close out a TDSR site, care should be taken to restore the site to its original condition in an environmentally friendly and timely manner. Included in the attachments to this document is a checklist for site closeout.

2. See Appendix 8, TDSR Checklist, Issues, and Layout, for more information.

B. Tracking of Resources

1. Procedures for tracking resources are available in the County EOC. Logan County utilizes the OpsCenter Software for tracking resources, expenses, and actions taken during disasters.

2. The level of detail in the tracking system will be dependent upon the size and magnitude of the disaster.

C. Meetings and Briefings

1. Meetings and briefings will be conducted by or through the County EOC. The main purpose of the meetings is to brief EOC staff and media on current and future debris management activities.

2. Debris management staff should participate in all EOC meetings and provide briefings as necessary.

D. Review of Documentation Process

1. Evaluation of when and why decisions were made to perform certain actions is key to the success of future debris operations.
    a. Examples may include site selection for TDSR sites, debris removal priorities, and demolition of public/private structures.

E. Contract Monitoring

1. In the event that contracts are used for debris removal, monitoring of contractors is a very important issue. The team will designate a person or persons for contract monitoring. Contract monitoring verifies that the following actions are taking place:
    a. Debris being picked up is a direct result of the disaster
    b. Trucks hauling debris are fully loaded.
    c. Debris pick-up areas are being managed properly
    d. Trucks are sticking to debris routes
    e. Inspection of temporary storage sites to ensure operations are being carried out according to contract
    f. Verification of security and control for temporary debris storage and reduction sites

F. State Agency Support

Following is a list of state agencies that may participate in debris removal activities:

1. Ohio Department of Transportation
2. Ohio Environmental Protection Agency – Solid Waste & Orphan Drum Programs
3. Ohio Department of Health – Emergency Response Section
4. Ohio Emergency Management Agency
5. Ohio Department of Natural Resources
6. Ohio Department of Agriculture – Animal or Food Safety Offices
7. Ohio National Guard
8. Ohio Department of Corrections
9. Ohio State Highway Patrol

G. Direct Federal Assistance

Direct federal assistance may be available during certain incidents; however, this applies only to emergency work (debris removal and emergency protective measures) and must meet general FEMA eligibility criteria. Debris activities that are eligible for Direct Federal Assistance include:

1. Debris removal from critical roadways and facilities
2. Debris removal from curbsides or from eligible facilities and hauling to either temporary or permanent sites
3. Identification, design, operation, and closeout of debris management sites
4. Monitoring debris contractor's activities
5. Demolition or removal of disaster damaged structures and facilities in accordance with FEMA regulations and policies

H. Technical Assistance

1. State Technical Assistance is available to local officials for a variety of tasks related to debris planning. The Ohio Environmental Protection Agency, and Ohio Emergency Management Agency, can provide technical assistance in the following areas:
   a. County debris management plan annex
   b. Debris management site plans.
   c. Contract/TDSR checklist.
   d. Documentation aids (ex. Trip tickets)
2. Federal Technical Assistance
   a. Federal technical assistance may be available, and applies when a state or county lacks technical knowledge or expertise to accomplish an eligible task. The Federal Emergency Management Agency will then request technical assistance from the appropriate federal agency in the National Response Plan. Eligible technical assistance includes:
      1) Assistance in developing an overall debris management plan
      2) Assistance in developing Debris Management Site plans
      3) Assistance in developing of monitoring plans
      4) Assistance in developing contract guidelines
      5) Assistance in developing and implementing trip tickets processes
   b. Agencies that may be assigned missions from the Federal Government
      1) Federal Highway Administration
      2) United States Department of Agriculture
      3) Environmental Protection Agency
      4) United States Army Corps of Engineers
      5) United States Coast Guard
      6) Bureau of Indian Affairs

I. Volunteer Organizations

Volunteer organizations may provide assistance for debris removal from private property. There is a wide range of volunteer organizations at the local, state, and federal levels. The following is an incomplete list of organizations:

a. American Red Cross
b. Citizen Corps
   1) Community Emergency Response Teams
   2) Medical Reserve Corps
   3) Neighborhood Watch
c. Catholic Social Services
d. Salvation Army
e. Voluntary Organizations Active in Disaster (VOAD)
f. Mennonite Services
g. Civic Clubs

h. Student Organizations

i. Church Organizations

2. Please refer to the Logan County EMA Resource Manual for specific contact information.

VIII. PLAN DEVELOPMENT & MAINTENANCE

A. The Logan County EMA Director and the Solid Waste Coordinator (in cooperation with the organizations listed in this annex) are responsible for updating this annex based on deficiencies identified through actual events, drills and exercises, and changes in government structure and emergency organizations.

B. The Logan County EMA Director will prepare, coordinate, publish and distribute necessary changes and revisions to this annex.

IX. AUTHORITIES AND REFERENCES

A. Authorities

1. 44 CFR (Code of Federal Regulations) Part 13, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments
2. 44 CFR Part 206, Disaster Assistance (subparts G-L pertain to the Public Assistance Program)

B. References

1. Debris Management Guide, FEMA 325, April 1999
2. Public Assistance Policy Digest, FEMA 321, October 1998
3. Public Assistance Guide, FEMA 322, October 1999
4. FEMA Debris Management Course (G202)

X. ADDENDA

1. Appendix 1 – Debris Management Fact Sheet
2. Appendix 2 – Sample Mutual Aid Agreement
3. Appendix 3 – Sample Right of Entry Agreement
4. Appendix 4 – Sample Time & Materials Contract
5. Appendix 5 – Sample Lump Sum Contract
6. Appendix 6 – Sample Unit Price Contract
7. Appendix 7 – Demolition Checklist
8. Appendix 8 – TDSR Checklist, Issues, and Layout
9. Tab 1 – Debris Calculation Worksheet
10. Tab 2 – Debris Ticket Format for Landfill Disposal

XI. AUTHENTICATION

Logan County Solid Waste Coordinator	Date
Logan County EMA Director	Date

DEBRIS FACT SHEET FOR LOCAL OFFICIALS
Developed by Ohio EPA & Ohio EMA

The information contained within this document is intended to assist local officials responsible for all or a portion of the issues relating to managing debris resulting from a disaster or significant emergency. Removal, reduction, recycling, temporary sites, contracting and disposal data as well as points of contact are included in the following pages.

The Ohio Environmental Protection Agency (EPA) and Ohio Emergency Management Agency (EMA) are two state agencies that have primary response to disasters. Disasters can generate a significant amount of debris and can disrupt local government operations in general. Their roles and day-to-day points of contact are detailed below.

LOCAL GOVERNMENTS

Local Health Departments may be able to provide technical assistance regarding debris management and public health issues. Local health departments may also have primary responsibility during a disaster, in the regulatory oversight for proper management of debris. Of particular concern for public health and safety is the management and proper disposal of debris created by a disaster or by demolition, yard waste, household hazardous waste, food stuffs and spoiled food.

Local Solid Waste Management Districts can help with recycling options and may have resources that could support cleanup efforts. For more information on recycling contact the Department of Natural Resources at www.ohiodnr.com/recycling.

OHIO ENVIRONMENTAL PROTECTION AGENCY

Primary responsibility during a disaster is regulatory oversight for proper management of debris. This is accomplished by providing rule interpretations (regulatory requirements), technical assistance/coordination regarding temporary staging, collection, removal and disposal of debris, and resource lists.

www.epa.state.oh.us/dsiwm
Division of Solid and Infectious Waste Management, Central Office
Phone (614) 644-2621
Fax (614) 728-5315

OHIO EMERGENCY MANAGEMENT AGENCY

Primary responsibility is coordination of state assistance, through County Emergency Management Agency offices, to support the efforts of local officials following disasters and a Governor's Proclamation. The Disaster Recovery Branch administers reimbursement programs for costs associated with local response/recovery actions, including debris operations.

Disaster Recovery Branch
2855 West Dublin Granville Road, Columbus, Ohio 43235
Phone (614) 889-7171 Fax (614) 791-0018

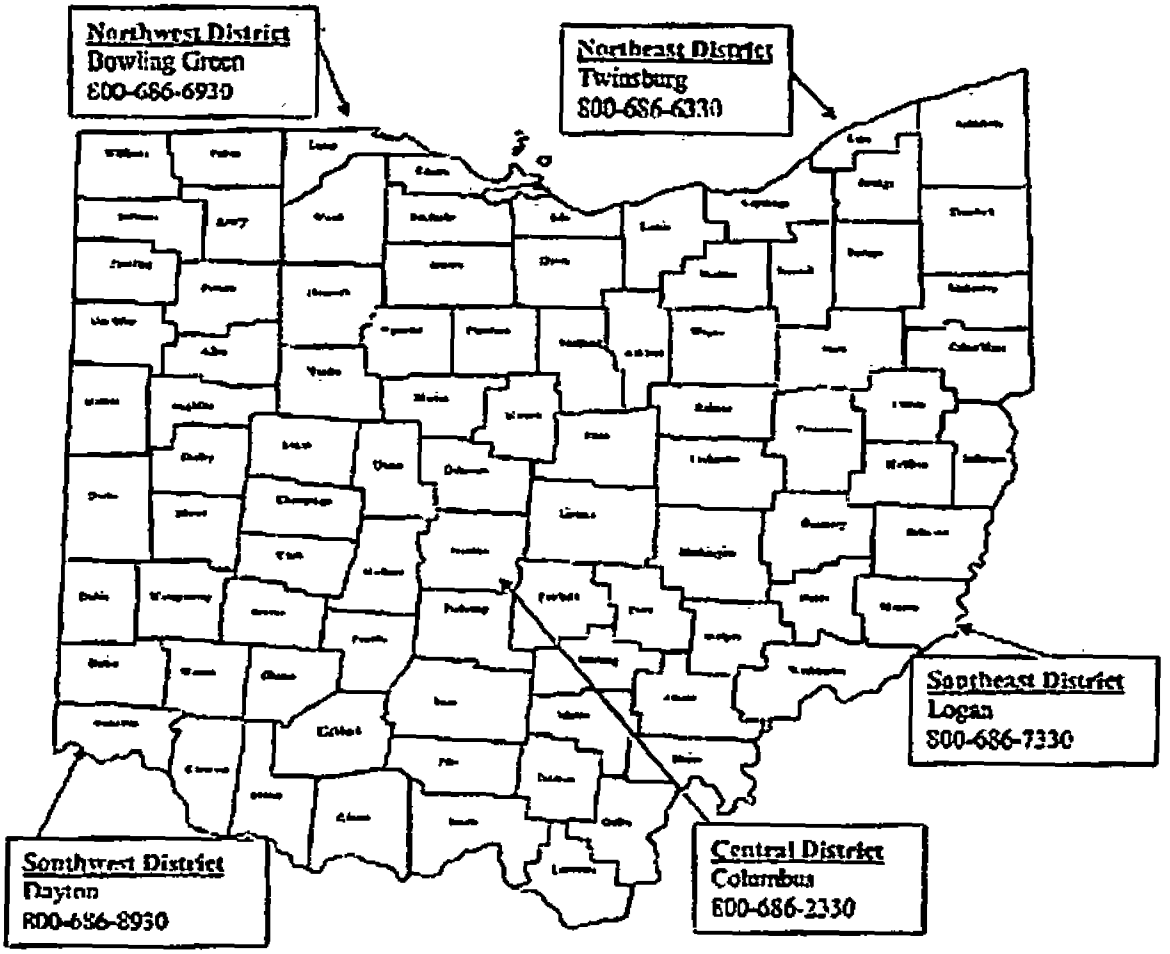
Included within this Debris Management Fact Sheet:

* The debris means all waste types generated during an event

DEBRIS MANAGEMENT CONTACTS

OHIO ENVIRONMENTALPROTECTION AGENCY

Div. of Solid/Infectious Waste	(614) 644-2621	Hazardous Waste	(614) 644-2917
Public Drinking Water	(614) 644-2752	Burn Permits	(614) 644-2270
Waste Water Treatment	(614) 644-2001	Chemical Spills	(800) 282-9378



ADDITIONAL CONTACTS

Local Solid Waste Mgmt District (Recycling)	- See Local Listing	Ohio EMA (Response and Recovery)	(877) 644-6362
Local Department of Health	- See Local Listing	Ohio Historic Preservation	(614) 298-2000 (Environmental/Historic)
Ohio Department of Health (Private Drinking Water)	(614) 466-1390	Attorney General (Consumer Protection)	(800) 282-0515
Ohio Department of Agriculture (Dead Animals)	(614) 728-6200	ODNR (Recycling, Floodplain Mgmt.)	(614) 265-6565
U.S. Corp of Engineer (Regulatory-Great Lakes Division)	(513) 684-3002		

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Ohio Environmental Protection Agency
Management Options for Disaster Related Wastes

Type of Waste	Description of Waste	Management Options
General Solid Waste (aka Municipal Solid Waste)	food, packaging, clothing, appliances, furniture, machinery, electronic equipment, garbage, plastic, paper, bottles, cans, loose carpeting, paper products, scrap tires, street dirt, dead animals note regarding sand bags used for controlling flood water: the sand may be emptied from the bags and reused; only the bags (if not reused) are considered solid waste and should be disposed of appropriately	• MSW Landfills • MSW Transfer Facilities preferred option for general solid wastes: segregate and recycle materials as much as possible to reduce disposal costs scrap tires: take to tire recovery/recycling facility or tire monofill dead animals: bury, burn, or rendor per Dept. of Agriculture guidelines or take to MSW Landfill
Agricultural Waste/ Vegetative Waste (aka solid waste)	vegetative or woody waste, tree limbs, brush, shrubs (must not include buildings, dead animals, or vehicles)	• MSW Landfills • MSW Transfer Facilities • Composting Facilities • Controlled Burning (For individuals in declared disaster areas only; local governments must contact local Ohio EPA District Office to receive approval to use air curtain destructors.) preferred option: drying, chipping, grinding, mulching for reuse
Construction & Demolition Debris (C&DD)	brick, stone, mortar, asphalt, lumber, wallboard, glass, roofing, metal, piping, fixtures, electrical wiring, heating equipment, insulation, carpeting attached to structures, railroad ties, utility poles, mobile homes clean, hard fill: C&DD which consists only of reinforced or non-reinforced concrete, asphalt concrete, brick, block, tile, and/or stone which can be reused as construction or fill material	• C&DD Landfills • MSW Landfills • MSW Transfer Facilities preferred option: segregate and reuse clean, hard fill as much as possible to reduce disposal costs mobile homes: can take to a salvage company or C&DD Landfill
Infectious Waste	sharps (needles, medical related glass, etc), syringes, blood-containing items such as tubing, clothing, bandages, etc.	Contact Local Health Department or Ohio EPA District Offices for guidance.
Hazardous Waste	flammable materials (fuels, gasoline, kerosene, propane tanks, oxygen bottles, etc.), explosives, batteries, common household chemicals, industrial and agricultural chemicals, cleaners, solvents, fertilizers, etc.	Segregate (where practical) and dispose at an approved Hazardous Waste Facility. Contact Ohio EPA District Offices for guidance.

Variances/Exemptions: All regulated disposal facilities in Ohio have operational requirements/restrictions regarding the types and volume of waste that can be accepted for disposal. During emergency events, a facility may seek authorization from the Director of the Ohio EPA to temporarily accept different waste streams or an increased volume of waste. Before taking disaster-related debris to a disposal facility, please make sure that the facility may accept the material.

Stream Cleanup Activities: Prior to removing debris from streams/waterways, please make sure you have the appropriate authorizations, if necessary (e.g., permits from COE and/or Ohio EPA, permission from private property owners, etc.). Once debris is removed from the streams/waterways, segregate the debris as much as practical, and manage according to the options outlined above.

TEMPORARY DEBRIS SITES

SITE EVALUATION

Site Ownership:

Use public lands to avoid costly leases and trespassing allegations. Use private land only if public sites are unavailable.

Site Location:

Consider impact of noise, dust and traffic;

Consider pre-existing site conditions;

Look for good ingress/egress at site(s);

Consider impact on ground water;

Consider site size based on:

Expected volume of debris to be collected;

Planned volume reduction methods;

Avoid environmentally sensitive areas, such as:

Wetlands;

Rare and critical animals or plant species;

Well fields and surface water supplies;

Historical/archaeological sites;

Sites near residential areas, schools, churches, hospitals and other sensitive are

Perform recordation of site chosen (pictures, videos).

Site Operations:

Use portable containers;

Separate types of waste as operations continue;

Monitor site at all times;

Perform on-going volume reduction (on site or removal for disposal/reduction);

Provide nuisance management (dust, noise, etc.);

Provide vector controls (rats, insects, etc);

Provide special handling for hazardous materials;

Provide security (limit access);

Ensure appropriate equipment is available for site operations.

Site Closeout:

Remove all remaining debris to authorized locations;

Restore site to pre-use condition;

Perform recordation of site (pictures, videos).

CONTRACTING

CONTRACTING OFFICE RESPONSIBILITIES

1. Determine the type of contracting needed to satisfy specific debris clearance, removal and disposal requirements of an unusual and compelling urgency.
2. Determine if any purchasing and contracting requirements are waived as a result of the disaster and subsequent declarations of emergency (See Ohio Revised Code 125.023).
3. Solicit bids, evaluate offers, award contracts, issue notices to proceed with all contract assignments.
4. Supervise the full acquisition process for service and supply contracts and the oversight of contract actions to ensure conformance to regulatory requirements.
5. Coordinate with the local Dept. of Public Works and Dept. of Solid Waste Management staffs and consult with legal counsel. The contracting office must take care to avoid the solicitation of assistance from the general public and giving the impression that compensation will be provided for such assistance. In general, this would be considered as volunteer actions. In addition, there are a number of other issues involved with such a solicitation, including licensing, bonding, insurance, the potential for the communities to incur liability in the event of injury or death, supervision and certification of work done.

TYPES OF DEBRIS CONTRACTS

1. Time and Materials Contracts may be used for short periods of time immediately after the disaster to mobilize contractors for emergency removal efforts. They must have a dollar ceiling or a not-to-exceed limit for hours (or both), and should be terminated immediately when this limit is reached. The contract should state that (a) the price for equipment applies only when equipment is operating, (b) the hourly rate includes operator, fuel, maintenance, and repair, (c) the community reserves the right to terminate the contract at its convenience, and (d) the community does not guarantee a minimum number of hours.
2. Unit Price Contracts are based on weights (tons) or volume (cubic yards) of debris hauled, and should be used when the scope of work is not well defined. They require close monitoring of pick-up, hauling and dumping to ensure that quantities are accurate. Unit price contracts may be complicated by the need to segregate debris for disposal.
3. Lump Sum Contracts establish the total contract price using a one-item bid from the contractor. They should be used only when the scope of work is clearly defined, with areas of work and quantities of material clearly identified. Lump sum contracts can be defined in one of two ways: Area Method where the scope of work is based on a one-time clearance of a specified area, and Pass Method where the scope of work is based on a certain number of passes through a specified area, such as a given distance along a right-of-way.

CONTRACT MONITORING

The debris staff member should monitor the contractor's activities to ensure satisfactory performance. Monitoring includes: verification that all debris picked up is from public property or right-of-way and is a direct result of the disaster; measurement and inspection of trucks to ensure they are fully loaded; on-site inspection of pick-up areas, debris traffic routes, temporary storage sites, and disposal areas; verification that the contractor is working in its assigned contract areas; verification that all debris reduction and disposal sites have access control and security.

Please see the Ohio Revised Code, Sections 125.023 307.86- 92, 153.54, 153.57, 2921.01 and 2921.42 and supplementary rules and local ordinances for additional information pertaining to competitive bidding.

FEMA ELIGIBILITY

Under a Presidential disaster declaration for the State of Ohio, the Federal Emergency Management Agency (FEMA) may provide assistance to state and local governments for costs associated with debris removal operations. (Debris removal operations include collection, pickup, hauling, and disposal at a temporary site, segregation, reduction, and final disposal.) This document provides information on the eligibility of debris removal operations for Public Assistance funding.

Public / Private Insurance Coverage: FEMA requires that any and all insurance coverage is invoked and claimed prior to consideration for state or federal reimbursement of expenses. All entities are required to notify their insurance company and determine coverage immediately following an event. Deductibles and expenses over $1,000 that are not covered by insurance may be reimbursable.

General Work Eligibility: Determination of eligibility is a FEMA responsibility. Removal and disposal of debris that is a result of the disaster, and is on public property, is eligible for Federal assistance. Public property includes roads, streets, and publicly-owned facilities. Removal of debris from parks and recreation areas is eligible when it affects public health and safety or limits the use of those facilities.

Debris Removal from Private Property: Costs incurred by local governments to remove debris from private property may be reimbursed by FEMA if it is pre-approved by the Federal Disaster Recovery Manager, is a public health and safety hazard, and if the work is performed by an eligible applicant, such as a municipal or county government. The cost of debris removal by private individuals is not eligible under the Public Assistance Program, however, within a specific time period, a private property owner may move disaster-related debris to the curbside for pick-up by an eligible applicant. That time period will be established by FEMA in coordination with the state and local government. (The cost of picking up reconstruction debris is not eligible for FEMA reimbursement.)

Eligible Costs: If an applicant uses force account (their own) personnel and equipment, the cost of the equipment and overtime costs for personnel are eligible for federal funding. If an applicant chooses to award a contract(s) for debris operations, the costs of the contracts are also eligible for federal funding. Applicants should exercise judicious care in contracting for debris operations, since by law, FEMA is authorized only to assist with reasonable costs. Reasonable costs are those that are fair and equitable for the type of work performed in the affected area. If desired, FEMA staff will provide technical assistance on this subject prior to contract award.

Use of Contractors: If an applicant decides to award contracts for debris removal, FEMA advises the following:

. Do not allow contractors to make eligibility determinations; they have no authority to do so;
. Utilize pre-negotiated contracts, if available;
. Consider using qualified local contractors because of their familiarity with the area;
. Request copies of references, licenses and financial records from unknown contractors;
. Document procedures used to obtain contractors;
. Do not accept contractor-provided contracts without close review. FEMA can provide technical assistance on contracts and contract procedures, if requested to do so by local officials.

FEMA does not recommend, pre-approve, or certify any debris contractor. FEMA does not certify or credential personnel other than official employees and Technical Assistance Contract personnel assigned to the disaster by FEMA. Only FEMA has the authority to make eligibility determinations.

Ineligible contracts: FEMA will not provide funding for cost-plus-percentage of cost contracts, contracts contingent upon receipt of state or federal disaster assistance funding, or contracts awarded to debarred contractors.

Documentation: To ensure that processing of federal funding is done as quickly as possible, applicants should keep the following information: debris estimates, procurement information (bid requests, bid tabulations, etc.), contracts, invoices, and monitoring information (load tickets, scale records). If an applicant does debris removal, the payroll and equipment hours must be kept. All records should be maintained in the manner prescribed by the local government with consideration of state and federal record retention guidelines.

Federal Assistance: FEMA and the state may provide technical assistance with planning, carrying out and monitoring of debris removal operations. If disaster-related debris removal and disposal operations are beyond the capability of the state and local governments to perform or contract for the work, the state may request direct federal assistance. In such instances, FEMA will give the US. Army Corps of Engineers a mission assignment to prepare, execute, and monitor contracts for debris operations. Applicants in need of technical assistance should contact the State Public Assistance Office, Ohio EMA, by calling (614) 799-3665.

Ohio Environmental Protection Agency Resources

1. Master Facilities List (licensed in Ohio)
2. Registered Composting Facilities (Ohio)
3. Registered Infectious Waste Transporters (Ohio)
4. Registered Scrap Tire Transporters (Ohio)
5. Emergency Response Contractors
6. Solid Waste Management District Contacts
7. Orphan Drum Program - DERR
8. Ohio EPA Contact List/District Jurisdictions Map
9. Open Burning Regulations – DAPC

Contact the appropriate Ohio EPA division for copies of the above publications or visit the Ohio EPA website at www.epa.state.oh.us

# 1-4, 6 & 8	Division of Solid and Infectious Waste Mgmt	(614) 644-2621
#5&7	Division of Emergency & Remedial Response	(614) 644-2924
#9	Division of Air Pollution Control	(614) 644-2270

Mutual Aid Agreement

THIS AGREEMENT, entered into this__day of _____by the participating parties hereto:

WHEREAS, each of the parties hereto desires to furnish mutual aid to each other in the event of a disaster, for which neither party might have sufficient equipment or personnel to cope, and,

WHEREAS, such a mutual aid agreements are authorized by (Site Statutory Agency).

NOW THEREFORE, the parties do mutually agree as follows:

ARTICLE I - TERM

This agreement shall commence at 12:01 a.m. on _____, and continue through _____ _____, subject to the right of each party to terminate sooner as provided herein.

ARTICLE II - SERVICES

In the event of a disaster that requires aid of equipment and personnel beyond that which each party is able to provide for itself, all parties hereto agree that at the request of any party Hereto the others will loan such equipment and personnel as the respective officials of the lending jurisdiction, in their discretion, shall determine can be reasonably spared at the time without placing their own community in jeopardy.

Since time is of the essence during emergencies as herein referred to, the authority to dispatch equipment and personnel or call for in accordance with the terms and conditions of this agreement shall be delegated specifically to the chief official or acting chief official of the parties hereto.

The lending party shall be responsible for the delivery of said equipment and personnel to the location specified by requesting party.

Upon arrival at said location, the officer in charge of the said equipment and personnel shall report to the officer in charge at the location of the disaster, who shall assume full charge of all operations at a disaster or emergency location.

All equipment and personnel loaned hereunder shall be returned upon demand of the lending party or when released by the requesting party upon the cessation of the emergency.

ARTICLE III - PAYMENT

No charge shall be assessed for services rendered by any party hereto.

ARTICLE IV - WAIVER OF CLAIMS

Each party hereto hereby waives all claims against the other for compensation for any loss, damage, personal injury, or death occurring in consequence of the performance of either party, their agents, or employees hereunder.

ARTICLE V- TERMINATION

This Agreement may be terminated by either party upon at least thirty days prior written notice to the other.

ARTICLE VI - INTEGRATION

This Agreement contains the entire understanding between the parties, and there are no understandings or representations not set fourth or incorporated by reference herein. No subsequent modifications of this Agreement shall be of any force or effect unless in writing signed by the parties.

ARTICLE VII - COMPLIANCE WITH LAWS

In the performance of this Agreement, each party shall comply with all applicable Federal, State, and Local laws, rules, and regulations.

ARTICLE VIII - SIGNATURES OF AGREEING OFFICIALS

_____	_____
Official	Official
_____	_____
Official	Official

Right of Entry Agreement

I/We _____, the owner(s) of the property commonly identified as _____ (Street), _____ (City/town), _____ (Township), _____ (County), State of Ohio do hereby grant and give freely and without coercion, the right of access and entry to said property in the County/City of _____, its agencies, contractors, and subcontractors thereof, for the purpose of removing and clearing any or all storm-generated debris of whatever nature from the above described property.

It is fully understood that this permit is not an obligation to perform debris clearance. The undersigned agrees and warrants to hold-harmless the City/County of _____, State of Ohio, its agencies, contractors, and subcontractors, for damage of any type, whatsoever, either to the above described property or persons situated thereon and hereby release, discharge, and waive any action, either legal or equitable that might arise out of any activities on the above described property. The property owner(s) will mark any storm damaged sewer lines, water lines, and other utility lines located on the described.

I/We (have____, have not_____) (will_____, will not_____) receive any compensation for debris removal from any other sources including Small Business Administration, National Resource Conservation Service, private insurance, individual and family grant program or any other public assistance program. I will report for this property any insurance settlements to me or my family for debris removal that has been performed at government expense. For the considerations and purposes set forth herein, I set my hand this_____day of_____, 20___.

_____ Witness

_____ Owner

_____

_____

_____ Owner Telephone Number and Address

Time and Materials Contract

ARTICLE 1:
Agreement Between Parties

This contract is entered into on this_____day of _____, 20____, by and between the city/county of _____, hereinafter called the ENTITY and _____, hereinafter called the CONTRACTOR.

ARTICLE 2:
Scope of Work

This contract is issued pursuant to the Solicitation and Procurement on _____ _____, 20_____, for the removal of debris caused by the sudden natural or man-made disaster of _____to _____, 20____. It is the intent of this contract to provide equipment and manpower to remove all hazards to life and property in the affected communities. Clean up, demolition, and removal will be limited to 1) that which is determined to be in the interest of public safety and 2) that which is considered essential to the economic recovery of the affected area.

ARTICLE 3:
Schedule of Work

Time is of the essence for this debris removal contract.

Notice to proceed with Work: The work under this contact will commence on _____ _____, 20____. The equipment shall be used for (recommended not to exceed 70) hours, unless the ENTITY initiates additions or deletions by written change order. Based upon unit prices of equipment and labor, no minimum or maximum number of hours is guaranteed.

ARTICLE 4:
Contract Price

The hourly rates for performing the work stipulated in the contract, documents, which have been transposed from the low bidder's bid schedule, are as follows:

Equipment/Machine/Operator Mobilization/Demobilization Cost Hourly Rate

Manufacturer, Model, and Total unit rate shall be given which includes maintenance, fuel, overhead, profit, and other associated cost with the equipment.

Estimated Cost per unit of material. Only actual invoice amounts will be paid.

Labor man-hours shall include protective clothing, fringe benefits, hand tools, supervision, transportation, and any other costs.

ARTICLE 5:
Payment

The ENTITY shall pay the Contractor for mobilization and demobilization if the Notice to Proceed is issued and will pay for only the Time that the equipment and manpower is actually being used in accomplishing the work. The Contractor shall be paid within ___ days of the receipt of a pay estimate and verification of work by the inspector.

ARTICLE 6:
Claims

Not Applicable

ARTICLE 7:
Contractor's Obligations

The Contractor shall supervise accomplishment of the work effort directed by labor and proper equipment for all tasks. Safety of the Contractor's personnel and equipment is the responsibility of the Contractor. Additionally, the Contractor shall pay for all materials, personnel, liability insurance, taxes, and fees necessary to perform under the terms of the contract.

Caution and care must be exercised by the Contractor not to cause any additional damage to sidewalks, roads, buildings, and other permanent fixtures.

ARTICLE 8:
Insurance and Bonds

The Entity's representative(s) shall furnish all information necessary for commencement of the Work and direct the Work effort. Costs of construction permits, disposal sites and authority approvals will be borne borne by the Entity. A representative will be designated by the Entity for inspection the work and answering any on-site questions. This representative shall furnish the Contract daily inspection reports including work accomplished and certification of hours worked.

The Entity shall designate the public and private property areas where the work is to be performed. Copies of complete "Right of Entry" forms, where they are required by State or local law for private property shall be furnished to the contractor by the Entity. The Entity shall hold-harmless and indemnify the Contractor and his employees against any liability for any and all claims, suits, judgments, and awards alleged to have been caused by services rendered under this contract for disaster relief work unless such claims are the result of negligence on the part of the Contractor.

The Entity will terminate the contract for failure to perform or default by the Contractor.

ARTICLE 9:
Insurance and Bonds

The Contractor shall furnish proof of Worker's Compensation Coverage, Automobile Liability Coverage, and Comprehensive General Liability Insurance (Premises-Operations, Personnel Injury, etc, as deemed necessary by the Entity).

Surety: The Contractor shall deliver so the Entity fully executed Performance and Payment Bonds in the amount of 100% of the contract amount, if required by the specifications, general or special conditions of the contract. The Entity will reimburse the Contractor for the costs of the bonds, the costs of which will be included in the base bid.

ARTICLE 10:
Contractor Qualifications

The Contractor must be duly licensed in the State per statutory requirements.

THIS CONTRACT IS DULY SIGNED BY ALL PARTIES HERETO:

Entity (County, City, Village, Township)

By_____ Seal
Principal of the firm

by_____ Seal
Contractor

Address _____

City & State _____

Lump Sum Contract for Debris Removal

ARTICLE 1:

Agreement Between Parties

This contract is made and entered into on this __day of _____, 20___, by and between the city/county of _____, hereinafter called the ENTITY and _____, herein after called the CONTRACTOR.

ARTICLE 2:

Scope of Work

This contract is issued pursuant to the Solicitation and Procurement on _____, 20_, for the removal of debris caused by the sudden natural or manmade disaster of _____ to ____ _____, 20____. It is the intent of this contract to provide equipment and manpower to remove all hazards to life and property in the affected communities. Clean up, demolition, and removal will be limited to 1) that which is determined to be in the interest of public safety and 2) that which is considered essential to the economic recovery of the affected area.

ARTICLE 3:

Schedule of Work

Time is of the essence for this debris removal contract.

Notice to proceed with the Work: The Work under this contract will commence on _____ _____, 20____. Maximum allowable time for completion will be _____ calendar days, unless the Entity initiates additions or deletions by written change order. If the Contractor does not complete Work within the allotted time, liquidated damages will be assessed in the amount of _____ per day.

ARTICLE 4:

Contract Price

The lump sum price for performing the work stipulated in the contract document is.

$_____.____.

ARTICLE 5:

Payment

The Contractor shall submit certified pay requests for completed work. The Entity shall have 10 Calendar Days to approve or disapprove the pay request. The Entity shall pay the Contractor for his/her performance under the contract within __ days of approval of the pay estimate. On contracts over 30 days in duration, the Entity shall pay the Contractor a pro-rata percentage of the contract amount on a monthly basis, based on the amount of work completed and approved in that month. The Entity will remunerate the Contractor within 30 days of the approved application for payment, after which interest will be added at a rate of _____on each payment. Retainer shall be released upon substantial completion of the work.

Funding for this contract is authorized pursuant to Public Law of the State of Ohio,

And _____.
(Local Statute or Ordinance)

ARTICLE 6:

Change Orders

If the scope of work is changed by the Entity, the change in price and contract time will be promptly negotiated by the parties, prior to commencement of work.

ARTICLE 7:

Contractor's Obligations

The Contractor shall supervise and direct the Work, using skillful labor and proper equipment for all tasks. Safety of the Contractor's personnel and equipment is the responsibility of the Contractor. Additionally, the Contractor shall pay for all materials, equipment, personnel, taxes, and fees necessary to perform under the terms of the contract.

Any unusual, concealed, or changed conditions are to be immediately reported to the Entity. The Contractor shall be responsible for the protection of existing utilities, sidewalks, roads, building, and other permanent fixtures. Any unnecessary damage will be repaired at the Contractor's expense.

ARTICLE 8:
Entity's Obligations

The Entity's representative(s) shall furnish all information, documents, and utility locations, necessary for commencement of Work. Costs of construction permits and authority approvals will be borne by the Entity. A representative will be designated by the Entity for inspecting the work and answering on-site questions.

The Entity shall designate the public and private property areas where the disaster mitigation work is to be performed. Copies of complete "Right of Entry" forms, where they are required by the State and local law for private property, shall be furnished to the Contractor by the Entity. The Entity shall hold harmless and indemnify the Contractor judgments and awards alleged to have been caused by services rendered under this contract for disaster relief work unless such claims are caused by the gross negligence of the Contractor, his subcontractors or his employees.

ARTICLE 9:
Claims

If the Contractor wishes to make a claim for additional compensation, for work or materials is not clearly covered in the contract, or nor ordered by the Entity as a modification to the contract, he/she shall notify the Entity in writing. The Contractor and the Entity will negotiate the amount of adjustment promptly; however, if no agreement is reached, a binding settlement will be determined by a third party acceptable to both Entity and Contractor under the sections of applicable State law.

ARTICLE 10:
Insurance and Bonds

The contractor shall furnish proof of Worker's Compensation Coverage, Automobile Liability Coverage, and Comprehensive General Liability Insurance (Premises-Operations, Personal injury, etc. as deemed necessary by the Entity).

Surety: The Contractor shall deliver to the Entity fully executed Performance and Payment Bonds in the amount 100% of the contract amount, if required by the specifications, or general or special conditions of the contract. The Entity will reimburse the Contractor for the costs of the bonds, the cost of which will be included in the base bid.

ARTICLE 11:

Contractor Qualifications

The Contractor must be duly licensed in the State per statutory requirements.

THIS CONTRACT IS DULY SIGNED BY ALL PARTIES HERETO:

By_____ Seal

Contractor

Address _____

City & State _____

Entity (County, City, Village, Township)

By_____ Seal

Principal of the Firm

Unit Price Contract for Debris Removal

ARTICLE 1:

Agreement Between Parties

This contract is made and entered into on this the _____, 20___, by and between the county of _____ _____, hereinafter called the ENTITY and _____, hereinafter called the CONTRACTOR.

ARTICLE 2:

Scope of Work

This contract is issued pursuant to the Solicitation and Procurement on_____, 20___, for the removal of debris caused by the sudden natural or man-made-disaster of _____ to _____, 20___. It is the intent of this contract to provide equipment and manpower to remove all hazards to life and property in the affected communities. Clean up, demolition, and removal will be limited to 1) that which is determined to be in the interest of public safety and 2) that which is considered essential to the economic recovery of the affected area.

ARTICLE 3:

Schedule of Work

Time is of the essence for this debris removal contract.

Notice to proceed with the Work: The work under this contract will commence on _____ _____, 20___. Maximum allowable time for the completion will be _____ Calendar days unless the Entity initiates additions or deletions by written charge order. Subsequent changes in cost and completion time will be equitably negotiated by both pursuant to applicable State law. Liquidated damages shall be assessed at $_____/calendar day for any days over the approved contract amount.

ARTICLE 4:

Contract Price

The unit prices for performing the work stipulated in the contract documents, which have been transposed from the low bidder's bid schedule are as follows:

Quantity	Unit of Measure	Description	Unit Cost	Total

Subtotal _____

Cost of Bond _____

Grand Total _____

*Debris shall be classified as one of the following units: cubic yards, each, square foot, linear foot, gallon, or an approved unit measure applicable to the specific material to be removed.

ARTICLE 5:

Payment

The Contractor shall submit certified pay request for completed work. The Entity shall have 10 calendar days to approve or disapprove the pay request. The Entity shall pay the Contractor for his performance under the contract within 20 days of approval of the pay estimate. On contracts over 30 days in duration, the Entity shall pay the Contractor a pro-rata percentage of the contract amount on a monthly basis based on the amount of work completed and approved in the month. The Entity will remunerate the Contractor within 30 days of the approved application for payment. After which interest will be added at a rate of ___ _____ per annum. Payments shall be subject to a retainage of _____ on each payment. Retainage shall be released upon substantial completion of the work.

Funding for this contract is authorized pursuant to Public Law of the State of Ohio, _____ _____, and _____, local statute or ordinance.

ARTICLE 6:

Claims

If the Contractor wishes to make a claim for additional compensation, for work or materials not clearly covered in the contract, or not ordered by the Entity as a modification to the contract. He/she shall notify the Entity in writing. The Contractor and the Entity will negotiate the amount of adjustment promptly; however, if no agreement is reached a binding settlement will be determined by a third party acceptable so both Entity and Contractor under the auspices of applicable State law.

ARTICLE 7:

Contractors Obligations

The Contractor shall supervise and direct the Work, using skillful labor and proper equipment for all tasks. Safety of the Contractor's personnel and equipment is the responsibility of the Contractor. Additionally, the Contractor shall pay for all materials, equipment, personnel, taxes, and fees necessary to perform under the terms of the contract.

Any unusual, concealed, or changed conditions are to be immediately reported to the Entity. The Contractor shall be responsible for the protection of existing utilities, sidewalks, roads, buildings, and other permanent fixtures. Any unnecessary damage will be repaired at the Contractor's expense.

ARTICLE 8:

Entity's Obligations

The Entity's representative(s) shall furnish all information, documents, and utility locations for necessary for commencement of Work. Costs of construction permits and authority approvals will be borne by the Entity. A representative will be designated by the Entity for inspecting the work and answering and on-site questions.

The Entity shall designate the public and private property areas where the disaster mitigation work is to be performed. Copies of "Right of Entry" forms, as required by State laws for private property, shall be furnished to the Contractor by the Entity. The Entity shall hold harmless and indemnify the Contractor

judgments and awards alleged to have been caused by services rendered under this contract for disaster relief work unless such claims are caused by the gross negligence of the Contractor, his/her subcontractors, or his/her employees.

The Entity will terminate this contract for failure to perform as specified, or for default by the Contractor.

ARTICLE 9:

Insurance and Bonds

The contractor shall furnish proof of Worker's Compensation Coverage, Automobile Liability Coverage, and Comprehensive General Liability Insurance (Premises-Operations, Personal Injury, etc...as deemed necessary by the Entity).

Surety: The contractor shall deliver to the Entity fully executed Performance and Payment Bonds in the amount of 100% of the contract amount, if required by the specifications, or general or special conditions of the contract. The Entity will reimburse the Contractor for the costs of the bonds, the cost of which will be included in the base bid.

ARTICLE 10:

Contractor Qualifications

The contractor must be fully licensed in the State of Ohio.

THIS CONTRACT IS DULY SIGNED BY ALL PARTIES HERETO:

by_____ Seal

Contractor

Address _____

City, State _____

Entity (City, County, Township, Village, etc.)

by_____ Seal

Principal of the firm

Demolition Checklist

Local Responsibilities Checklist

The following checklist identifies key tasks that local officials should address before a structure is approved for demolition. To expedite the overall effort, many of the tasks can be conducted concurrently.

_____ Provide copies of all ordinances that authorize the local officials to condemn privately owned structures. The authority to condemn privately owned structures would probably have to be accomplished by an ordinance other than one designed or enacted for the demolition of publicly owned structures.

_____ The local officials should coordinate all lands, easements, and rights of way necessary for accomplishing the approved work.

_____ Implement laws that reduce the time it takes to go from condemnation to demolition.

_____ Provide copies of all applicable permits required for demolition of subject structure(s).

_____ Provide copies of pertinent temporary well capping standards.

_____ Coordinate all pertinent site inspections with local, State, and Federal inspection team(s).

_____ Identify household hazardous waste materials prior to demolition.

_____ Notify the owner/and or renter of any and all site inspections.

_____ Verify that all personal property has been removed from public and/or structure(s).

_____ Immediately prior to demolition, verify that the building is unoccupied.

_____ Ensure that the property is properly posted.

_____ Provide a clear, concise and accurate property description and demolition verification.

_____ Include a Public Health official on the demolition inspection team.

_____ The inspection not only should evaluate the structural integrity of the building, but also must demonstrate "imminent and impending peril" to public health and safety.

_____ Segregate all household hazardous waste materials to a permitted facility prior to building demolition.

_____ Provide photographs of the property and verify the address. Provide additional photographs of the property take immediately prior to and following demolition.

Private Property Utilities Checklist

The following checklist identifies key tasks that local officials should address before the structure is approved for demolition. To expedite the overall effort, many of the tasks can be conducted concurrently.

_____ Locate, mark, turn off, and disconnect all water and sewer lines.

_____ Locate, mark, turn off, and disconnect electrical, telephone, and cable television services.

_____ Provide executed right of entry agreements that have been signed by the owner and by renter, if rented. Right of entry should indicate any known owner intent to rebuild to ensure foundation and utilities are not damaged.

_____ Use radio, public meetings, and newspaper ads to give notice to property owners and their renters to remove personal property in advance of demolition.

_____ Document the name of the owner on the title, the complete address, and legal description of the property, and the source of this information. Document name of renter, if available.

_____ Ensure property will be vacated by demolition date.

_____ Provide written notice to property owners that clearly and completely describe the structures designated for demolition. Additionally, provide a list that also identifies relates structures, trees, shrubs, fences, and other items to remain on the respective property.

_____ Notify mortgagor of record.

_____ Provide the property owner the opportunity to participate in decision on whether the property can be repaired.

_____ Determine the existence and amount of insurance on the property prior to demolition.

_____ Specify procedures to determine when cleanup of the property is completed.

TDSR Checklist, Issues, and Layout

Temporary Debris Storage and Reduction (TDSR) Site Closeout Checklist

The following is a recommended TDSR site closeout checklist.

_____ Site Number and Location

_____ Date closure complete

_____ Household Hazardous Waste removed

_____ Contractor equipment removed

_____ Contractor petroleum and other toxic spills cleaned up

_____ Ash piles removed

_____ Compare baseline information of the temporary site conditions after the contractor vacates the site.

TDSR Closeout Issues

Environmental Restoration Stockpiled debris will be a mix of woody vegetation, construction material, household items, and yard waste. Household hazardous waste and medical wastes should be segregated and removed prior to being stockpiled. Activities done at the temporary debris storage and reduction site will include stockpiling, sorting, recycling, incineration, grinding, and chipping. Incineration operations will occur in air curtain pits and only woody debris will be incinerated. Due to operations occurring contamination from petroleum spills or runoff from incineration and debris piles may occur. Therefore close monitoring of the environmental conditions is a coordinated effort.

Site Remediation During the debris removal process and after the material is removed from the debris site; environmental monitoring will need to be conducted. This is to ensure no long-term environmental effects occur. Environmental monitoring is needed for the following areas:

Ash- Monitoring consists of chemical testing to determine suitability of material for landfill placement.

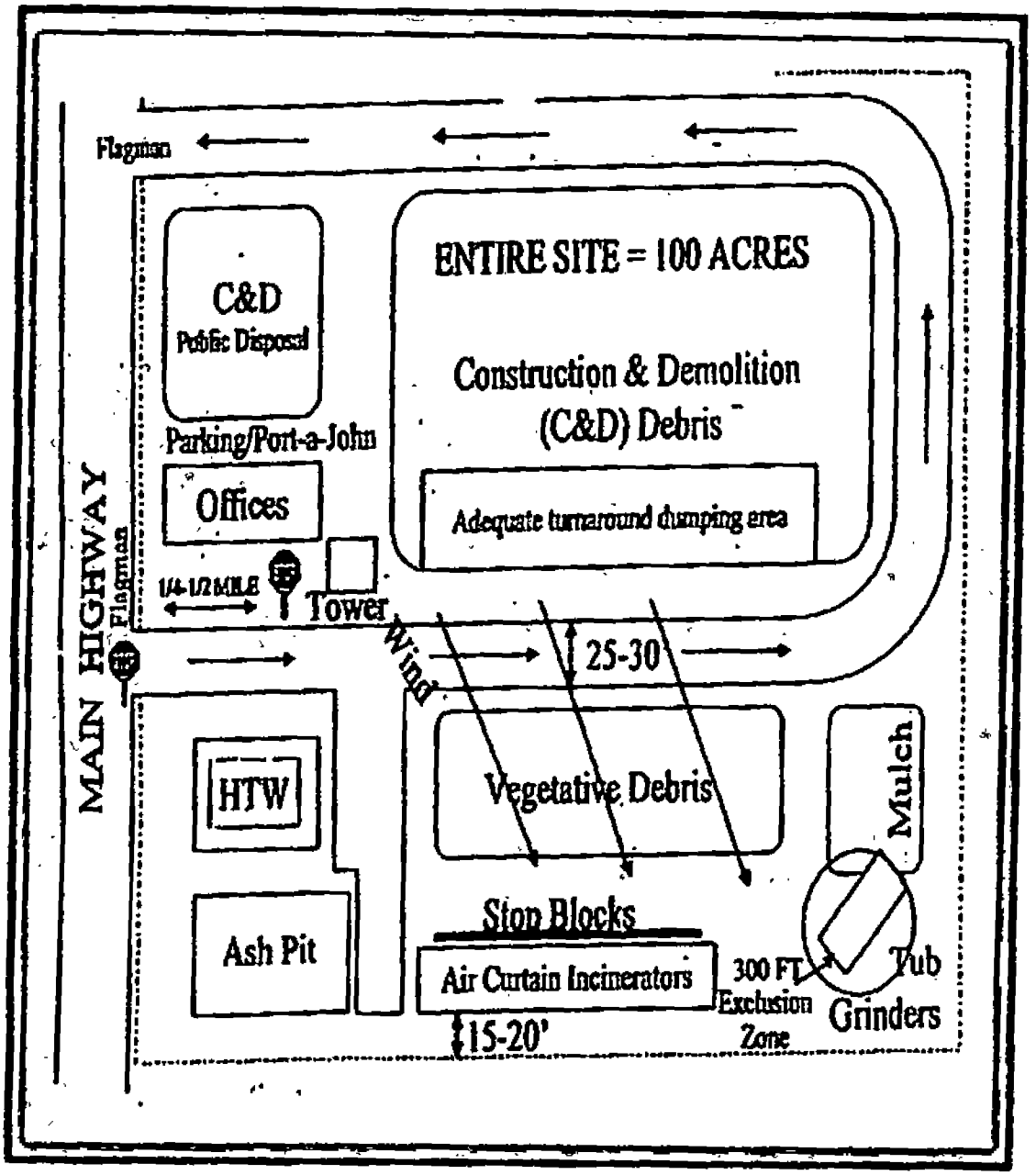
Soils- Monitoring consists of using portable meters to determine if soils are contaminated by volatile hydrocarbons. Contractors do monitoring if there has been a determination that chemicals such as oil or diesel has spilled on site.

Groundwater- Monitoring is done on selected sites to determine effects of rainfall leaching (leaking) through ash areas or stockpile areas.

Develop a checklist for site close out procedures. A sample checklist is included in this document.

Sample TDSR Layout

The following is a sample layout for a Temporary Debris Storage & Reduction Site.



Tab 1 – Debris Calculation Worksheet, to Annex M (Debris Management)

Damage Class	Quantity	CY of Debris Ea.	Total Debris
Mobile Home (25-30 CY Each)			
Destroyed		30	0
Major		20	0
Minor		10	0
Affected		5	0
SubTotal	0		0
Single Family w/o Basement (25-30 CY Each)			
Destroyed		30	0
Major		20	0
Minor		10	0
Affected		5	0
SubTotal	0		0
Single Family w/ Basement (45-50 CY Each)			
Destroyed		30	0
Major		20	0
Minor		10	0
Affected		5	0
SubTotal	0		0
Multiple Family w/o Basement (55-60 CY Each)			
Destroyed		60	0
Major		40	0
Minor		20	0
Affected		0	0
SubTotal	0		0
Other			
Double Storage Units (10X10)		30	0
Single Storage Units (5X10)		15	0
Inaccessible		20	0
SubTotal	0		0
Total	0		0

Per FM 5-412:

For 5T Dump, 42.00 Hrs per 1000CY (Based on 15Min Turnaround)

So 5T Dump, 168 Hrs (4*42.00 Hrs) per 1000CY (Based on 60 Min Turnaround)

(4945/1000) CY * 168 Hrs/1000 CY =	0
For 10 Trucks per day* 8 Hrs per Truck per day	0

Notes:

LOAD TICKET

No. 0255

PO# 12198

SOLD TO:	SHIP TO:
LOGAN COUNTY EMA c/o LOGAN CO. SOLID WASTE DISTRICT BELLEFONTAINE, OHIO	CHEROKEE RUN LANDFILL BELLEFONTAINE, OHIO

DRIVER:	TRUCK NO.	CAPACITY:	ZONE/SECTOR:
		5 CY	

LOADING TIME:	DUMP TIME:	DESCRIPTION:	UNIT:	LOAD SIZE:
		MIXED WASTE	CY	

SIGNATURES:

LOADING SITE MONITOR

DUMP SITE MONITOR

ATTENTION: DRIVER RETAINS ORIGINAL AND PINK COPY. THE YELLOW COPY MUST BE TORN OUT AND SUBMITTED TO THE LANDFILL FOR PROCESSING!

APPENDIX I

Health Department Yearly Report

Solid Waste Program Report 2014

Landfill inspections 17
Landfill field consultations 15
Landfill office consultations 106
Solid Waste open dumping cases 60
Solid Waste open dumping inspections 146
Compost facility inspections 6

Landfill groundwater parameters we are able to run at the Health District laboratory
Nitrate, nitrite, ammonia, chloride, sulfate, chemical oxygen demand, alkalinity, pH, conductivity, and dissolved oxygen

LOGAN COUNTY SOLID WASTE MANAGEMENT DISTRICT
POLICY BOARD
Minutes of meeting October 17, 2013

Members attending: Scott Coleman, County Engineer; Spencer Reames, ; John Bayliss, Logan Couty Commissioner, Craig Kauffman, for the Health Department, Tim Tillman, Township Trustee, Angel Payne, Tom Erwin and Howard Weinerman of the Solid Waste District. Guests, Ray Lewis and Season Wall, with Republic Waste Services.

The meeting was called to order at 4:10 p.m. at the Office of the Logan County Solid Waste Management District with a quorum present.

The minutes of the July 18, 2013 meeting were approved upon motion of Scott Coleman and second by Spencer Reames.

Angel Payne was introduced to the Board as the Interim Coordinator. Alan has been hired to serve on a limited basis as an Advisor. Alan is currently working with the NEG program.

Tim Tillman announced that this would be his last meeting. A replacement will be appointed after election night.

Tom Erwin gave an overall view of all operations. Staffing issues in the MRF concerning the JFS labor force has been resolved. Temp services have been utilized and the backlog of materials has been cleared. The commodities pricing still remain flat. Our materials are pretty clean according to standards which enable us to get top dollar. There is a current working relationship with a private company (Overbey Plastics, Lewistown, Ohio) who is taking the "weirdo plastics". We may also be working closely with this company to help them with putting together a grant application to secure funds to purchase equipment.

Operations: Howard reported that we are largely where we expected to be. There was an error in the worksheet that caused wrong cells to be linked. Those corrections were made and a new report provided to all those in attendance. The NEG has closed the gap of the monies that they owe the SWD.

Legislation: John Bayliss reported that he did not get a great sense of legislators wanting consolidation. The EPA has slowed down the process of the proposed changes. One of the Districts concern with consolidation would be to protect our debt and protecting our Health Department. We are now looking at adding language to the contract between the Health Department and the District to protect their funding.

Grant Cycle: District staff reported on the progress of the grant cycle for 2014. We will be collaborating with the private company (Overbey). We will also be putting together a Glass Grant to build a glass depot to be able to process, store and transport glass more effectively. If we receive the grant we are optimistic that we can get the construction and operations up by year end. Currently, the District hauls approximately 8-10 tons of glass to a facility in Dayton. The construction of the depot would allow for considerably more glass to be collected and sell that by the trailer load, taking much needed pressure off of the District's one driver.

Airport Property: Howard and Ray Lewis reported on the history and the progress of the land acquisition. There is a Host Community agreement effective when waste is placed in Lake Township; ownership of the airport property will transfer to the county. The District has requested the property sooner and Republic has concerns with current construction of a wetland and existing water well. Howard did meet with the Landfill Engineer and felt that a goal could be complete to meet the parameters for the transfer and to execute before the end of the year.

Ray updated the Board on the Landfill usage. Completed construction for 2013 in August and they lowered the elevation of the vertical expansion by 30 feet. The new cell should be complete and in use by September, 2014.

NEG: Angel reported that the NEG program did receive an additional $100k, which will allow about 6 more weeks of work. It appears the shutdown will be slowed, but management and equipment cost have been reduced.

Craig Kauffman reported that the Health Department is currently doing groundwater sampling at three of the closed landfills. There are also repairs being made to the explosive gas migration control unit at the Chiles Landfill.

The District is asking the Policy Board to become more involved and to help decide what is important to the county as a whole. The priorities discussed primarily about the importance of fund reserves, Health Department funding, keeping supported programs but working to improve sustainability. We are requesting members to share views and to complete a brief survey. The District will compile and share with the Committee for discussion.

The meeting was adjourned at 5:15 p.m.

Respectfully submitted by Angel Payne
Interim Coordinator 2.7.14

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APPENDIX J

Plan to Zero Waste

Logan County's

Plan To

ZER

December 2015

Commissioned By:

Logan County OHIO SOLIDWASTE MANAGEMENT DISTRICT

Prepared By:

JAZ environmental consultn

Howard S Weinerman

HISTORY

Logan County is responsible for developing a solid waste plan that ensures residents have access to adequate solid waste disposal capacity and implement programs to reduce the reliance on landfills. In Ohio, House Bill 592, which became effective on June 28, 1988 required boards of county commissioners of all of Ohio's counties to form solid waste management districts, either individually or in conjunction with other boards of county commissioners. The primary responsibility of a solid waste management district is to prepare, ratify, and implement a solid waste plan.

The Logan County Board of County Commissioners formed Logan County as a single county district on March 9, 1989. They also established, per statute, a Policy Committee to prepare the solid waste plan. The Board of County Commissioners and Policy Committee represent Logan County Solid Waste Management District (District). Both entities work together but have different roles. Board of Commissioners ratify the plan, ratify fees, implement the plan, designate facilities, hire staffing, adopt and enforce rules, and contract for services. The role of the Policy Committee is to establish how the District operates. They decide on programs, whether the District owns or operates facilities, how to fund the plan, and can authorize the board to designate or adopt rules. The Policy Committee prepares the plan and annually reviews it.

HISTORY OF SOLID WASTE PLANS

The District has prepared and implemented several solid waste plans over the years. The first solid waste plans implemented conventional solid waste programs of collection, hauling, and disposal as well as recycling, reuse, and reduction. Conventional programs worked well because the District had a relatively sophisticated and self-sufficient system of regional landfills, recyclers, salvage yards, and a composting facility. The District also had a very reliable source of funding provided by disposal fees levied on trash disposal. Fulfilling obligations the District organized and/or provided funding, enforcement, and education for a system that was operated almost exclusively by private companies. However, with this early system the primary concern was trash collection, hauling, and disposal.

As a "first ever" effort to provide for solid waste management, the Ohio Legislature's goal was set to preserve landfill capacity. Recycling was one means to that end. However, recycling was a

[redacted]

new public responsibility and frequently more costly than disposal. Using District disposal fee revenue, the City of Bellefontaine implemented a District-funded curbside recycling program and the District constructed five drop-off sites around the county. Early emphasis was placed on trash disposal because demonstrating adequacy of landfill capacity was paramount and disposal was directly linked to funding of recycling programs. The more trash disposed the more funding available. Many of those looking to recycle had to do it on their own.

Beginning solid waste plan ideals of the policy committee and stakeholders was to build a system that would take care of itself; an integrated self-sufficient system where the District would have a minor role in its institution. These ideals included a conscience effort to focus and place emphasis on the solid waste management hierarchy. The top management hierarchy of source reduction is the most preferred method of reducing reliance on landfills since, unlike recycling, source reduction eliminates the generation of waste material. Until the late ninety's opportunities for source reduction within the District were largely unexploited for the residential/commercial sectors. Thus, volume-based incentive-fee collection systems for all communities became a fundamental strategy and were aggressively promoted. With District technical support and start-up funding the largest city, Bellefontaine, jumped on board to modify their curbside recycling program to a pay-as-you-throw program in 1998.

The second focus was placed on recycling. The District had satisfactory experiences with private sector provided centralized activities. An agreement was reached with the private processor to construct and operate a commingled recycling facility. As the recycling needs of the District grew this evolved into developing other arrangements one of which was a partnership with a neighboring county non-profit materials recovery facility.

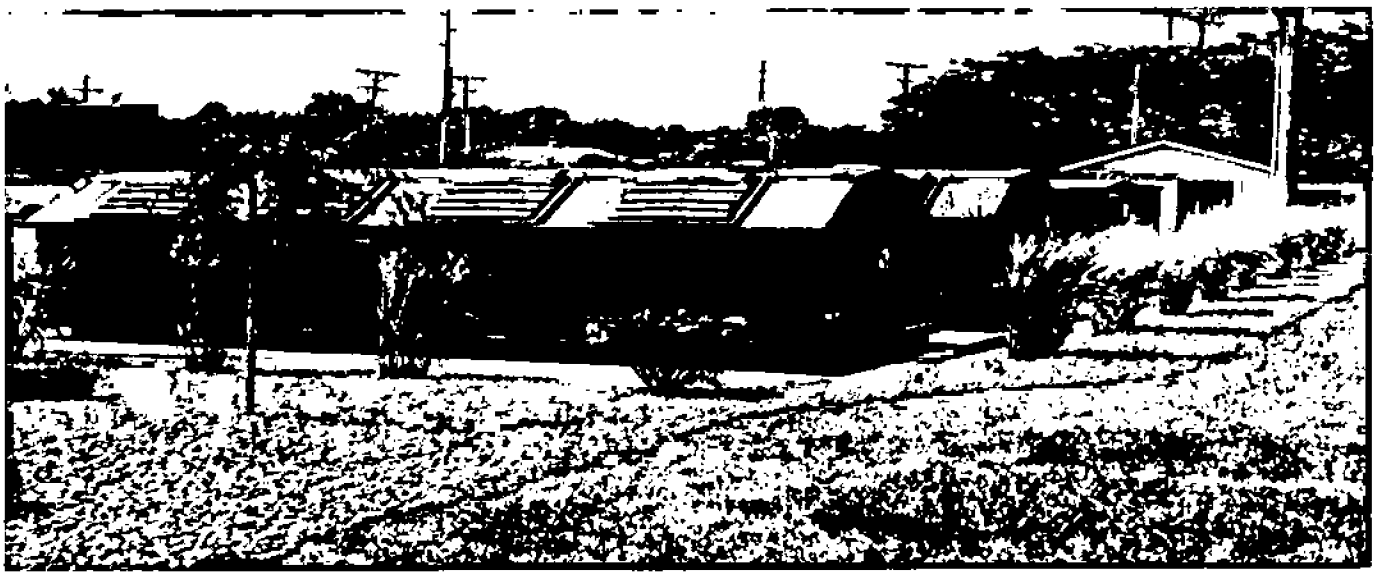
The final focus was on education. To promote and educate these lifestyle changes the District launched a "Green Program" through the county in 1995 to teach consumers to purchase environmentally friendly products. An employee was added to educate and network with other county agencies, advertising events, and promote general awareness activities. Early on the emphasis was placed on school-aged children and adults using actual services. Previous education efforts were "broad brush", developing the value of waste minimization, recycling, backyard composting, etc. As

these programs progressed it became apparent that, although successful, focus was needed on the parts of the community that had poor participation: rural and low-income.

These waste management ideals were successful and by year 2006, three pay-as-you-throw curbside programs were operating in the rural county in addition to the five drop-off recycling centers. Realizing the success of the pay-as-you-throw curbside programs in convenience and sustainability, the District continually felt challenged with the conventional programs. More programs were needed that would be self-sustaining and provide county residents convenient opportunities to recycle.

About the time the District began preparing the 2009 Plan and pondering non-conventional programs, the Logan County Commissioners declared the vision of Zero Waste by 2020. The waste management system was successful under a decentralized system of for-profit, non-profit, and government agency operations, yet there were gaps for reaching Zero Waste. Not to mention defining Zero Waste for the County. To fill the gaps the District needed to tweak the system. Lessons from earlier systems made it apparent the District needed to maintain accountability, flexibility, and control of the system for success.

What emerged from a global fiscal crisis, exacerbated by a catastrophic loss of District disposal fee revenue was a conceptual design for pay-as-you-throw drop-off recycling centers, a materials recovery facility (MRF), and a center for hard to recycle materials (CHaRM). This system tweak was a district/government approach for creating sustaining convenient recycling opportunities, handling toxics, and processing recyclables. Conceptually pay-as-you-throw drop-off recycling centers would be a program that would charge a disposal bag fee, allow "free" recycling, generate enough revenues to support the program, and be convenient. Though, in order for this concept to work, outlets for other hard to recycle materials needed to be available. It made sense to handle toxics and other hard to recycle materials at the local level. Providing a center where residents could drop-off these types of materials for a nominal charge would provide the outlet to properly dispose or recycle, be convenient, and generate



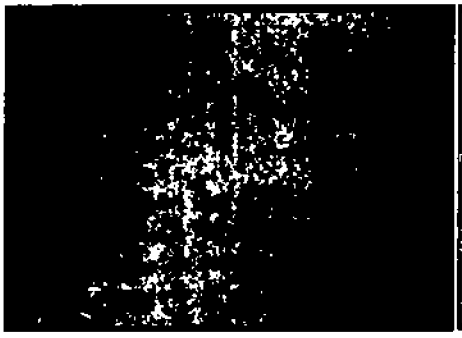
SUSTAINABILITY

fees to support the costs. The final piece was the capability to process recyclable materials locally. A MRF was integral to the concept of sustainability and a solution to complement the programs providing accountability and control to ensure success.

Environmental sustainability is broadly defined as the "quality of not being harmful to the environment or depleting natural resources, and thereby supporting long-term ecological balance". Sustainability is the social, environmental and fiscal capacity to endure. In the District's world of managing waste pursuing sustainability enables waste management systems to improve efficiency, lower costs, protect the environment (impacts on energy, water and land use, and air and water quality) and thereby continue long-term.

It's the District's responsibility to be a steward of the environment and to re-think how waste management systems operate. Environmental, financial and community health benefits are considered when developing a plan. Further, the plan is comprehensive and integrated emphasizing the waste management hierarchy and a variety of methods to reduce and recycle waste. To be sustainable and reduce our environmental footprint, reduction and reuse must happen first. Sustainability won't happen with recycling only. Reduction and reuse of materials first eliminates much of the waste.

In addition to environmental sustainability the District maintains a goal to design financially sustainable programs. Programs are self-sufficient in their ability to fund and operate highly effective recycling services. It is designing and developing such that a program thrives regardless of changes in fashion or budgeting priorities.



ZERO WASTE

Zero Waste is our guiding philosophy to generate less waste and maximize opportunities for material recovery. It combines the elements of resource utilization and product or service design with a focus on the entire life cycle of the product or service. The focus is a whole system approach of materials management, from product design and the extraction of natural resources, to manufacturing and distribution, to product use and reuse, to recycling or disposal. Zero Waste is our guiding philosophy with which we will approach everything. It is more comprehensive than just recycling. It requires treating all materials as valued resources instead of items to discard.

For these reasons industry and government need to take significant efforts and actions. Industry needs to design product and packaging, control manufacturing processes, and select materials with zero waste in mind. While governments form policy and provide subsidies or other incentives for better product manufacturing and develop and adopt comprehensive waste management strategies that seek to eliminate waste.

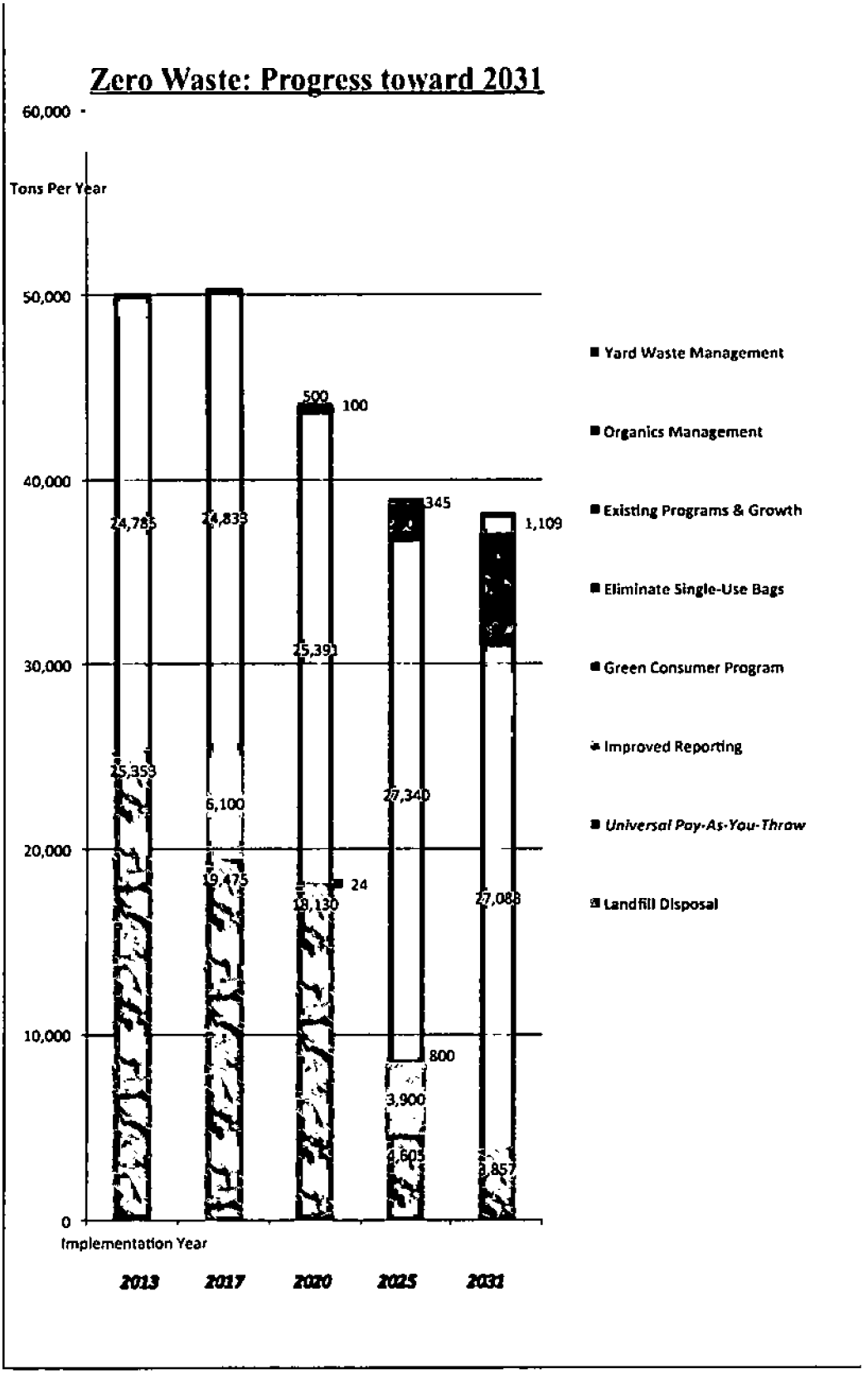
From the earliest plans the District held onto the ideals of an integrated self-sufficient system focusing on the waste management hierarchy. These ideals and focus remained in tact and led the County Commissioners of Logan County to pass Resolution 126-07 in March 2007 adopting Zero Waste By 2020. The internationally accepted peer-reviewed definition of Zero Waste as adopted by the Zero Waste International Alliance is:

> *"Zero Waste is a goal that is ethical, economical, efficient and visionary, to guide people, in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use.*
>
> *Zero Waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them.*
>
> *Implementing Zero Waste will eliminate all discharges to land, water or air that are a threat to planetary, human, animal, or plant health."*

This is more of a goal or ideal rather than a hard target. Even if it is not possible to completely eliminate waste due to physical constraints or prohibitive costs, Zero Waste provides guiding principles for continually working towards eliminating wastes. "Zero Waste" means Logan County will endeavor to attain Zero Waste through a series of incremental accomplishments. The District will work in 5-year focus periods, alternating between increased diversions and decreased waste generation.

GOALS

65% diversion by 2020	Achieved!	• Implement PAYT drop-off and expand throughout the county • County MRF • CHaRM • Develop incentives to move public and private interests toward Zero Waste methodologies • Educate to encourage attitudes and behaviors toward green purchasing, resource conservation and recycling
70% diversion by 2025	Reduce residential generation 20%	• Improve collection services • Grow PAYT • Educate low-income • Expand opportunities and improve record keeping
80% diversion by 2030	Reduce current residential/commercial disposal by 33%	• Commercial organics facility • MFDU programs • Increase diversions at MRF • Improve Rules and Enforcement (policy)
90% diversion by 2040	Reduce current landfill disposal by 65%	• Increase incentives to recycle • Increase organics programs • Integrate collection services countywide


Zero Waste: Progress toward 2031
60,000
Tons Per Year
50,000
40,000
30,000
20,000
10,000
0
Implementation Year
2013
2017
2020
2025
2031
24,785
24,833
500
100
345
1,109
25,391
25,353
6,100
27,340
19,475
24
19,130
27,088
800
3,900
4,605
3,857
Yard Waste Management
Organics Management
Existing Programs & Growth
Eliminate Single-Use Bags
Green Consumer Program
Improved Reporting
Universal Pay-As-You-Throw
Landfill Disposal

STRATEGIES

Well on the path towards sustainability with clearly defined Zero Waste goals, the District conducted a stakeholder survey to serve as the basis for strategic plan development. Over the years, the Policy Committee has articulated a number of critical values about growth, sustainability, progress toward reduction goals, expanding services, etc. Many of these values have a cost and since resources are limited, the staff and planners decided to ask the Policy Committee to "rank" these values so resources can be allocated in accordance with relative importance. The Committee was provided a list of known values and asked to score them from 1 to 5, with "1" as the most important and "5" as least important. Two rounds of scoring were conducted before weighted averages were calculated. The results are presented below:

Ranking		
		ESSENTIAL
1.2	Preparing for natural growth	
1.4	Sustainability/Efficiency	
1.5	Retire $1.8 million debt	
1.9	Replace critically low Reserve Fund	CRITICAL
1.7	Keeping cost of services low	
2.0	Adequate Staffing and competitive compensation	
2.0	Environmental monitoring, containment of threats, and clean-ups	
2.1	Public Education, Participation and awareness	
2.3	Training, safety, mentorship internally and external to the District	
2.4	Industrial Services	
2.4	Critical facilities improvements	IMPORTANT
2.4	Pursuing new or advanced technologies to improve results	
2.5	Volunteerism and Grants as resources	
2.5	Commercial Services	
2.6	Apartment Services	
2.8	Expand existing programs	
2.9	Continuity of unsustainable programs with high levels of public support	
2.9	Waste Reduction Incentives	
3.1	Prestige and relations with peer Districts and the State	
3.1	Zero Waste by 2020	PREFERRED
3.3	Developing new programs	
3.6	Supporting other County Programs	

These ranked values assist in developing strategies. They suggest paths to take and help determine how to realize the vision and objectives. Developing strategies is a way to focus efforts and figure out how to achieve best use of resources, emerging opportunities, time, energy, and response to barriers. Many components factor into development of these strategies.

To name a few, the District has debt exceeding its reserves and owns/operates a MRF, a CHaRM facility, sixteen full service drop-off locations and provides services to business, industries, school and offices around the county. Sustainability has new meaning as the District strives to continue momentum towards Zero Waste while maintaining all the equipment, facilities and programs that have been developed since the last Plan Update. Taking these into consideration the District identified two main facets which envelope stakeholder concerns and the sustainability and Zero Waste journey: minimize waste generation and increase diversions of the remainder. Specific action plans for achieving strategies within these facets are discussed later in this document.

Minimizing Waste Generation

Reducing waste minimization will make use of two main strategies: increased/universal use of PAYT and better reporting of waste. Variable-rates & PAYT demonstrate time and again to be the most effective approach to drastically reducing waste generation and improving participation in the available recycling programs. The district has experienced great success with implementing variable rates in both curbside and drop-off programs.

PAYT reduces the amount of waste from homes and businesses by using financial incentives to throw less away by recycling more completely after minimizing the creation of waste through better purchasing (less packaging, elimination of single use bags, longer lifecycle, higher reusability). It is also the explicit intent of the District to reduce waste through better reporting: making better estimates of cross-District disposal and quantifying any possible misreporting of waste by haulers to avoid much higher fees that apply to out-of-district waste (generation fees, out-of-district disposal fees, etc). Quantifying this misreporting, having been obvious to the District for a generation, will reduce the "phantom waste" from Logan County, eliminating the much higher generation estimates artificially assigned to the county.

The next 10 years, the district will endeavor to persuade all waste haulers to implement variable rates (PAYT) with at least 50% of user fees based on volume. As the district nears the end of this 10-year effort, a decision will be placed before the Policy Committee, whether volume-based rates will be mandatory countywide.

Single use Grocery Bags: reduction or elimination of single-use grocery bags is an important goal of the district for operation and waste reduction reasons. The bags are a low-value commodity that requires disproportionate effort at the recycling center. They are also a wholly avoidable waste component. The District will endeavor to drastically reduce public consumption of single use grocery bags through education and promotion, and may eventually require a fee for their use.

Increasing Diversion

Having reduced waste generation, the District will focus on diverting most of the

remainder in recycling, organics and re-use programs. Central to increased recycling is the planned multi-year conversion from dual stream recycling to single stream recycling. This approach is expected to greatly increase the set-out and participation rates of residential recyclers, making the process easier to understand and use. Often single stream results in automated collection and larger curbside containers, allowing residents to recycle more thoroughly. Organics recycling programs and facilities will allow new diversions of yard waste, food waste and wastewater sludge. Reuse/Exchange programs will further increase diversions in important but less significant ways (limited amounts of near zero carbon footprint efforts).

To this end, Bellefontaine will be assisted in efforts to renovate their program to improve landlord involvement, attend to the low recycling rate in low-income neighborhoods, add PAYT to apartments, build commercial recycling routes and increase bar and restaurant diversions.

West Liberty curbside recycling statistics, although initially impressive, have decreased over the past few years. At the same time, tonnages at the West Liberty drop-off site have increased by similar amounts. During the next planning cycle, these changes will be investigated to determine if West Liberty is improving. The district will remain as involved as West Liberty allows to improve the program in depth and dimension. West Liberty's program is in great flux at this time: their public operation is transitioning to private and residential/commercial program split into two distinct programs. Rate revision recommendations will be considered. Expansion of materials for residences and business recycling collection will be attempted.

Lake Township has a PAYT program which has not be reviewed and updated for a decade. The District will assist the township with improving participation, expanding services and updating the rate schedule.

The District plans to incrementally convert from dual-stream to single-stream recycling over the next 5 years. This will allow curbside programs to undergo a conversion from manual to automated collection, thereby increasing diversion by an estimated 25% and, due to the relatively ease for the consumer, improve participation.

Although delayed due to situational delays in gaining access to the planned property, the District remains committed to the development of an organics facility and the development of organics collection. As the largest remaining component of reducible waste, this is imperative to the success of the Zero Waste goal. The District reserves the right to access out-of-district facilities in the interim to facilitate the implementation of pilot collection programs.

- Reduction/Waste Minimization

Relative cost of collection and disposal serve as incentives for solid waste prevention. Convenient recovery options are widely available. PAYT systems provide a direct incentive to reduce the purchase of items and packaging that are not reusable or recyclable. Fee based systems have dramatic impacts on waste prevention because poor choices result in increased disposal fees. Long-range waste reduction policies help reach Zero Waste. The key to waste minimization is changing behavior and habits.

Best Practices

1. Complete waste monitoring study to accurately define County waste generation.
2. Reduce food in the waste stream.
3. Reduce single use bag consumption and phase-out plastic bags. This can be accomplished by placing restrictions on bag usage, promoting re-usable bags, assessing fees for plastic bag use at all stores or by working with stores to develop a volunteer program to phase-out plastic bags.
4. Renovate Smart Buying program. Encourage residents to purchase products with consideration of longevity and a lesser negative impact. Educate to purchase durable re-usable items and in bulk.
5. Promote countywide PAYT only options through collection systems. Add community incentives for tons of drop-off recycling and loyalty programs.
6. Live Green. Encourage residents to use less toxics in the home. Avoid hazardous substances.
7. Establish waste prevention guidelines for large-venue events.
8. Encourage City and Community websites to encourage waste reduction and reuse activities.
9. Lead by example, county and city commit to policy changes in operations and aggressively move towards reducing paper.

- Reuse.

The economic development of reusing valuable discarded materials locally is an important community value. Encourage by collaborating with businesses, institutions and the community to adopt policies and programs creating incentives, encouraging or requiring more environmental responsibility.

Best Practices

1. Materials exchange.
2. Create partnerships with for-profit and non-profit re-use organizations. Partnerships to encourage development of outlets and promote organizations available.
3. Actively encourage cooperative education campaigns with local "green" organizations.
4. Food waste recovery and unused food donations.

- Recycling.

Recycling is the act of collection and processing materials to manufacture them into new products. Convenient recovery options are widely available. Building on current PAYT programs, the District will encourage the growing use of PAYT: surveys will be conducted to determine if additional drop-off sites are needed; goal: increasing voluntary use of drop-off sites from an estimated 11% in the baseline year to 30%+ in 2031. Private collectors will be strongly encouraged to eliminate fixed fee/unlimited collections systems, and replace with PAYT-only offerings, universal in 2020. A mini-bag option will be strongly considered and bags will convert to drawstring to improve functionality. Collection containers and concrete at drop-sites will be maintained to last until scheduled capital retirement. The District will work with surrounding districts to improve economics and border services through joint marketing and advertising

Best Practices

1. Improve collection services and monitor self-sustaining recycling programs for efficiency and continued growth.
5. Bring curbside recycling opportunities to multi-family housing.
6. Add single stream processing capabilities at MRF
7. Glass recycling.
8. Encourage waste haulers to demonstrate Zero Waste activity.
9. Actively encourage cooperative education campaigns with local "green" organizations.
10. Increase diversions at the MRF.

- Composting.

Diverting organic materials form landfills for alternative uses such as composting, avoids the release of greenhouse gases and creates a valuable soil amendment.

Best Practices

1. Create partnerships to bring technologies into the county to handle yard and food scraps. Develop market development zones for sustainable resource management. Work cooperatively and bid cooperatively.

2. Study organic technologies and efficiencies capable of handling food scraps.

3. Research and develop markets for compost and mulch.

4. Develop a commercial organics facility.

- Education.

Advocate for public-private partnerships and legislation as necessary to encourage producers to improve the total resource efficiency of their products, and to make producers, retailers, and customers aware of negative impacts of their products and packaging, including litter and disposal.

Best Practices

1. Educate low-income residents on reducing, reusing, and recycling.

2. Establish Master Recycler Program.

ACTION PLAN

Action plan tells the who-what-when. At this point, action items have been outlined for the first three best practice items identified under each waste management method.

- Reduce

1. Waste Monitoring Study
2. Food in the waste stream
    a. Develop a food scrap recovery program
        i. Create a list of food bank operations that may be willing to find outlets for excess food
    b. Household
        i. Educate about food waste reduction online
            1. Food storage,
            2. Food condition,

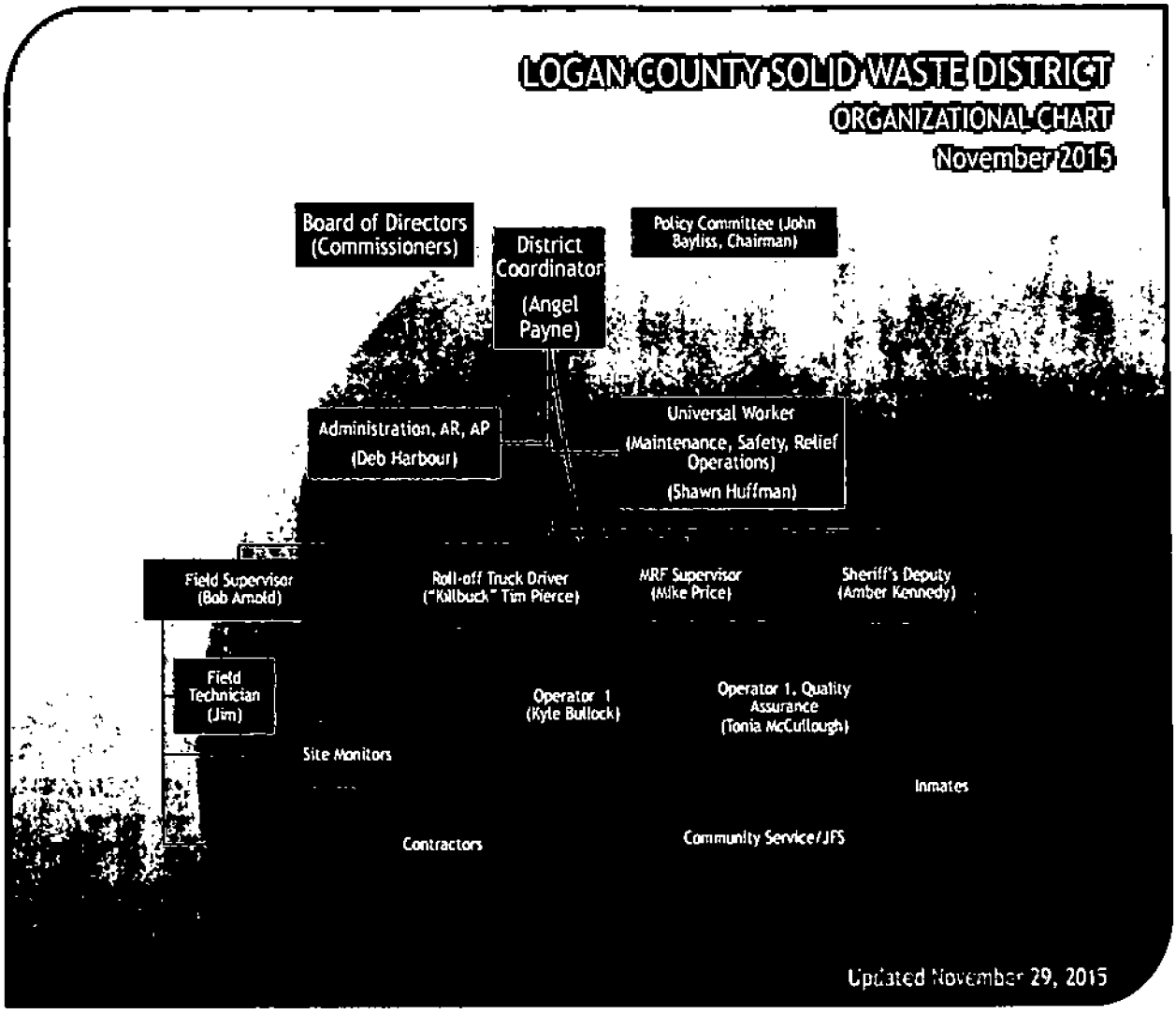
3. Shelf life,
4. Food label dates, etc.

c. Commercial
   i. Tailor waste audits to focus on best practices for reducing food waste
   ii. Close the loop by finding compost outlets

3. Plastic bags in the waste stream – first step meet with grocers (state level – food marketing alliance) develop a voluntary program
   a. Explore resolution (voluntary more partnership oriented) or ordinance (mandatory)
   b. Local stores and big box chains. Local stores make quick decisions. Big box chains need to make corporate decisions which take more time.
   c. Steps:
      i. Work with retail establishment that provide plastic shopping bags to place a recycling container for plastic bags in a prominent location –
         1. Use consistent containers at all retail establishments. Retail establishments should pay for their own bag containers,. Coordinate who will collect these bags and process.
         2. Retail establishments collecting bags may earn revenues on recycling.
         3. Train cashiers and baggers to talk about the issue of plastic bags, reuse, and proper bagging.
      ii. Add a reduce, reuse, recycle message to all carry-out plastic bags
         1. This won't happen overnight. Only a few manufacturers make these bags.
      iii. Form an education partnership between county and retailers to market plastic bag recycling
         1. Advertise and public acknowledgement of partnerships with retail establishments (e.g., press release)
         2. Look at which marketing outlet sources might reach the most people – radio, cable, and/or newspaper. Then based on funding choose the best option.
      iv. Work with retailers to distribute reusable shopping bags
         1. First initial purchase of reusable shopping bags (make sure they are domestic). Purchase a few to distribute every year.
         2. Distribute at street fairs
         3. Earth day event, church services, voting polls, plastic bag school competition – awarding gift card from grocery stores as prize
      v. Measure volume of plastic bags at recycling containers
         1. Subjective analysis: Do MRF operators notice a decline in the number of bags at the facilities?
         2. Objective analysis: What do audits of reject/residue materials coming off the MRF operations show in the number of plastic bags compared to the same random tests conducted a year prior (create a baseline before)
         3. Retail establishments measure number of bags sold and bags collected in recycling containers
      vi. Solicit community input on program effectiveness
         1. Customer survey quarterly – choose same number of residents each time.
            a. Ask who uses cloth bags, plastic bags, paper bags. Ask awareness of campaign.

- Reuse

1. Materials Exchange.
   a. Develop an online material exchange service and electronic newsletter.


LOGAN COUNTY SOLID WASTE DISTRICT
ORGANIZATIONAL CHART
November 2015
Board of Directors (Commissioners)
District Coordinator (Angel Payne)
Policy Committee (John Bayliss, Chairman)
Administration, AR, AP (Deb Harbour)
Universal Worker (Maintenance, Safety, Relief Operations) (Shawn Huffman)
Field Supervisor (Bob Arnold)
Roll-off Truck Driver ("Kallbuck" Tim Pierce)
MRF Supervisor (Mike Price)
Sheriff's Deputy (Amber Kennedy)
Field Technician (Jim)
Operator 1 (Kyle Bullock)
Operator 1, Quality Assurance (Tonia McCullough)
Site Monitors
Inmates
Contractors
Community Service/JFS
Updated November 29, 2015

APPENDIX K

Zero Waste Resolution

RESOLUTION NO. 126-07

The Board of Logan County Commissioners met in regular open session on this date of March 8, 2007 with the full board present.

John Bayliss moved that the following resolution be adopted:

ADOPTION OF ZERO WASTE PHILOSOPHY ADOPTING "ZERO WASTE BY 2020" AS A COUNTY GOAL DECLARING LOGAN COUNTY TO BE A "ZERO WASTE ZONE".

WHEREAS each day tons and tons of valuable resources are sent to landfills across Ohio, resources that could economically and reasonably be recovered and recycled saving millions of dollars in material costs and saving additional millions of dollars by avoiding the use of oil based energy to smelt and use virgin resources;

AND WHEREAS landfill space itself is a limited resource that needs to be appropriately used to dispose of those few materials that cannot be reused or recycled;

AND WHEREAS the growth in populations, industrialization, and consumer demand now requires the wise and efficient use of all natural resources, and it is incumbent on states, industries, political and social leaders at every level to initiate programs and initiatives to address this issue;

AND WHEREAS countries, states, and cities are now planning and implementing ways to deal with product design, product distribution, and product recycling by adopting the philosophy of Zero Waste which focuses on designing products and services to use the fewest natural resources and least energy to produce, and where the end of product life leads to reuse, recycling, or composting back to nature;

AND WHEREAS Honda of America Manufacturing Company, and Honda Transmission Manufacturing have taken the industrial lead in Logan and surrounding counties by adopting a 'Green Factory' initiative with the goal of 'Zero Waste to the Landfill by 2010';

AND WHEREAS the Board of Logan County Commissioners supports the concept of Zero Waste, endorsing both 'back end' or 'downstream' solutions that maximize reuse and recycling aimed at recapturing valuable resources and waste minimization, and 'front end' or 'upstream' solutions requiring industrial product design and environmentally sensitive methods for delivering goods and services along with consumer education that maximizes the use recycled resources, and minimizes the use of difficult to recycle packaging and toxic materials so that each product or service "end of life" leads to further reuse, repair, recycling, or composting;

THEREFORE BE IT RESOLVED by the Board of Logan County Commissioners adopts the philosophy of Zero Waste and adopts the goal of promoting every business, organization, and citizen to adopt and work toward Zero Waste in Logan County by 2020 and declares Logan County, Ohio to be a Zero Waste Zone.

AND BE IT FURTHER RESOLVED that the Logan County Solid Waste District is charged with the responsibility on behalf of the County to plan, educate, promote, encourage, provide information and available resources and incentives and partner with constituents to assure that Logan County will reach its Zero Waste Goal by 2020.

Mr. Jack Reser seconded the motion.

Roll Cal resulted as follows:

Mr. Jack Reser, yes
Mr. David Knight, yes
Mr. John Bayliss, yes

I, Kacy D. Kirby, Clerk/Administrator, hereby certify this to be a true copy of the proceedings as taken from the minutes of the meeting of the Logan County Commissioners on this date of March 8, 2007.

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APPENDIX L

Education Plan

Appendix L

Education Plan

The District would like to employ two effective behavior changing methods: persuasive arguments and social influence. Persuasive arguments communicate social norms, show accepted beliefs, and demonstrate specific actions. This can be achieved through billboards, newspaper articles, social media sites, brochures, etc. Social influence is influence by peers. This is accomplished with volunteers engaging in conversation, providing giveaways, example residents, etc. Changing behavior with social media outlets requires forming relationships on the social media site. Specific goals for achieving success with social media are: posting frequently to meet audience needs, post useful, fun and interesting ideas or topics or questions (about 80% of the time), and post promotions (about 20% of the time). Postings will cover local District recycling, reuse and reduction events, list resources, and will also include state and national information.

Education will be approached as a partnership with other groups and organizations performing the implementation. Beginning in 2016, education is budgeted annually at $50,000. This may be distributed through grants or as direct costs for materials needed. As stated in Section V, grants may be awarded to these agencies and organizations partnering and integrating the District message. Groups/organizations will have to apply for grants. Applications will outline projected audience size, improved participation and/or tons diverted, schedule, and targeted outcomes in order to determine a measurement of success. Implementation of the District messages outlined below is expected to be organic between the District and the partners.

Targeted Outreach: Residents, schools, industries, institutions and commercial businesses, communities and elected officials
Targeted Start Date: Year 2017 for campaign messages that will be delivered quarterly
Purpose: Outreach campaigns developed to change behaviors.
Measurable: The number of campaigns a year will be recorded, the message will be recorded, and the number of promotional items distributed will be tracked. Campaign costs will be tracked. Social media campaigns will follow and track: traffic stats, number of shares, measure for fan growth, average number of likes and comments, and the ability to maintain conversations.

Strategy Goal: Minimizing Waste Generation

Year 1 – **Grocery sacks**

- Month 1: The mess in your kitchen from old bags – alternatives (re-useable bags)
- Month 2 : Hints to have your reuseable bag handy ("I have them, but they are never with me when I need them")
- Month 3: The nuisances and hazards of plastic bags in the recycling center, the costs to manage; the waste film, the pollution from bags, litter issues; how much Walmart spends on plastic bags
- Month 4: A promotion to give away (or discount purchase) of re-usable bags
- Etc.

Year 2 – **Reduce Food in the waste stream**

- Month 1: US EPA's Food Recovery Challenge
- Month 2: Encouraging consumers to waste less, re-think purchases
- Month 3: Keep it out of the Landfill - backyard compost fruit and vegetable scraps as well as leaves and other yard debris. A promotion to give away (or discount purchase of) compost bins.
- Month 4: Hints and tips for making the most of the food we buy
- Etc.

Year 3 – **Smart Buying**

- Month 1: Reuse Center network
- Month 2: Give your Unwanted items a new home
- Month 3: Buy Green, Buy Local
- Month 4: Avoid excess packaging
- Month 5: Buy Recycled

Year 4 – **PAYT**

- Month 1: The facts of our programs and participation compared to other successful communities
- Month 2: How much is still out there
- Month 3: The advantages and impact of PAYT
- Month 4: Hints for greater diversion in your house
- Month 5: Scrapyards
- Etc.

Year 5 – **Live Green**

- Month 1: Create Awareness
- Month 2: Buy Used or Rent
- Month 3: Share with Friends
- Month 4: Buy Energy-efficient items
- Etc.

Strategy Goal: Increasing Diversion

Year 1 – **Educate low participation residents**

- Month 1: Stress the Do's and Don'ts of recycling visually
- Month 2: Emphasize savings associated with recycling
- Month 3: Use photos/illustrations of local people and landmarks and personalize the message with "our"

Etc.

Year 2 – **Organics**

Month 1: How much organic waste is going into the landfill?
Month 2: How to manage organics
Month 3: Food waste
Month 4: Backyard composting
Month 5:
Etc.

Year 3 – **Glass Recycling**

- Month 1: Campaign to increase glass bottle recycling
- Month 2: Don't forget about the other bottles – spices, baby food jars, etc.
- Month 3: Promotion of glass recycling facts

Month 4: Infinitely Recyclable

Etc.

Year 4 – **Commercial Recycling**

Month 1: Reduce business generated waste

Month 2: Green Purchasing

Month 3: Recycling is Good Business

Month 4: Success Stories

Etc.

APPENDIX M

Revenue Estimate Calculations

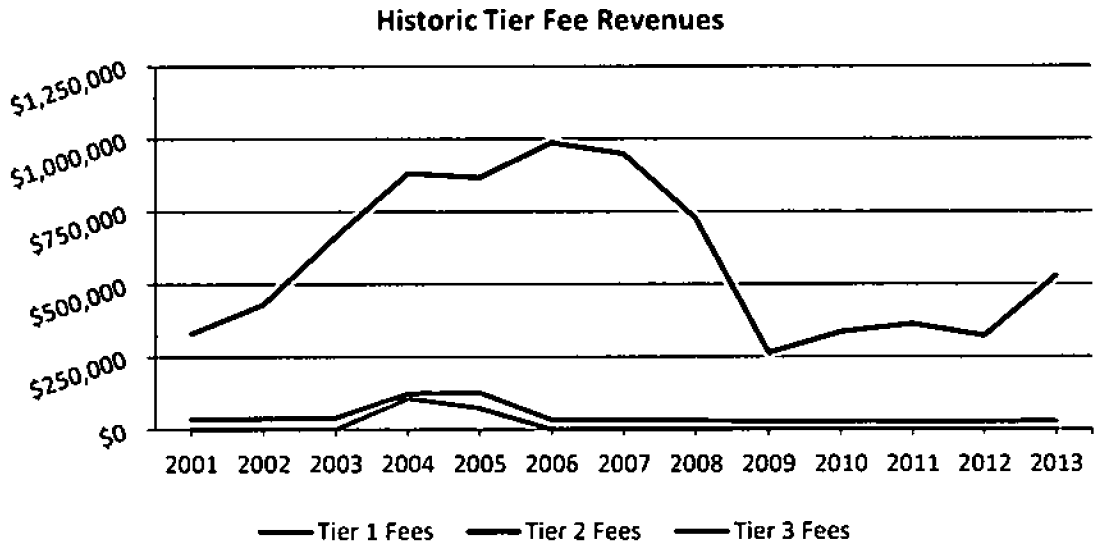
Appendix M

Revenue Estimates

It is almost impossible to predict future revenues precisely. The primary goal of this appendix is to analyze historic revenue streams and relevant economic conditions to help identify future revenue. Analysis of district disposal fees, rates and charges for services, and potential revenue related to the sales of recycled materials are included.

A. District Disposal Fee Revenues

Historic tier fee revenue is depicted in the figure below.



Revenues received from Tier 1 disposal fees have historically been flat. As seen in the figure above and table below, Tier 1 disposal fees have encountered minimal fluctuation in year-to-year revenues. Tier 1 fees have been a stable and consistent source of revenue. In forecasting future revenues using an average of the past six years is a fairly safe estimate to use in projecting planning year revenues.

	2009	2010	2011	2012	2013	2014	Average
Revenues	$26,505.75	$26,672.52	$26,059.09	$26,016.04	$26,268.35	$25,863.05	$26,230.80
Approx. Tonnages	26,505.75	26,672.52	26,059.09	26,016.04	26,268.35	25,863.05	26,230.80

Note: $1.00 per ton levied on each ton of waste.

Tier 2 disposal fee revenue trend shows a rise and fall in revenues. Tier 2 revenues are dependent on economic activity and contract cycles. These revenues are more complex and can vary significantly. As shown in the graph higher revenues were recorded in the period between 2003 through 2008. The fluctuation in revenues is a result of Cherokee Run Landfill winning a contract to dispose of waste from another County. Once this contract expired revenues dipped

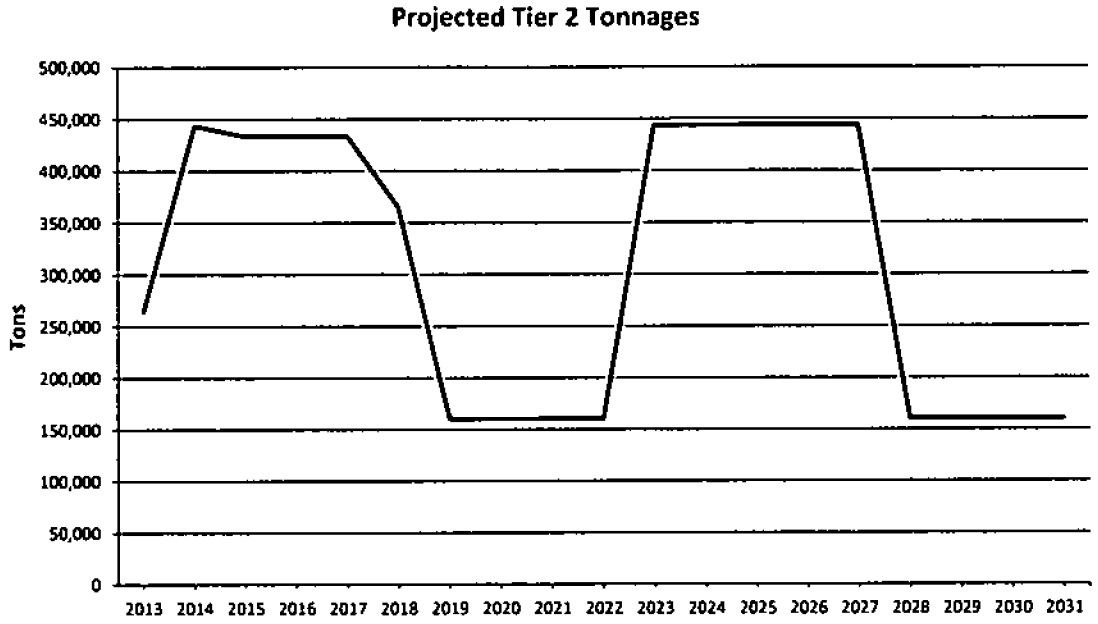
low. (Note: Upon contract expiration the landfill could have bid on the next term. However, other internal factors played a role. Cherokee Run Landfill had not received a vertical expansion permit to increase landfill capacity, without sufficient capacity there was no opportunity to bid.) Fortunately, Cherokee Run Landfill won a contract in 2013 (term 5 years) to receive additional out-of-district waste. Year 2013 and 2014 tonnage and revenues are higher because of the awarded contract. At the time of this plan write it is unknown whether the landfill will be awarded other contracts beyond the 5-year term. Thus, accurate forecasting is challenging. Historically Tier 2 disposal fee volumes and thus, revenue are following a wave curve. This plan attempts to forecast a projected wave curve for the planning period.

Increased tonnages received in 2014 are forecasted for higher tonnage years. (Rather than using regression analysis to project revenues it was decided to remain conservative using a constant prediction of revenues based on the first full year of revenues received under the contract for the higher tonnage years.) Year 2018 is a combined estimate of three-fourths at the higher tonnages and one-fourth at the lower tonnages (conservative estimate). Lower tonnages were calculated by averaging the historic tonnages, 2009 through 2012, recorded low tonnage years. The table below presents a four-year history of Tier 2 disposal fee revenues and the calculated average.

	2009	2010	2011	2012	Average
Revenues	$263,298.88	$335,593.18	$362,949.08	$321,223.00	$320,766.04
Tonnages	131,649.44	167,796.59	181,474.54	160,611.50	160,383.02

Note: $2.00 per ton levied on each ton of waste.

Lower tonnages are forecasted 2019 through 2022, higher tonnages 2023 through 2027, and finally lower tonnages 2028 through end of planning period. It was assumed a contract would be awarded to raise the tonnages thus raising the revenues for the next five years (2023-2027). Following that period the revenues are projected to decrease again. This is shown in the figure below.



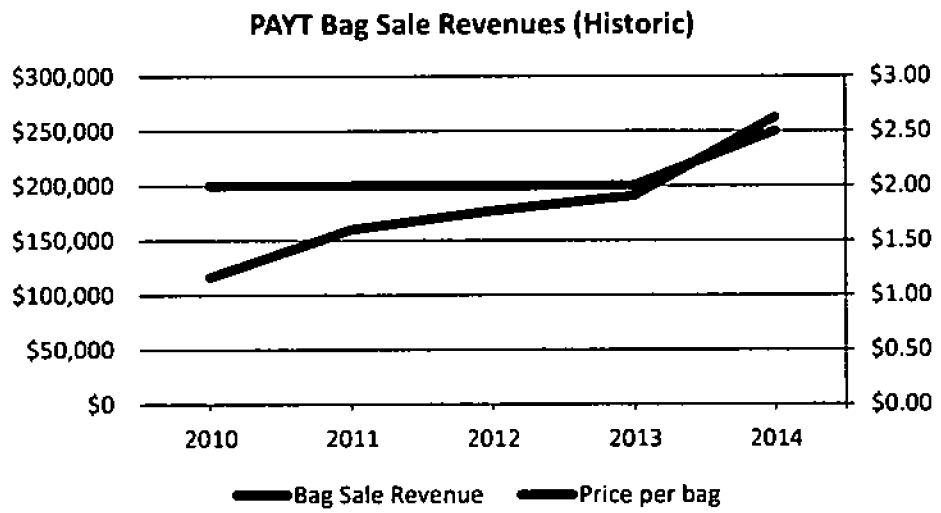
Future projections, while they may seem conservative, plan for limited budget and less dependency on Tier 2 waste disposal revenues.

Revenues earned from Tier 3 disposal fees have historically been flat and minimal. There is no reliance on Tier 3 fees for revenue. In forecasting future revenues no revenue is projected for planning year revenues.

B. User Fee Revenues

Revenues received from user fees are from fees charged on pay-as-you-throw (PAYT) trash bag sales and materials accepted at CHaRM. Trash disposed of in any of the District drop-off recycling center dumpsters is charged a bag fee. Bag prices were $2:00 per bag until 2014 when the price raised to $2.50. The table and graph below shows the total number of bags sold each year and revenues earned since 2010.

Year	Bag Sale Revenue	Price per bag	Number of Bags	Yearly Increase
2010	$115,958.91	$2.00	57,979	
2011	$159,840.20	$2.00	79,920	27%
2012	$176,943.81	$2.00	88,472	10%
2013	$191,085.43	$2.00	95,543	7%
2014	$262,228.63	$2.50	104,891	9%
Average	$181,211.40		85,361	



Four years is little data to analyze statistics and forecast future revenue, especially when each of those four years new drop-off recycling centers were added in communities. Simply based on the economic variable that new construction has ceased. The 7 percent and higher increases in bag sales are not expected in the future. But there is still room for bag sale growth. For instance there are 15 communities with PAYT drop-off recycling centers totaling 15,874 households (based on year 2016 population projections) with access and relative ease to use the PAYT drop-off recycling centers. If all of these households purchased just 2 bags a year (i.e. if they only threw away 2 bags of trash for an entire year) it would total 31,748 bag sales. If all of these residents purchase one bag a week it would total 825,448 bag sales. This is a wide margin for potential growth. For estimating purposes the number of bags sold to a year and the number of households using the drop-off centers needs to be considered.

The number of bags sold a year is conservatively estimated at 1 bag a week. Determining the number of households is more difficult to estimate and determine. In 2014, it is calculated that 2,185 households, 13%, of total households used the drop-off center assuming each household purchased 1 bag a week. Without studies, an assumption was made that growth will continue to grow towards 25% of the community households as users. Aiming towards the 25%, roughly 3,970 households, over the planning period conservatively forecasts household participation at 3 percent annually. Expected revenues are shown in the table below.

Year	HH Participating Assuming 4 bags per HH	Number of Bags per month	Number of Bags per year	PAYT User Fees	Expected User Fee Revenue	Actual PAYT User Fee Revenue
2013	1,990	7,962	95,543	$2.00	-	$191,086
2014	2,185	8,741	104,891	$2.50	$262,228	$0
2015	2,163	8,651	103,814	$2.50	$259,535	
2016	2,228	8,911	106,928	$3.00	$320,785	
2017	2,295	9,178	110,136	$3.00	$330,409	
2018	2,363	9,453	113,440	$3.00	$340,321	
2019	2,434	9,737	116,844	$3.00	$350,531	
2020	2,507	10,029	120,349	$3.00	$361,047	
2021	2,582	10,330	123,959	$3.00	$371,878	
2022	2,660	10,640	127,678	$3.00	$383,034	
2023	2,740	10,959	131,508	$3.00	$394,525	
2024	2,822	11,288	135,454	$3.00	$406,361	
2025	2,907	11,626	139,517	$3.00	$418,552	
2026	2,994	11,975	143,703	$3.00	$431,109	
2027	3,084	12,334	148,014	$3.00	$444,042	
2028	3,176	12,705	152,454	$3.00	$457,363	
2029	3,271	13,086	157,028	$3.00	$471,084	
2030	3,370	13,478	161,739	$3.00	$485,216	
2031	3,471	13,883	166,591	$3.00	$499,773	

Sample Calculation:

Assume 1 bag sold per household per week.

Number of bag sales in 2013, 2014, and 2015 are given.

Thus using the number of bag sales in 2015:

Number of bag sales per year / 12 = Number of bags per month

Number of bags per month / 4 bags/month/HH = HH participating

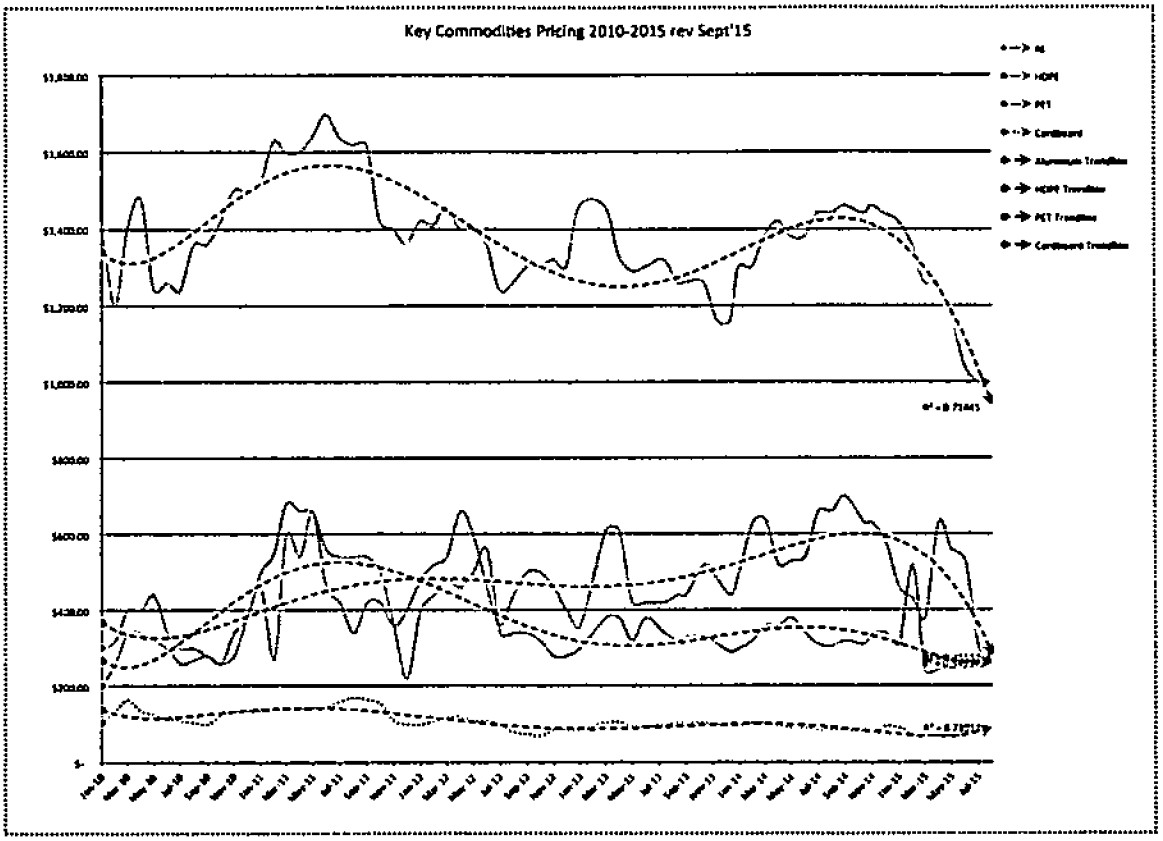
User fees are also accepted from materials accepted through CHaRM. CHaRM is self-sustaining. The user fee rate schedule is structured to cover the costs of program implementation. Working backwards from known yearly program expenses, revenues can be calculated. Program costs in 2014 were $10,152. These expenses are expected to increase by $11,000 in 2015 to contract the local HAZMAT team to handle the materials on-site. (See Section V for further explanation to program implementation changes.) The expected and additional expenses were added together to forecast revenues as shown in the table below.

Year	CHaRM User Fees
2013	$14,926.71
2014	$10,152.45
2015	$21,000.00
2016	$21,630.00
2017	$22,278.90
2018	$22,947.27
2019	$23,635.69
2020	$24,344.76
2021	$25,075.10
2022	$25,827.35
2023	$26,602.17
2024	$27,400.24
2025	$28,222.24
2026	$29,068.91
2027	$29,940.98
2028	$30,839.21
2029	$31,764.38
2030	$32,717.32
2031	$33,698.84

Notes:
CHaRM is fully self-sustaining. All user fees cover the handling of materials.
User Fees projected here were calculated to match expected expenditures.

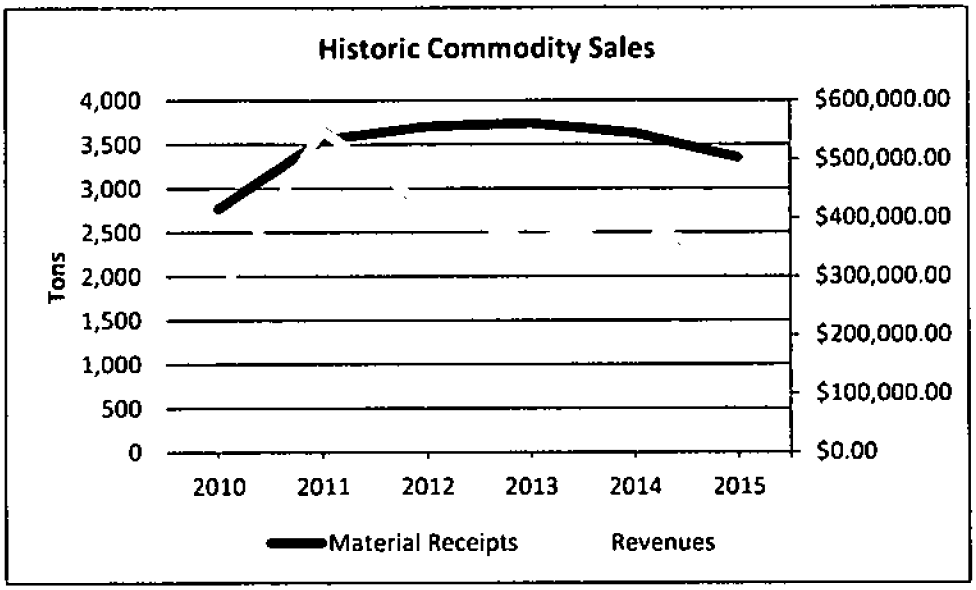
C. Recycling Revenue

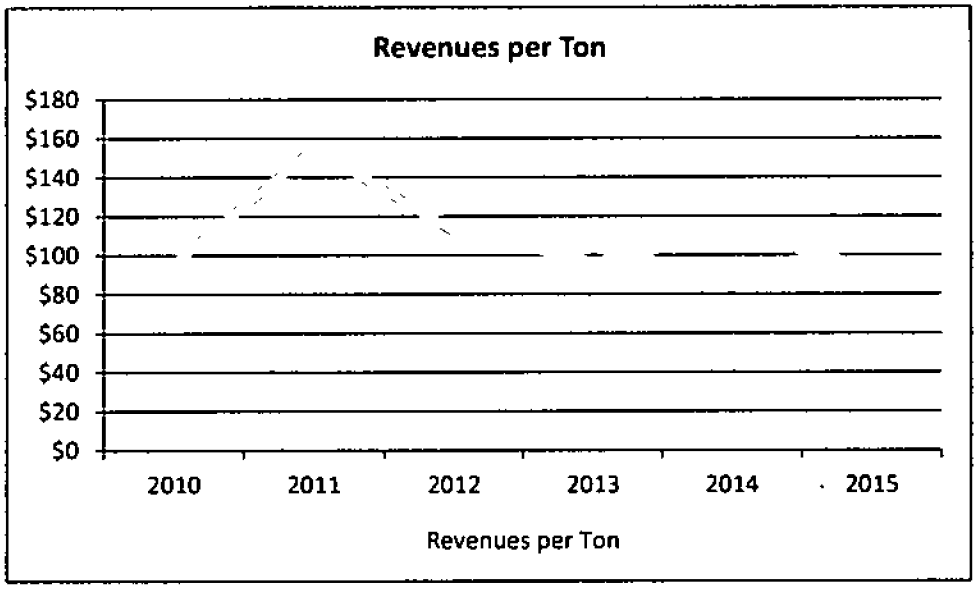
Recyclable materials processed at the District MRF are sold directly to brokers and/or end users to remanufacture those materials into new products. These recyclables are considered commodities and the sale of these recyclables generates revenues. Commodity markets cannot be predicted with certainty. Historically markets have rebounded as shown in the chart below. However, this last price tumble in 2015 has lacked the robust rebound historically charted. Commodity prices are living on the market take.



The District tracks pricing revenue received and inventory revenues received on individual commodities monthly. These commodity prices were combined to calculate average revenues per ton shown in the table and charts below.

Year	Material Receipts	Revenues	Revenues per Ton
2010	2,765.52	$264,587.81	$95.67
2011	3,554.42	$549,692.57	$154.65
2012	3,703.90	$416,269.53	$112.39
2013	3,738.19	$360,936.03	$96.55
2014	3,627.46	$398,724.10	$109.92
2015	3,350.16	$314,616.99	$93.91
Average	3,456.61	$384,137.84	$110.52





Market volatility in post-consumer materials has an impact on revenues as do supply and demand dynamics, material quality, market specifications, material quantity, contract and/or agreement terms, and distance to markets. Markets fluctuate greatly. To calculate potential revenues for commodities the District first projected potential material receipts and then multiplied those projected material receipts by the five-year revenue per ton average.

Thus, forecasting commodity prices is challenging. For this plan the six-year average price per ton was used as the basis for projections. A 20% increase, in anticipation of some market recovery, was applied to calculate an approximate $132.62 per ton. Modeling for single stream commodity prices is typically held at $90-100 per ton. Based on material receipts single stream would only account for 18% of material (material received from curbside communities).

This price per ton estimate was applied to projected material quantities. Projected material quantities were calculated by using projection increases determined in Section V. Section V of the plan calculates a little over 1% per year increases on recycling. These were applied to the material receipts calculating projected material tonnages revenues may be received on. Shown in the table below are these projected tonnages.

Projected year	Projected Material Receipts	Expected Revenues per Ton	Projected Revenues
2015	3350.16	$93.91	$314,616.99
2016	3387.01	$132.62	$388,857.38
2017	3424.27	$132.62	$393,134.82
2018	3461.94	$132.62	$397,459.30
2019	3500.02	$132.62	$401,831.35
2020	3542.02	$132.62	$406,653.33
2021	3584.52	$132.62	$411,533.17
2022	3627.54	$132.62	$416,471.56
2023	3674.69	$132.62	$421,885.70
2024	3722.46	$132.62	$427,370.21
2025	3770.86	$132.62	$432,926.02
2026	3823.65	$132.62	$438,986.99
2027	3877.18	$132.62	$445,132.80
2028	3931.46	$132.62	$451,364.66
2029	3990.43	$132.62	$458,135.13
2030	4050.29	$132.62	$465,007.16
2031	4115.09	$132.62	$472,447.27

These estimates are extremely conservative. As the District continues to develop programs to move towards zero waste the material receipts should increase more than the average 1% annually. It is also believed the market demand and commodity process will rebound paying more than the calculated $133 per ton.